

## **Annual report for the year 1902 (fifth year of issue) / Metropolitan Asylums Board.**

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METROPOLITAN ASYLUMS BOARD.

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# ANNUAL REPORT

FOR THE YEAR

1902.

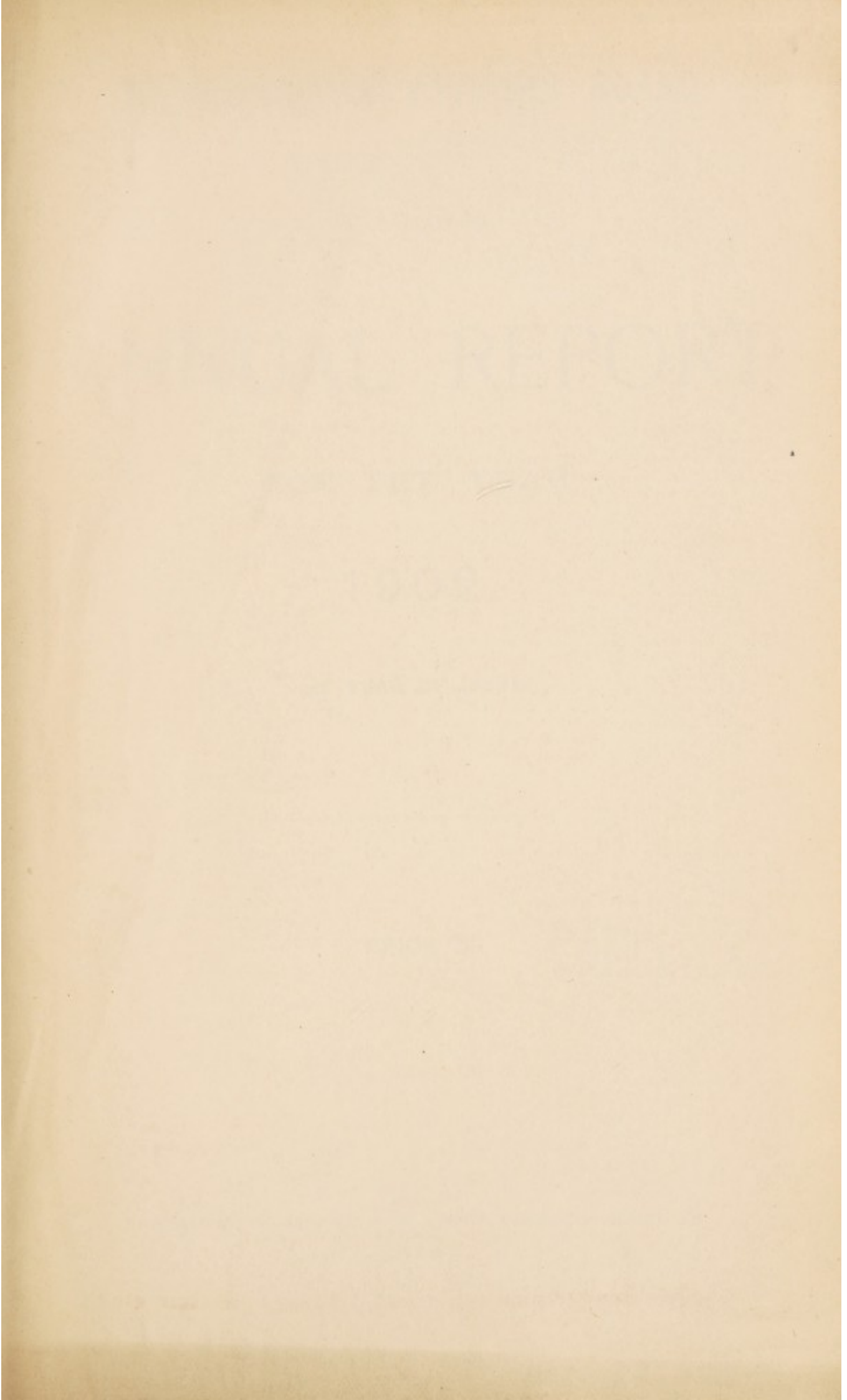
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METROPOLITAN ASYLUMS BOARD.

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# ANNUAL REPORT

FOR THE YEAR

1902.

(5th YEAR OF ISSUE.)

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LONDON:  
PRINTED BY MCCORQUODALE & CO., LIMITED, CARDINGTON STREET, N.W.

1903.

*BIBLIOGRAPHICAL NOTE.*—Before the year 1886 no regular annual record of the work of the Board was published. (In the year 1871, however, and again in the years 1876 and 1877, the Chairman of the Board issued a report of the nature of an annual report, with some statistics.) For the years between 1886 and 1897, both inclusive, the Chairman of the Board issued an annual report and the Statistical Committee also issued a report, each separately. These reports may, together, be taken as the reports of the Board for those years.

For the year 1898, and for subsequent years, an annual report of the Board, and so called, has been issued, consisting of a summary of the work of the Board for the year, the reports of the several standing committees, and the report of the Statistical Committee. The reports for the four years, 1898, 1899, 1900, and 1901 was issued in two volumes: vol. I. containing the report of the Board and the reports of the standing committees, except that of the Statistical Committee, which itself formed vol. II. The report for the year 1902 commences a new series in one volume, bound in cloth and furnished with an index. The reports are sold to the public at 5s. a copy, in one volume or two as the case may be.

The separate reports of the Chairman of the Board above referred to and the first report of the Statistical Committee (1886) were of foolscap size; all the remainder are of the size of this volume.

In the report for 1888 a spot map showing smallpox admissions was included. In the report for 1889 spot maps showing admissions of all diseases to the Board's hospitals were included. In the report for 1890 were included spot maps of notifications also. In the reports for 1891 to 1902 spot maps of notifications but not of admissions were included. In the report to be issued next year, and in future reports, spot maps of notifications of smallpox and typhus cases only will be included.

The following reports are nearly or wholly out of print:—The reports for 1871, 1876, and 1877. The report of the Statistical Committee for 1886. The report of the Board (two vols.) for 1900. (For this year, however, all those parts of the report which referred to infectious diseases have been collected and separately printed, and copies may still be obtained. For the years 1899 and 1900 a somewhat similar collection was made as regards the imbecile asylums, and copies may still be obtained.)

From the years of the opening of the several institutions to 1885, annual reports of the medical superintendents, with statistics, and, in some cases, reports by the committees of management, were issued separately, and copies of many of them may still be had.

The annual reports of the Captain-Superintendent and Committee of the Training Ship "Exmouth" may be obtained in a separate form from 1877; the reports of the Children's Committee from 1898; the reports of the Ambulance Committee from 1884 to 1897; and the reports of the Finance Committee from 1900.



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THOSE NOMINATED BY THE LOCAL GOVERNMENT BOARD.

MANAGERS ELECTED BY THE SEVERAL METROPOLITAN BOARDS OF GUARDIANS.

(For the Three Years ending May 15th, 1904.)

UNION OR PARISH.	NAME OF MANAGER.	ADDRESS.	COMMITTEES (AS AT END OF 1902).
Bethnal Green	Barnard, A. P.	309, Hackney Road, N.E.	Hospitals.
Bloomsbury	Smith, Prof. W. R., M.D., J.P.	74, Great Russell Street, Bloomsbury Square, W.C.	Hospitals, Finance, Statistical, Ambulance.
Camberwell	Brown, R.	32, East Dulwich Road, S.E.	Asylums, Contract.
"	Hurst, W. B.	"Ferdiale," Thurlow Park Road, S.E.	Hospitals, Children's.
Chelsea	Frass, J. H.	Wentworth Villa, Manresa Road, Chelsea, S.W.	Children's.
City of London	Great Rex, Augustus, M.R.C.S., L.S.A.	23, Holborn, E.C.	Contract.
"	Lile, J. H.	4, Ludgate Circus, E.C.	Children's, Works, Contract.
"	Page, W. H.	"Cleveland," Spencer Road, Wealdstone, Harrow	Hospitals.
"	White, J. G.	"St. Monica," Michelver Road, Lee, S.E.	Hospitals, Statistical.
"	Willmott, John	54-56, Bartholomew Close, E.C.	Contract, "Exmouth."
Fulham	Thomas, Charles	"St. Clears," 128, Palewell Park, East Sheen	Children's, "Exmouth."
Greenwich	Oldman, F. J.	85, Arbutnot Road, New Cross, S.E.	Asylums, Children's.
Hackney	Bates, Thomas	67, Clifden Road, Lower Clapton, N.E.	Hospitals, Children's.
"	Beurle, W. L.	Linden House, 531, Victoria Park Road, N.E.	Hospitals, Children's, "Exmouth."
Hammersmith	Pope, Rev. G. W.	107, Holland Road, Kensington, W.	Asylums, Hospitals, Finance, Ambulance.
Hampstead	Hardcastle, John	Upton House, Well Walk, Hampstead, N.W.	Asylums, Hospitals, Statistical.
Holborn	Baker, Miss I. M.	37, Brooke Street, Holborn, E.C.	Hospitals, Children's.
"	Frankland, William	28, Stockwell Park Crescent, S.W.	Asylums, Children's, "Exmouth," Works.
"	Elliott, G. S.	14, Upper Street, Islington, N.	Children's.
"	Lambert, Samuel	125, Barnsbury Road, N.	Asylums, Hospitals, "Exmouth."
"	Varley, Miss Amelia	82, Newington Green Road, Islington, N.	Hospitals, Children's.
Kensington	Reade, Rev. C. Darby, J.P.	83, Holland Road, Kensington, W.	Asylums, Hospitals.
"	Simpson, E. Palgrave	5, Durham Villas, Phillimore Gardens, W.	Asylums, Finance, Works.
"	Webb, Colonel R. F., M.A., D.L., J.P.	6, West Cromwell Road, South Kensington, S.W.	Asylums, Finance, Works.
"	Andrew, Captain C. W., J.P.	5, Kennington Terrace, Kennington Park, S.E.	Hospitals, Ambulance, Contract, Works, Asylums.
Lambeth	Burridge, Alfred	"Saxonhurst," 46, Herne Hill, S.E.	Hospitals, Works, Finance.
"	Cochran, W. B.	"The Clone," Court Road, West Norwood, S.E.	Children's, Hospitals.
"	Wilkinson, Cuthbert	"Florian," Lawrie Park Avenue, Sydenham, S.E.	Hospitals, Contract, Finance, Works.
Lewisham	Howard, Paul (since deceased)	"Rose Cottage," 39, Bow Road, E.	Children's, Hospitals.
Mile End Old Town	Cole, S. J.	"Fernleigh," Fernhead Road, W.	Hospitals, "Exmouth."
Paddington	Swift, H. H., J.P.	45, Westbourne Terrace, Hyde Park, W.	Asylums, Statistical.
"	Gillard, E. F.	"Courtlands," The Drive, Ilford, Essex	Hospitals, Children's, Works.
Poplar	Branston, Miss Georgina	39, Grey coat Gardens, Victoria Street, S.W.	Hospitals, Children's, Contract.
St. George's, W.	Hall, Lieut.-General J. H., J.P.	90, Eaton Place, S.W.	Asylums.
"	Hardcastle, Henry, J.P.	38, Eaton Square, S.W.	
"	Walden, R. W.	65, Elizabeth Street, Eaton Square, S.W.	Asylums, Statistical.
"	Martineau, P. M., J.P., D.L., L.L.B.	"Littleworth," Esher, Surrey	Asylums, Hospitals, Contract.

MANAGERS ELECTED BY THE SEVERAL METROPOLITAN BOARDS OF GUARDIANS—continued.

UNION OR PARISH.	NAME OF MANAGER.	ADDRESS.	COMMITTEES (AS AT END OF 1902).
St. Marylebone	Browne, E. S., L.R.C.S.I., L.R.C.P.I.	5, Cavendish Mansions, Langham Street, W.	Children's, Statistical.
"	Dennis, Walter	Ifield House, Carshalton, Surrey	Hospitals, Special.
"	White, Edward, J.P.	20, Upper Berkeley Street, W.	Contract, Works, Special.
St. Olave's	Ecroyd, W. H.	64, Bernonsey Street, Bernonsey, S.E.	Children's, Works.
St. Pancras	Boden, Anthony	34, Maitland Park Villas, N.W.	Asylums, Hospitals.
"	Purchase, Frederick	" Ashfield," Spencer Road, Wealdstone, Harrow	Hospitals, Children's.
Shoreditch	Thornley, Joseph, J.P.	53, Camden Square, N.W.	Asylums, Children's, Contract, Works, Special.
Southwark	Wakeling, E. J.	149, New North Road, Hoxton, N.	Children's.
"	Cornell, Thomas	63, Borough Road, S.E.	Asylums, Children's, Contract, "Exmouth."
Stepney	Neville, William	33, Trinity Square, S.E.	Hospitals, Contract, "Exmouth."
Strand	Mills, F. C., J.P.	294, Burdett Road, E.	Hospitals, "Exmouth."
Wandsworth & Clapham	Jaxone, H. L. D'Arcy	15-17, Green Street, Leicester Square, W.C.	Hospitals, Children's, "Exmouth."
"	Marriott, Rev. C. P., M.A.	40, Park Road, New Wandsworth, S.W.	Hospitals, Children's.
"	Muspratt, Henry	58, Mount Nod Road, Streatham, S.W.	Hospitals, Children's.
"	Penfold, W. F.	Burwood House, Upper Tooting, S.W.	Asylums, Hospitals.
Westminster	Stamford, The Right Hon. The Earl of	15, St. James's Place, S.W.	Children's, Asylums, Statistical, "Exmouth."
Whitechapel	Brown, James, J.P.	43, Lexham Gardens, Kensington, W.	Hospitals, Children's, Ambulance, Works, Special.
Woolwich	Graham, Lieut.-Col. W. J. B., V.D.	Whitehouse Villa, Woodlands, Old Charlton, Kent	Asylums, Contract, Works.

MANAGERS NOMINATED BY THE LOCAL GOVERNMENT BOARD.

NAME OF MANAGER.	ADDRESS.	COMMITTEES (AS AT END OF 1902).
Bullock, Colonel R.	8, Gledstone Road, West Kensington, W.	Hospitals, Special.
Crooks, William	81, Gough Street, Poplar, E.	Children's.
Donerale, The Right Hon. The Viscount	91, Victoria Street, Westminster, S.W.	Ambulance, Statistical, Hospitals.
Drage, Geoffrey	20, Lowndes Square, S.W.	"Exmouth," Children's, Ambulance, Special.
Galsworthy, Sir E. H., J.P., D.L.	26, Sussex Place, Regent's Park, N.W.	Special.
Guinness, Hon. Rupert	5, Grosvenor Place, S.W.	Children's.
Helby, J. T.	" Glengarriff," Hawthorne Road, Bickley, Kent	Asylums, Hospitals, Finance, Works, Special.
Hensley, Sir E. M., J.P. (Chairman of the Board)	Glenton House, Putney, S.W.	Ex-officio member of all committees.
Hill, J. R., M.R.C.S., L.R.C.P.	" Fenstanton," Christchurch Road, Streatham Hill, S.W.	Asylums, Hospitals, Ambulance, Works, Special.
Hunt, Jackson, M.A., J.P.	23, Montagu Square, W.	Hospitals, Ambulance, Finance.
Inderwick, Miss E. F.	8, Warwick Square, S.W.	Asylums, Hospitals.
Kennett-Barrington, Sir V. H. B.	57, Albert Hall Mansions, Kensington Gore, S.W.	Hospitals, Ambulance, Statistical, Special.
Marvin, Lieut.-Col. Wm.	45, Azate Road, Hammersmith, W.	Hospitals, Children's.
Meinertzhagen, E. L., J.P.	4, Cheyne Walk, Chelsea, S.W.	Hospitals.
Scovell, A. C., J.P.	8, Priurose Mansions, Battersea Park, S.W.	Hospitals, Ambulance, Finance, Statistical, Works, Special.
Stanley, Hon. Maude A.	32, Smith Square, Westminster, S.W.	Hospitals, Children's, Contract, Statistical.
Strong, Richard, J.P. (Chairman, General Purposes Committee)	" Helstonleigh," Champion Park, Camberwell, S.E.	Statistical.
Talbot, Rt. Hon. J. G., M.P., J.P. (Vice-Chairman of the Board)	" Falconhurst," Eden Bridge, Kent	Ex-officio member of all committees.

\* The General Purposes Committee consists of the whole Board, and the Chairman is *ex officio* a member of the Hospitals, Asylums, and Children's Committees.



## METROPOLITAN ASYLUMS BOARD.

### REPORT OF THE BOARD FOR THE YEAR 1902.

1st July, 1903.

The Report of the Board for the year 1902 is contained in one volume instead of in two as hitherto. It is also furnished with an index, and is issued in an improved binding. The volume as a whole should be taken as the report of the work of the Board, and this part of the record is not, and does not pretend to be, more than an introduction to the reports which follow, and a summary of some of the more notable features.

The pressure of the outbreak of smallpox in the winter of 1901 and spring of 1902 was the occasion of the late issue of the last report. In the most favourable of circumstances, however, it can hardly be hoped that a report covering so much ground, and dealing with so many figures, both statistical and financial, can be ready before the middle of the year following that to which it relates.

**Chairman-  
ship and  
changes in  
the Board.** Mr. R. M. Hensley, J.P., who, at the first meeting of the present Board (May, 1901), was elected Chairman, in succession to Sir E. H. Galworthy, was re-elected Chairman for the year 1902-3, and in December, 1902, received the honour of knighthood at the hands of His Majesty the King "in recognition of his arduous and devoted "labours in connection with the Metropolitan Asylums Board."

During the year the Board has suffered the loss, by death, of Admiral E. S. Adeane and Mr. Paul Howard, and by resignation of Colonel Bullock. Their places have been filled respectively by the Hon. Rupert Guinness, Mr. J. J. Musto, and Mr. W. Vallance, formerly the well-known Clerk to the Guardians of Whitechapel.

**Scarlet fever and diphtheria.**

In point of magnitude, the most important of the Board's duties is to provide hospital accommodation for scarlet fever and diphtheria, and while it seems needless to repeat here the figures relating to the notification of these diseases or to the admissions to the Board's hospitals during the year (for they are all clearly set out on pp. 148A and 156), yet two points call for attention—two apparent defects in the hospital treatment of these diseases—firstly, the liability of convalescent scarlet fever patients to develop diphtheria, and *vice versa*; and secondly, the liability of discharged patients to communicate the disease from which they have suffered to healthy subjects outside. These questions have been before the Board for many years, and both have now moved some steps towards settlement.

To discover whether or not diphtheria followed scarlet fever by infection, or *vice versa* (which was thought quite possible, seeing that both diseases are treated in each of the fever hospitals, though of course in different parts), the Board resolved to set apart, as an experiment, one hospital for scarlet fever only, and not knowingly to admit therein a single diphtheria patient, and another for diphtheria with a similar restriction as regards scarlet fever. During the period of the experiment (18 months) this was done with all the thoroughness possible. The experiment clearly showed that the limitation imposed upon the Board's resources by the assigning of one group of hospitals to scarlet fever and another to diphtheria would not result in any corresponding benefit.

The other apparent defect, known as "return cases," has formed the subject of much discussion, of a special investigation by Dr. Simpson, and of special communications with the Royal Colleges of Physicians and Surgeons. The Board is now employing one of their senior assistant medical officers to follow up every alleged "return case" as soon as it is reported. This officer commenced work in July, 1901, and the record of his investigations and the conclusions at which he may arrive will be awaited with interest.

**Smallpox.**

Smallpox this year calls for special attention. Four years after the Board was formed it was called on to deal with the severest epidemic of this generation; and at intervals ever since, successive outbreaks have appeared which have given the Board greater anxiety, caused more expense, and called forth more extreme measures for repression than any other of the diseases for which the Board is the responsible hospital authority.

Notwithstanding the general belief in the efficacy of vaccination, the occurrence of smallpox seems always to create as much dread as if there were no known prophylactic. This curious fact, coupled with its alleged liability to spread by aerial convection, has induced the Board to modify its plans of accommodation from time to time, so that now no case is allowed to remain in the metropolis for more than a few hours after notification. This policy has greatly increased



the difficulties of dealing with the disease, the most important of which is that of transit over so long a route as that between the metropolis and the hospitals near Dartford, especially in unfavourable climatic conditions. How to remove or mitigate these difficulties is a problem still receiving special attention.

The outbreak of the winter of 1901 was in no way behind its predecessors in the anxiety caused and the extent of the preparations needed to deal with it. With the possible exception of 1884-5, when about 12,400 cases were admitted in 15 months, this was the most severe outbreak, whilst it lasted, since 1871, for very nearly 10,000 cases were admitted (including more than 1,000 from non-metropolitan districts) in a period of about eleven months (September, 1901, to July, 1902). The largest number of patients removed from their homes on any one day was 93; and the highest number under treatment at any time was 1,604.

The work of the Ambulance Committee in this connection is specially referred to in that Committee's report on pp. 134-7. The whole report is well worth attentive perusal, and convincingly shows how thoroughly the work of removal was taken in hand.

The mortality per cent. on all cases was 16·87, but differed, of course, very greatly in the different classes of patient when grouped according to age, type of disease, and state as regards vaccination.

Tables dealing with the cases admitted during the epidemic and with their condition as regards vaccination will be found on pages 166, 250A, 250B, and 250C.

Owing to the unfinished state of Joyce Green Hospital, the outbreak found the Managers with only about 1,320 beds at their disposal. The outlook was at one time so threatening that it became necessary, as mentioned in the last report, to very largely supplement this accommodation by the erection of buildings of a temporary character, which provided 1,800 additional beds, by the erection on shore of a hospital auxiliary to the ships of 300 beds (Long Reach Hospital), by the erection of a new fully-equipped hospital (the Orchard Hospital—of 800 beds), and by the extension of the Lower Gore Farm Hospital from 238 beds to 850, as well as by the erection of some temporary huts at the Upper Gore Farm Hospital.

All this was done in a few months, and thus provision was made, for the first time, well beyond the needs of the moment. Though the accommodation thus provided for smallpox should never be needed, yet that the largest city in the world should have ample isolation accommodation for this and other epidemic diseases of occasional occurrence is a wise precaution, and it is satisfactory to the Managers to reflect that they have never before been in so good a position to deal with an outbreak of cholera or plague, should such a calamity befall the metropolis.

During the outbreak, more than 600 cases were wrongly diagnosed as smallpox and removed from their homes—a consequence of the very small acquaintance general practitioners necessarily have with the disease. With a view, therefore, of affording medical practitioners and students fuller opportunities of studying its

clinical characteristics, the Board has sanctioned the opening of classes for medical instruction at the smallpox hospitals, in their main features similar to those so successfully held at the fever hospitals during the past 12 years.

The service rendered by the Board's staff of all grades during this epidemic was specially considered by the Managers, and due recognition was given—in some cases by special votes of thanks, but in most instances by monetary rewards, amounting in all to more than £1,000, which, though they were not and did not (to use the words of the committee who considered the matter) purport to be in any sense an equivalent for the value of the services for which they were awarded, yet were intended to be a proper recognition of the extra and special service rendered and of the personal sacrifices involved.

The responsibilities of the borough medical officers of health are very great during epidemic times. It is incumbent on them to know of every case in their districts, not only that they may be satisfied that prompt removal has been effected, but also that they may secure the vaccination of those persons who have been in contact with the disease, and the adequate disinfection of the premises.

In February, when smallpox was at its height, a meeting of the medical officers of health was convened by one of the borough councils to discuss some of their difficulties and some matters of common interest. The Managers offered their board room for the occasion, and the proceedings were opened by the Chairman of the Board. Among the decisions arrived at were, that vaccination should be entrusted to the borough councils, that revaccination should be compulsory in certain cases, and that the Local Government Board should supply vaccine lymph to any registered medical practitioner instead of, as now, to public vaccinators only. Other decisions of interest mainly to borough councils as local sanitary authorities were also arrived at.

**Lupus.** In continuation of the paragraph in the last report on this subject, it may be noted that, as the result of their inquiries and of the diversity of opinion expressed by the Metropolitan Boards of Guardians, the Managers decided not at present to seek powers to deal with this disease.

**Con-  
sumption.** There was, however, a nearer approach to unanimity on the part of the Boards of Guardians, as well as on the part of the sanitary authorities of the metropolis, on the suggestion that the Board should provide sanatoria for consumptives. Some of the borough councils, indeed, have even offered precise suggestions as to the way in which the Board should make a beginning, but consideration of the whole matter has been adjourned until the end of the present year (1903).

**Imbecile  
asylums.** The work of the Asylums Committee has been signalised by two important pieces of work. The first, the opening of Tooting Bec

Asylum—the fruit of many years' labour. This provides a clearing house for patients which will be of much practical use.

The other is the formulation of a complete scheme of imbecile classification and accommodation, an ideal which, contemplated for many years, is now well within view owing to the facilities afforded by the recently acquired premises at Sutton, the new asylum at Tooting Bec, and the opening of Rochester House. The most important of the improvements which will be aimed at in this classification will be the segregation of improvable and unimprovable children into distinct classes, separately housed and separately treated. The Committee have not, however, been content to await the elaboration of this scheme before attempting something, and, as the last report showed, had already opened a new institution at Ealing (Rochester House) for improvable children, and the work done during the year under review has been quite up to the standard that it was expected to reach.

Besides the question of the general care of persons suffering from tuberculosis already referred to, the Managers have given special attention to the presence of this disease among some of the imbecile patients, and after taking the best advice they could obtain, have made many improvements with a view to preventing the propagation of the disease.

**Children's Committee.** The work of the Children's Committee, if of smaller extent than in the preceding year, has nevertheless been of very considerable importance, and its results will be seen, or rather felt, in the years to come. The work they have accomplished has been of the nature of preparing for the daily working and daily life of the larger schools; the fixing of the number of staff to be engaged, their pay, their duties, their hours of work and of rest; details of furnishing, and the clothing to be supplied to the children; the conditions under which they shall be visited, and many other points requiring much time and consideration, all tending, if well done in the first instance, to effective and smooth working hereafter.

In addition to these matters of general administration there have been others, special and peculiar to the several classes of schools which the Managers were initiating, and which were in fact the first of their kind to be established. A reference to one of these will be found in the Children's Committee's report; one, indeed, that was considered at the beginning of their work, five years ago, viz., how the cottage groups of the ophthalmia schools should be governed. So much was to be said in favour of each of the several schemes then propounded, and so difficult did it seem to settle the matter at that time, that it was left to develop in the minds of the Committee, and a decision was postponed until the opening of the first school was imminent. A reference to the report will show in what way this particular point was dealt with.

Though nearly all the preparation for the opening of these schools took place in the year under review, their actual opening had not been accomplished at the close of the year.

For the first time, reports by the dermatologist of the ringworm schools and the medical officer of the defective homes are appended to the report of the Children's Committee.

While the Guardians eagerly, and in some cases impatiently, awaited the opening of these schools, so that their own might be relieved of cases for whom it was difficult to provide proper administration without disorganising their ordinary routine, they have still failed to avail themselves to the extent anticipated and to the extent that they doubtless might, of the accommodation afforded for a class of children who are not a source of special trouble to them, viz., children requiring seaside air. This most regrettable reluctance has been noted on more than one occasion, and has for many years extended to the Training Ship "Exmouth."

In the matter of the treatment of defective children, the Committee have from the beginning kept an open mind in reference to methods of treatment which augurs well for the future. The last report referred to some of the methods they have adopted, and it should now be chronicled that one other expedient has been adopted, viz., the awarding of pocket money in small sums as an incentive to good behaviour.

With the best work possible and the best results that can be anticipated, many of these defective children will yet need much care in after life, and as the result of a special representation, the Local Government Board have authorised the Managers to provide homes for the care of these children after they have reached the age of 16 years and until they arrive at the age of 21. Here again many points have to be considered and settled before a start can be fairly made.

There is one defect in the arrangements as to the admission of children to the remand homes, and that is, that no safeguard has been provided against their contamination by previous confinement in a prison cell. In point of fact, the first night of a youthful offender, after his offence has been detected, and before he can be brought before a magistrate, is generally passed in prison, and only on remand afterwards does he become an inmate of one of the remand homes. The report of the Children's Committee deals with this difficulty, and with the supplemental one of his appearance in the ordinary police court, especially at such frequent intervals as the present length of remand necessitates.

**Training Ship "Exmouth."** It was natural that the severance of so long a connection with the training ship as that of Captain Bouchier, whose resignation was mentioned in our last report, should lead to some disturbance of routine and method, especially as his successor (who, however, had resigned his appointment and left the service at the date of this report) had many ideas and modes of work which did not harmonise with the traditions of the "Exmouth." At the close of the year these things were under special review, together with a larger and more important question, viz., the condition of the ship itself. From doubts expressed by the Captain-superintendent as to the condition of the hull, the Admiralty, whose property the ship is, were asked to have it examined, when

it was reported to be practically beyond such repair as would enable it to serve for any considerable time to come.

The number of boys from country unions continues to increase, and thus, owing to the supineness of the Metropolitan Boards of Guardians already referred to, the country, as a whole, reaps the benefit of this excellent means of training boys, which was provided and intended for London alone.

**Head Office.** Although the Board removed to their new office in March, 1900, yet, owing to a difficulty with the District Railway Company in regard to the closing of one of their ventilators on the site, the approach to the building which it was intended to erect, and which was, in fact, erected over the ventilator, was not finished till September, 1902. The matter is fully referred to in the report of the General Purposes Committee on p. 23.

**Staff.** The total number of staff in the Board's employ at the end of the year 1902 was 4,844, distributed as follows:—

Head Office .. .. .	98
Imbecile Asylums .. .. .	1,033
Fever Hospitals .. .. .	2,918
Smallpox Hospitals .. .. .	292
Ambulance Service .. .. .	299
Children's Schools and Homes .. .. .	130
Training Ship "Exmouth" .. .. .	48
Central Stores and Needlerooms .. .. .	26
	<hr/>
Total .. .. .	<u>4,844</u>

The numbers of those who joined and who left the service during the year were 2,567 and 2,554 respectively, these large figures being accounted for by the numbers engaged at the smallpox hospitals, especially during January and July.

Following the precedent of the Government service and other public offices, the Managers have decided, under the powers vested in them by the Poor Law Officers' Superannuation Act, 1896, that, except for special reasons to be considered in each individual case, no person shall continue in the service of the Board after he shall have attained the age of 65 years. As a consequence of this decision, steps were at the end of the year being taken to superannuate 13 persons, in addition to 19 superannuated during the year for other reasons.

It has always been the practice of the Managers to treat their staff properly. They recognise that the work of an imbecile asylum or of an infectious hospital, with its close attendance on the sick and insane, is exacting and confined, and not without risk. The pay of the hospital medical superintendents was a few years ago substantially increased, and this year the pay of the assistant medical staff was similarly dealt with. Numerous alterations in the existing wages scales for the subordinate staffs have been made during the year, very nearly all by way of increase. The Board has done its best to provide amenities for the several grades

of staff, and besides a liberal rations scale and liberal leave, billiard tables and pianos have been in some cases provided, accommodation for bicycles, special cottages for some classes of officers, and good accommodation, including in nearly every case separate bedrooms or cubicles, for all.

**General  
government.**

The 5,000 staff and the 10,000 patients to whom they administer are distributed among more than 40 institutions, ranging from asylums which hold 2,000 patients to small homes which accommodate only about a dozen children.

To govern these institutions successfully and efficiently is no light task, and the total number of attendances made by the Managers during the year amounted to no fewer than 9,431.

The extended sphere of the work of the Board has necessitated many modifications in administration. Formerly, every institution was controlled by a committee, which was not dependent on the Board for detailed directions as to the discharge of its functions. These committees were endowed with nearly all the powers of the Managers. They appointed officers, selected contractors for building works and for ordinary supplies, sanctioned the issue by the institution staff of orders for all that was required, examined the books of account, and, indeed, with the nominal control of the Board, managed each institution in their own way. Now, most of the functions of the managing committees, which are common to other institutions of like nature, are assigned to a special committee appointed for the purpose. One committee, for example, controls all building works, and another all questions relating to periodical supplies. Special sub-committees take other questions in hand, such as the selection of medical assistants and the framing of staff and other regulations common to the several groups of institutions. Accounts are examined at the head office and orders issued therefrom. The engineering work, which formerly was left wholly to the resident working engineer (with the occasional employment of a professional man for the more important pieces of work), is now supervised by the engineer to the Board; and, generally, efforts are made at similarity in government and uniformity in administration.

The visiting sub-committees have consequently more opportunity of making actual and careful inspections of the working of the institutions to which they are attached, as well as more time for considering local questions of importance, and of satisfying themselves that the institutions are administered according to the principles laid down by the Board and its central committees.

It is difficult to rate too highly the value of intelligent inspection by visiting sub-committees. Many a defect that escapes the eye of an officer always on the spot, and perhaps weary with too much seeing, is patent to the critical glance of an occasional visitor. This change in the mode of government is considered to tend to economy, consistency, and smoother working, but is sometimes said to have

one defect, viz., that the restricted range of the sub-committees' actions may tend in some cases to decrease their interest in the work.

As instances of the successful results of specialising the Board's work, we refer to the operations of the Works and the Contract Committees.

The Works Committee's report speaks for itself, and it is easy to form an estimate of the very different results that would have ensued if all the work there referred to had been split up under as many committees as there are institutions concerned. It is not likely that the records could have been what they are now, nor that the care exercised in selecting architects, quantity surveyors, and clerks of the works would have been so consistently thorough. It is hardly possible that more care could have been given to the selection of satisfactory contractors, nor that greater economy could have been achieved, while it is certain that where expedition was specially needed (the completion of the White Oak ophthalmia school for example) the Works Committee have to the full appreciated the need and done what was required in the very limited time allowed them.

Perhaps the work of the Contract Committee is, in its way, even more successful. Instead of, as formerly, each institution being supplied with similar goods at different prices by different contractors, or what was still more anomalous, at different prices by the *same* contractors—an inevitable consequence of a separate government of each institution—all groups of similar institutions are now, for the most part, supplied at uniform prices by the same tradesmen or from the Board's central stores. Comparisons can now be made and variations of cost of administration effectively inquired into. But this is not all. The special excellence of the work of the Contract Committee consists in their courageous abandonment of the ordinary and approved or even prescribed methods of obtaining supplies, and their introduction of improved methods of buying to which the consent of the Local Government Board has been obtained in each instance, and by which many thousands of pounds have been saved to the ratepayers, while at the same time articles of superior quality have been secured. The report of the committee gives some details of what they have done.

**Finance.** The report of the Finance Committee and the appendices thereto give all details of expenditure that are likely to be required by readers of this report. The figures are so arranged that anyone wishing to illustrate some particular aspect of the work of the Board can with facility reclassify the heads of expenditure with the particular object in view. Suffice it to say here that the total expenditure during the year ending Michaelmas, 1902, was £1,930,122; that the total amount raised on loan during the same period was £748,000, including £470,500 for special smallpox expenditure; and that the unpaid amount of all the loans raised by the Board was £3,150,422.

The limit of the Managers' borrowing powers was in view of being reached last year, and after an inquiry by the Local Government Board their powers were

doubled, whereby the Managers are now enabled, should it become necessary, and with the necessary sanction, to borrow an amount equal to one-fifth instead of one-tenth of the rateable value of the district.

**Fire and other insurance.** The question of fire insurance occupied the Managers' attention at intervals during the whole of the year, as it has done since July, 1900, a period in all (until actual settlement, in March, 1903) of nearly three years. In March, 1902, the Board decided to abstain from insuring their ordinary risks, but to place with the fire insurance companies some of their property subject to more than ordinary risk—temporary hospitals for example—viz., those constructed mainly of wood. Some of the reasons which influenced the Managers in this first decision of non-insurance were indicated in the last report. The total value of the Managers' property it was known would in the near future be more than £4,500,000 (exclusive of the land on which it stood, amounting in all to more than 2½ square miles), and the total amount of premium, according to the arrangements then existing, would be considerably over £4,000, a sum which it seemed worth an endeavour to save to the ratepayers.

For the special properties above referred to, however, the fire offices demanded so largely increased a premium that it threatened seriously to diminish the saving that would have been effected by general non-insurance. Partly on this account, and partly on other grounds, the Board, in November, 1902, revoked their decision of non-insurance, but effect was not given thereto until after the close of the year, because of the delay that took place before a satisfactory detailed arrangement could be made with the fire insurance companies.

Although trespassing beyond the limits of the year to which this report relates, yet it seems convenient to finish here the record of a long and hardly-fought contest, viz., whether the Managers should or should not become their own insurers, with or without a reserve fund. The sum of £4,500,000 above referred to having been reduced to £3,500,000, mainly by diminishing the amounts placed on the larger connected groups of buildings, the Westminster Fire Office offered to cover the whole of this property for an annual premium of a little over £3,000, less 15 per cent. commission. After important concessions of detail had been made by the Fire Office, their offer was eventually (March, 1903) accepted by the Managers, and thus their property, which had been mostly uninsured for nine months, was again protected by insurance.

Apart altogether from the question of insurance, the Managers can claim to have been fully alive to the prevention of outbreaks of fire and the saving of life. Not content with formulating rules to be observed during a fire, especially as to the care of the patients—printed copies of which rules have been handed to every member of the staff and also displayed as posters in messrooms and elsewhere—the Managers have encouraged, and in some cases made compulsory, the forming



of fire brigades in the larger establishments. They have engaged the services of a specially qualified man to attend periodically to train such brigades, to inspect the appliances, and to report as to their efficiency. No expense has been spared in providing appliances of the best and newest description. In all cases where practicable the hospitals have been placed in telephonic communication (by means of private wires) with the nearest fire stations, and, where impracticable, efficient fire engines have been purchased and regularly inspected by competent persons. Besides this, the Hospitals Committee, who have under their control many temporary buildings, have, by a series of circular letters during the past years, endeavoured to keep before the minds of the medical superintendents of the infectious hospitals the necessity of ascertaining that all these means of dealing with outbreaks of fire and of saving life are kept in a state of readiness, so far as their general overseership can determine.

Every boiler at the institutions is insured against loss by explosion or collapse, the insurance in this case covering compensation to officers for injury and for loss of life or limb. The fleet of ambulance steamers is also covered by marine underwriters, but the Managers have not thought it wise to enter into a general insurance against claims that may be made under the Employers' Liability Acts.

The annual premiums of these various insurances are approximately—

Fire .. .. .	£3,000
Boiler .. .. .	170
Marine .. .. .	1,220

**Statistics  
and Medical  
Supplement.**

The report of the Statistical Committee with its appendices forms the bulk of the volume. As the report of that committee has always been the most important part, and, coupled with the annual reports, until the year 1898, made by the Chairman of the Board, did, in fact, form the report of the Board, so now it contains most of what the majority of readers will care to know about the Board's work.

The Medical Supplement keeps its high level of interest, especially to medical men.

The usual appendices are annexed.

(Signed) R. M. HENSLEY,  
*Chairman of the Board.*

(Signed) T. DUNCOMBE MANN,  
*Clerk to the Board.*





APPENDIX II.—*Classified Return of Accommodation.*

Existing Accommodation for Imbeciles.		Existing Accommodation (Temporary and Permanent) for Fever and Diphtheria Patients.	
Leavesden Asylum ...	1,780	<i>For Acute Cases.</i>	
Caterham „ ...	1,953	Eastern Hospital ... ..	362
Darenth „ ...	1,052	North-Eastern Hospital ... ..	600
„ School ...	942	North-Western Hospital ... ..	460
Rochester House Asylum ...	156	Western Hospital ... ..	450
Tooting Bec Asylum... ..	772	South-Western Hospital ... ..	366
		Fountain Hospital ... ..	402
		Grove Hospital ... ..	522
		South-Eastern Hospital ... ..	432
		Park Hospital ... ..	548
		Brook Hospital ... ..	488
			4,630
		<i>For Convalescent Cases.</i>	
		Northern Hospital ... ..	748
<b>TOTAL ... ..</b>	<b>6,655</b>	<b>TOTAL ... ..</b>	<b>5,378</b>
Existing Accommodation for Smallpox Patients.		Other Existing Accommodation. (Training Ship and Children's Schools and Homes.)	
Hospital Ships ... ..	250	Training Ship "Exmouth" ... ..	600
Long Reach Hospital	300	Ditto Infirmary ... ..	46
Orchard Hospital ...	800	Ditto Shipping Home ... ..	9
Gore Farm Hospital—			
Upper ... ..	1,000	Banstead Road School ... ..	420
Lower ... ..	850	Bridge School ... ..	160
		White Oak School ... ..	360
		S. Anne's Home ... ..	134
		East Cliff House ... ..	91
		Lloyd House ... ..	20
		12, Lloyd Street... ..	8
		16, Elm Grove ... ..	14
		60-64, Kingwood Road ... ..	22
		70-74, Pentonville Road ... ..	55
		203-5, Harrow Road ... ..	45
		36-8, Camberwell Green ... ..	50
<b>TOTAL ... ..</b>	<b>3,200</b>	<b>TOTAL ... ..</b>	<b>2,034</b>
<b>SUMMARY.</b>			
Imbecile Patients ... ..		Beds.	6,655
Fever Patients... ..			5,378
Smallpox Patients ... ..			3,200
Training Ship (Boys) and Children's Schools and Homes			2,034
		<b>TOTAL ... ..</b>	<b>17,267</b>

## REPORT OF THE GENERAL PURPOSES COMMITTEE FOR 1902.

*30th March, 1903.*

**District  
Railway  
ventilator.** On the 12th June, 1900, an arrangement was arrived at between the Managers and the District Railway Company whereby they agreed to pay the company the sum of £2,500, together with the costs (estimated at about £300), for the closing of the Sion College ventilator on the Embankment, immediately opposite the Head Office. This arrangement was duly embodied in a draft deed which contained, first of all, an assignment to the Managers of the company's interest in the surface of the ventilator; secondly, a covenant by the Managers to brick it up permanently; and, thirdly, a grant by the Corporation to the Railway Company of the right of user of the subway near Blackfriars Bridge as a means of ventilation. It being, however, subsequently ascertained that the Corporation were not the owners of the subway, but only possessed a right of user, and were unable, therefore, to give the railway company the right to erect ventilating fans therein, the Managers, with the concurrence of the then directorate of the District Railway, agreed to increase the amount to be paid to the company from £2,500 to £3,000. Owing, however, to a change in the chairmanship of the railway company, the Board's solicitors found it impossible to obtain the formal sanction of the company to the agreement which had been prepared, and it was only after an interview between the Chairman of the Board and the newly-elected Chairman of the District Railway Company, and considerable correspondence, that it was eventually decided, on the 8th February last, to refer the matter to the Right Hon. W. H. Long, M.P., the President of the Local Government Board, for his decision thereon, upon the understanding that whatever such decision might be it should be loyally accepted and immediately acted upon by both parties concerned.

The President's decision was duly communicated to the Managers in a letter dated 21st April, 1902, and was to the effect that the amount to be paid by them to the District Railway Company for closing the ventilator should be £3,000, together with such further sum (subsequently ascertained to be £209 4s. 7d.) as should represent the actual cost of the works necessarily executed by the District Railway in closing the ventilator.

**Head Office staff.** The continued expansion of the work of the Board and the increase in the number of institutions under its control having necessitated a corresponding increase in the numerical strength of the permanent staff of the Head Office, the Managers decided in March last to appoint 4 additional third class clerks for general office work, and 4 women clerks for telephone work. At the same time they decided to promote Mr G. J. Cooke, head clerk of the Contract Department, from the post of first class clerk to that of principal clerk, and to increase the number of second class clerks on the Head Office staff from 8 to 12.

Thus strengthened, the total number of the clerical staff at the Head Office amounted at the end of the year to 65, a number which will, we anticipate—in view of the early opening of additional institutions—have to be still further augmented at no distant date.

**Lupus.** In the concluding paragraph of our last annual report we intimated that we had had before us during the previous 12 months the question as to whether the Managers should be entrusted with the treatment of persons suffering from lupus and chargeable to the guardians of the metropolis but that we were not at that time in a position to advise the Board thereon.

Having since solicited the opinions of the 31 metropolitan boards of guardians on the subject, and having ascertained that only 12 of their number were favourable to the proposal, we came to the conclusion that the time was not ripe for the Managers to undertake this additional duty.

**Proposed sanatoria for consumptive patients.** On the 26th July last we were instructed by the Managers to report upon a letter from the Bermondsey Borough Council, in which they urged the establishment by the Asylums Board of sanatoria for the treatment of consumptive persons, and forwarded an epitome of the replies received from the other metropolitan borough councils, who had been asked to support their proposals.

Having regard, however, to the important issue involved, and to the fact that there was not a general consensus of opinion amongst the metropolitan authorities in favour of the Managers undertaking the treatment of consumptive patients, we reported to the Board on the 29th November, 1902, that we had deferred consideration of the matter for 12 months.

**Road Ambulance Service to Gore Farm Hospital.** On the 14th April last we were empowered by the Board to receive a deputation from the Incorporated Society of Medical Officers of Health of the metropolis with reference to the then contemplated establishment of an ambulance station and shelters for smallpox patients between London and the Gore Farm Hospital. This deputation we received on the 28th April, and, having heard and considered their views on the subject, as expressed by their president, we came to the conclusion that the Society had been under a misapprehension both as to the object of the Managers in contemplating the establishment of this station and as to its character and capacity. We were, at the same time, given to understand by the Ambulance Committee that it was their intention to give further and fuller details with regard to the proposed scheme, and we accordingly advised the Managers to await

the report of the Ambulance Committee before taking further action in the matter.

Since our report to the Board on the subject, the Managers have received the promised report from the Ambulance Committee, and have decided to take no action thereon.

**Fire insurance.**

Under reference from the Board of the 25th January, 1902, we had before us a report which the Finance Committee had previously submitted to the Managers on the subject of the insurance of the Board's properties against fire, and in which were embodied certain recommendations having for their object (i.) the promotion of legislation to enable the Managers to form and maintain an insurance fund, and, pending such legislation, (ii.) the continuance of the insurance of the Managers' properties against fire at reduced rates of premium. Having given these recommendations full consideration, we advised the Managers to affirm the same, but the Board did not see their way to adopt our advice, and the question still remained in abeyance at the end of the year.

**Fire inspector.**

After due consideration of a reference from the Board as to the desirability, or otherwise, of appointing a fire inspector whose services should be available for all the committees of the Board who might require them, at an inclusive salary, we advised the Managers, on the 12th July last, to continue for a further period of 12 months the then existing practice of engaging the services of a fire inspector as and when required by the several committees of the Board.

(Signed) R. STRONG,  
*Chairman.*

## ANNUAL REPORT OF THE FINANCE COMMITTEE FOR 1902.

10th March, 1903.

**Proposed  
revision  
and consoli-  
dation of  
the L. G. B.  
orders.**

Since our last report we have nothing to record on this subject beyond stating that three communications have, during the year, been addressed to the Local Government Board as to the issue of an order affecting the appointment and duties of the Accountant (including the suggested alteration in the method of drawing and paying cheques), reminding them of the importance of the matters, and asking for early attention.

**Special  
expendi-  
ture on  
smallpox  
accommo-  
dation and  
transport.**

In consequence of the action taken by the Managers through the several committees to provide the necessary accommodation and transport facilities to cope with the smallpox epidemic, a large amount of money has been required during the year both on loan and current accounts, particulars of which are set out in the statements following.

The estimate prepared by us in January, 1902, as accurately as was possible at the time, placed the cost at £400,000. The sanction of the Local Government Board was given to this expenditure, and a sum of £300,000, authorised "on account," has been raised on loan, repayable in ten years.

This estimate has, however, been exceeded, owing to the fact that the schemes then proposed were not matured, and were subject to alterations and additions as the necessities of the circumstances might demand. Further, considerable difficulties were experienced in the execution of the work which added largely to the cost.



The following statement shows the expenditure incurred, including estimated expenditure to complete, but excluding the cost of furniture for and equipment of the various buildings, &c. :—

	Estimate, January, 1902.	Payments charged to Loan Account to December, 1902.	Estimated Expenditure to complete.	Estimated total Expenditure.
North and South Wharves (additional buildings) ... ..	£ 8,900	£ 12,409 18 9	£ ...	£ 12,410
Mead Ambulance Station ... ..	28,500	34,948 18 4	...	34,949
“ Red Cross ” steamer ... ..	8,100	10,061 12 6	...	10,061
Gore Farm Upper Hospital (additional buildings) .. ...	39,500	55,109 18 7	1,073	56,183
Gore Farm Lower Hospital ... ..	135,000	177,270 14 10	2,018	179,288
Long Reach Hospital ... ..	57,000	54,699 10 0	6,900	61,600
Orchard Hospital .. ...	123,000	114,676 0 9	16,000	130,676
Joyce Green cemetery and cemetery buildings, temporary stabling, roads, fences, &c. ... ..	...	4,391 9 6	1,600	5,992
	£400,000	£463,568 3 3	£27,591	£491,159

By utilising the funds and balances of the Managers we were able to avoid the necessity of issuing supplemental estimates on current account.

**Borrowing powers.** On recommending that the money to meet the special smallpox expenditure should be raised by means of a loan, we found that the proposed expenditure, together with the existing debt and unexercised sanctions, would exhaust the borrowing powers of the Managers, which were limited to one-tenth of the rateable value of the district. The necessary steps were at once taken with a view to extending the maximum. After holding a local inquiry the Local Government Board issued a provisional order extending the borrowing powers to double the amount previously authorised. This order was duly confirmed by Parliament, and the borrowing powers are now enlarged to one-fifth of the rateable value of the district.

**Fire insurance.** In accordance with the direction of the Managers the insurances falling due for renewal on the 24th June, 1902, were with certain exceptions allowed to lapse.

Certain properties which must by covenant or agreement with other persons be insured, and others which we considered to bear a special risk were upon our recommendation insured. The following statement shows the present and previous positions:—

	Amount of Insurance.	Premiums.	
		Old arrangement.	New arrangement.
	£	£	£
1. Property insured prior to 24th June, 1902 :—			
(a) Properties reinsured—Under covenant ...	19,950	28	36
Special risks ... ..	305,080	446	946
(b) Properties not now insured ... ..	2,368,557	2,246	...
Totals ... ..	2,693,587	2,720	...
2. New property insured since 24th June, 1902 :—			
Special risks ... ..	245,366	*359	676
3. Properties purchased or built since 24th June, 1902, or now in course of purchase or erection ...	*1,200,000	*1,103	...
Totals ... ..	£4,138,953	*£4,182	...

From this table it will be seen that the present position is that property to the extent of £570,396 is now insured at an annual premium of £1,658, while property to the value of £2,368,557 remains uninsured, and that this latter sum will be increased within the next year or two to \*£3,568,557.

The Managers subsequently resolved to insure all their properties, and directed us to ascertain the most favourable terms upon which the insurances could be effected, and further instructed us to prepare a statement of the proposed amounts to be insured with the rates of premium in each case. This information was in course of preparation at the close of the year.

On our recommendation the Managers decided to modify the former practice of obtaining authority through the requisition book from committees or sub-committees of management for all supplies required.

By way of experiment the requisitions of accounting officers for provisions will, after the 29th March, 1903, be made weekly by the accounting officers direct upon the Accountant and will not appear in the requirement book, but such orders will be issued by the Accountant if he is generally satisfied as to their reasonableness.

This will permit accounting officers to requisition more accurately owing to their having to estimate only one week in advance, whereas now requirement books are written up two or three weeks in advance and even longer in view of a recess. The amended system will result in the reduction of the stocks to a minimum, which in the case of perishable provisions is desirable, and will also minimise the use of the emergency orders, which are not expedient.

We have also authorised the omission from the requirement books of what are termed "weekly requisitions" for certain classes of perishable supplies contracted for (chiefly provisions, the quantities of which can only be ascertained from day to

\* Figures estimated. All premiums are subject to a deduction of 15 per cent. allowed as commission.

day owing to the varying number of inmates, or by reason of the outlying situation of the institution) and for certain recurring works, and these are now requisitioned for the whole quarter—the actual quantities or other necessary details being subsequently communicated daily to the contractor direct by the accounting officer as and when required.

This arrangement has resulted in clearing the requisition books of many thousands of superfluous entries per annum, and with the further eliminations from the books as set out above, the remaining items, being comparatively few, will doubtless receive closer scrutiny, and the value of the sub-committees' examination will be thereby enhanced.

At the same time we have simplified the form of the requirement book itself, and have drawn up a few short regulations for the guidance of the accounting officers in the keeping of the same.

**Super-annuation Acts.**

Compulsory retirement of officers at the age of 65, &c.

In several claims for superannuation allowances which have been submitted to us the ages of the applicants have exceeded 65 years, at which age, on ceasing to hold office, they are entitled, under the provisions of the Poor Law Officers' Superannuation Act, 1896, to allowances according to the scale laid down in the Act. By the same Act, if the Managers consider it expedient in the interests of the service that any officer on attaining 65 years of age should cease to hold office, it is competent for them to require such officer to retire on the payment to him of the superannuation allowance to which he may be entitled under the Act.

The Managers adopted our view that the time had arrived when this option should be exercised, and have resolved that it shall be compulsory that so soon as an officer attains the age of 65 years he shall cease to hold office or employment, unless the Managers shall pass a special resolution to the effect that his retirement would cause inconvenience to the service, in which case he shall continue for another year, and so on to the termination of each successive year of his age.

The resolution will come into force on the 25th March, 1903, and every officer and servant, who on that date shall have attained the age of 65 years, must retire, unless continued by special resolution of the Board for a further period.

As a matter of convenient procedure the proposals of the committees for the retention of the services of such an officer will be submitted to the Board, with the grounds upon which they are made, through the Finance Committee.

Under the provisions of the Act of 1896, 19 persons have been granted superannuation allowances during the year. The number of persons in receipt of a pension on the 31st December, 1902, was 72, excluding 17 persons to whom pensions had been granted previous to 1896.

As in previous years, many applications from members of the staff on leaving the service have been dealt with; and several recommendations from the central committees for the addition of a number of years to the actual period of service have been considered by us, but in no case were we able to find any grounds which would justify us in recommending any addition.

**Sanctions to borrow.** During the year ended Michaelmas, 1902, sanctions enabling the Managers to borrow have been granted to the amount of £706,755, making the total amount of such sanctions since the commencement to Michaelmas, 1902, £5,288,000.

**Interest on loans.** The average rate of interest payable on loans outstanding at Michaelmas, 1901, was £3½ per cent. per annum, and the average rate at Michaelmas, 1902, £3¼ per cent. per annum, a slight increase consequent upon the rate of interest paid upon loans taken up during the year, £3⅔, being slightly in excess of the average rate.

In consequence of the Board's arrangement entered into with the County Council, the rate of interest charged by them during the year was £3 7s. 6d. per cent. per annum, as against £3 10s. during the preceding year. This difference of 2s. 6d. per cent. represents a considerable yearly saving to the Managers, and by the arrangement it will be extended to all future loans advanced by the Council to the Managers.

**Estimates of costs of works.** Under the resolution of the Board requiring estimates of works to be submitted through the Finance Committee to the Managers, 25 estimates have been dealt with during the year, amounting to a total of over £475,000.

**Office of the Board. Property Tax.** Last year we reported that, the Inland Revenue Commissioners having decided that the Managers are not exempt from payment of property tax in respect of the office of the Board, we desired, in order to avoid a double assessment, to retain the tax deducted from the mortgage interest like any private individual.

This question affects not only the Managers but also all local authorities throughout the country who occupy their own property, and on a general representation being made to the Inland Revenue Commissioners they assented to payments being made under formal protest, pending a final judicial decision on the point at issue, and agreed that in the event of their interpretation being set aside by the courts, adjustment would be permitted in future assessment.

We have taken advantage of this concession and paid under protest, and we understand that the decision will be taken upon the London County Council case.

**Travelling clerk.** Seventy-five visits have been made by the travelling clerk to the large institutions of the Board during the year, in addition to numerous visits to the smaller children's homes, for inspection, and for the purpose of assisting in the entering up of the books. The reports made by him have been regularly submitted to us, and action taken where found necessary.

**Stocktaking** We have further considered during the year the question of stocktaking at the establishments which are outside the arrangements with Mr. Sloley, the Board's stocktaker, but not having completed our consideration we have continued the temporary arrangement by which the stocks at the children's homes and the ambulance depôts (except the transport branch of the river ambulance service) are taken by the Accountant's staff.

**Miscellaneous.** Of minor matters dealt with by us during the year the following are the most important:--

**Inventories.** We have directed the stewards and matrons respectively to report half-yearly (January and July) whether the regulations as to inventories have been strictly carried out during the previous half-year so far as any duties devolve upon them, and particularly the date by which the checking of all articles in use has been completed. We have also given instructions that the inventory books when not in use are to be kept by the accounting officer in a safe.

**Assessments.** Several of the new properties of the Managers have been brought into rating, and the assessments of others increased, but only in the case of the Gore Farm Hospital was it found necessary to attend before the assessment committee.

The new and increased assessments amount to £16,875.

The amounts paid in rates during the year ended Michaelmas, 1902, £38,281, exceeded by £9,018 the amounts paid during the previous year.

**Gas, water, and electricity. Meter readings.** For the purpose of thoroughly checking consumption and detecting waste the central committees of management have at our suggestion directed that meter readings should be taken daily at the larger institutions of the Managers, and the records entered in a register which will be submitted to the committee or sub-committee at each meeting, and be available for inspection from time to time by the Engineer to the Board.

**Solicitors' fees in respect of acquisition of property.** We have arranged that in all cases of the acquisition of property the Clerk to the Board shall consider the question of solicitors' fees before giving instructions for the work.

**Stores Department. Simplification of books of account.** We have approved of certain modifications in the forms and books in which the receipt and issue of goods are recorded, which modifications will effect a considerable saving in the work and time of the clerical staff.

**Provision for dependents of Army reservists.** Payments by the Managers under the resolution of 4th November, 1899, to the dependents of reservists in the Board's service who had been recalled to the colours, amounted to £314 10s. 8d. during the year to Michaelmas, 1902. The payments have now ceased, and the total amount paid under the above resolution is £1,609 3s. 3d.

**Abstract of accounts and financial tables.** Statements of the year's income and expenditure, balance sheet, and financial and statistical tables are appended hereto.

(Signed) AUGUSTUS C. SCOVELL,  
*Chairman.*

## APPENDICES.

## I.—FINANCIAL STATISTICS OF THE DISTRICT.

The enumerated population of the District, according to the Census of 1901, is **4,536,541**.

The rateable value of the District was **£40,005,723** on the 6th April, 1902, being an increase of **£316,764 (0·8 per cent.)** during the year.

One penny in the £ on the rateable value of the District produced **£166,690**.

The precepts levied by the Managers on the constituent parishes and unions of the District for the year ended Michaelmas, 1902, work out at **6½d. in the £**, and the average for the past five years was **5½d. in the £**.

The total expenditure for the year (Loan and General) has been **£1,930,122**, and the average for the past five years **£1,194,582**.

The estimated expenditure on current account for the year was **£1,038,352**, and the actual amount expended **£1,013,120**.

The rateable value of the Board's property is **£109,886**, and the amount of the rates paid last year was **£38,281**.

The borrowing powers are limited to **⅓th of the rateable value** of the District.

The total amount borrowed to Michaelmas, 1902, was **£4,586,721**, and the total amount of loans repaid, **£1,436,299**.

The amount of loans outstanding at Michaelmas, 1902, was **£3,150,422**.

The percentage of the debt at Michaelmas, 1902, to the rateable value is **£7·87**.

The amount of debt per head of the population at Michaelmas is **£0·69**.

The rates of interest payable on loans varies from **4 per cent. to 2½ per cent.**, and the average rate of interest at Michaelmas, 1902, was **£3½ per cent.**, as against last year's average of **£3½ per cent.**

The number of institutions belonging to the Board (excluding temporary institutions) is **50**, including **9** in course of erection or not opened.

The number of persons maintained by the Managers on the last day of the year was—

Permanent staff	...	...	...	...	...	4,844
Inmates	...	...	...	...	...	10,971
						<hr/>
				Total	...	15,815
						<hr/>

The average number of inmates maintained was in—

1900	...	...	...	...	...	...	...	10,563
1901	...	...	...	...	...	...	...	10,595
1902	...	...	...	...	...	...	...	11,350

The number of persons in receipt of superannuation allowances at the end of the year was 89, and the superannuation payments during the year amounted to £4,220.

The percentage deductions from the pay of the staff under the Poor Law Officers' Superannuation Act, 1896, during the year amounted to £4,793.

Year 1900-1901.	Expenditure.		£	£
£	<b>To "Direct Charges":—</b>			
	Maintenance of boys, patients, and children (including provisions, necessaries, and clothing supplied to and funerals of inmates) ... ..		158,316	
133,697				
	Other direct charges (including clothing for discharged patients, expenses of boys going to sea, and of children to and from Homes, and certification of imbeciles) ... ..		4,442	
1,386				
<u>135,083</u>				162,758
	<b>"Common Charges":—</b>			
	<b>Maintenance of officers and servants—</b>	£		
43,369	Salaries of principal officers .....	51,210		
111,149	Salaries and wages of subordinate staff ... ..	136,630		
89,105	Provisions ... ..	106,664		
2,353	Necessaries ... ..	2,922		
8,593	Uniforms and sundries ... ..	11,258		
<u>254,569</u>				308,684
	<b>Buildings and establishment—</b>			
11,203	Materials, &c. ... ..	14,444		
28,269	Wages to labourers ... ..	30,754		
27,936	Furniture, bedding, earthenware, &c. ... ..	30,234		
109,766	Heating, lighting, and cleansing ... ..	107,991		
<u>177,224</u>				183,423
<u>34,885</u>				
	<b>Rates, insurance, &amp;c.</b> ... ..		38,281	
	<b>Miscellaneous expenses—</b>			
7,782	Medicines and medical and surgical appliances ... ..	10,989		
14,667	Stationery, postage, and office expenses ... ..	13,851		
8,946	Other charges — travelling, horse hire, and Managers' expenses, &c. ... ..	12,724		
<u>31,395</u>				37,564
	<b>Expenditure of a special character—</b>			
37,504	Buildings and repairs ... ..	48,950		
4,196	Furniture and property ... ..	17,599		
<u>41,700</u>				66,549
<u>192,751</u>				
867,607	<b>Sundry general expenses</b> (including repayment of and interest on loans, pensions, notification fees, &c.) ... ..		215,861	
...				850,362
	<b>Total expenditure</b> (for details see pp. 36-9) ... ..			1,013,120
	<b>Balance</b> carried down, being income in excess of expenditure for year ... ..			43,128
<u>£867,607</u>				<u>£1,056,248</u>

To Balance in hand on current account on 4th October, 1902, carried to balance sheet (pp. 40-1) ... .. £ 157,464

£157,464



**Expenditure Account**

1901, to 4th October, 1902.

<b>Income.</b>		£	£	Year 1900-1901. £
<b>By Contributions from Parishes and Unions in the Metropolitan Asylum District :—</b>				
In respect of "Direct Charges" ... ..		170,300		133,000
,, "Common Charges" (assessed according to rateable value) ... ..		868,052		719,466
		<u>1,038,352</u>		<u>852,466</u>
<b>Amounts payable by Local Authorities outside the Metropolitan Asylum District :—</b>				
For maintenance of patients in hospitals ... ..		12,657		6,233
,, boys on "Exmouth" ... ..		4,246		3,504
			<u>16,903</u>	<u>9,737</u>
<b>Interest allowed on balances in hands of bankers, &amp;c.</b> ... ..			993	<u>3,600</u>
<b>Balance, being expenditure in excess of income for year 1900-1901</b> ... ..			—	<u>1,804</u>

HEADS OF EXPENDITURE.				
1900-1901.			1901-1902.	
Rate in the £.	Amount.		Amount.	Rate in the £.
d.	£		£	d.
1·07	177,312	Imbeciles ... ..	176,842	1·06
2·25	387,663	Infectious sick—		
0·07	12,362	Fever ... ..	372,976	2·24
		Smallpox ... ..	116,615	0·70
		Ambulance service—		
0·15	25,183	Land ... ..	37,062	0·22
0·05	7,151	River (including wharves) ... ..	23,356	0·14
0·13	21,658	Boys on training ship ... ..	18,872	0·12
0·10	16,859	Children of various classes ... ..	25,207	0·15
		General expenses (including Head Office salaries and expenses, and repayment of and interest on loans, &c.) ... ..	242,190	1·45
1·33	219,419			
<u>5·25</u>	<u>£867,607</u>		<u>£1,013,120</u>	<u>6·08</u>

(For details, see pp. 36-9.)

£1,056,248

£867,607

By Balance brought down, being income in excess of expenditure for year ... ..	£43,128
Balance in hand on current account on 5th October, 1901, brought forward ... ..	114,336
	<u>£157,464</u>

## III.—Details of Revenue Expenditure for Year from

INSTITUTIONS.	"DIRECT CHARGES."			"COMMON CHARGES" assessable on the Rateable Values of the							
	"MAIN- TENANCE OF INMATES."	OTHER "DIRECT CHARGES."	Total "Direct Charges."	MAINTENANCE OF OFFICERS AND SERVANTS.					BUILDINGS AND		
				Salaries of Principal Officers.	Salaries and Wages of Subordi- nate Officers.	Pro- visions.	Neces- saries.	Uniforms and Sundries.	Materials, &c.	Wages to Labourers	
£	£	£	£	£	£	£	£	£	£	£	
<b>Asylums:—</b>											
Leavesden... ..	19,665	65	19,730	2,084	7,190	4,550	88	524	1,547	2,644	
Caterham ... ..	20,340	16	20,356	1,887	6,396	4,923	65	500	750	2,041	
Darenth ... ..	20,521	61	20,582	2,407	11,033	7,849	162	735	1,471	3,403	
Rochester House ... ..	1,287	4	1,291	592	619	401	59	35	178	115	
Tooting Bec ... ..	...	...	...	6	...	...	...	...	...	2	
<b>Totals ... ..</b>	<b>61,813</b>	<b>146</b>	<b>61,959</b>	<b>6,976</b>	<b>25,238</b>	<b>17,723</b>	<b>374</b>	<b>1,794</b>	<b>3,946</b>	<b>8,205</b>	
<b>Hospitals:—</b>											
Eastern ... ..	2,795	...	2,795	1,930	4,452	4,329	132	476	583	1,328	
North-Eastern... ..	5,697	...	5,697	2,117	7,057	6,367	114	623	590	1,732	
North-Western ... ..	6,335	...	6,335	1,891	6,066	6,192	113	489	236	964	
Western ... ..	5,678	...	5,678	2,026	5,751	5,935	158	587	545	1,410	
South-Western ... ..	4,444	...	4,444	1,921	4,481	4,856	140	389	700	1,415	
Fountain ... ..	5,086	...	5,086	1,605	4,744	4,000	109	361	324	902	
Grove ... ..	4,128	...	4,128	1,844	6,614	5,338	123	463	983	2,064	
South-Eastern... ..	4,021	3	4,024	1,908	5,012	5,364	145	484	232	982	
Park ... ..	6,201	...	6,201	2,132	6,474	5,313	161	456	526	2,152	
Brook... ..	6,855	...	6,855	2,235	7,115	7,275	246	575	543	1,898	
Northern ... ..	7,686	...	7,686	1,755	5,165	5,592	133	378	506	1,894	
Gore Farm (Upper) ... ..	16,962	3,049	20,011	1,959	9,441	8,513	232	845	520	2,436	
Do. (Lower) ... ..	...	...	...	244	492	335	10	183	75	234	
Ships ... ..	7,946	170	8,116	2,427	10,282	9,144	371	1,236	1,101	1,912	
Orchard ... ..	...	...	...	84	52	27	...	...	2	46	
Joyce Green and Stables	...	...	...	...	7	...	...	...	...	...	
London General Hosps. (M. A. B. patients.)	156	...	156	...	...	...	...	...	...	...	
Plague Accommodation	...	...	...	...	...	...	...	...	...	...	
<b>Totals ... ..</b>	<b>83,990</b>	<b>3,222</b>	<b>87,212</b>	<b>26,078</b>	<b>83,205</b>	<b>78,580</b>	<b>2,157</b>	<b>7,545</b>	<b>7,466</b>	<b>21,369</b>	
<b>Ambulance Service:—</b>											
Eastern Station ... ..	...	...	...	...	2,526	959	...	228	48	...	
North-Western ,, ... ..	...	...	...	...	2,175	956	...	133	21	...	
Western ,, ... ..	...	...	...	...	2,108	827	...	138	15	...	
South-Western ,, ... ..	...	...	...	...	1,800	583	...	111	27	...	
South-Eastern ,, ... ..	...	...	...	...	2,261	885	...	100	39	...	
Brook ,, ... ..	...	...	...	...	2,175	896	...	176	37	...	
Mead ,, ... ..	...	...	...	...	484	283	...	63	32	...	
River Service—Transport	...	...	...	418	6,509	4	...	347	1,106	...	
Do. Medical	...	...	...	840	978	1,313	...	115	53	...	
<b>Totals ... ..</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>1,258</b>	<b>21,076</b>	<b>6,706</b>	<b>...</b>	<b>1,411</b>	<b>1,378</b>	<b>...</b>	
Amounts carried forward	145,803	3,368	149,171	34,312	129,519	103,009	2,561	10,750	12,790	29,574	

## 6th October, 1901, to 4th October, 1902.

several Parishes and Unions in the District, irrespective of the number of Inmates chargeable to them.											
ESTABLISHMENT.		RATES, RENT, TAXES, AND INSUR- ANCE.	MISCELLANEOUS.			EXPENDITURE OF A SPECIAL CHARACTER.		GENERAL EXPENSES.	Total "Common Charges."	TOTAL EXPENDI- TURE FOR YEAR 1901/1902.	Total Expendi- ture for Year 1900/1901
Furniture, Bedding, Earthen- ware, &c.	Heating, Lighting, and Cleansing (including Water).		Medicines and Medical and Surgical Appli- ances.	Stationery and Office Expenses.	Travel- ling, Horse Hire, and Managers' Expenses, &c.	Building and Repairs.	Furniture and Property.				
£	£	£	£	£	£	£	£	£	£	£	£
2,735	6,448	717	314	394	376	5,620	...	...	35,231	54,961	53,813
2,652	5,772	1,723	92	347	240	983	...	...	28,371	48,727	49,463
3,893	8,039	2,543	293	395	384	3,484	...	...	46,091	66,673	69,558
334	352	330	31	55	47	1,263	743	...	5,154	6,445	4,478
...	3	...	..	11	14	...	...	...	36	36	...
9,614	20,614	5,313	730	1,202	1,061	11,350	743	...	114,883	176,842	177,312
1,505	4,241	1,415	747	272	38	1,237	72	...	22,757	25,552	27,373
1,439	5,323	1,330	886	253	56	1,237	1,618	...	30,872	36,569	25,575
953	5,112	1,744	659	357	34	1,576	81	...	26,467	32,802	30,929
1,203	5,529	2,309	1,159	314	41	1,014	121	...	28,102	33,780	35,901
1,087	5,577	1,590	658	321	44	2,050	...	...	25,229	29,673	28,839
1,075	5,086	1,271	236	272	38	600	...	...	20,623	25,709	26,233
1,055	7,087	2,744	1,227	334	60	2,362	...	...	32,298	36,426	36,749
1,277	5,456	1,312	673	303	39	1,081	...	...	24,268	28,292	31,305
1,155	6,400	2,579	577	358	71	3,801	514	...	32,669	38,870	34,491
1,896	9,168	3,422	1,214	482	86	4,095	279	...	40,529	47,384	44,744
1,179	4,966	3,036	261	388	209	3,259	491	...	29,212	36,898	33,513
1,507	6,973	1,755	871	685	2,892	2,766	...	...	41,395	61,406	29,921
43	488	124	...	25	3	...	...	...	2,256	2,256	...
1,325	6,407	1,276	782	955	892	4,225	1,812	...	44,147	52,263	12,346
29	2	302	...	4	2	...	...	...	550	550	...
...	...	...	...	...	161	...	...	...	168	168	16
...	...	...	...	...	...	...	...	837	837	993	1,690
...	...	...	...	...	...	...	...	...	...	...	100
16,728	77,815	26,209	9,950	5,453	4,666	29,303	4,988	837	402,379	489,591	400,025
225	300	200	...	60	1,045	100	1,464	...	7,155	7,155	5,065
185	245	164	...	43	785	...	698	...	5,405	5,405	3,723
147	256	268	...	42	764	5	402	...	4,972	4,972	4,011
135	231	171	...	42	762	...	373	...	4,295	4,295	3,872
149	252	202	...	51	987	...	781	...	5,707	5,707	4,802
164	349	226	...	46	861	84	948	...	5,962	5,962	3,710
199	136	3	...	59	148	15	2,144	...	3,566	3,566	...
411	2,856	2,140	...	63	50	3,285	213	...	17,402	17,402	6,003
329	884	...	81	132	437	...	792	...	5,954	5,954	1,148
1,944	5,509	3,374	81	538	5,839	3,489	7,815	...	60,418	60,418	32,334
28,286	103,938	34,896	10,761	7,193	11,566	44,142	13,546	837	577,680	726,851	609,671

## III.—Details of Revenue Expenditure for the Year from

INSTITUTIONS.	"DIRECT CHARGES."			"COMMON CHARGES" assessable on the Rateable Values of the						
	"MAIN- TENANCE OF INMATES."	OTHER "DIRECT CHARGES."	Total "Direct Charges."	MAINTENANCE OF OFFICERS AND SERVANTS.					BUILDING AND	
				Salaries of Principal Officers.	Salaries and Wages of Subordi- nate Officers.	Pro- visions.	Neces- saries.	Uniforms and Sundries.	Materials, &c.	Wages to Labourers
Amounts brought forward ... ..	£ 145,803	£ 3,368	£ 149,171	£ 34,312	£ 129,519	£ 103,009	£ 2,561	£ 10,750	£ 12,790	£ 29,574
<b>Training Ship</b> ... ..	7,595	878	8,473	1,589	1,686	1,428	221	288	932	724
<b>Children's Homes and Schools:—</b>										
Bridge School ... ..	1,446	97	1,543	373	981	675	18	37	88	183
Banstead Road School ... ..	...	...	...	...	49	...	...	...	3	55
S. Anne's Home ... ..	1,228	53	1,281	257	808	569	16	22	61	114
East Cliff House ... ..	962	36	998	148	498	513	19	31	61	103
Millfield Home ... ..	...	...	...	...	...	...	...	...	...	...
Lloyd Street, 11 & 12 ... ..	3.3	5	848	39	130	118	21	...	46	...
Elm Grove ... ..	136	...	136	32	72	68	10	...	29	1
Kingwood Road ... ..	283	...	283	30	110	92	20	...	29	...
Pentonville Road ... ..	208	...	208	4	167	78	10	15	23	...
Harrow Road ... ..	111	...	111	10	123	62	11	13	8	...
Camberwell Green ... ..	201	5	206	1	133	62	15	90	16	...
<b>Totals</b> ... ..	4,918	196	5,114	894	3,071	2,227	140	138	355	456
<b>General Expenses:—</b>										
Office of the Board... ..	...	...	...	14,415	2,040	...	...	82	367	...
Army Reservists' Half- pay ... ..	...	...	...	...	314	...	...	...	...	...
Paris Exhibition Ex- penses ... ..	...	...	...	...	...	...	...	...	...	...
Furniture Samples... ..	...	...	...	...	...	...	...	...	...	...
Samples and Analysing	...	...	...	...	...	...	...	...	...	...
Telephones ... ..	...	...	...	...	...	...	...	...	...	...
Bacteriological Examina- tion of Diphtheria Cases... ..	...	...	...	...	...	...	...	...	...	...
Loans—										
Instalments Repaid	...	...	...	...	...	...	...	...	...	...
Interest on ... ..	...	...	...	...	...	...	...	...	...	...
Legal Expenses ... ..	...	...	...	...	...	...	...	...	...	...
Superannuation allow- ances & compensation	...	...	...	...	...	...	...	...	...	...
Repayment to Boroughs of Notification fees...	...	...	...	...	...	...	...	...	...	...
<b>Totals</b> ... ..	...	...	...	14,415	2,354	...	...	82	367	...
<b>Grand Totals for Year 1901/1902</b>	158,316	4,442	162,758	51,210	136,630	106,664	2,922	11,258	14,444	30,754
<b>Grand Totals for Year 1900/1901</b>	133,697	1,386	135,083	43,369	111,149	89,105	2,353	8,593	11,203	28,269

## 6th October, 1901, to 4th October, 1902 (continued).

Several Parishes and Unions in the District, irrespective of the number of Inmates chargeable to them.											
ESTABLISHMENT.		RATES, RENT, TAXES, AND INSUR- ANCE.	MISCELLANEOUS.			EXPENDITURE OF A SPECIAL CHARACTER.		GENERAL EXPENSES.	Total "Common Charges."	TOTAL EXPENDI- TURE FOR YEAR 1901/1902.	Total Expendi- ture for Year 1900/1901
Furniture, Bedding, Carpenter- work, &c.	Heating, Lighting, and Cleansing (including Water).		Medicines and Medical and Surgical Appli- ances.	Stationery and Postage and Office Expenses.	Travel- ling, Horse Hire, and Managers' Expenses, &c.	Building and Repairs.	Furniture and Property.				
£	£	£	£	£	£	£	£	£	£	£	£
28,286	103,938	34,896	10,761	7,193	11,566	44,142	13,546	837	577,680	726,851	609,671
987	1,477	361	60	151	250	113	132	...	10,399	18,872	21,658
303	606	185	57	72	108	1,059	51	...	4,796	6,339	6,750
...	13	227	...	...	5	1,768	1,976	...	4,096	4,096	...
222	605	171	54	50	81	650	62	...	3,742	5,023	4,502
112	330	209	34	37	100	327	613	...	3,135	4,133	2,063
...	...	...	...	...	...	...	...	...	...	...	119
61	126	70	13	12	5	155	40	...	836	1,184	992
18	55	28	6	8	7	156	...	...	481	617	745
21	76	26	4	9	8	...	...	...	425	708	1,338
43	101	264	...	13	10	102	317	...	1,147	1,355	320
16	51	44	...	19	9	47	218	...	631	742	2
33	74	26	...	20	8	81	325	...	804	1,010	28
829	2,037	1,250	168	240	341	4,345	3,602	...	20,093	25,207	16,859
132	539	954	...	6,267	453	350	319	...	25,918	25,918	25,623
...	...	...	...	...	...	...	...	...	314	314	647
...	...	...	...	...	...	...	...	...	...	...	93
...	...	...	...	...	...	...	...	...	...	...	36
...	...	...	...	...	114	...	...	...	114	114	811
...	...	820	...	...	...	...	...	...	820	820	764
...	...	...	...	...	...	...	...	...	...	...	50
...	...	...	...	...	...	...	...	110,322	110,322	110,322	102,945
...	...	...	...	...	...	...	...	92,521	92,521	92,521	76,863
...	...	...	...	...	...	...	...	810	810	810	4,605
...	...	...	...	...	...	...	...	4,355	4,355	4,355	3,201
...	...	...	...	...	...	...	...	7,016	7,016	7,016	3,781
132	539	1,774	...	6,267	567	350	319	215,024	242,190	242,190	219,419
30,234	107,991	38,281	10,989	13,851	12,724	48,950	17,599	215,861	850,362	1,013,120	...
27,986	109,766	34,885	7,782	14,667	8,946	37,504	4,196	192,751	732,524	...	867,607

<b>Liabilities.</b>				£	£
<b>Loans.</b>					
Loans outstanding Michaelmas, 1901	...	...	...	2,512,694	
„ received during the year	...	...	...	748,050	
				<u>3,260,744</u>	
Less instalments of loans repaid during year	...	...	...	110,322	
Loans outstanding Michaelmas, 1902	...	...	...		3,150,422
London County Council	...	...	...	£2,915,391	
Public Works Loan Commissioners	...	...	...	235,030	
(For details, see statement, p. 58.)				<u>£3,150,422</u>	
<b>Sundry Creditors.</b>					
Tradesmen's accounts and other amounts owing	...	...	...		97,599
<b>Legacies.</b>					
Captain Brown's legacy to the training ship (£119), less legal expenses	...	...	...	£115	
Add interest unapplied	...	...	...	1	
					116
William Thomas Ferguson's legacy to the Homerton Smallpox Hospital (£100), and accumulated income	...	...	...	168	
Add interest unapplied	...	...	...	3	
					171
George Dryden's legacy to the Stockwell Smallpox Hospital (£100), less books purchased for Hospital Ships (£25)	...	...	...	75	
Add interest unapplied	...	...	...	4	
					79
George Cook's legacy to Darenth Asylum (£100), less legal expenses	...	...	...	73	
Add interest unapplied	...	...	...	3	
					76
E. N. Middleton's legacy to South-Western Hospital	...	...	...		20
					<u>462</u>
<b>Students' Fees for Clinical Instruction.</b>					
	Total at Michaelmas, 1901.	Year to Michaelmas, 1902.	Total at Michaelmas, 1902.		
Amounts received from students	£10,557	£1,909	£12,466		
Less amounts paid to medical superintendents for clinical instruction	6,149	1,107	7,256		
	<u>£4,408</u>	<u>£802</u>	5,210		
Less amount transferred in reduction of capital outlay as estimated cost of provision of buildings for instruction (Park Hospital, £1,750, and Grove Hospital, £750)	...	...	...	2,500	
					<u>2,710</u>
<b>Sundry Rents.</b>					
Sundry rents, &c., received in respect of sites purchased, less expenses in connection therewith	...	...	...		53
<b>Excess of Assets.</b>					
Instalments of loans repaid	...	...	...	1,439,959	
Expenditure in excess of amounts authorised to be borrowed, paid out of current account, and sundry receipts	...	...	...	*87,436	
					<u>1,527,395</u>
<b>Balance in hand on Current Account.</b>					
Net balance in favour of Parishes and Unions in the District (including outstanding Contributions)	...	...	...		157,464
<b>Cash.</b>					
London and County Banking Company, amount due to them	...	...	...	11,172	
Add unrepresented cheques	...	...	...	1,704	
				<u>12,876</u>	
Less balances in hands of accounting officers	...	...	...	5,887	
					<u>6,989</u>
					<u>£4,943,099</u>

\* In addition to these figures, large amounts of expenditure of a capital nature amounting to

4th October, 1902.

**Property Assets and Capital Outlay.**

<b>Capital Outlay.</b>		£	£
Expenditure on purchase of land and buildings, and on erecting, fitting-up, and furnishing buildings ... ..			*4,775,294
<b>Stock.</b>			
Stock of goods at central stores department and at the various institutions, including unused railway tickets and postage stamps ... ..			151,419
<b>Sundry Debtors.</b>			
Contributions owing by Parishes and Unions in the District ... ..		3,600	
Amounts owing by extra-Metropolitan Authorities and other sundry debtors		12,355	
		<u>          </u>	15,955
<b>Legacies (Investment Accounts).</b>			
Brown's legacy—£104 14s., 3½ per cent. stock, London County Council (Metropolitan Board of Works) (at cost) ... ..		115	
Ferguson's legacy—£173 17s. 2d., consols (at cost) ... ..		168	
Dryden's legacy—£75 18s. 4d. consols (at cost) ... ..		75	
Cook's legacy—£75 18s. 4d. consols (at cost) ... ..		73	
		<u>          </u>	431

£4,943,099

not less than £300,000 have from time to time been defrayed out of the current rates.

MORRIS HEYES, A.C.A.,  
*Accountant to the Board.*

V.—Return showing the Expenditure, Rate in the £, Numbers of Patients Maintained (excluding the year of the formation of the Board)

No. of Year.	In respect of year ended at Michaelmas.	Expenditure.			Rate in the £.		Produce of 1d. Rate in the £ on the Rateable Values in force.	Number of Patients maintained.									
		Capital Account.	Current Account.	Total.	"Common charges."	"Maintenance" worked out as a Metropolitan Rate.		IMBECILES.			FEVER PATIENTS.			BOYS ON TRAINING SHIP.			
								Maxi- mum.	Average daily No.	Mini- mum.	Maxi- mum.	Average daily No.	Mini- mum.	Maxi- mum.	Average daily No.	Mini- mum.	
£	£	£	d.	d.	£												
1	1867	Nil.	Nil.	Nil.	0	0	66,469	...	...	...	...	...	...	...	...	...	...
2	1868	32,599	2,538	35,137	0	0	70,219	...	...	...	...	...	...	...	...	...	...
3	1869	114,297	8,384	122,681	0	0	73,184	...	...	...	...	...	...	...	...	...	...
4	1870	233,144	38,884	272,028	0	0	73,951	...	...	...	...	...	...	...	...	...	...
5	1871	126,430	125,027	251,457	0	0	82,916	...	...	...	...	...	...	...	...	...	...
6	1872	18,357	159,632	177,989	0	0	82,916	...	...	...	...	...	...	...	...	...	...
7	1873	28,974	140,940	169,914	1	0	82,550	...	...	...	...	...	...	...	...	...	...
8	1874	6,127	146,485	152,612	1	0	84,963	...	...	...	...	...	...	...	...	...	...
9	1875	22,779	162,082	184,861	1	0	86,382	...	...	...	...	...	...	...	...	...	...
10	1876	29,023	157,961	186,984	1	0	95,980	...	...	...	...	...	...	...	...	...	...
11	1877	124,737	263,128	387,865	1	0	97,365	...	...	...	...	...	...	...	...	...	...
12	1878	68,687	251,199	319,886	1	0	97,365	...	...	...	...	...	...	...	...	...	...
13	1879	62,733	242,413	305,146	1	0	99,367	...	...	...	...	...	...	...	...	...	...
14	1880	64,872	248,338	313,210	1	0	101,620	...	...	...	...	...	...	...	...	...	...
15	1881	31,879	389,766	421,645	1	0	104,217	...	...	...	...	...	...	...	...	...	...
16	1882	36,823	378,794	415,617	3	0	113,804	...	...	...	...	...	...	...	...	...	...
17	1883	39,227	424,201	463,428	2	0	115,716	...	...	...	...	...	...	...	...	...	...
18	1884	133,183	560,854	694,037	2	0	117,852	...	...	...	...	...	...	...	...	...	...
19	1885	110,024	515,403	625,427	3	0	120,080	...	...	...	...	...	...	...	...	...	...
20	1886	88,523	316,511	405,034	3	0	122,040	5,439	5,340	5,287	742	333	220	603	562	539	539
21	1887	39,529	315,427	354,956	1	0	126,274	5,574	5,406	5,376	2,789	856	424	595	580	549	549
22	1888	29,360	384,216	413,576	1	0	127,576	5,651	5,481	5,349	2,248	1,540	798	608	571	547	547
23	1889	51,773	348,435	400,208	2	0	128,745	5,773	5,572	5,437	1,884	940	603	584	504	483	483
24	1890	15,554	369,752	385,306	2	0	130,677	5,955	5,686	5,442	2,435	1,535	1,160	530	504	466	466
25	1891	1,292	401,288	402,580	2	0	130,687	5,943	5,776	5,707	2,055	1,588	1,050	496	479	452	452
26	1892	44,716	488,936	533,652	2	0	136,931	6,026	5,853	5,755	4,389	2,023	1,438	557	494	478	478
27	1893	56,007	583,138	639,145	3	0	139,189	6,034	5,976	5,914	3,558	3,249	2,199	605	549	525	525
28	1894	200,381	575,214	775,595	4	0	140,334	6,022	5,956	5,871	2,950	2,915	2,455	597	582	548	548
29	1895	395,902	553,975	949,877	3	0	141,642	6,047	5,996	5,928	3,568	2,758	1,897	604	572	522	522
30	1896	326,025	625,122	951,147	3	0	148,368	6,049	6,021	5,963	4,996	3,753	3,217	566	535	469	469
31	1897	438,175	665,393	1,103,568	3	0	148,329	6,046	6,001	5,940	5,023	4,209	3,136	564	526	507	507
32	1898	283,128	719,128	1,002,256	4	0	149,481	6,045	5,996	5,936	4,745	3,967	3,120	564	537	507	507
33	1899	159,099	766,784	925,883	4	0	153,316	6,025	5,954	5,792	5,710	4,202	3,208	599	561	507	507
34	1900	147,336	832,466	979,802	4	0	153,316	6,000	5,883	5,733	4,779	3,944	2,948	585	544	496	496
35	1901	267,243	867,607	1,134,850	4	0	165,325	5,819	5,705	5,608	5,165	3,939	2,563	643	574	531	531
36	1902	917,002	1,013,120	1,930,122	5	1	166,690	5,868	5,799	5,781	4,627	4,076	2,561	583	569	510	510

The number of patients maintained prior to the year 1886 cannot be given with any degree of accuracy, the number of smallpox several classes of children maintained are not furnished in this return. The large expenditure on current account during the years



*Smallpox*), and particulars relating to the various Institutions of the Managers from 1867 to the end of 1902.

**Number of Institutions at the end of each year, with names of establishments opened or closed from time to time.**

Number of Institutions at end of year.	PARTICULARS OF ADDITIONAL INSTITUTIONS.
3	Leavesden and Caterham Asylums and North-Western Hospital opened.
5	Eastern and South-Western Hospitals opened.
5	
5	
5	
6	Clapton Asylum rented.
7	Training Ship "Exmouth" established.
10	South-Eastern and Western Hospitals opened and Limehouse Smallpox Hospital taken over.
9	Limehouse Smallpox Hospital and Clapton Asylum given up, Darenth Asylum (Schools Dept.) opened (also Shipping Home, in connection with "Exmouth").
9	
9	(Darenth Asylum, Adult Department, opened.)
11	Do. Camp opened and Hospital Ships "Atlas" and "Endymion" established.
11	Do. Camp closed and Ambulance Station at London Fields opened.
14	South-Eastern Ambulance Station opened, and North and South Wharves acquired.
17	Darenth Camp re-opened, Plaistow Hospital rented, Western Ambulance Station opened (also "Castalia" added to Hospital Ships), and the River Ambulance Service, comprising Wharves and Steamers, instituted.
18	Eastern Ambulance Station removed from London Fields to Homerton, and West Wharf acquired.
16	Darenth Camp closed and Plaistow Hospital given up.
17	Northern Hospital opened.
17	
17	
18	Gore Farm Upper Hospital opened.
18	
19	North-Eastern Hospital opened.
20	Fountain Hospital opened.
20	("Geneva Cross" added to fleet of Ambulance Steamers.)
20	
23	Brook Hospital and Ambulance Station opened and Central Stores instituted.
26	Park Hospital and North-Western Ambulance Station opened and S. Anne's Home taken over. ("White Cross" added to fleet of Ambulance Steamers).
28	South-Western Ambulance Station opened and East Cliff House taken over. ("Red Cross" Ambulance Steamer sold out of service.)
30	Grove Hospital and Lloyd House opened.
32	Office of the Board and Kingwood Road Home opened.
36	Rochester House, Bridge School, 12, Lloyd Street, and Elm Grove House opened (also Needleroom in connection with Central Stores). Partial reconstruction of North-Eastern Hosp. completed.
43	Long Reach Hospital, Mead Ambulance Station, Pentonville Road, Harrow Road, and Camberwell Green Remand Homes opened. Lower Gore Farm and Orchard Hospitals erected. ("Red Cross" and "Conservator" added to the fleet of ambulance steamers).

patients maintained prior to the present year are not shown owing to the comparatively insignificant number treated, and the 1883-4-5 and 1902 was due to epidemics of smallpox.

VI.—Statement of Sanctions to Borrow, amount Borrowed, amount Outstanding, &c., at 4th October, 1902.

Date of Sanction.	Purpose.	Amount Sanctioned.	Period Sanctioned for.	Amount Borrowed.	Year Borrowed.	Rate per cent. of Interest payable.	Balance of Principal Outstanding 4th October, 1902.
		£	Years.	£		£	£ s. d.
<b>Leavesden Asylum.</b>							
1868 Jan. 8	Purchase of land ... ..	7,600	60	7,600	1870	3 $\frac{7}{8}$	3,420 0 0
1868 May 22	Buildings, furnishing, &c.	128,000	60	128,000	1870	3 $\frac{7}{8}$	57,600 0 0
1870 Jan. 21	Buildings and furniture (additional) ... ..	8,000	60	8,000	1870	3 $\frac{7}{8}$	3,600 0 0
1871 Mar. 16	Furniture ... ..	1,000	59	1,000	1871	3 $\frac{7}{8}$	457 0 0
1871 May 17	Clerk's house ... ..	750	59	750	1871	3 $\frac{7}{8}$	334 0 0
1872 Jan. 22	Additional accommodation	6,000	58	6,000	1872	3 $\frac{7}{8}$	2,737 0 0
1873 Mar. 25	Additional accommodation (infirmary) ... ..	3,000	56	3,000	1874	3 $\frac{7}{8}$	1,428 0 0
1875 Apr. 8	Additional accommodation	13,000	55	13,000	1875	3 $\frac{3}{4}$	6,341 0 0
	Purchase of property (Hall)	1,750	55	1,750	1875	3 $\frac{3}{4}$	909 0 0
1880 July 30	Purchase of additional land	750	49	750	1880	3 $\frac{3}{4}$	413 8 0
1881 Sep. 5	Enlargement of gasworks	2,200	15	2,200	1881	3 $\frac{1}{2}$	Repaid.
1883 May 29	Fireproof staircases, dormitories, &c. ... ..	2,500	15	2,500	1883	3 $\frac{1}{2}$	Repaid.
1884 Dec. 15	Drainage works ... ..	540	Part	360	1886	3 $\frac{1}{2}$	94 18 2
	Heating dormitories ... ..	180	15	180	1886	3 $\frac{1}{2}$	47 8 6
1885 July 3	Enlargement of laundry ...	565	and	565	1886	3 $\frac{1}{2}$	148 19 8
1885 Aug. 21	Heating blocks ... ..	748	part	747	1886	3 $\frac{1}{2}$	196 19 10
1886 Apr. 20	Day rooms and dormitories	1,130	30	1,130	1886	3 $\frac{1}{2}$	298 0 6
1887 Mar. 24	Water supply ... ..	500	10	500	1887	3 $\frac{1}{2}$	Repaid.
1891 Oct. 28	Recreation hall ... ..	5,844	30	5,844	1892	3 $\frac{1}{2}$	2,896 0 0
1900 July 11	Mortuary ... ..	710	30	710	1902	3 $\frac{1}{2}$	710 0 0
1900 Nov. 12	Water-softening apparatus	2,386	5	2,386	1901	3 $\frac{1}{2}$	1,908 0 0
1901 Jan. 10	Sanitary annexes and fittings ... ..	1,429	15	1,429	1902	3 $\frac{3}{8}$	1,429 0 0
1901 Jan. 14	Drainage and disposal of sewage ... ..	1,020	15	1,020	1902	3 $\frac{3}{8}$	1,020 0 0
1901 June 12	Alterations and additions to laundry ... ..	7,450	15	3,400	1902	3 $\frac{3}{8}$	3,400 0 0
			10	3,100	1902	3 $\frac{3}{8}$	3,100 0 0
1901 June 17	Isolation hospital ... ..	2,200	30	...	...	...	...
1902 Apr. 7	Sanitary annexes and fittings (additional) ...	520	15	...	...	...	...
1902 July 15	Cottages for officers ... ..	5,730	30	...	...	...	...
1902 Aug. 20	Hair-picking building and boot room ... ..	1,838	20	...	...	...	...
	Carried to Summary at end	£207,160	£	195,921	£	93,488 14 8	
<b>Caterham Asylum.</b>							
1868 Jan. 28	Purchase of land ... ..	6,000	60	6,000	1870	3 $\frac{7}{8}$	2,700 0 0
1868 June 22	Buildings, furniture, &c. ...	129,000	60	129,000	1870	3 $\frac{7}{8}$	58,050 0 0
1870 Jan. 21	Additional buildings, furniture, &c. ... ..	7,000	60	7,000	1870	3 $\frac{7}{8}$	3,150 0 0
1871 Feb. 20	Formation of roads ... ..	1,000	59	1,000	1871	3 $\frac{7}{8}$	457 0 0
1871 Mar. 25	Purchase of bedding ... ..	1,000	59	1,000	1871	3 $\frac{7}{8}$	456 0 0
1871 Oct. 4	Completing, fitting up, and furnishing ... ..	1,700	58	1,700	1872	3 $\frac{7}{8}$	747 0 0
1871 Nov. 8	Completing (further on account) ... ..	500	58	500	1872	3 $\frac{7}{8}$	223 0 0
1872 Mar. 21	Laundry machinery ... ..	700	58	303	1872	3 $\frac{7}{8}$	149 0 0
			57	397	1872	3 $\frac{7}{8}$	187 0 0
1872 Sep. 4	Recreation hall, &c. ... ..	13,000	57	13,000	1872	3 $\frac{7}{8}$	6,145 0 0
	Carried forward	£ 159,900	£	159,900	£	72,264 0 0	

VI.—Statement of Sanctions to Borrow, amount Borrowed, amount Outstanding, &c., at 4th October, 1902 (continued).

Date of Sanction.	Purpose.	Amount Sanctioned.	Period Sanctioned for.	Amount Borrowed.	Year Borrowed.	Rate per cent. of Interest payable.	Balance of Principal Outstanding 4th October, 1902.
	<b>Caterham Asylum</b> (continued).	£	Years.	£		£	£ s. d.
	Brought forward ...	159,900		159,900			72,264 0 0
1873 July 1	Additions ...	3,700	56	3,700	1874	3½	1,779 0 0
1875 Apr. 8	Additional buildings ...	16,000	55	16,000	1875	3½	7,883 0 0
1875 July 12	Additions ...	1,500	52	1,500	1876	3½	769 0 0
1877 Aug. 15	New boiler ...	1,000	15	1,000	1878	3½	Repaid.
1878 Apr. 18	Coal store, &c. ...	520	51	520	1878	3½	279 0 0
1881 Dec. 22	Purchase of additional land	6,643	59	6,600	1882	3½	4,360 0 0
1883 Mar. 20	Ditto ditto	2,080	28-58	2,080	1883	3½	1,396 9 6
1885 July 28	Additional warming appliances and fire-escape facilities ...	7,530	10-15	7,529	1886	3½	1,531 12 0
1896 Mar. 7	Reconstruction of drainage	8,700	15	7,450	1898	2¾	5,463 6 8
1896 Aug. 7	Isolation infirmary ...	5,147	30	4,800	1898	2¾	4,160 0 0
1897 Aug. 4	Attendants' home ...	5,790	30	5,790	1898	2¾	5,018 0 0
1900 Aug. 29	Alterations to laundry ...	4,311	20	4,311	1902	3¾	4,311 0 0
1901 Dec. 31	Ditto (additional) ...	1,160	20	...	...	...	...
1902 June 5	Additional sanitary annexes ...	2,800	15	...	...	...	...
1902 Aug. 25	Ditto staff accommodation ...	3,790	15	...	...	...	...
	Carried to Summary at end	£230,571	£	221,180		£	109,214 8 2
	<b>Darenth Asylum and Schools.</b>						
1875 May 12	Purchase of land ...	9,300	55	8,180	1875	3¾	3,983 0 0
1875 Aug. 13	Ditto ...	450	52	1,120	1876	3¾	572 0 0
1876 Mar. 25	School buildings ...	75,000	54	50,000	1876	3¾	215 0 0
1878 Apr. 4	Gasworks, &c. ...	14,500	52	14,000	1876	3¾	25,002 0 0
1878 June 24	Asylum buildings ...	52,500	20	11,000	1876	3¾	6,959 0 0
1878 Oct. 31	School buildings, &c. ...	13,824	15	14,500	1878	3¾	Repaid.
1879 Jan. 2	Asylum buildings ...	7,500	51	29,380	1878	3¾	Repaid.
1879 Mar. 10	Purchase of additional land	6,322	50	23,120	1879	3¾	15,526 0 0
1879 Aug. 20	Additional expenditure ...	22,650	50	4,430	1879	3¾	12,022 8 0
1879 Dec. 12	Furniture ...	9,000	49	228	1880	3¾	2,303 12 0
1880 Aug. 12	Additional works ...	3,500	20	2,800	1879	3¾	125 14 0
1880 Dec. 17	Infirmary ...	15,000	15	4,500	1879	3¾	Repaid.
1881 Nov. 10	Ditto ...	5,500	15	1,800	1879	4½	Repaid.
1882 Oct. 27	Cottages for officers ...	2,200	15	7,500	1879	3¾	Repaid.
1883 Feb. 21	Fitting up infirmaries ...	2,200	49	6,322	1880	3¾	3,900 0 0
1883 Mar. 16	Recreation hall ...	5,550	58	22,650	1880	4½	3,472 1 3
	Carried forward	£ 244,996	£	244,930		£	86,438 17 9

VI.—Statement of Sanctions to Borrow, amount Borrowed, amount Outstanding, &c., at 4th October, 1902 (continued).

Date of Sanction.	Purpose.	Amount Sanctioned.	Period Sanctioned for.	Amount Borrowed.	Year Borrowed.	Rate per cent. of Interest payable.	Balance of Principal Outstanding 4th October, 1902.
		£	Years.	£		£	£ s. d.
<b>Darenth Asylum and Schools (continued).</b>							
	Brought forward ...	244,996		244,930			86,438 17 9
1884 Apr. 9	Extension of gas and water works ...	5,783	30	4,500	1884	3½	1,800 0 0
			30	200	1884	3½	80 0 0
			15	600	1884	3½	Repaid.
1884 Oct. 16	Extension of water supply	530	5	483	1884	3½	Repaid.
1885 Dec. 16	Water softening ...	3,075	15	530	1885	3½	Repaid.
			10	2,698	1886	3½	Repaid.
1886 May 18	Extension of buildings ...	64,700	30	377	1886	3½	175 17 4
1886 Sep. 9			30	62,000	1886	3½	28,928 0 0
	Softening and increasing water supply ...	309	15	2,700	1886	3½	Repaid.
1887 Mar. 14	Ditto ditto	300	15	309	1887	3½	Repaid.
1888 July 2	Fitting up and furnishing additional buildings ...	4,500	15	300	1887	3½	Repaid.
1894 Aug. 14	Female staff recreation room, &c. ...	7,950	10	4,500	1889	3½	Repaid.
1895 May 15	Fire-escape staircases ...	695	20	7,950	1894	3½	4,770 0 0
1896 Apr. 23	Female staff recreation room, &c. ...	1,331	15	695	1896	2½	417 0 0
			20	1,330	1896	2½	931 0 0
	Carried to Summary at end	£334,169	£	334,102		£	123,540 15 1
<b>Tooting Bec Asylum.</b>							
1894 May 1	Purchase of site and premises ...	27,000	50	27,000	1894	3½	22,680 0 0
1900 Feb. 19	Buildings, fittings, &c. ...	229,090	30	75,000	1900	3½	70,000 0 0
				75,000	1900	3½	70,000 0 0
				50,000	1902	3½	50,000 0 0
				29,090	1902	3½	29,090 0 0
1901 July 20	Receiving home for children	18,100	15	...	...	...	...
1901 Sept. 28	Stable buildings ...	1,983	30	15,550	...	...	...
			15	...	...	...	...
	Carried to Summary at end	£291,723	£	256,090		£	241,770 0 0
<b>Clapton Asylum.</b>							
1875 July 12	Furnishing ...	2,500	20	2,500	1877	3½	Repaid.
	Carried to Summary at end	£2,500	£	2,500			...
<b>Brighton Road Schools, Sutton.</b> (Decided to be purchased.)							
1900 Jan. 20	Purchase of premises ...	103,692	25	...	...	...	...
	Carried to Summary at end	£103,692		...			...

## VI.—Statement of Sanctions to Borrow, amount Borrowed, amount Outstanding, &amp;c., at 4th October, 1902 (continued).

Date of Sanction.	Purpose.	Amount Sanctioned.	Period Sanctioned for.	Amount Borrowed.	Year Borrowed.	Rate per cent. of Interest payable.	Balance of Principal Outstanding 4th October, 1902.
<b>Eastern Hospital.</b>		£	Years.	£		£	£ s. d.
1868 Apr. 23	Purchase of land ... ..	12,500	60	12,500	1870	3 $\frac{7}{8}$	5,625 0 0
1869 June 16	Buildings, furniture, &c....	56,760	60	56,760	1870	3 $\frac{7}{8}$	25,542 0 0
1870 July 9	Ditto ditto ... ..	3,102	59	3,102	1871	3 $\frac{7}{8}$	1,422 10 0
1871 Apr. 5	Completion of erection, &c.	8,000	59	7,950	1871	4	3,662 0 0
			59	50	1871	3 $\frac{7}{8}$	18 0 0
1871 Dec. 2	Coal stores, &c. ... ..	1,570	58	1,570	1872	3 $\frac{7}{8}$	888 0 0
1875 May 13	Additions ... ..	7,005	52	7,005	1876	3 $\frac{3}{4}$	3,509 0 0
1878 Nov. 20	Mortuary ... ..	1,300	50	1,300	1879	3 $\frac{3}{4}$	676 0 0
1883 July 13	Purchase of land, &c. ...	17,090	58	17,090	1883	3 $\frac{1}{2}$	11,485 0 0
1884 July 23	Purchase of leasehold interest in 75, Brooksby Walk, Homerton ... ..	250	56	250	1885	3 $\frac{1}{2}$	173 17 1
1894 May 19	Heating four enteric wards	600	5	600	1894	3 $\frac{1}{2}$	Repaid.
1894 Aug. 4	Additional accommodation	13,150	30	13,150	1894	3 $\frac{1}{2}$	9,643 6 8
1896 May 4	Ditto ditto ... ..	1,650	20	1,227	1898	2 $\frac{7}{8}$	981 12 0
1898 Aug. 3	Workshops and isolation pavilion ... ..	2,925	25	2,852	1899	2 $\frac{3}{4}$	2,510 0 0
1902 Aug. 25	Additional fire exits ... ..	710	15	...	...	...	...
	Carried to Summary at end	£126,612	£	125,406		£	66,136 5 9
<b>North-Eastern Hospital.</b>							
1892 Aug. 11	Purchase of site ... ..	12,000	50	12,000	1893	3 $\frac{1}{2}$	9,840 0 0
1893 June 30	Purchase of additional land and premises ... ..	6,500	50	4,000	1893	3 $\frac{1}{2}$	3,280 0 0
			50	2,500	1893	3 $\frac{1}{2}$	2,050 0 0
1893 Nov. 1	Ditto ditto ... ..	6,000	50	6,000	1894	3 $\frac{1}{2}$	5,040 0 0
1894 Mar. 22	Purchase of leases of two cottages adjoining... ..	500	50	500	1894	3 $\frac{1}{2}$	420 0 0
1896 May 4	Boundary wall and fencing	2,821	25	2,820	1896	2 $\frac{3}{4}$	2,143 4 0
1897 May 21	Medical superintendent's house ... ..	2,304	30	2,155	1899	2 $\frac{3}{4}$	1,938 0 0
1898 Nov. 9	Constructing permanent hospital ... ..	126,850	15	13,200	1899	2 $\frac{3}{4}$	10,120 0 0
			30	50,225	1899	2 $\frac{3}{4}$	44,359 0 0
			30	63,425	1899	2 $\frac{3}{4}$	57,082 10 0
1899 Dec. 12	Erection of laundry ... ..	10,251	30	10,251	1901	3 $\frac{1}{2}$	9,909 0 10
1899 Dec. 12	Fittings for ditto, and construction of rain-water reservoir ... ..	4,550	15	4,550	1901	3 $\frac{1}{2}$	4,246 13 4
1902 June 25	Erection of laundry, &c. (additional) ... ..	523	15	521	1902	3 $\frac{3}{8}$	521 0 0
1902 Oct. 4	Furniture for additional buildings ... ..	3,000	5	...	...	...	...
	Carried to Summary at end	£175,299	£	172,147		£	150,949 8 2
<b>North-Western Hospital.</b>							
1868 Feb. 13	Purchase of land ... ..	16,000	60	16,000	1870	3 $\frac{7}{8}$	7,200 0 0
1868 Aug. 24	Boundary walls ... ..	1,606	60	1,606	1870	3 $\frac{7}{8}$	722 14 0
1870 Jan. 21	Buildings ... ..	8,000	60	6,654	1870	3 $\frac{7}{8}$	2,994 6 0
			59	1,346	1871	3 $\frac{7}{8}$	611 0 0
1871 Feb. 3	Additions to buildings ...	12,500	59	12,500	1871	3 $\frac{7}{8}$	5,728 0 0
1871 June 7	Medical superintendent's house ... ..	1,300	59	1,300	1871	3 $\frac{7}{8}$	596 0 0
	Carried forward	£ 39,406	£	39,406		£	17,852 0 0

VI.—Statement of Sanctions to Borrow, amount Borrowed, amount Outstanding, &c., at 4th October, 1902 (continued).

Date of Sanction.	Purpose.	Amount Sanctioned.	Period Sanctioned for.	Amount Borrowed.	Year Borrowed.	Rate per cent. of Interest payable.	Balance of Principal Outstanding 4th October, 1902.
		£	Years.	£		£	£ s. d.
	<b>North-Western Hospital (continued).</b>						
	Brought forward ...	39,406		39,406			17,852 0 0
1872 Mar. 6	Engineering works ...	700	58	700	1872	3½	300 0 0
1883 Dec. 22	Purchase of land and premises... ..	13,000	57	13,000	1884	3½	8,890 0 7
1884 June 23	Boundary wall ... ..	2,700	30	2,700	1885	3½	1,169 4 5
1884 Aug. 14	Enlargement of medical superintendent's house	350	30	320	1885	3½	138 11 11
1891 Dec. 23	Additional laundry accommodation... ..	2,650	15	2,650	1892	3½	883 6 8
1892 Oct. 6	Administrative block of buildings... ..	30,050	30	25,550	1893	3½	17,885 0 0
			15	4,500	1893	3½	1,800 0 0
1894 Apr. 6	Reconstruction of patients' laundry and erection of disinfecting house... ..	1,133	15	1,130	1894	3½	527 6 8
1895 May 15	Additional ward pavilions	54,805	30	54,805	1895	2½	41,040 13 4
1895 June 10	Mains and wires for electric lighting ... ..	2,000	10	2,000	1896	2½	800 0 0
1895 July 31	Administrative block (additional expenditure) ...	10,000	25	10,000	1896	2½	7,600 0 0
1896 Mar. 27	Workshops ... ..	627	20	572	1896	2½	400 8 0
1897 Feb. 23	Additional staff accommodation ... ..	9,926	30	9,900	1898	2½	8,580 0 0
1897 Dec. 30	Gate-porter's lodge ... ..	554	30	550	1898	2½	476 13 4
1900 July 31	Mains and wires for electric lighting (additional) ...	1,280	10	...	...	...	...
	Carried to Summary at end	£169,181	£	167,783		£	108,343 4 11
	<b>Western Hospital.</b>						
1871 May 4	Purchase of site... ..	12,000	59	12,000	1871	3½	5,501 0 0
1872 Mar. 27	Boundary walls ... ..	2,000	58	2,000	1872	3½	923 0 0
1876 May 11	Provision of administrative accommodation ... ..	10,000	52	925	1876	3½	456 0 0
			52	9,075	1877	3½	4,546 0 0
			52	15,925	1877	3½	7,960 0 0
1877 Jan. 11	Buildings and furniture ...	32,000	52	11,075	1877	3½	5,743 0 0
			20	5,000	1877	3½	Repaid.
1877 July 17	Boundary wall ... ..	600	51	600	1878	3½	312 0 0
1879 July 28	Alterations and additions	5,250	49	5,250	1880	3½	2,892 14 3
1883 June 7	Ditto ditto	2,250	30	2,250	1883	3½	825 0 0
1884 Feb. 9	Ditto ditto	850	30	380	1885	3½	164 10 6
1885 Jan. 30	Medical superintendent's house and other additions, &c. ... ..	13,580	15-30	4,300	1886	3½	1,677 7 6
1886 June 19	Alterations and additions	2,300	20	2,300	1886	3½	460 0 0
1891 Jan. 31	Further accommodation for staff ... ..	5,050	20	5,050	1891	3½	2,272 10 0
1891 July 22	Purchase of additional land	8,150	50	8,150	1892	3½	6,520 0 0
1892 May 26	Additional buildings ...	43,025	30	36,325	1892	3½	24,216 13 4
			15	6,700	1892	3½	2,233 6 8
1893 July 6	Additional staff accommodation ... ..	3,450	20	3,360	1894	3½	2,016 0 0
1894 Aug. 18	Purchase of land (additional) ... ..	10,000	50	10,000	1894	3½	8,400 0 0
	Carried forward	£ 150,505	£	140,665	£		77,119 2 3

VI.—Statement of Sanctions to Borrow, amount Borrowed, amount Outstanding, &c., at 4th October, 1902 (continued).

Date of Sanction.	Purpose.	Amount Sanctioned.	Period Sanctioned for.	Amount Borrowed.	Year Borrowed.	Rate per cent. of Interest payable.	Balance of Principal Outstanding 4th October, 1902.
<b>Western Hospital</b> (continued).		£	Years	£		£	£ s. d.
	Brought forward ...	150,505		140,665			77,119 2 3
1895 July 1	Alterations and additions	8,490	25	8,490	1896	2 $\frac{7}{8}$	6,452 8 0
1895 Dec. 6	Additional buildings (further on account) ...	13,230	30	8,570	1896	2 $\frac{7}{8}$	6,856 0 0
			15	4,660	1896	2 $\frac{7}{8}$	2,796 0 0
1896 Oct. 26	Diphtheria isolation and staff blocks ...	53,858	30	(50,000	1897	2 $\frac{3}{4}$	41,666 13 4
				1,350	1901	3 $\frac{1}{2}$	1,305 0 0
1897 Feb. 3	Additional b'ldngs (bal'nce)	1,074	30	1,073	1897	2 $\frac{3}{4}$	894 3 4
1897 May 6	Tar-paving & fencing work	2,322	5	2,103	1899	2 $\frac{3}{4}$	840 0 0
1897 Dec. 27	Engineering works, &c. ...	5,663	15	5,600	1898	2 $\frac{3}{4}$	4,106 13 4
1900 Jan. 18	Furniture for new buildings	2,929	5	...	..	...	...
	Carried to Summary at end	£238,071	£	222,511		£	142,036 0 3
<b>South-Western Hospital.</b>							
1868 July 13	Purchase of land ...	15,000	60	15,000	1870	3 $\frac{7}{8}$	6,750 0 0
1868 Aug. 10	Ditto ...	500	60	500	1870	3 $\frac{7}{8}$	225 0 0
1869 June 5	Buildings, fitting up, &c.	65,380	60	65,380	1870	3 $\frac{7}{8}$	29,421 0 0
1870 July 9	Ditto ditto	3,102	59	3,102	1871	3 $\frac{7}{8}$	1,422 10 0
1871 Apr. 5	Completion of erection, &c.	10,000	59	10,000	1871	4	4,560 0 0
1871 July 13	Purchase of tents ...	1,600	59	1,600	1871	3 $\frac{7}{8}$	736 0 0
1878 Aug. 8	Alterations and additions	1,550	50	1,550	1879	3 $\frac{3}{4}$	806 0 0
1879 Feb. 12	Provision of water tanks...	400	49	400	1880	3 $\frac{3}{4}$	220 8 6
1879 June 17	Pavilion for typhus fever...	6,000	49	6,000	1880	3 $\frac{3}{4}$	3,306 2 0
1881 Jan. 5	Additional accommodation	700	15	700	1881	4 $\frac{1}{2}$	Repaid.
1884 Jan. 29	Purchase of adjoining land	1,300	57	1,300	1884	3 $\frac{1}{2}$	889 0 9
1884 May 3	Entrance gates, &c. ...	2,000	15	365	1885	3 $\frac{1}{2}$	...
			30	1,540	1885	3 $\frac{1}{2}$	666 18 2
1892 Nov. 7	Additional staff accommodation ...	6,420	20	6,420	1893	3 $\frac{1}{2}$	3,531 0 0
1894 Dec. 29	Alterations and additions	26,976	30	26,976	1895	2 $\frac{3}{8}$	18,727 4 0
1896 June 19	Ditto ditto	5,230	20	5,230	1897	2 $\frac{3}{8}$	3,922 10 0
1896 Sep. 7	Ditto ditto	792	20	792	1899	2 $\frac{3}{8}$	673 4 0
1897 Dec. 27	Pavilion and reconstruction of drains ...	17,081	25	17,000	1898	2 $\frac{3}{8}$	14,280 0 0
1899 Jan. 16	Alterations and additions	2,351	20	2,351	1899	2 $\frac{3}{8}$	1,995 16 0
1902 July 7	Additional fire exits ...	570	5	...			...
	Carried to Summary at end	£166,952	£	166,206		£	92,132 13 5
<b>Fountain Hospital.</b>							
1893 Aug. 11	Purchase of site ...	10,500	50	10,500	1894	3 $\frac{1}{2}$	8,820 0 0
1893 Oct. 30	Purchase of land ...	1,550	50	1,506	1894	3 $\frac{1}{2}$	1,260 0 0
1895 July 19	Temporary hospital and provision of fittings ...	128,818	5	128,347	1895	2 $\frac{7}{8}$	Repaid.
	Carried to Summary at end	£140,868	£	140,353		£	10,080 0 0

VI.—Statement of Sanctions to Borrow, amount Borrowed, amount Outstanding, &c., at 4th October, 1902 (continued).

Date of Sanction.	Purpose.	Amount Sanctioned.	Period Sanctioned for.	Amount Borrowed.	Year Borrowed.	Rate per cent. of Interest payable.	Balance of Principal Outstanding 4th October, 1902.
<b>Grove Hospital.</b>		£	Years.	£		£	£ s. d.
1896 Oct. 7	Erection, fitting up, and furnishing ... ..	255,116	30	100,000	1897	2 $\frac{3}{4}$	83,333 6 8
			30	100,000	1897	2 $\frac{3}{4}$	83,333 6 8
			15	50,000	1897	2 $\frac{3}{4}$	33,333 6 8
			30	5,116	1901	3 $\frac{1}{2}$	4,945 9 4
	Carried to Summary at end	£255,116	£	255,116		£	204,945 9 4
<b>South-Eastern Hospital.</b>							
1872 May 10	Purchase of site... ..	10,400	57	10,400	1872	3 $\frac{1}{2}$	4,927 0 0
1873 Aug. 25	Boundary walls and gates	1,100	56	1,100	1874	3 $\frac{1}{2}$	546 0 0
1876 May 11	Administrative accommodation ... ..	10,000	52	10,000	1877	3 $\frac{1}{2}$	5,002 0 0
1877 Jan. 11	Buildings and furniture ...	39,000	52	15,000	1877	3 $\frac{1}{2}$	7,478 0 0
			20	5,000	1877	3 $\frac{1}{2}$	9,863 0 0
1878 Oct. 10	Alterations and additions	4,800	50	4,800	1879	3 $\frac{1}{2}$	2,496 0 0
1883 June 18	Purchase of additional land	2,200	58	2,200	1883	3 $\frac{1}{2}$	1,478 0 0
1884 May 14	Alterations and additions for separation of cases ...	13,100	15	2,270	1885	3 $\frac{1}{2}$	Repaid.
			30	10,830	1885	3 $\frac{1}{2}$	4,690 0 6
1893 Nov. 7	Additional staff accommodation ... ..	14,200	30	14,200	1894	3 $\frac{1}{2}$	10,413 6 8
1894 Mar. 15	Laundry buildings, machinery, and fittings ...	8,950	20	8,950	1894	3 $\frac{1}{2}$	5,370 0 0
1895 Dec. 17	Laundry buildings (additional expenditure) ...	1,772	20	1,772	1896	2 $\frac{3}{4}$	1,240 8 0
1896 Mar. 31	Additional pavilions and workshops ... ..	21,350	30	21,350	1896	2 $\frac{3}{4}$	17,080 0 0
1898 Nov. 30	Improvement of heating arrangements ... ..	8,832	15	8,832	1899	2 $\frac{3}{4}$	7,062 0 0
1902 May 23	Ditto (additional) ... ..	3,281	15	3,280	1902	3 $\frac{1}{2}$	3,280 0 0
	Carried to Summary at end	£138,985	£	138,984		£	80,925 15 2
<b>Park Hospital.</b>							
1893 June 29	Purchase of site... ..	22,500	50	22,500	1893	3 $\frac{1}{2}$	18,450 0 0
1896 Feb. 29	Erection, fitting up, and furnishing ... ..	251,939	30	100,000	1896	2 $\frac{3}{4}$	80,000 0 0
			30	100,000	1896	2 $\frac{3}{4}$	80,000 0 0
			15	46,000	1896	2 $\frac{3}{4}$	27,600 0 0
			30	5,939	1901	3 $\frac{1}{2}$	5,740 18 8
	Carried to Summary at end	£274,439	£	274,439		£	211,790 18 8
<b>Brook Hospital.</b>							
1894 Jan. 18	Purchase of site ... ..	16,200	50	16,095	1894	3 $\frac{1}{2}$	13,519 16 0
1894 Aug. 16	Erection of hospital ... ..	200,000	30	100,000	1894	3 $\frac{1}{2}$	73,333 6 8
			30	75,000	1895	3 $\frac{1}{2}$	57,500 0 0
			15	25,000	1895	3 $\frac{1}{2}$	13,333 6 8
1898 Dec. 2	Erection of hospital and fitting up, &c. ... ..	101,456	15	14,456	1899	2 $\frac{3}{4}$	11,082 0 0
			30	87,000	1899	2 $\frac{3}{4}$	76,850 0 0
	Carried to Summary at end	£317,656	£	317,551		£	245,618 9 4



VI.—Statement of Sanctions to Borrow, amount Borrowed, amount Outstanding, &c., at 4th October, 1902 (continued).

Date of Sanction.	Purpose.	Amount Sanctioned.	Period Sanctioned for.	Amount Borrowed.	Year Borrowed.	Rate per cent. of Interest payable.	Balance of Principal Outstanding 4th October, 1902.
<b>Northern Hospital.</b>		£	Years.	£		£	£ s. d.
1884 Jan. 25	Purchase of land ... ..	13,870	57	13,580	1884	3½	9,286 12 1
1884 Apr. 21	Fencing part of site ... ..	1,146	15	1,146	1884	3½	Repaid.
1884 Sep. 12	Entrance gates ... ..	2,300	30	2,075	1885	3½	898 12 0
1884 Nov. 19	Erection of hospital ... ..	84,500	30	71,347	1885	3½	30,914 0 0
			10	11,150	1885	3½	Repaid.
1884 Nov. 19	Roads ... ..	3,360	5	880	1885	3½	Repaid.
			5	3,000	1885	3½	Repaid.
1885 Dec. 7	Drainage works ... ..	1,503	30	1,503	1886	3½	701 1 4
1886 July 10	Laying out grounds, &c. ...	3,580	10	3,580	1886	3½	Repaid.
1886 Nov. 18	Erection of hospital ... ..	1,831	10	1,830	1887	3½	Repaid.
1889 Mar. 23	Additional pavilions and other works, &c. ... ..	11,500	30	9,900	1889	3½	5,610 0 0
			15	500	1889	3½	66 13 4
1892 Aug. 24	Extension of administrative buildings ...	10,855	30	10,855	1893	3½	7,598 10 0
1893 Nov. 3	Medical superintendent's house ... ..	1,775	30	1,770	1894	3½	1,298 0 0
1894 June 30	Extension of additional administrative buildings ...	1,655	30	1,650	1894	3½	1,210 0 0
1894 Dec. 6	Double pavilion and alteration to laundries ...	22,350	30	22,350	1895	2½	16,860 16 8
1896 July 31	Ditto ditto (additional expenditure) ... ..	1,891	25	1,890	1896	2¾	1,436 8 0
1896 Nov. 30	Isolation block ... ..	3,200	30	3,200	1898	2¾	2,773 6 8
1898 Mar. 5	Nurses' home, &c. ... ..	19,500	30	18,000	1898	2¾	15,600 0 0
1899 June 16	Electric lighting plant ...	11,832	10	11,000	1899	2¾	7,700 0 0
				832	1901	3½	748 12 3
1901 Feb. 21	Furniture for nurses' home	1,000	5	1,000	1901	3½	800 0 0
Carried to Summary at end		£197,648	£	193,038		£	103,502 12 4
<b>Southern Hospital.</b> (In course of erection.)							
1897 Mar. 27	Purchase of site at Carshalton ... ..	14,430	50	14,273	1897	2¾	12,845 2 6
1899 Feb. 8	Redemption of tithe rent charge ... ..	922	25	922	1899	2¾	811 7 6
1901 Dec. 5	Buildings, fittings, &c. ...	284,312	30	25,000	1902	3¾	25,000 0 0
Carried to Summary at end		£299,664	£	40,195		£	38,656 10 0
<b>Gore Farm Hospital (Upper).</b>							
1883 June 22	Purchase of site ... ..	13,175	58	13,175	1883	3½	8,862 0 0
1883 Oct. 25	Purchase of additional land	125	57	125	1883	3½	85 9 6
1884 Apr. 23	Boundary walls ... ..	1,148	30	1,148	1884	3½	459 4 0
1884 May 2	Ditto ... ..	332	30	332	1884	3½	132 16 0
1884 June 19	Purchase of additional land and premises ... ..	2,500	57	2,500	1884	3½	1,706 4 9
1884 July 10	Purchase of additional land	1,100	57	1,100	1884	3½	750 15 3
Carried forward		£ 18,380	£	18,380		£	11,996 9 6

VI.—Statement of Sanctions to Borrow, amount Borrowed, amount Outstanding, &c., at 4th October, 1902 (continued).

Date of Sanction.	Purpose.	Amount Sanctioned.	Period Sanctioned for.	Amount Borrowed.	Year Borrowed.	Rate per cent. of Interest payable.	Balance of Principal Outstanding 4th October, 1902.
	<b>Gore Farm Hospital, Upper</b> (continued).	£	Years.	£		£	£ s. d.
	Brought forward ...	18,380		18,380			11,996 9 6
1888 Apr. 19	Convalescent smallpox hospital ...	63,392	20	50,000	1888	3½	15,000 0 0
1893 Nov. 17	Additional accommodation	30,507	20	8,392	1889	3½	2,937 4 0
1896 June 22	Staff blocks, laundry, &c.	32,120	30	30,500	1894	3½	22,366 13 4
1897 Dec. 27	Enlargement of rain-water reservoir ...	1,655	25	32,120	1897	2¾	25,696 0 0
		1,655	20	1,596	1898	2¾	1,276 16 0
1902 Feb. 14	Additional buildings ...	39,500	10	24,000	1902	3¾	24,000 0 0
				15,500	1902	3¾	15,500 0 0
	Carried to Summary at end	£185,554	£	180,488		£	118,773 2 10
	<b>Gore Farm Hospital (Lower).</b>						
1902 Feb. 14	Buildings, fittings, &c. ...	134,500	10	134,500	1902	3¾	134,500 0 0
	Carried to Summary at end	£134,500	£	134,500		£	134,500 0 0
	<b>Hospital Ships.</b>						
1881 Nov. 10	Fitting up and furnishing "Atlas" & "Endymion"	11,000	5	11,000	1881	3½	Repaid.
1883 June 15	Purchase of "Castalia" ...	5,500	15	5,500	1883	3½	Repaid.
1883 Aug. 16	Purchase of land ...	1,000	57	1,000	1883	3½	684 3 6
1883 Sep. 25	Alterations to "Castalia"	12,000	10	12,000	1883	3½	Repaid.
1883 Dec. 11	Administrative buildings	8,800	30	4,000	1884	3½	1,600 0 0
	Construction of pier ...		30	4,800	1884	3½	1,920 0 0
1883 Dec. 28	Land for roadway, &c. ...	500	57	500	1884	3½	341 18 4
1884 Feb. 18	Machinery and fittings at administrative buildings	1,800	15	1,800	1884	3½	Repaid.
1884 Feb. 29	"Castalia" — ventilating, heating, and mooring ...	7,025	10	7,024	1885	3½	Repaid.
1884 May 27	Construction of gangway to connect "Castalia" and "Endymion" ...	1,800	10	951	1885	3½	Repaid.
1884 June 23	Additional administrative buildings ...		15	258	1885	3½	Repaid.
	Fences ...	1,108	15	542	1885	3½	Repaid.
	Additional administrative buildings ...		30	250	1885	3½	108 5 3
1884 Oct. 1	Construction of roadway ...	2,025	30	1,975	1885	3½	855 5 4
1884 Oct. 16	Additional expenditure, alterations to "Castalia"	1,630	10	1,630	1886	3½	Repaid.
1885 June 13	Purchase of "Atlas" ...		20	8,400	1885	3½	1,260 0 0
	Purchase of "Endymion" ...	14,900	20	6,500	1885	3½	975 0 0
1885 July 27	Additional administrative buildings ...	6,800	30	6,528	1886	3½	2,546 8 6
	Carried to Summary at end	£75,888	£	74,658		£	10,291 0 11

VI.—Statement of Sanctions to Borrow, amount Borrowed, amount Outstanding, &c., at 4th October, 1902 (continued).

Date of Sanction.	Purpose.	Amount Sanctioned.	Period Sanctioned for.	Amount Borrowed.	Year Borrowed.	Rate per cent. of Interest payable.	Balance of Principal Outstanding 4th October, 1902.
		£	Years.	£			£ s. d.
<b>Long Reach Hospital.</b>							
1902 Feb. 14	Buildings, fittings, &c. ...	57,000	10	57,000	1902	3½	57,000 0 0
	Carried to Summary at end	£57,000	£	57,000		£	57,000 0 0
<b>Orchard Hospital.</b>							
1902 Feb. 14	Buildings, fittings, &c. ...	69,000	10	69,000	1902	3½	69,000 0 0
	Carried to Summary at end	£69,000	£	69,000		£	69,000 0 0
<b>Joyce Green Hospital.</b> (In course of erection.)							
1894 Aug. 23	Purchase of site ... ..	22,500	50	22,350	1894	3½	18,774 0 0
1896 July 25	Construction of tramway...	5,250	20	5,200	1898	2½	4,160 0 0
1896 Nov. 9	Boundary fence ... ..	1,450	20	1,450	1898	2½	1,160 0 0
1899 Feb. 8	Redemption of tithe-rent charges ... ..	3,175	25	2,945	1899	2½	2,587 12 6
	Redemption of land tax ...		30	230	1899	2½	207 0 0
1899 Aug. 31	Purchase of additional land	1,440	50	1,440	1901	3½	1,411 4 0
1900 Apr. 30	Buildings, fittings, &c. ...	246,000	30	100,000	1901	3½	96,666 13 4
				75,000	1902	3½	75,000 0 0
1902 Jan. 13	Buildings (additional) ...	11,100	15	71,000	1902	3½	71,000 0 0
	Carried to Summary at end	£370,383	£	300,615		£	291,966 9 10
<b>Eastern Ambulance Station.</b>							
1895 Sep. 11	Nurses' quarters, &c. ...	2,645	30	2,645	1896	2½	2,116 0 0
	Carried to Summary at end	£2,645	£	2,645		£	2,116 0 0
<b>North-Western Ambulance Station.</b>							
1895 June 28	Purchase of part of site ...	925	30	925	1896	2½	740 0 0
1896 May 30	Purchase of remainder of site ... ..	3,907	30	3,907	1896	2½	3,125 12 0
1896 June 13	Erection of station ... ..	15,422	30	15,422	1896	2½	12,337 12 0
	Carried to Summary at end	£20,254	£	20,254		£	16,203 4 0

VI.—Statement of Sanctions to Borrow, amount Borrowed, amount Outstanding, &c., at 4th October, 1902 (*continued*).

Date of Sanction.	Purpose.	Amount Sanctioned.	Period Sanctioned for.	Amount Borrowed.	Year Borrowed.	Rate per cent. of Interest payable.	Balance of Principal Outstanding 4th October, 1902.
		£	Years.	£		£	£ s. d.
<b>Western Ambulance Station.</b>							
1892 Mar. 30	Reconstruction and enlargement of station ...	3,800	20	3,800	1892	3½	1,900 0 0
	Carried to Summary at end	£3,800	£	3,800		£	1,900 0 0
<b>South-Western Ambulance Station.</b>							
1895 Sep. 30	Purchase of lease of site ...	2,000	50	2,000	1896	2¾	1,760 0 0
1897 Feb. 3	Erection of station ...	14,314	30	14,000	1897	2¾	11,666 13 4
	Carried to Summary at end	£16,314	£	16,000		£	13,426 13 4
<b>Brook Ambulance Station.</b>							
1894 Nov. 27	Erection of station ...	16,600	30	16,600	1896	2¾	13,280 0 0
	Carried to Summary at end	£16,600	£	16,600		£	13,280 0 0
<b>South Wharf.</b>							
1883 Nov. 21	Purchase of wharf ...	13,000	57	13,000	1883	3½	8,891 7 0
1884 Jan. 21	Construction of pier ...	4,400	30	4,400	1884	3½	1,760 0 0
1893 Aug. 29	Shelters for patients ...	1,737	5	1,737	1894	3½	Repaid.
1894 June 8	Ditto ...	271	5	263	1894	3½	Repaid.
1895 Aug. 22	Staff quarters ...	8,181	30	8,181	1896	2¾	6,544 16 0
1898 Mar. 26	Smallpox shelter ...	919	5	875	1899	2¾	350 0 0
1901 Mar. 1	Male staff quarters ...	7,331	30	3,807	1901	3½	3,680 0 6
				3,524	1902	3¾	3,524 0 0
	Carried to Summary at end	£35,839	£	35,787		£	24,750 3 6
<b>North Wharf.</b>							
1884 Jan. 21	Purchase of wharf ...	6,500	57	3,500	1884	3½	2,393 8 3
	Construction of pier ...		30	3,000	1884	3½	1,200 0 0
1884 Aug. 28	Construction of roadway ...	410	15	60	1885	3½	Repaid.
			30	350	1885	3½	151 11 11
1885 June 26	Fencing, paving, &c. ...	515	10-15	515	1886	3½	188 9 6
1885 July 2	Piermaster's house and other buildings ...	1,340	30	1,340	1886	3½	490 10 6
	Carried to Summary at end	£8,765	£	8,765		£	4,424 0 2

VI.—Statement of Sanctions to Borrow, amount Borrowed, amount Outstanding, &c., at 4th October, 1902 (continued).

Date of Sanction.	Purpose.	Amount Sanctioned.	Period Sanctioned for.	Amount Borrowed.	Year Borrowed.	Rate per cent. of Interest payable.	Balance of Principal Outstanding 4th October, 1902.
<b>West Wharf.</b>							
		£	Years.	£		£	£ s. d.
1884 Apr. 26	Purchase of wharf ... ..	4,500	56	4,500	1885	3½	3,129 13 2
1884 Nov. 14	Ditto ... ..	1,000	56	1,000	1885	3½	695 9 9
1885 Aug. 24	Construction of pier ... ..	2,500	30	2,500	1886	3½	1,166 13 4
1885 Dec. 16	Construction of river walling and other works	6,207	30	5,947	1886	3½	2,774 1 4
			10	260	1886	3½	Repaid.
	Carried to Summary at end	£14,207	£	14,207		£	7,765 17 7
<b>River Ambulance Steamers.</b>							
1883 June 22	“Red Cross”—Construction, fitting up, &c. ...	4,630	15	4,630	1883	3½	Repaid.
1884 Mar. 22	“Maltese Cross”—Construction, fitting up, &c. ...	5,500	10	5,500	1885	3½	Repaid.
1884 May 27	“Albert Victor”—Purchase money ... ..	3,150	10	3,150	1885	3½	Repaid.
1884 June 16	“Maltese Cross”—Fitting up, &c. (balance) ... ..	360	10	360	1885	3½	Repaid.
1884 Sep. 1	“Marguerite”—Purchase money ... ..	1,075	10	1,075	1885	3½	Repaid.
1894 Mar. 12	“Geneva Cross”—Construction, fitting up, &c. ...	9,750	15	9,750	1894	3½	4,550 0 0
1895 Feb. 12		1,230	15	1,230	1896	2½	738 0 0
1896 Sep. 8	“White Cross”—Construction, fitting up, &c. ...	2,042	15	2,042	1897	2¾	939 15 10
	Carried to Summary at end	£27,737	£	27,737		£	6,227 15 10
<b>Training Ship “Exmouth.”</b>							
1876 July 13	Fitting up ship ... ..	16,000	20	14,000	1876	3¾	Repaid.
			20	2,000	1877	3¾	Repaid.
1876 Dec. 6	Purchase of brigantine ...	2,000	20	2,000	1877	3¾	Repaid.
1877 July 17	Fitting up ship (additional) ...	4,000	15	3,000	1878	3¾	Repaid.
			51	1,000	1878	3¾	542 0 0
1884 June 24	Construction of swimming bath and boat-house ...	2,700	15	2,700	1886	3½	Repaid.
1885 July 1	Installation of electric light	1,664	10	1,664	1886	3½	Repaid.
1886 Apr. 14	Construction of swimming bath, &c. ... ..	729	10	729	1886	3½	Repaid.
1897 Feb. 22	Purchase of Sheffield House and grounds at Grays ...	2,870	30	2,770	1897	2¾	2,308 6 8
1901 Apr. 25	Purchase of lease of Shipping Home, 24, Stanley Road... ..	515	10	515	1901	3½	463 7 9
	Carried to Summary at end	£30,478	£	30,378		£	3,313 14 5
<b>High Wood School.</b> (In course of erection.)							
1898 Jan. 20	Purchase of site... ..	2,350	50	2,300	1898	2¾	2,116 0 0
1900 Feb. 17	Buildings, furniture, &c. ...	100,820	30	25,000	1901	3½	24,166 13 4
		20,000	15	25,000	1902	3¾	25,000 0 0
	Carried to Summary at end	£123,170	£	52,300		£	51,282 13 4

VI.—Statement of Sanctions to Borrow, amount Borrowed, amount Outstanding, &c., at 4th October, 1902 (continued).

Date of Sanction.	Purpose.	Amount Sanctioned.	Period Sanctioned for.	Amount Borrowed.	Year Borrowed.	Rate per cent. of Interest payable.	Balance of Principal Outstanding 4th October, 1902.
	<b>White Oak School.</b> (In course of erection.)	£	Years.	£		£	£ s. d.
1898 May 19	Purchase of site... ..	5,125	50	5,050	1899	3½	4,747 0 0
1901 Mar. 23	Buildings ... ..	125,694	30 {	25,000	1901	3½	24,166 13 4
				25,000	1902	3½	25,000 0 0
	Carried to Summary at end	£130,819	£	55,050		£	53,913 13 4
	<b>Banstead Road School, Sutton.</b>						
1900 Jan. 20	Purchase of premises ...	88,261	25	88,200	1902	3½	88,200 0 0
1902 Aug. 4	Laundry and fittings ...	13,650	25	...	...	...	...
			15	...	...	...	...
	Carried to Summary at end	£101,911	£	88,200		£	88,200 0 0
	<b>Bridge School, Witham.</b>						
1900 Jan. 20	Purchase of premises ...	11,047	25	11,000	1901	3½	10,560 0 0
	Carried to Summary at end	£11,047	£	11,000		£	10,560 0 0
	<b>S. Anne's Home.</b>						
1897 Dec. 16	Purchase of home ... ..	17,100	25	16,000	1898	2¾	13,440 0 0
	Carried to Summary at end	£17,100	£	16,000		£	13,440 0 0
	<b>East Cliff House.</b>						
1898 Apr. 16	Purchase of home ... ..	9,450	30	8,300	1898	2¾	7,193 6 8
1900 July 28	Extension of premises ...	9,020	30	9,020	1901	3½	8,719 6 8
	Carried to Summary at end	£18,470	£	17,320			15,912 13 4
	<b>Millfield Home.</b> (In course of erection.)						
1899 Aug. 31	Purchase of site... ..	850	50	850	1901	3½	833 0 0
1901 Feb. 23	Buildings ... ..	20,500	30	10,000	1902	3½	10,000 0 0
	Carried to Summary at end	£21,350	£	10,850		£	10,833 0 0
	<b>Lloyd House.</b>						
1899 Aug. 31	Purchase of leasehold interest ... ..	650	12	...	...	...	...
	Carried to Summary at end	£650		...			...

VI.—Statement of Sanctions to Borrow, amount Borrowed, amount Outstanding, &c., at 4th October, 1902 (continued).

Date of Sanction.	Purpose.	Amount Sanctioned.	Period Sanctioned for.	Amount Borrowed.	Year Borrowed.	Rate per cent. of Interest payable.	Balance of Principal Outstanding 4th October, 1902.		
		£	Years.	£		£	£	s.	d.
1899 May 4	<b>Elm Grove.</b> Purchase of No. 16, Elm Grove, Peckham ... ..	1,050	40	1,000	1899	3	925	0	0
	Carried to Summary at end	£1,050	£	1,000		£	925	0	0
1900 Feb. 13	<b>Kingwood Road Home.</b> Purchase of Nos. 60, 62, and 64, Kingwood Road	1,480	35	...	...	...	...		
	Carried to Summary at end	£1,480		...			...		
1902 Jan. 7	<b>Earlsfield Road.</b> Purchase of freehold interest of No. 81 ... ..	690	40	...	...	...	...		
	Carried to Summary at end	£690		...			...		
1900 Mar. 19	<b>Pentonville Road.</b> Purchase of lease of Nos. 70, 72, and 74 ... ..	1,500	30	...	...	...	...		
1901 Dec. 21	Adaptation .. .. .	2,037	10	2,034	1902	3½	2,034	0	0
	Carried to Summary at end	£3,537	£	2,034		£	2,034	0	0
1901 Aug. 1	<b>Harrow Road.</b> Purchase of lease of Nos. 203 and 205 and occupier's interest ... ..	2,900	40	2,815	1902	3½	2,815	0	0
1902 Mar. 11	Adaptation ... .. .	960	10	900	1902	3½	900	0	0
	Carried to Summary at end	£3,860	£	3,715		£	3,715	0	0
1899 May 17	<b>Camberwell Green Houses.</b> Purchase of No. 37, Camberwell Green... ..	1,280	36	1,230	1899	3	1,127	10	0
1899 Sep. 26	Purchase of Nos. 36 and 38, Camberwell Green... ..	2,250	36	2,250	1899	3	2,062	10	0
1901 Dec. 21	Adaptation ... .. .	1,716	10	1,716	1902	3½	£1,716	0	0
	Carried to Summary at end	£5,246	£	5,196		£	4,906	0	0
1897 Aug. 24	<b>Office of the Board.</b> Purchase of site... .. .	53,250	50	53,000	1897	2¼	47,697	17	6
1898 Feb. 23	Construction of foundations	3,400	30	3,400	1898	2½	2,946	13	4
1898 Mar. 31	Buildings ... .. .	40,000	30	40,000	1898	2½	34,666	13	4
1901 Feb. 21	Redemption of land tax ...	700	50	700	1901	3½	686	0	0
1901 Apr. 27	Buildings ... .. .	11,000	30	11,000	1901	3½	10,633	6	8
	Carried to Summary at end	£108,350	£	108,100		£	96,630	10	10

VII.—Summary of Sanctions to Borrow, amount Borrowed, and amount Outstanding 4th October, 1902.

INSTITUTION.	Amount Sanctioned.	Amount Borrowed.	Balance of Principal Outstanding 4th Oct., 1902.		
	£	£	£	s.	d.
<b>Asylums—</b>					
Leavesden Asylum ... ..	207,160	195,921	93,488	14	8
Caterham Asylum ... ..	230,571	221,180	109,214	8	2
Darenth Asylum... ..	334,169	334,102	123,540	15	1
Tooting Bec Asylum ... ..	291,723	256,090	241,770	0	0
Clapton Asylum ... ..	2,500	2,500	...	...	...
Brighton Road Schools, Sutton ... ..	103,692	...	...	...	...
<b>TOTALS FOR ASYLUMS</b> ... ..	<b>1,169,815</b>	<b>1,009,793</b>	<b>568,013</b>	<b>17</b>	<b>11</b>
<b>Hospitals—</b>					
Eastern Hospital ... ..	126,612	125,406	66,136	5	9
North-Eastern Hospital ... ..	175,209	172,147	150,949	8	2
North-Western Hospital ... ..	169,181	167,783	108,343	4	11
Western Hospital ... ..	238,071	222,511	142,036	0	3
South-Western Hospital ... ..	166,952	166,206	92,132	13	5
Fountain Hospital ... ..	140,868	140,353	10,080	0	0
Grove Hospital ... ..	255,116	255,116	204,945	9	4
South-Eastern Hospital ... ..	138,985	138,984	80,925	15	2
Park Hospital ... ..	274,439	274,439	211,790	18	8
Brook Hospital ... ..	317,656	317,551	245,618	9	4
Northern Hospital ... ..	197,648	193,038	103,502	12	4
Southern Hospital ... ..	299,664	40,195	38,656	10	0
Gore Farm Hospital (Upper) ... ..	185,554	189,488	118,773	2	10
Do. (Lower) ... ..	134,500	134,500	134,500	0	0
Hospital Ships ... ..	75,888	74,658	10,291	0	11
Long Reach Hospital ... ..	57,000	57,000	57,000	0	0
Orchard Hospital ... ..	69,000	69,000	69,000	0	0
Joyce Green Hospital ... ..	376,383	300,615	291,966	9	10
<b>TOTALS FOR HOSPITALS</b> ... ..	<b>3,392,816</b>	<b>3,029,990</b>	<b>2,136,648</b>	<b>0</b>	<b>11</b>
<b>Land Ambulance Stations—</b>					
Eastern Station ... ..	2,645	2,645	2,116	0	0
North-Western Station... ..	20,254	20,254	16,203	4	0
Western Station ... ..	3,800	3,800	1,900	0	0
South-Western Station... ..	16,314	16,000	13,426	13	4
Brook Station ... ..	16,600	16,600	13,280	0	0
<b>TOTALS FOR LAND AMBULANCE SERVICE</b> ... ..	<b>59,613</b>	<b>59,299</b>	<b>46,925</b>	<b>17</b>	<b>4</b>
<b>River Ambulance Service—</b>					
South Wharf ... ..	35,839	35,787	24,750	3	6
North Wharf ... ..	8,765	8,765	4,424	0	2
West Wharf ... ..	14,207	14,207	7,765	17	7
Steamers ... ..	27,737	27,737	6,227	15	10
<b>TOTALS FOR RIVER AMBULANCE SERVICE</b> ... ..	<b>86,548</b>	<b>86,496</b>	<b>43,167</b>	<b>17</b>	<b>1</b>
<b>Training Ship "Exmouth"</b> ... ..	<b>30,478</b>	<b>30,378</b>	<b>3,313</b>	<b>14</b>	<b>5</b>
<b>Children's Homes—</b>					
High Wood School ... ..	123,170	52,300	51,282	13	4
White Oak School ... ..	130,819	55,050	53,913	13	4
Banstead Road School, Sutton ... ..	101,911	88,200	88,200	0	0
Bridge School, Witham ... ..	11,047	11,000	10,560	0	0
S. Anne's Home ... ..	17,100	16,000	13,440	0	0
East Cliff House ... ..	18,470	17,320	15,912	13	4
Millfield Home ... ..	21,350	10,850	10,833	0	0
Lloyd House ... ..	650	...	...	...	...
Elm Grove ... ..	1,050	1,000	925	0	0
Kingwood Road ... ..	1,480	...	...	...	...
Earlsfield Road ... ..	690	...	...	...	...
Pentonville Road ... ..	3,537	2,034	2,034	0	0
Harrow Road ... ..	3,860	3,715	3,715	0	0
Camberwell Green Houses ... ..	5,246	5,196	4,906	0	0
<b>TOTALS FOR CHILDREN'S HOMES</b> ... ..	<b>440,380</b>	<b>262,665</b>	<b>255,722</b>	<b>0</b>	<b>0</b>
<b>Office of the Board</b> ... ..	<b>108,350</b>	<b>108,100</b>	<b>96,630</b>	<b>10</b>	<b>10</b>
<b>GRAND TOTALS</b> ... ..	<b>£ 5,288,000</b>	<b>4,586,721</b>	<b>3,150,421</b>	<b>18</b>	<b>6</b>



## VIII.—Sanctions to Borrow not exercised 4th October, 1902.

	£	£
Total amount sanctioned to be borrowed, as per Summary...	5,288,000	
Less total amount borrowed	4,586,721	
	<u>701,279</u>	
Less Balances of sanctions to borrow not likely to be required	30,883	
	<u>670,396</u>	
Leaving unexercised and unexhausted sanctions to borrow as under :—		
		£
Leavesden Asylum ... ..	Additions and alterations to laundry...	680
Ditto ... ..	Isolation hospital ... ..	2,200
Ditto ... ..	Sanitary annexes ... ..	520
Ditto ... ..	Cottages for officers ... ..	5,730
Ditto ... ..	Hair-picking building and boot room...	1,838
Caterham Asylum ... ..	Alterations to laundry ... ..	1,160
Ditto ... ..	Additional sanitary annexes ... ..	2,800
Ditto ... ..	Additional staff accommodation ... ..	3,790
Tooting Bec Asylum ... ..	Buildings, &c. ... ..	18,100
Ditto ... ..	Receiving home for children ... ..	15,550
Ditto ... ..	Stable buildings ... ..	1,983
Brighton Road School, Sutton ... ..	Purchase of school ... ..	103,692
Eastern Hospital ... ..	Additional fire exits .. ..	710
North-Eastern Hospital ... ..	Furniture for additional buildings ... ..	3,000
North-Western Hospital ... ..	Electric light mains ... ..	1,280
Western Hospital ... ..	Furniture for new blocks ... ..	2,929
South-Western Hospital ... ..	Additional fire exits ... ..	570
Southern Hospital ... ..	Buildings, fittings, &c. ... ..	259,312
Joyce Green Hospital ... ..	Buildings, fittings, &c. ... ..	11,100
Ditto ... ..	Buildings, fittings, &c. ... ..	58,468
High Wood School ... ..	Buildings, fittings, &c. ... ..	70,820
White Oak School ... ..	Buildings, fittings, &c. ... ..	75,694
Banstead Road School ... ..	Laundry and fittings ... ..	13,650
Millfield Home ... ..	Buildings, &c. ... ..	10,500
Lloyd House ... ..	Purchase of leasehold interest ... ..	650
Kingwood Road Home ... ..	Purchase of premises ... ..	1,480
Earlsfield Road Home ... ..	Purchase of freehold interest ... ..	690
Pentonville Road Home ... ..	Purchase of leasehold interest ... ..	1,500
		<u>£670,396</u>

## IX.—Interest on Loans.

The average rate of interest per cent. per annum payable on the principal of loans outstanding 4th October, 1902, amounting to £3,150,422, is  $£3\frac{1}{4}$ , the following being the amount outstanding at the various rates payable :—

Amount Outstanding.	Rate per cent. per annum of Interest payable.
£	£
864,321	$2\frac{3}{4}$
190,908	$2\frac{7}{8}$
4,115	3
210,171	$3\frac{1}{8}$
4,747	$3\frac{1}{4}$
748,050	$3\frac{3}{8}$
720,532	$3\frac{1}{2}$
134,522	$3\frac{3}{4}$
245,718	$3\frac{7}{8}$
19,116	$3\frac{7}{10}$
8,222	4
<u>Total £3,150,422</u>	<u>Average rate £3<math>\frac{1}{4}</math></u>

## ANNUAL REPORT OF THE WORKS COMMITTEE FOR 1902.

*January, 1903.*

**Engineer's and Surveyor's departments.** On the 31st May last, the Managers endorsed our recommendation that the Engineer and the Surveyor should be placed under the general control and direction of the Works Committee, adopting at the same time a series of consequential recommendations enabling the central committees to obtain preliminary advice and professional assistance from the Engineer or Surveyor before determining the possibility, expediency, or necessity of any contemplated work or scheme, provided that such advice would not entail any large expenditure of the time of either of these officers or of their subordinates.

The action thus taken by the Managers will, we feel assured, place the work of both departments upon a more satisfactory basis than hitherto by concentrating its arrangement and control in the hands of one central and responsible committee.

During the past 12 months it has been found necessary to augment the staff of both the Engineer's and Surveyor's departments, the works under their supervision having accumulated so rapidly that the value of new works for which instructions had been received, or which were actually in hand at the end of the year, exceeded £100,000.

The ascertained value of the works and repairs which were carried out and completed under the supervision of the Engineer and Surveyor at the several institutions of the Board during 1902 amounted to about £62,000, exclusive of numerous minor works and repairs, the exact value of which it was impossible to ascertain, as they were executed by members of the institution staffs who had also other duties to attend to, but which involved the expenditure of a considerable amount of time on the part of both the Engineer and the Surveyor.

The Engineer has also been called upon, during the past 12 months, to furnish reports upon various engineering works to the value of £35,000 carried out by architects and consulting engineers.

We append lists (Appendices I. and II.) showing the principal works which were carried out by contract under the Engineer and Surveyor during 1902.

**Head Office.**  
(i.) Electric light installation. This installation, which is estimated to have cost originally £775, not having proved successful owing to the perishing of the insulation of the wires, it was found necessary to remove the wires from the conduits, and to re-wire the building on the surface where required, upon a specification prepared by the Engineer to the Board, at a total additional cost of £510 2s. 4d., including a sum of £65 for the renewal of fittings and flexible connections.

(ii.) Electric bell installation. It was also found necessary to renew the electric bell installation at the Head Office, at a total additional cost of £160 17s. 4d.

(iii.) Entrance gates, railings, &c. On the 22nd February last the Managers, in view of the then expected closing of the District Railway ventilator, approved of further amended plans of entrance gates, steps, external railings, &c., at the Head Office, at a cost of £470, and the works are now practically completed.

### IMBECILE ASYLUMS.

**Leavesden Asylum.**  
(i.) Laundry. Mr. Tonge's contract (£6,450) for certain necessary alterations and additions to this laundry was completed, and possession of the buildings handed over to the asylum authorities on the 4th October last.

(ii.) Attendants' home. On the 26th July last revised plans, prepared by Messrs. Newman & Newman, architects, for the erection of a home for female attendants at this asylum, at a total estimated cost of £8,500, were approved by the Managers, and on the 29th September following by the Local Government Board, but owing to the Asylums Committee having at the last moment decided to change the position of the home, some delay occurred before the architects could be instructed to proceed with the specification.

(iii.) Cottages for married attendants. Plans prepared by the Surveyor to the Board for the erection of 22 cottages for married attendants at this asylum have been approved by the Managers, and sanctioned by the Local Government Board.

(iv.) Isolation hospital. On the 15th November last the Board accepted the tender of Mr. George Wiggs, of Watford, for the erection of a new isolation hospital at this asylum, in accordance with plans prepared by the Surveyor to the Board, at the sum of £2,189.

**Darenth Asylum.**  
Attendants' home. On the 14th June last the Managers approved the revised plans for the erection of a home for female attendants at this asylum, at a total estimated cost (including architect's commission, quantity surveyor's charges, and other contingencies) of £8,947, and these plans subsequently received the sanction of the Local Government Board. The question of the erection of this home, however, remains in abeyance.

**Tooting Bec Asylum.**  
(i.) Main contract. The erection of this asylum was practically completed during the autumn of 1902, the administrative block being taken over on the 20th September last, and the remainder of the buildings on the 2nd October and the 14th November.

(ii.) Receiving home and ambulance station. Towards the close of the year (December 13th) the tender of Messrs. Cropley Bros., of Epsom, for the erection of a receiving home for children and an ambulance station in connection with the Tooting Bec Asylum was accepted at the sum of £12,599.

### INFECTIOUS HOSPITALS.

**Joyce Green Hospital.**  
(i.) Main and Subsidiary contracts. Messrs. Leslie & Co.'s main and subsidiary contracts for the erection of this hospital, which has been designed to contain accommodation for 940 patients in 22 pavilions of 40 beds each, with isolation accommodation for 60 patients, and is estimated to cost £336,568, are rapidly approaching completion. It is anticipated that the buildings comprised in the main contract will be ready for occupation at the end of the present month (January, 1903), whilst the remaining buildings will be handed over to the Board about Lady-day next.

(ii.) Crematorium. Reporting to the Board of the 8th May last on a proposal to provide a crematorium in the cemetery attached to the hospital, we pointed out that whilst we were in full sympathy with the proposal, we could not see our way to recommend the Managers to take any action in the matter in consequence of the strong objections held to cremation by certain influential religious denominations.

(iii.) Staff chapel. The provision of a chapel for the staff at the Joyce Green Hospital having been decided upon by the Managers, we submitted plans of a suitable building, at an estimated cost of £1,900, but as the Local Government Board declined to sanction the erection of this chapel, no further action has been taken in the matter.

Pier-head buildings at Long Reach. With the object of providing, in connection with the administration of the adjacent smallpox hospitals, adequate and separate accommodation for infected and uninfected persons and things, the Managers on the 15th November last approved of plans prepared by the Engineer to the Board for the erection of additional buildings at the pier-head at Long Reach, at an estimated cost of £2,755, and these plans are now awaiting the sanction of the Local Government Board.

**Gore Farm Hospital.**  
Roads. On the 6th September last the Board accepted the tender of the Road Maintenance & Stone Supply Co., Ltd., for the repair of certain of the internal roads at this hospital, in accordance with the plans and specification prepared by Mr. William Harston, Surveyor, of Dartford, at the sum of £4,544 2s. 1d., and on the 13th December last a tender of the same firm of contractors for the formation of airing courts and terraces, and the provision of storage for house coal, at the sum of £2,730 16s. 10d., was also accepted by the Board.

**Southern Hospital.** On the 26th July last, Messrs. W. Johnson & Co.'s tender at the sum of £176,050 was accepted for the erection of the Southern Hospital, which, when completed, will contain accommodation for 800 patients in 24 double cottages for 30 patients each, and 80 isolation beds. The amount of

the accepted tender does not include water supply, storage tanks, water mains and softening apparatus, hot water supplies, electric light installation, engine and laundry fittings, &c., all of which will form the subject of separate contracts, and the total value of which is estimated at about £35,000. Having regard to the prolonged correspondence and repeated discussions which took place between the Managers and the Local Government Board as to the financial and other aspects of providing the accommodation for patients at this hospital in one-storey pavilions rather than in two-storey buildings, it is satisfactory to be able to record that the anticipations of the Managers and of their architectural advisers, Messrs. Treadwell & Martin, have been fully borne out by results, the tender received being not only well within the estimate submitted to the Local Government Board for the builders' portion of the work, but more than £30,000 below the architects' revised estimate.

**North-Eastern Hospital.**  
Proposed ambulance station.

On the 22nd February last the Managers decided, on the recommendation of the Ambulance Committee, to erect an ambulance station at this hospital, but as the returns of smallpox did not show such an increased prevalence of the disease as had been anticipated, they subsequently came to the conclusion, after preliminary plans had been prepared, to take no further action in the matter.

**Fountain Hospital.**  
Staff and administrative accommodation.

Our attention having been directed by the Hospitals Committee to the inadequacy of the staff and administrative accommodation at this hospital and our advice sought thereon, the Managers appointed Messrs. T. W. Aldwinckle & Son, the architects of the hospital, to report fully upon the matter, and we hope shortly to submit plans for remedying the existing state of affairs.

**South-Eastern Hospital.**

On the 15th November last we submitted to the Managers plans prepared by Messrs. T. W. Aldwinckle & Son, and based mainly upon a scheme previously adopted by the Board on the recommendation of the Hospitals Committee, for the remodelling of the administrative block, the erection of new staff quarters, receiving rooms and isolation wards, and four new two-storey pavilions at this hospital, at an estimated cost of £76,000, exclusive of architects' commission, quantity surveyor's charges, and other contingencies. These plans (which not only provide for the more efficient administration of the hospital, but also for an increase of 104 beds for patients) are now awaiting the sanction of the Local Government Board.

### OPHTHALMIA SCHOOLS.

(i.) White Oak School.

The contract for the erection of this school at Swanley is rapidly approaching completion, and it is anticipated that the main portion of the buildings will be taken over from the contractor, Mr. Charles Wall, at the end of January, 1903.

The school buildings have been designed to accommodate 360 children (in 15 double cottages of 24 beds each), and are estimated to cost £125,694, exclusive of the site, which cost £5,125.

(ii.) High Wood School. The contract for the erection of this school at Brentwood is also rapidly approaching completion, and it is anticipated that the buildings will be handed over by the contractors, Messrs. McCormick & Sons, during the spring of 1903.

When excavating for the foundations of the laundry building on the site originally selected, it was found that, owing to the presence of water and quicksand, the soil was of so treacherous a nature as to be quite unsuitable for the purpose. Another site had therefore to be selected, and advantage was taken of the delay (1) to re-plan the building and to remodel the internal arrangements of the laundry so as to admit of the washing for the children and the officers being done by the same plant on different days, and (2) to provide a central coal store close to the laundry building at an additional cost of about £1,000. This extra cost was, however, to a large extent met by the subsequent acquisition of a second entrance close to the steam coal store, which will not only result in the saving of £400 or £500 on the original cost of the internal roads, but in a considerable annual saving on the upkeep of such roads.

The High Wood School will contain the same accommodation for patients and staff as the sister establishment at Swanley, and is estimated to cost £113,540 exclusive of the site, which cost £2,350.

#### SCHOOL FOR RINGWORM.

Banstead Road School, Sutton. The decision of the Managers to allocate these buildings (recently acquired from the South Metropolitan School District) for the purposes of a school for the treatment of children suffering from ringworm rendered it necessary, in order to adapt the buildings for this purpose, to erect and equip a new laundry and to carry out certain alterations and additions to the main buildings, at a total cost of £17,182 17s. 10d.

#### SEASIDE HOMES.

Millfield, Rustington. Water supply. Contrary to the anticipation of the Managers when they purchased the site, it has been found necessary for the Managers to provide their own water supply for these homes. This has necessitated the sinking of an artesian well, the strengthening of the walls of the sanitary tower in the main home, and the provision of a storage tank of 5,000 gallons capacity, at a total additional cost of £557 10s.

With the exception of the disposal of the sewage, a scheme for which has been approved by the Local Government Board, and is now awaiting the sanction of the Board of Trade, the contract for the erection of these homes is well advanced, and the buildings should be available for the reception of children during the spring of 1903.

East Cliff House. Verandah. The Managers having recently decided to add a verandah to the new building at this seaside home, we submitted a plan of this verandah to the Board, and it is now awaiting the sanction of the Local Government Board.

**AMBULANCE STATIONS.**

**Mead Ambulance Station.** On the 21st December, 1901, Messrs. T. W. Aldwinckle & Son, architects, received instructions to prepare plans for this new ambulance station. These plans were submitted to the Ambulance Committee on the 30th December, 1901, and approved by the Board on the 7th January, 1902. The works were commenced on the 9th January, 1902, and were completed, ready for occupation, on the 14th April, 1902. The works were executed by Messrs. F. & H. F. Higgs without contract, and both day and night gangs of workmen were employed.

This station comprises stabling for 24 horses, sheds for 18 ambulances, and homes for 21 nurses, 9 female servants, and 44 male attendants, drivers, &c., together with a large steam laundry capable of washing for other stations, superintendent's office and residence, workshops, and disinfecting apparatus and house.

The general construction of the buildings is of as permanent a character as possible, consistent with great rapidity of construction, and owing to the whole of the site upon which the station stands being of loose made ground, it has been necessary to place the several buildings upon cement concrete platforms in no case less than 2 feet 6 inches in thickness. This and the general levelling of the site which stood originally much above the level of the adjoining roadway, has added very considerably to the cost of the buildings, which amounted to £32,779 16s. 5d.

**North and South Wharves.** The emergency buildings erected at these wharves by Messrs. T. W. Aldwinckle & Son, at a cost of £12,001 2s. 1d., comprise receiving rooms, isolation wards, assistant medical officers' quarters female staff quarters (additional female staff change room), additions to male staff change room, disinfecting apparatus and house, two buildings for male staff, also sundry external works, including new roadways and drainage at the South Wharf; and two detention shelters, ward for doubtful cases, staff change room, and visitors' room at the North Wharf.

These buildings, with the exception of those for male staff at the South Wharf are all of the same construction and internal finish as those at the Mead Ambulance Station, the nature of the sub-soil being similar. They were erected by Messrs. Lawrence & Son in periods averaging nine weeks for each building.

**Further Appendices.** We submit the following further appendices:—(III.) List of contracts entered into by the Managers during the year 1902 for works to be carried out under the supervision of the Works Committee; and (IV.) statements showing total cost (as ascertained on completion) of the works carried out under our supervision and reported to the Board during the year 1902.

(Signed) J. T. HELBY,  
Chairman.

## APPENDIX I.

Works carried out by contractors, under the Engineer to the Board, during 1902:—

Institution.	Nature of Works.
1. Leavesden Asylum ... ..	Drainage contract—Engineering portion. Hair-picking and boot rooms—Building works. Do. do. —Engineering works.
2. Caterham Asylum ... ..	New laundry buildings and engineering plant. Installation of telephones. Additional appliances in kitchen.
3. Darenth Asylum... ..	Alterations in laundry. New pumping plant for gas works.
4. Tooting Bec Asylum... ..	New laundry machinery.
5. Rochester House ... ..	Heating and hot water supplies. Telephone installation. Adapting lavatory to scullery. Installation of electric bell system. Additional drying accommodation in laundry.
6. Eastern Hospital ... ..	Alterations to heating system. Additional cooking plant in kitchen.
7. North-Eastern Hospital ... ..	New auxiliary steam main to laundry.
8. North-Western Hospital ... ..	Installation of new fire alarm system. Rectification of drying appliances in laundry.
9. Western Hospital ... ..	Installation of mechanical stokers. Alterations to refuse destructor and repairs to laundry machinery.
10. South-Western Hospital ... ..	Installation of fire hydrants and alarms. Additional machinery in laundry. Rectification of connecting steam main between upper and lower boiler houses.
11. Fountain Hospital ... ..	Installation of plant for utilising waste heat from refuse destructor for heating water for laundry.
12. Grove Hospital ... ..	Ventilation and drainage of subways and fitting of screens to isolation blocks.
13. South-Eastern ... ..	Remodelling of fire alarm system. Alterations to steam coal bunkers.
14. Park Hospital ... ..	Rectification of deep well. Installation of hoisting gear for ditto.
15. Brook Hospital ... ..	Installation of mechanical stokers on steam boilers. Banding of boiler chimney stack.
16. Northern Hospital ... ..	Installation of new refuse destructor and house for same.
17. Gore Farm Hospital ... ..	Laying of new water and gas mains. Installation of pumping plant for water company's water.
18. Hospital Ships ... ..	New submarine cable between ship and shore. Rectification of steam boiler plant after fire. Alterations to disinfectant plant.



Institution.	Nature of Works.
19. Long Reach Hospital ...	Adaptation of trams for smallpox work. New fire engine and appliances. Ambulance wire haulage plant. Repairs to pier-head building. Complete telephone installation. New fire alarm system. Tram shed and sidings.
20. Orchard Hospital ... ..	Installation of fire hydrants.
21. Ambulance Stations ... ..	Various repairs to plant and installation of new machinery at the Mead Ambulance Station.
22. Training Ship "Exmouth"	Telephone to infirmary. Laying down of submarine cable between ship and shore.
23. Bridge School ... ..	Installation of tanks, pump, &c., for water supply. Renewing water mains.
24. S. Anne's Home ... ..	Alterations and additions to laundry.
25. Camberwell Green ... ..	Installation of disinfecting apparatus.
26. Harrow Road ... ..	Ditto ditto.
27. Pentonville Road ... ..	Ditto ditto.
28. Head Office ... ..	Rewiring of electric bell system. Do. do. light system.

## APPENDIX II.

Statement showing works completed under the supervision of the Surveyor to the Board during the year ended December 31st, 1902 :—

Institution.	Nature of Work.
Leavesden Asylum ... ..	Drainage work.
Caterham Asylum ... ..	*Painting.
Rochester House ... ..	Tar paving.
Eastern Hospital ... ..	*Repairs to boundary wall. Repairs to chimney stacks. Tar paving airing court.
North-Eastern Hospital ... ..	Roadmaking work.
North-Western Hospital ... ..	New floors to wards 3 and 9. Female staff bathroom. *Repairs to hut wards.
South-Western Hospital ... ..	New curbing, &c. Repairs to floor—Brewer Ward.
Fountain Hospital ... ..	Repairs to tar paving. " " roadway. Verandah to receiving room.
Grove Hospital ... ..	*Repairs to laundry floor and coal shoots. Visitors' room. Repairs to main chimney shaft. " " roads " " tar paving.
Park Hospital ... ..	Erection of engineer's cottage. Repairs to main chimney shaft. *Repairs to covered ways, &c. *New scullery floor and drains.
Brook Hospital ... ..	Roadmaking work and alteration to coal stove.
Brook Ambulance Station ... ..	Altering coachhouse into a stable.
Training Ship "Exmouth" ... ..	Alterations to infirmary. Laying out playing-field.
S. Anne's Home ... ..	Painting work. Sanitary "
Kingwood Road ... ..	Painting work.
Head Office ... ..	Painting rooms Nos. 12, 13, 14, 15. " in telephone room. New letter box. Cleaning glazed brickwork.
All Hospitals ... ..	*Painting work.

NOTE.—The greater part of the work at Banstead Road School was also completed last year. The total of the two contracts amounts to £6,083 17s. 10d.

\* Indicates temporary labour.

APPENDIX III.

Contracts entered into by the Managers during the year 1902 for works to be carried out under the supervision of the Works Committee:—

Institution.	Nature of Works.	Professional Advisers.	Contractors.	Dates of Contracts.	Amounts of Contracts.
					£ s. d.
Joyce Green Hospital	(i.) Additional boiler (fourth) ...	A. & C. Harston ...	Edwin Danks & Co., Ltd. ...	Jan. 23, 1902	910 0 0
South Wharf	(ii.) Laundry machinery and plant... Additional female staff accommoda- tion and new waiting room ...	Engineer to the Board	Entwistle & Gass, Ltd. ...	Sept. 15, "	7,652 2 0
White Oak School	Boundary fencing ...	T. W. Aldwinckle & Son	Walter Lawrence & Son	Mar. 12, "	1,357 0 0
	(i.) Extension of telephone sys- tem to, and provision of fire-alarm system at new buildings ...	Newman & Newman ...	Chas. Wall ...	Jan. 31, "	1,480 0 0
North-Eastern Hospital	(ii.) Extension of boundary wall ...	A. & C. Harston ...	Julius Sax & Co. ...	April 30, "	360 0 0
	(iii.) Entrance gates, weighbridge, foundation, and road paving	A. & C. Harston ...	Cone & Smith ...	May 15, "	409 10 0
Head Office	Rewiring for electric lighting ...	Engineer to the Board	Gardner & Hazell	Oct. 10, "	198 0 0
Southern Hospital	Erection of hospital ...	Engineer to the Board	Buchanan & Curwen ...	May 12, "	380 0 0
	(i.) Sanitary works... (ii.) Painting and cleaning works }	Treadwell & Martin ..	W. Johnson & Co., Ltd.	Sept. 5, "	176,050 0 0
Banstead Road School	(iii.) Erection of new laundry ...	Surveyor to the Board	{ Thos. Cole ...	July 30, "	4,666 17 10
	(i.) Repair, &c., of interval roads }	Newman & Newman ...	{ Patrick McCarthy ...	" 30, "	1,417 0 0
Gore Farm Hospital	(ii.) Formation of airing courts, terraces, &c ...	Wm. Harston ...	{ John B. Potter ...	Oct. 16, "	11,099 0 0
	(iii.) Erection of destructors ...	Engineer to the Board	{ Road Maintenance & Stone }	Sept. 19, "	4,544 2 1
Grove Hospital	(i.) Tarpaving works	Surveyor to the Board	{ Supply Co., Ltd. ... }	Jan. 21, 1903*	2,730 16 10
North-Western Hospital	(ii.) Repairs to chimney shaft	Surveyor to the Board	Gardner & Hazell ...	Dec. 17, 1902	135 0 0
Training Ship "Exmouth"	(iii.) Woodpaving works ...	Surveyor to the Board	{ F. G. Sheppard & Co. ... }	Sept. 18, "	127 0 0
	Erection of female staff bathroom ...	Surveyor to the Board	{ Wm. Hogg & Son ... }	" 11, "	116 0 0
	Raising top-floor ceilings of infir- mary, cleaning and painting works, &c....	Surveyor to the Board	{ Wm. Griffiths & Co., Ltd. ... }	" 16, "	60 0 0
Park Hospital	(i.) Heating of six pavilions ...	Surveyor to the Board	E. H. Cripps ...	" 11, "	229 14 0
Leavesden Asylum	(ii.) Repairs to chimney shaft ...	Engineer to the Board	W. A. Philbey	" 16, "	137 9 10
Tooting Bec Asylum	Erection of isolation hospital ...	Surveyor to the Board	Mather & Platt, Ltd....	Nov. 25, "	470 5 0
	Erection of receiving home for chil- dren and an ambulance station ...	Surveyor to the Board	Universal Engineering Co. ...	" 20, "	81 10 0
81, Earlsfield Road...	Repairs, painting, and drainage }	A. & C. Harston ...	Geo. Wiggs ...	" 20, "	2,189 0 0
66, St. Ann's Hill ...	works ...	Surveyor to the Board	Cropley Bros., Ltd. ...	Jan. 7, 1903*	12,599 0 0
			E. H. Cripps ...	Dec. 17, 1902	108 0 0
				" 20, "	257 10 0

\* Tenders accepted by the Managers in 1902.

## APPENDIX IV.

Statement showing the total cost (as ascertained on completion) of works carried out under the supervision of the Works Committee:—

		£	s.	d.
<b>1. NORTHERN HOSPITAL.</b>				
Electric light installation:—				
Dynamos and engines (India Rubber, &c., Co., Ltd.)	...	1,776	0	0
Auto-stokers, hoppers and steam pipes (Taylor & Sons)	...	1,865	10	0
Switchboards, &c. (Cox Walkers)	...	481	12	6
Battery (Hart Accumulator Co.)	...	313	0	10
Electrical mains (Callenders Cable Co., Ltd.)	...	813	3	8
Wiring and fittings (G. Weston & Co.)	...	2,761	17	9
Boiler house and chimney shaft (J. Appleby)	...	2,829	14	4
Minor fittings (General Electric Co.)	...	0	9	0
Architects' commission	...	175	1	0
Engineer's commission	...	401	8	0
Quantity surveyor's commission	...	64	1	1
Clerk of the works' wages	...	226	8	2
Printing	...	59	2	0
		£11,785	8	4
Less deposits for specifications forfeited	...		4	0
Total	...	£11,781	4	4
<b>2. GROVE HOSPITAL.</b>				
Erection, fitting up, and furnishing:—				
Erection of hospital (Kirk & Randall), main contract, steward's house, staff quarters, &c.	...	£195,570	19	0
Building work (Wall)	...	561	15	0
Wood screen to coal store (Anear)	...	63	10	0
		196,196	4	0
Engineering work (Wenham & Waters)	...	£17,544	18	1
Laundry machinery (Tullis)	...	3,407	3	9
Kitchen apparatus (Goddard, Massey & Warner)	...	635	9	0
Fittings, &c. to stores and dispensary (Burman)	...	560	1	0
Engineering work (Kinnell)	...	915	0	0
Inlet ventilators (Tylor)	...	434	17	0
Benches, cupboards, &c. (Fowles)	...	68	9	0
Valves (Wailles)	...	32	10	0
Laying water for fire mains (Lambeth Water Co.)	...	8	11	9
		23,606	19	7
Boilers (Fraser)	...	1,965	0	0
Gangway over boilers (St. Pancras Ironworks)	...	85	0	0
		2,050	0	0
Electric light wiring, &c. (Mavor & Coulson)	...	5,117	12	0
Machinery for ditto (Siemens)	...	4,263	15	0
Electric wall plug covers (Hayward, Tyler & Co.)	...	10	18	10
		9,392	5	10
Boundary wall (Johnson)	...	2,748	12	2
Making up roadway (Wandsworth Borough Council)	...	63	18	9
Laying out grounds (Practical Landscape Co.)	...	3,260	4	2
Architect's commission	...	11,569	8	11
Quantity surveyors' commission	...	4,530	14	5
Quantity surveyors' commission (Franklin & Andrews)	...	1,050	0	0
Clerks of the works' salaries	...	1,876	19	3
Printing, &c.	...	422	9	10
Furnishing	...	15,000	0	0
Cupboards (Green)	...	714	7	8
Landscape architects' commission for laying out grounds (Milner)	...	163	0	0
		£272,645	4	7
Less amount transferred from medical students' fee account for the erection of medical instruction and mortuary block	...	£750	0	0
„ cost of hosepiping transferred to other hospitals	...	43	6	8
„ amount received from Wenham & Waters for old iron, &c.	...	12	0	0
		805	6	8
Total expenditure	...	£271,839	17	11

3. SOUTH-EASTERN HOSPITAL.		£	s.	d.
Augmentation of steam-producing plant and works, in connection therewith :—				
Chimney shaft, boiler house, &c. (J. O. Richardson) ... ..	...	5,434	6	1
Boilers, steam pipes, feed pumps, &c. (R. Dawson & Co., Ltd.)... ..	...	2,250	6	10
Radiators, steam heaters, &c. (J. C. & J. S. Ellis) ... ..	...	3,426	2	9
Sundries (Hill, Gifkins & Co.) ... ..	...	2	11	6
Architect's commission ... ..	...	287	3	6
Engineers' commission ... ..	...	282	0	0
Quantity surveyor's commission ... ..	...	141	8	0
Clerk of the works' wages ... ..	...	228	7	0
Printing, &c. ... ..	...	61	18	0
			12,114	3 8
<i>Less deposits for specifications forfeited</i> ... ..	...	2	2	0
<b>Total</b> ... ..	...	<b>£12,112</b>	<b>1</b>	<b>8</b>

## 4. EAST CLIFF HOUSE, MARGATE.

Extension :—

Buildings (G. H. Denne &amp; Son)—

Amount of contract ... ..	...	£7,981	0	0
Extras, including £504 16s. 6d., sanctioned by the Board, 7th September, 1901 ... ..	...	1,725	13	10
		£9,706	13	10
<i>Less omissions</i> ... ..	...	1,433	9	7
			8,273	4 3
Architects' commission ... ..	...	345	14	9
Taking out quantities ... ..	...	118	4	3
Measuring up variations ... ..	...	50	0	3
Clerk of works' salary and out-of-pocket expenses ... ..	...	287	11	9
Printing, &c. ... ..	...	44	11	0
<b>Total</b> ... ..	...	<b>£9,119</b>	<b>6</b>	<b>3</b>

## 5. NORTH-EASTERN HOSPITAL.

Erection of new laundry, rain-water reservoir, &amp;c. :—

Buildings (McCormick &amp; Sons)—

Amount of contract ... ..	...	£8,865	6	9
Amount of estimate for road authorised by Board 9th March, 1901 ... ..	...	394	0	0
<b>Net amount of extras over omissions</b> ... ..	...	<b>696</b>	<b>2</b>	<b>1</b>
			9,955	8 10
Machinery (T. Bradford & Co.)—				
Amount of contract ... ..	...	£4,580	0	0
Net extra works ... ..	...	36	19	6
		£4,616	19	6
<i>Less liquidated damages</i> ... ..	...	30	0	0
			4,586	19 6
Architects' commission ... ..	...	476	19	4
Commission for taking out quantities and measuring up ... ..	...	182	5	6
Clerk of the works' salary <i>re</i> laundry buildings and fittings, amount apportioned by architect ... ..	...	74	11	0
Ditto, <i>re</i> engineering works ... ..	...	14	14	0
Printing, &c. ... ..	...	32	19	8
<b>Total</b> ... ..	...	<b>£15,323</b>	<b>17</b>	<b>10</b>

## ANNUAL REPORT OF THE CONTRACT COMMITTEE.

June, 1903.

We submit for the Board's information this our annual report for the year 1902. In it will be found a brief account of some of the most important or most interesting of the matters dealt with by us during the year.

**Number and extent of contracts entered into.**

The total number of contracts entered into by the Board at our instance during the year was 849, and the aggregate amount represented by them was approximately £421,500. Classified, the contracts in question were as follow :—

	Number of Contracts.	Approximate Total Value.
For Provisions ... ..	453	£ 228,000
For "Necessaries" ( <i>i.e.</i> , soap, soda, oilman's goods, &c.) ... ..	79	34,000
For Stores Goods ( <i>i.e.</i> , linen and woollen goods, clothing, uniforms, ironware, tinware, boots and shoes, brooms, brushes, baskets, &c.) ... ..	150	63,500
For Coal and Coke (delivery included)	69	66,000
For Furniture and Equipment (smallpox institutions, Tooting Bec Asylum, Banstead Road School, &c.) ... ..	98	30,000
Grand Totals .. ..	849	£421,500

The total number (849) of contracts dealt with during the year was 210 more than during 1901, and the approximate total value (£421,500) was £118,400 greater in amount. This increase was mainly due to three causes :—(i.) the extra provision of all kinds made in connection with the smallpox epidemic, (ii.) additions to the

number of the Board's institutions, and (iii.) the more general adoption by the various Committees of the Board of the practice of obtaining miscellaneous supplies required from time to time through the Contract Department. In our opinion, the practice referred to under No. iii. distinctly makes for the Board's advantage, and we hope it may be extended, as our experience has been that practically all descriptions of goods and appliances required at the several institutions can be obtained in that way on much more favourable terms than otherwise; manufacturers and wholesale firms having been found generally willing to supply the Board on trade terms when approached through the central department, whereas, in cases where the authorities of individual institutions themselves obtain articles required, they usually have to be paid for at retail rates. Many striking instances of this difference in the cost of similar articles obtained in the two ways mentioned have been brought to our notice during the past twelve months.

**Revision of schedules for periodical supplies.**

In the course of the year all the schedules for the various classes of periodical supplies were revised and remodelled with a view to (a) uniformity, general convenience, and their adaptation to trade customs, and (b) the reduction of the cost of printing them. The reduction effected by the alterations made, calculated on the current contract prices for printing, exceeds £250 per annum. Moreover, we consider the schedules in their present form far more businesslike and more convenient, both for tendering and for reference purposes, than formerly.

**Furnishing and equipment of institutions.**

i. Additional smallpox accommodation.

In our report for the year 1901 we referred to the fact that at the close of the year we were engaged in arranging for the furnishing and equipment of the additional smallpox accommodation then being provided by the Board. We were not at that time in a position to give particulars of the extent of the contracts dealt with by us in that connection. We give those particulars now, viz. :—

Name of Institution.	Number of Contracts.	Total amount of Contract.
Long Reach Hospital ... ..	11	£ s. d. 4,320 0 0
Gore Farm Upper Hospital ... ..	15	4,708 0 0
Gore Farm Lower Hospital ... ..	9	9,312 0 0
Orchard Hospital ... ..	3	4,587 3 3
South Wharf ... ..	12	262 0 0
North Wharf ... ..	3	49 0 0
Mead Ambulance Station ... ..	9	663 0 0
River Ambulance Service Steam Boats	2	70 0 0
Gore Farm Stables ... ..	7	59 0 0
Eastern Ambulance Station ... ..	3	134 0 0

ii. Tooting Bec  
Asylum and  
Banstead Road  
School.

Particulars of the contracts for furniture and equipment dealt with by us in respect of these institutions are as follow :—

Name of Institution.	Number of Contracts.	Total amount of Contract.
Tooting Bec Asylum ... ..	25	£ s. d. 6.971 0 0
Banstead Road School ... ..	4	963 0 0

In dealing with all these contracts we departed considerably in several particulars from the practice formerly followed in such cases. One important departure which we made was the adoption of drawings and specifications of the articles required, in place of showing sample articles as in the past. Another very important departure, which, in view of the special authority granted by the Local Government Board, was made in the case of all the furniture for smallpox purposes, was the inviting of selected firms to tender for the supply of the goods required instead of advertising for tenders. We are glad to say that these and sundry other changes introduced in connection with these contracts resulted, in our opinion, most satisfactorily. We have gone carefully into the question of the cost of the furniture supplied, and are satisfied that the prices paid for the bulk of it were exceptionally low, and that in no case was an excessive price paid for any article.

As regards the quality and suitability of the furniture, &c., supplied under the contracts in question, we may say that we ourselves are quite satisfied, and it appears from reports received from the committees and sub-committees concerned with the institutions furnished, and from the responsible officers thereat, that our opinion on the subject meets with general confirmation. In this connection we may mention that recently more than one other public body has applied for information as to the methods adopted in obtaining this furniture, in consequence, we understand, of either their members or their officers having seen and examined some of it and been struck by its good quality, suitability of design, and moderate cost. We think that the interests of the Board will be well served by continuing to deal with furniture contracts on the new lines we have recently followed. Under that system, keen competition has been secured, not only between the retail houses (many of the best known and most important of which have recently tendered in nearly every case), but also between the actual manufacturers of the articles required.

**Supply of  
coal from  
collieries  
direct.**

On the 31st May, 1902, the Board, on our recommendation, decided to enter into contracts with certain colliery proprietors direct for the supply of the coal required for the several institutions of the Board (with some few exceptions) during the 12 months ending on the 28th June, 1903, and to make, through us, all arrangements for its carriage by rail and delivery at the various institutions.

At the end of the first completed half-year under the new system, we, as far as practicable, reviewed the working of it with a view to deciding as to the most



advantageous course to follow for the future. In that connection we considered tables prepared by the Engineer to the Board showing the total consumption and cost of coal at the 14 principal institutions of the Board during the six months in question (ended 31st December, 1902), as compared with the corresponding period of 1901, together with his observations on the matter. From these it appeared that, from the Engineer's point of view, the results of the new system had so far been entirely satisfactory.

The financial results of dealing with collieries direct instead of with coal merchants are shown by the following statement, where the *actual* quantities and costs given are based on figures supplied by the Engineer to the Board and the Accountant respectively, and the *estimated* contract prices for the period under review are calculated on the contract prices for the preceding year, with a reduction to represent an all-round decrease of 5 per cent. in pit-mouth prices, which, we are advised on good authority, fairly represents the state of the markets at the time the Board's contracts were entered into:—

	Estimated Average Cost per Ton (Contracts with Merchants).	Actual Average Total Cost per Ton Delivered (Contracts with Collieries).	Difference (i.e., Saving) per Ton.	Actual Number of Tons Consumed.	Total Saving.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.
House Coal ...	1 1 10 $\frac{2}{3}$	0 19 8 $\frac{2}{3}$	0 2 1 $\frac{2}{3}$ ×	6,802 =	732 16 8
Steam Coal ...	0 19 5 $\frac{1}{2}$	0 18 1 $\frac{1}{2}$	0 1 4 $\frac{1}{2}$ ×	16,050 =	1,083 7 6
GRAND TOTAL ... ..					£1,816 4 2

It will be seen from these figures that the saving directly resulting from the new system amounts to over £1,800 for the half-year, or at the rate of upwards of £3,500 per annum.

As regards the general working of the system, we have had before us a report dealing with the matter in detail from the time the contracts came into force in July last up to the present day, and we find that the arrangements made have satisfactorily stood the test of time and practical experience; that no breakdown in supplies has occurred in any case; and that such difficulties as have arisen from time to time can be, as they have been, successfully overcome, and in many cases, in the light of experience gained, can be avoided altogether in future.

In view of the very favourable results achieved so far, we trust that this new system of obtaining coal will be continued. We are satisfied that, with proper management, such a system will be in every respect advantageous to the Board.

**Potatoes purchased on the open market.** In August, 1902, the Local Government Board sanctioned the practice, for the then ensuing contract period (October, 1902, to March, 1903), of purchasing the potatoes required for the Board's institutions on the open market through a broker. Arrangements were made accordingly, the services of an experienced buyer being engaged, at a commission at the rate of 2s. 6d. per ton, to purchase the potatoes required from week to week,

and to arrange for their delivery at the several institutions. During the last quarter of 1902 this system of obtaining potatoes was in force, and up to the end of the year the results were favourable, 6,897 cwts. of potatoes having been supplied at a total cost (including delivery and commission) of £1,392 6s. 3d., or at the rate of £4 0s. 10d. per ton. A comparison between that price and the contract price for the corresponding period last year, in relation to the then prevailing market price, shows a balance of over 8s. per ton in favour of the new system. Moreover, from reports obtained from the stewards and other receiving officers, it appears that practically all of them consider the potatoes recently supplied generally superior in size, quality, and condition to those formerly supplied under contract, and find the deliveries under the new system more prompt and regular than under the old. We are of opinion that to test the new system thoroughly, it should be continued during the next contract period (seven months) so that the results of a full year's working may be seen, and we propose, at the proper time, to recommend the Board accordingly.

**Supplies for  
the smaller  
homes for  
children.**

In accordance with a wish expressed by the Children's Committee, we have made special arrangements for the supply of all the provisions and "necessaries" required at these establishments under contracts with local firms, instead of including these homes in the contracts relating to the other institutions of the Board. Before this change was made, difficulties were frequently experienced in connection with supplies for these homes, and these difficulties have been obviated by the new practice. Moreover, we think it is better, in the Board's interest, that these small places should be excluded from the general contracts, as the obligation to deliver the very small quantities of the various kinds of provisions, &c., contracted for, would, we think, be likely to deter some firms from tendering, or would at any rate tend to increase the prices quoted.

**Purchase of  
a site for  
new stores  
premises.**

On the 6th September, 1902, we reported to the Board on the inadequacy of the premises at present rented for purposes of the Stores Department, for conveniently and efficiently carrying on the increased and increasing work of that department, and recommended the determination of the lease of those premises on the 25th March, 1903, and the continuation of the tenancy from that date on a yearly agreement only. At the same time we intimated that we were considering the question of securing other premises affording increased accommodation, and would submit our proposals on that subject at a later date.

The Board adopted our recommendation; notice determining the lease was given accordingly; an agreement for a yearly tenancy of the present stores premises was entered into; and we immediately commenced to look out for other premises suitable for the Board's purpose, or for a site on which such premises could be built.

Our efforts in that direction having been fruitless up to the 25th November, we then instructed Messrs. D. Burnett & Co., of Nicholas Lane, E.C., to search for, and report particulars of, suitable premises or sites, and they accordingly at various times submitted particulars of different properties, one of them being, in our

opinion, thoroughly suited to the Board's purpose, and from that point of view far superior to any of the others.

This property is freehold, it is situate on the north-east side of Peckham Rye Common (within three miles of London Bridge, and six minutes' walk of Peckham Rye station), and comprises about  $1\frac{1}{2}$  acres of land, with two large semi-detached houses thereon; it has a frontage to Peckham Rye of about 150 feet, and a side frontage to Forester Road of about 460 feet. Each of the houses is at present let—one tenancy expiring at midsummer, 1903, and the other at Michaelmas, 1904. The site is rectangular in shape, quite level, and particularly free from dominant lights; it is also free from any restrictive covenants likely to obstruct the Board's purpose. The price asked for it was £4,500, subsequently reduced to £4,250, at which sum a provisional agreement to purchase the freehold has been entered into, subject to a contract to be approved by the solicitors.

On this property premises amply sufficient for the Board's present and future requirements, so far as we can foresee them, in the way of stores, needle-rooms and sample rooms, can be erected without interfering with either of the existing dwelling-houses, and still leaving each of them a sufficient garden. The houses could then, we think, be re-let without any difficulty at £60 per annum each at least.

For the present stores premises in Mermaid Court the Board pay a rental of £350 per annum, for the sample room opposite the stores £50 per annum, and for the needle-rooms in Newcomen Street £40 per annum, a total rental of £440 per annum. That amount represents at 4 per cent. the annual value of £11,000. (The Board would obtain such a sum on loan at, probably  $3\frac{3}{8}$  per cent. or less, but 4 per cent. is taken as a reasonable basis of calculation in the present case). Taking £4,500 of that amount as the *total* cost of acquiring the site in question, the sum of £6,500 would remain for the necessary buildings, and the amount of annual interest on the capital expended would still not exceed the total rental of the present premises. While we are not, at this stage, prepared to say what the actual cost of erecting a suitable stores building will be, we are confident that taking into account the moderate price of the site, and the rents derivable from the two houses on it, the Board can, by purchasing the property, and building as we have indicated, permanently provide adequate and thoroughly satisfactory stores premises, at a total cost which will ultimately compare most favourably with the cost of continuing to rent the premises now occupied.

**Analyses of contract supplies.** \*In our report for the year 1901 we pointed out the importance, in our opinion, of frequently and systematically testing by analysis all such contract supplies as admit of that course, and we stated that we had arranged for that to be done. Accordingly, during the past year 203 samples of various descriptions of provisions, "necessaries," lubricating oils, painter's colours and oils, varnishes, &c., have been analysed. Of these analyses 57 showed unsatisfactory results, and steps were taken in each case to secure better supplies. In every case where milk was found on analysis to be unsatisfactory, the local authorities were communicated with so that proceedings might be taken under the provisions of the Sale of Food and Drugs Act, and as a result eight convictions were obtained in the course of the year, and fines amounting in all to £154 were

inflicted on the several offenders, with costs amounting to a total of upwards of £20.

In connection with this question of analytically testing contract supplies, we have recently decided to include in all future contracts for provisions and "necessaries" a clause to the effect that, in the event of an average sample of any delivery of goods being shown on analysis to be not in accordance with the contract, the whole cost of such analysis shall be chargeable against the contractor and recoverable by action or otherwise.

(Signed) J. THORNLEY,  
*Chairman.*

ANNUAL REPORT OF THE CHILDREN'S COMMITTEE FOR THE  
YEAR 1902.

*June, 1903.*

**I.—GENERAL.**

1. In our annual report for 1901 it will be remembered that we were enabled to deal at considerable length with two specially interesting and important subjects, viz., the after-care of the defective children hitherto provided for up to the age of 16 years, and the opening of the homes for remand children. Due reference is made to these branches of our work in the sections of this report devoted thereto, but it may be said at the outset that the fifth annual report contains no special feature of this character. The year's work was of an engrossing character, and provided us with occupation for the largest amount of time and attention that we could give. The period was devoted, in addition to the carrying on of the existing schools and homes, to the consideration and working out of the detailed schemes of administration of the large schools for ophthalmia and ringworm cases, the opening of which was anticipated at the close of 1902 or the early part of 1903.

This work, involving as it did plans for the staffing of the schools, wages scales, uniform scales and the like, if somewhat humdrum and without the same appeal to the interest of either the community at large or to certain special sections as was made by the discussion on the treatment of the feeble-minded, transcended the latter in imminence if not in importance during the year under notice.

Nor should the importance of such detail work be in any way minimised, as it will readily be allowed that the careful thought given to the questions referred to before the opening of such large schools, and the manner in which they are, even tentatively, settled by the Board, have an important bearing on the future calls to be made on the ratepayers for the maintenance of the institutions which during these early years are brought into being.

2. During the year we carefully watched the progress of discussions and thought on questions both actually and relatively connected with our work. Thus

in June we were represented at the international congress on the welfare of children held in London by our Chairman and others, and in the same manner at the conference called later in the year on juvenile street trading.

3. We were enabled to make arrangements by grants for extra fare, decoration and entertainments for the celebration in the schools and homes of the Coronation of His Majesty the King. Arrangements for Christmas festivities on the same lines were also carried out as usual.

4. With the increase in the number of homes and schools under our control there was naturally introduced the question of the desirability of appointing an officer whose duty it would be to inspect them after the system adopted by the Local Government Board, but after the subject had been brought before us on more than one occasion it was felt that the time was not yet ripe for a decision to be arrived at, and further consideration of the matter was accordingly adjourned till the next year.

5. The arrangement of leaving one place vacant on each of the institution sub-committees to be filled from a monthly rota, thus providing facilities for every member of the parent committee to become practically acquainted with each branch of our work, was continued during the past year.

6. At the request of a board of guardians we decided to require persons desirous of visiting a child in the homes for defective children to produce an order from the guardians to whom the child was chargeable, instances having occurred of undesirable relatives presenting themselves as visitors to the children. The guardians through their officers have the means of satisfying themselves as to the desirability of any proposed visit, and we readily consented, on the suggestion of another board to make the rule recorded above applicable to all the homes and schools under our control.

7. At the conclusion of this section of the report we wish to avail ourselves of the opportunity afforded by the publication of a report which circulates widely amongst members of boards of guardians, to point out the great desirability—we might safely say the necessity—of the fullest possible use being made in the interests alike of the ratepayers and of the children of the accommodation which has been and is being provided for the various classes of children with the care of which the Metropolitan Asylums Board has been entrusted.

The decision to entrust a central authority with the duty of making special provision for these children was arrived at after lengthy consideration, by a strong departmental committee of the whole question of the treatment of "poor law" children, and it is not necessary to set forth at length in this place the reasons for it.

It may be observed, however that the cost of these homes or schools is a common charge on the rates of the Metropolis, and that any parish or union that for any reason retains in its own care children, who could be classed under any of the heads for which accommodation has been provided by the Metropolitan Asylums Board is incurring unnecessary expense, over and above its contribution to the cost of the Board's schools and homes.

It is, moreover, doubtful whether the excellent arrangements for education

and medical treatment which can be made by a central authority dealing with a large number of children of the classes in question are within the reach of any single local authority.

## II.—OPHTHALMIA SCHOOLS.

8. During the year the building works at the White Oak School and the High Wood School progressed steadily, those at the first-named school especially being so well forward as to lead us to believe that it would be ready for occupation very soon after the expiration of the period allowed to the builder by the contract.

9. In July we approached the Works Committee, under whose control the schools were being erected, and again urged upon them the necessity for completing the work at the earliest possible moment, and we most readily recognise the indefatigable attention and the constant personal supervision given to the progress of the works by that committee.

10. The building works at the High Wood School are not so well advanced, owing largely to the impossibility of accommodating near the spot a sufficiently large number of men, but here again the Works Committee are doing all that they can to expedite progress.

In order to avoid heavy traffic over the roads and paths at this school the Board decided, on our recommendation, to purchase an additional strip of land for the purpose of a road from the main public road to the laundry, to be used for coal carts and heavy traffic.

11. As we have pointed out in previous reports, the period of waiting for the opening of these schools has doubtless seemed prolonged to those authorities who were anticipating being relieved of the care of large numbers of children whose accommodation was making undue demands upon their resources, and who hardly realised the unavoidable difficulties, explained in our previous reports which retard the completion of buildings of the magnitude and entirely novel character of these schools.

12. Thus, in September, we were once again approached on this subject by the managers of the Central London School District, and asked to name a specific date for the opening of one of the schools. In reply, we pointed out that, notwithstanding delays which arose from causes quite beyond our control, by reason of stress of weather, difficulties of foundations, and the like, the White Oak School would be practically completed within the contract period, and ready for the admission of children by March, 1903.\*

13. The chief question hitherto left undetermined in connection with the administration of the ophthalmia schools was that of the government of the cottage groups.

Each school consists of cottages built in pairs, each cottage accommodating 12 children, and each pair 24. Six cottages or three pairs are grouped together, with the addition of a fourth building, containing a kitchen and scullery, store rooms, rooms for the medical treatment of the children, and rooms for the charge nurse,

\* Opened for the reception of children 20th March, 1903.

cook, and general servant of the group, who would all live in this fourth building. Each group will therefore accommodate 72 children and 9 officers, viz. :—

6 house-mothers,	
1 nurse,	
1 cook,	
1 general servant, whose work would lie wholly in the fourth building.	
9	Total staff of each group.

There will be five groups of cottages, all similar, and all practically self-contained.

The method of governing these groups was, on account of its difficulty, left unsettled in the original scheme.

There were three possibilities :—

(i.) Each group might be governed by the charge nurse (acting of course under the matron and assistant-matron) assisted by the six house-mothers, who would be untrained, and who would be responsible to her (the charge nurse) as well as to the matron and assistant-matron for the domestic work.

(ii.) Each group might be governed in a somewhat similar way, but with this difference, viz., that one of the two house-mothers of each pair of cottages should be of the status of an assistant nurse, and would be called cottage nurse. In this case the cottage nurse would then be responsible for the 24 children of each pair of cottages, and the house-mother would become a sort of general servant.

(iii.) Each cottage might be governed by a house-mother, untrained, who would be responsible to the matron only, and not to the charge nurse, for the children while "at home." She would do all the work of the home without assistance, except such as the children themselves might be able to afford, and would have no medical duties of any kind, however simple, leaving all duties of a medical kind to be carried out by the charge nurse of the group, whose duties would lie in the fourth building, where all the children would in turn be attended to.

This last plan was approved by the sub-committee who drew up the original scheme, (i.) because the home life would probably be smoother if the house-mother were solely under the matron, and not subject to constant—perhaps, sometimes petty—supervision by the charge nurse; and because the house-mothers, if left undisturbed, would probably be more successful and more content to stay in the service; (ii.) because this scheme would reduce the chances of friction between the charge nurse and the house-mothers, whose spheres of duty are quite distinct and should be kept so; and (iii.) because it would in the end be cheaper, for untrained women would actually do the work which an assistant nurse would not. The work of each pair of cottages could then be done by two women, a condition which the sub-committee considered of the first importance, but which they thought almost certainly could not be secured if the cottage-mothers, or either of them, were nurses of any kind.

After consultation with the ophthalmic surgeon (Mr. E. Treacher Collins), we decided to adopt the third scheme which was without doubt the best in theory



and the schools will be opened on this basis. Much will, however, depend on the early experience we gain after that event.

14. The medical administration of the schools will be controlled by a visiting ophthalmia surgeon, and we decided that he should have the help of an assistant medical officer living in the immediate vicinity of the school and devoting his whole time to the duties of the office. To this post Mr. F. A. C. Tyrrell has been appointed.

To the post of matron of the White Oak School, the Board, on our recommendation, appointed Miss E. D. Lynch, for some time matron of the Hanwell temporary ophthalmia school.

We also arranged for the appointment of a chaplain and dentist, and, as before indicated, tentatively settled the list of subordinate staff, with wages and uniform scales.

### III.—RINGWORM SCHOOLS.

15. The work begun at Bridge School, Witham, early in 1901 in regard to the reception and treatment of children suffering from ringworm was continued during the past year without incident. The report of the dermatologist (Dr. T. Colcott Fox) will be found as an appendix to this report, as also will statistics with regard to the cases treated.

16. We may mention here the laborious character of Dr. Fox's work, especially in the minute microscopic examination of the scalp of every child before signing the certificate for discharge, and it is pleasing to note that there have been only six re-admissions.

17. In May we were apprised by the South Metropolitan School District Board that the Banstead Road School would be closed on May 31st, and could be handed over to the Metropolitan Asylums Board immediately.

18. We had previously entered into negotiations with regard to the acquisition of the furniture and tenants' fixtures at the school, except the bedsteads and linen, the purchase of which we did not consider desirable. A valuer was appointed, protracted negotiations took place, and it was eventually decided by the Board to purchase the furniture and tenants' fixtures referred to and also the growing crops for an inclusive sum of £2,000.

19. The school was ultimately taken over on June 5th. In anticipation of this event we had earlier in the year taken into consideration the question of the alterations which would be required to adapt the school for its new use.

20. The school consists of six self-contained blocks, including kitchen and a small hand laundry, each containing accommodation for 70 ringworm children. There is also a central administrative block, a junior and senior school, a recreation hall, and a combined infirmary and gate-porter's lodge.

21. Under the South Metropolitan School District Board the school was used for girls, and it was possible to reduce the staff to a minimum by utilising the services of a large number of elder girls, who were thus trained for domestic service.

These girls were enabled to do the washing of the blocks in the small laundries referred to, under the supervision of one woman.

22. We decided to administer the school on much the same lines as before, viz., as six self-contained homes, each under its house-matron, but we felt that as a large majority of the children received would be very young it would not be possible to utilise the small laundries as before, and after full consideration of the circumstances, and taking into account the number and cost of the daily washerwomen that would be required, not to mention the undesirability of the daily introduction of these women from outside, the Board adopted our view that it would be more satisfactory to erect a laundry, for which there is plenty of room on the site; and the Works Committee were accordingly authorised to carry out this work.

23. We found that the school, which was some 20 years old, had to be provided throughout with modern bathing and washing and sanitary appliances, and that a large quantity of cleaning and painting work was required. This work also was entrusted to the Works Committee to carry out at a cost of £5,000. Its execution occupied till the end of the year, and it was anticipated that the school would be opened for the reception of children early in the new year.\*

24. The Board, on our recommendation, transferred Miss Emily Turton, Matron of S. Anne's Home, to be matron of this school. They also extended the appointment of Dr. T. Colcott Fox, Visiting Dermatologist at Bridge School, to include Banstead Road School, and selected Dr. George Rice and the Rev. A. H. Stanway for the posts of local Medical Officer and Chaplain respectively.

#### IV.—SEASIDE HOMES.

25. Last year we had occasion to remark upon the limited manner in which the guardians had availed themselves of these homes. We regret that there was no marked improvement in this direction during the year under notice, and we do not doubt that a periodical examination on the part of the officers of the guardians of the children in their care would reveal more than sufficient candidates needing the benefit of seaside air to fill the homes.

26. *S. Anne's Home (Herne Bay)*.—Miss Turton, the matron of this home having been transferred to Banstead Road School, the Board appointed Miss Elizabeth Forsyth to fill her place.

27. *East Cliff House (Margate)*.—As we indicated in our last report, we have this year considered a proposal for the erection of a verandah along the rear of the new buildings erected in 1901 at East Cliff House. We found that a large proportion of the children sent to East Cliff House were tubercular cases, and especially cases of tubercular disease of the joints and spine, tubercular glands, and early cases of phthisis. These children are, we think, found in some numbers in the workhouses of London, and if treated sufficiently early can all be cured by proper treatment. A verandah would provide the means of giving the children as much rest as possible in the open air, instead of restricting their outdoor time to the donkey cart and spinal chairs.

\* Opened for the reception of children, 26th February, 1903.

28. We concluded therefore that such a verandah would mean increased efficiency in the treatment of cases, and largely increase the utility of the home, and the Managers, in June, adopted our recommendation to erect the verandah.

29. We learn that an institution of the same character and provided with the same facilities is maintained by the Paris Municipal Council at Berck-sur-Mer, near Boulogne. It is not a hospital, nor is it a convalescent home in the sense in which this term is usually employed, but it is a home for tubercular joint cases, and such cases are kept there till cured. The average duration of stay is about 18 months.

30. *Millfield (Rustington)*.—The building operations at this home were carried on during the year, and our next annual report will we hope record its opening, together with the changes in the allocation of children between the three seaside homes consequent thereupon.

#### V.—HOMES FOR DEFECTIVE CHILDREN.

31. The lengthy report which we presented last year, with regard to the future care of the defective children for whom we have made provision until they arrive at the age of 16 years, will be fresh in the memory of those interested. At the end of the year our proposals were still under the consideration of the Local Government Board. On several occasions we pressed for the sanction of that authority to our further action, and we also sent a deputation to further explain our views to the Board.

32. In the result we learnt unofficially that the Local Government Board look with favour on the scheme for dealing with defective children after they have attained 16 years of age, which, as related last year, carried with it the practically unanimous approval of the Metropolitan boards of guardians, and we are awaiting their formal sanction to proceed.\*

33. The provision for physically-defective children with which we had intended to make some progress during 1902, has been delayed owing to the great number of other matters urgently requiring attention during that year.

34. *Lloyd House and, 12, Lloyd Street*.—At these two homes for feeble-minded girls the work proceeded steadily on the same lines as hitherto.

35. The house-mother reports marked improvement in the manners and conduct of the children, and progress in usefulness, especially in the various kinds of housework, though in this regard the girls are subject to sudden fits of obstinacy or laziness and much patience and perseverance as well as whole-hearted interest in the work is required from all those who have charge of them. The bigger girls are quite competent to help with the repairing of the linen and the mending of their own clothes.

An important development in the work of Lloyd House was the sending out of one of the elder girls into service in the Soho Home for Working Girls, where she has been for six months. Her domestic work is excellent, but she has a difficult character to deal with.

\* Local Government Board Order sanctioning retention of these cases until they reach 21 years of age, issued 9th March, 1903.

36. The visits of the rector of the neighbouring church were looked forward to with pleasure, and the conduct of the girls in church was exemplary. Some of the girls were confirmed.

37. Lessons in physical drill were instituted and are doing much good.

38. *No. 16, Elm Grove.*—This home, opened last year, has worked smoothly. Some of the boys are nearing the age when they will require separation from the younger ones, and this is also the case at

39. *Nos. 60-64, Kingwood Road*, which homes were re-opened after alterations last year.

40. Drill lessons were also started for the boys, and we hope these will prove of great benefit.

41. The summer holidays arranged for the children in these homes at the Board's sea-side homes at Herne Bay and Margate were repeated with success, as also their employment in purchasing small articles at local shops, the visits to the Zoological Gardens, &c. Magic lantern and other entertainments have been given at the various homes.

42. Two or three new features were introduced quite experimentally. Of these the most noteworthy was a system of allowing pocket-money not exceeding one penny per week per child, which could be wholly or partly stopped for misbehaviour, and which it was hoped would help to teach the children the value of money and certain virtues which may be practised in connection therewith.

43. We allowed some of the bigger boys out for walks unaccompanied, and one or two became half-timers from school and were found local employment.

44. It is too early to speak of the result of these experiments which we mention here to show what is being done to promote and assist the development of the children.

45. Interesting reports by the medical officer of these homes will be found in Appendix II.

46. *Homes at Wandsworth.*—We were able to report last year that the Board had just acquired three additional houses at Wandsworth for the accommodation of feeble-minded children. Unfortunately, however, at the last moment the purchase of two of these houses fell through owing to difficulties with the vendor, thus leaving only one small house, 81, Earlsfield Road, in the Board's possession.

47. The difficulty the Board have always experienced in acquiring suitable houses for this purpose has been referred to in previous reports, and it was not till last summer that a house at Wandsworth, No. 66, St. Ann's Hill, was found and purchased to replace the two above-mentioned.

48. This house is rather larger than that at Earlsfield Road. It will accommodate about 15 children, and has a large garden. The necessary repairs were practically completed at the end of the year to both houses, and they will shortly be opened. The opening may, however, be somewhat delayed pending consideration of the question of removing boys aged about 14 to 16 years from homes containing the younger boys, thus giving a step between these latter homes and the homes for cases over 16 years about to be provided.

49. This step will involve consideration of the question as to the most suitable of existing homes for the accommodation of these lads between 14 and 16, and also certain negotiations with the School Board with regard to their education at a special centre.

#### VI.—REMAND HOMES.

50. Our last report chronicled the steps leading up to the opening of the three remand homes on January 1st, 1902, the date on which the Youthful Offenders' Act, 1901, came into force. We have now had one year's experience of the working of these homes and have not found it necessary to materially alter the scheme with which we started.

51. We may recall what we pointed out last year, viz., that the law allows but does not compel magistrates to send children to the homes, and that we were uncertain to what extent the homes would be used. We started, however, with the assurance that the Home Office and the magistrates were generally in sympathy with the work, and though some instances have occurred of children being remanded to workhouses, yet the majority have been sent to the Board's homes, and have thus avoided acquaintance in their early life with the workhouse, where generally no separate provision could be made for them, and where their companions in many cases would be adult and undesirable paupers.

52. In these homes, on the other hand, special attention can be paid to the children, their education carried on as far as possible during their short stay, and the usual domestic employment about the house found for the elder children.

53. At Pentonville Road, where a large number of girls have been received, there is a small laundry which it is intended to utilise, and in which the elder girls may be engaged to help under a competent laundress. Some interesting statistics with regard to these homes are included in Appendix IV.

54. On the 31st January last the Pentonville Road Home was visited by three of the city justices, Alderman Sir Joseph Renals, Mr. Alderman Alliston, and Mr. Alderman Smallman, and they left the following report, viz.:—

“More than satisfied with all we have seen. The home promises to be a great benefit and help.”

55. There is, however, an important consideration which may fittingly be mentioned here and to which we hope to give much further notice in the early future, and that is as to whether these homes, expensive as they doubtless are to the metropolis, are really serving as fully as they might a useful public purpose. There is no doubt that part of this purpose is well answered by removing the youthful, and often first, offender under 16 from the workhouse connection to which we have already referred. But there remains an even more important step towards the prevention of criminal development in the young to which the opening of the remand homes points the way and provides means for London, a step moreover which has already been taken both by some of the Colonies and by leading American towns. We refer to the total separation of the juvenile offender from the police court contamination. It would appear of little advantage

to make elaborate provision for preventing the young *after* their first appearance before a magistrate, from passing a week or two in a workhouse, when the first night after the arrest is spent in a police cell adjacent to hardened criminals. Statistics show that most criminals begin their criminal career while young, many indeed, almost before they know what crime is, and the necessary step of awakening self-respect in the young is not furthered by a stay in police-court cells, play in police-court yards, the notoriety of a police-court trial, or a journey to and from the police court in charge of a uniformed police constable.

On this latter point it should be mentioned that in the present state of the law—with only a seven days' remand allowed—many journeys of this kind are made between the remand homes and the courts, in order to allow of the child being remanded for a further period.

56. There seems to be no valid reason why some means should not be devised for extending the usefulness of these homes in the direction of receiving the children directly on arrest at the homes, and of appointing a special magistrate to deal with juvenile offenders, and one who could very possibly attend at the homes to hear the complaints.

57. **Appendices.**—We append (I.) a list of schools and homes opened or projected; (II.) the report of the dermatologist on the treatment of ringworm cases; (III.) reports of the medical officer of the homes for defective children; (IV.) statistics for the remand homes; (V.) financial statement; and (VI.) statistical statement for 1902.

(Signed) W. CROOKS,  
*Chairman.*

## APPENDIX I.

## PARTICULARS OF HOMES AND SCHOOLS.

## I.—OPHTHALMIA SCHOOLS.

- (1.)
- Highwood School, Brentwood.**
- Site, 28 acres.

A school for 360 children is in course of erection, and will be opened in 1903.

- (2.)
- White Oak School, Swanley.**
- Site, 49 acres.

Accommodation, 360 children.

Opened for the reception of children March 22nd, 1903.

Visiting Ophthalmia Surgeon Mr. E. Treacher Collins, F.R.C.S.

Matron .. .. Miss E. D. Lynch.

Assistant Medical Officer .. Mr. F. A. C. Tyrrell, M.B., B.C., F.R.C.S.

## II.—RINGWORM SCHOOLS.

- (1.)
- Bridge School, Witham, Essex.**
- Purchased, with contents, from the South Metropolitan School District Board. It was originally a workhouse, but has been used as a school for the past 18 years. Site,
- $7\frac{1}{4}$
- acres.

Accommodation, 160 children. Opened February 12th, 1901.

Visiting Dermatologist .. Dr. T. Colcott Fox, F.R.C.S.

Matron .. .. Miss Emily Baker.

Medical Officer .. .. Dr. K. C. Gimson.

Chaplain .. .. Rev. Canon Ingles, M.A.

- (2.)
- Banstead Road School, Sutton, Surrey.**
- Purchased from the South Metropolitan School District Board, by whom the school was erected in 1882. Site, 20 acres. Possession given June, 1902. Opened for the reception of children suffering from ringworm and other contagious diseases of the skin or scalp February, 1903.

Accommodation, 420 children.

Visiting Dermatologist .. Dr. T. Colcott Fox, F.R.C.P.

Matron .. .. Miss Emily Turton.

Medical Officer .. .. Dr. Geo. Rice.

Chaplin .. .. Rev. A. H. Stanway.

## III.—SEASIDE HOMES.

- (1.)
- S. Anne's Home, Herne Bay.**
- Purchased from the South Metropolitan School District Board, with contents, and taken over 26th December, 1897. (Originally established in 1874.)

There is a playground and a garden (in all about  $1\frac{3}{4}$  acres) at the rear of the house.

Accommodation, 134 children.

Matron .. .. Miss Elizabeth Forsyth.

Medical Officer .. .. Dr. C. K. Bowes.

Chaplain .. .. Rev. T. B. Watkins, M.A.

Ages of admission are at present—girls, 3–12; boys, 3–16.

- (2.) *East Cliff House, Margate.*—Purchased from the Guardians of St. Pancras, with contents, and taken over 26th June, 1898. (Originally established 1895.)

There is a playground and a garden (in all about  $1\frac{1}{2}$  acres) at the rear of the house, on part of which two houses, to hold 25 children each, have been erected. These were opened 13th September, 1901.

Accommodation, 91 children.

Matron . . . . . Miss Emily K. Jacob.

Medical Officer . . . . . Mr. W. G. Sutcliffe, F.R.C.S.

Ages of admission are at present—girls, 3-16; boys, 3-8.

- (3.) *Millfield, Rustington, near Littlehampton.*—Site,  $5\frac{1}{2}$  acres. Four houses, to accommodate 25 children each, are in course of erection.

#### IV.—DEFECTIVE CHILDREN.

- (1.) *Lloyd House, Lloyd Street, Pentonville, W.C.*—Opened 16th January, 1899.

Accommodation, 20 girls of defective intellect.

The children attend the special classes at the Hugh Myddelton Board School, Clerkenwell Close, E.C.

Matron, Miss Annie Green.

Ages of admission, 7-14.

- (2.) *12, Lloyd Street, Pentonville, W.C.*—Opened 18th October, 1901. Accommodation, 8 girls of defective intellect.

The children attend the special classes at the Hugh Myddelton Board School, Clerkenwell Close, E.C.

House-mother, Miss Alice Green.

Ages of admission, 7-14.

- (3.) *16, Elm Grove, Peckham, S.E.*—Opened 25th January, 1901.

Accommodation, 14 boys of defective intellect.

The children attend the special classes at the Choumert Road Board School, Peckham.

House-mother, Mrs. Mahony.

Ages of admission, 7-14.

- (4.) *60, 62, 64, Kingwood Road, Fulham, S.W.*—Two of these houses were opened on the 17th September, 1900. They were subsequently closed for alterations, and the three houses opened together on the 18th April, 1901.

Accommodation, 22 boys of defective intellect.

The children attend the special classes at the Kingwood Road Board School.

Matron, Mrs. Turner.

Ages of admission, 7-14.

Medical Officer for the above homes, Miss Rose Turner, L.R.C.P., L.R.C.S.



- (5.) **81, Earlsfield Road, Wandsworth.**—To be opened early in 1903.  
Accommodation, 10 girls of defective intellect.  
The children will attend the special classes at the Garratt Lane Board School, Duntshill, S.W.  
House-mother, Miss E. Mason.  
Ages of admission, 7-14.
- (6.) **66, S. Ann's Hill, Wandsworth.**—To be opened in 1903.  
Accommodation, about 15 boys of defective intellect.

## V.—REMAND HOMES.

(For children remanded from the Metropolitan Police Courts.)

- (1.) **70, 72, 74, Pentonville Road, N.**—Opened 1st January, 1902.  
Accommodation, about 45 boys and 10 girls.  
Superintendent, Mr. R. Lemmon.
- (2.) **203, 205, Harrow Road, W.**—Opened 1st January, 1902.  
Accommodation, about 45 boys.  
Superintendent, Mr. W. E. Tull.
- (3.) **36, 37, 38, Camberwell Green, S.E.**—Opened 1st January, 1902.  
Accommodation, about 40 boys and 10 girls.  
Superintendent, Mr. W. Craig.

## APPENDIX II.

## BRIDGE SCHOOL, WITHAM.

## REPORT OF THE DERMATOLOGIST (Dr. T. COLCOTT FOX).

March, 1903.

From the date of the first admission of patients suffering from ringworm of the scalp into the Bridge School at Witham on 12th February, 1901, until 31st December, 1902, 316 were received, viz., 187 during the year 1901 and 129 during 1902. Of these 6 were re-admissions. Of the 316 children admitted 150 were discharged—leaving 166 in the school on 31st December, 1902. Of the 150 discharged 38 left in the year 1901, 31 of them as cured and 7 for various reasons and uncured; 112 left in the year 1902, 108 as cured and 4 for various reasons and uncured.

The average stay at the school of those children who were discharged cured appears to be roughly about nine months, but in considering this average stay the initial difficulties attending the opening of the schools must be borne in mind, as well as the necessity for keeping the children under observation for some time after apparent cure, and the long time it takes for new hair to grow on damaged portions of the scalp.

The ages of the children under treatment, so far as noted, appear in the following table:—

Age.	Microsporium Ringworm.	Trichophyton Ringworm.	Favus.
1 year ... ..	0	1	...
2 years ... ..	1	0	...
3 ,, ... ..	2	2	..
4 ,, ... ..	14	5	...
5 ,, ... ..	10	4	...
6 ,, ... ..	20	11	...
7 ,, ... ..	29	14	...
8 ,, ... ..	20	12	...
9 ,, ... ..	17	6	1
10 ,, ... ..	11	13	...
11 ,, ... ..	3	11	...
12 ,, ... ..	5	10	1
13 ,, ... ..	4	1	...
14 ,, ... ..	1	2	...
	137	92	2

The number of boys and girls respectively admitted was necessarily dependent on the accommodation and vacancies.

A second table shows the parishes from which the children came :—

PARISH.	Microsporium Ringworm.	Trichophyton Ringworm.	Favus.	Undetermined Nature.	Total.
Bethnal Green ... ..	5	2	...	...	7
Camberwell ... ..	6	2	...	...	8
City of London... ..	...	2	...	2	4
Fulham ... ..	13	3	...	1	17
Greenwich ... ..	7	6	...	8	21
Hackney ... ..	21	19	...	9	49
Hammersmith ... ..	3	...	...	2	5
Islington ... ..	13	1	...	12	26
Lambeth ... ..	6	...	...	...	6
Lewisham ... ..	4	2	...	2	8
Paddington ... ..	5	...	...	1	6
Poplar ... ..	14	26	...	15	55
St. George's ... ..	7	1	...	1	9
St. Marylebone ... ..	1	1	...	2	4
St. Olave's ... ..	6	2	...	2	10
St. Pancras ... ..	10	6	...	6	22
Shoreditch ... ..	1	...	...	1	2
Southwark ... ..	8	12	1	5	26
Stepney ... ..	7	3	...	5	15
Wandsworth ... ..	4	3	...	3	10
Westminster ... ..	...	...	...	1	1
Whitechapel ... ..	...	3	...	1	4
*Windsor ... ..	...	...	...	1	1
Woolwich ... ..	...	...	1	...	1
	141	94	2	80	317

I may mention as a point which may have a practical bearing that there are many varieties of ringworm, which I have arranged in the tables in two great groups, the micro-porum ringworms and the trichophyton ringworms. The distinction was made after clinical and microscopical examination. Favus is a distinct disease, and is fortunately rare in London. The group most commonly met with at the hospitals in the west end of London constitutes something like 90 per cent. of the cases observed there (*Microsporium*), but at the Bridge School it is to be noted that some 40 per cent. belonged to what has been considered a much rarer disease in London (*Trichophyton ringworm*). These latter cases came mostly from Hackney, Southwark, and especially Poplar. It is an insidious disease, and cases may go unobserved for a long time and form centres of contagion. It is especially apt to spread in institutions where children are collected. This kind of ringworm has become a great pest in the schools of Paris, and therefore, it is desirable to

\* Admitted from Training Ship "Exmouth."

find an explanation of its prevalence in certain parts of London in order to stamp it out as far as possible.

It might be supposed that in an institution where all the children had ringworm of different kinds that facts of contagion from child to child would be very frequent, but it is interesting to note that owing to treatment and the use of head coverings night and day there does not appear to have been a single occurrence of the sort.

The improvement in the well-being of the children brought about by their sojourn at the school has been most striking, but unfortunately this has but little apparent effect in causing the ringworm to disappear.

At the installation of the school the nursing staff were unversed in the treatment of ringworm, and as the details of the treatments have to be carried out by the nurses, it has been one of my chief tasks to teach them the nature of the disease and the principles and details of the treatments, so as to secure their intelligent co-operation in the methods of cure. These methods require a trained intelligence, and the expenditure of much time and detailed attention to each child's head on the part of the nursing staff. It cannot be too fully recognised that apart from the general care of the children the nurses have special work to do which demands great patience, and the expenditure of a very great amount of time. Therefore, for the efficient conduct of the schools as regards the cure of ringworm, it is desirable to recruit the nursing staff from an intelligent class, to have an adequate supply to cope with the work, and then to train them carefully in the special work. From my point of view one of the most regrettable drawbacks to the efficiency of treatment is the unavoidable coming and going of nurses just as they are becoming useful, from restlessness, want of interest and other causes.

In conclusion, I beg to be allowed to express my appreciation of the great assistance I have received from the experience and unflagging zeal of the matron.

(Signed) T. COLCOTT FOX.

### APPENDIX III.

#### HOMES FOR DEFECTIVE CHILDREN.

##### REPORTS OF MEDICAL OFFICER.

##### (a) *LLOYD HOUSE, AND 12, LLOYD STREET, PENTONVILLE.*

The year 1902 having come to an end, I have the pleasure of presenting to the Committee a short report dealing with the condition—physical, mental, and moral—of the deficient children in their homes at 11 and 12, Lloyd Street.

Bearing in mind that all improvement in such children must necessarily be slow, depending as it does on the gradual formation of habit and the development of mental capacity, the results of the past year's work may be considered distinctly encouraging.

To start with the physical condition of the children collectively. The home is to be congratulated on having been entirely free this year from diseases of an infectious or serious character, whereas last year there were three serious cases, one of diphtheria, one of pneumonia, and one of measles (the last two of which, however, occurred while the children were away from the home on their holiday).

**General  
medical  
report.**

In connection with this I should like to point out how especially fortunate we have also been in the matter of accidents. The number of accidents worth calling such (and by this I mean those necessitating medical attention) has been extremely small, more particularly when it is considered that the children are mentally deficient. Last year we had two accidents, one being a bad cut of the scalp necessitating four stitches, the other a crushed finger; while this year (1902) one child was struck in the eye by a small piece of glass, but happily no serious injury resulted.

Thanks to healthy surroundings and wholesome routine the children's constitutions are much improved, and the return for this year of minor ailments due to a generally poor state of health is much less, as is seen by the following comparisons.

Whereas in 1901 there were eight cases of acute sore throat, several accompanied by enlargement of glands, two severe attacks (in the case of one child) of inflammation of glands, which subsequently broke down forming abscesses, and two cases of septic sores; this year there have been five mild cases of tonsilitis with practically no enlargement of glands, one attack of gastritis, and one (?) epileptic seizure. I mention only those cases which can by any means be considered of an important character.

I should like to specially quote one or two cases in illustration of the marked improvement in general condition:—

*A. W.* on admission had scars on neck and wrist caused by abscesses and during the first part of her stay in the home had several abscesses, was very weakly and in a poor condition, but this year she has wonderfully improved, has gained well in weight, and has not once been on the sick list.

**Encourag-  
ing cases  
(physical).**

*L. W.* was a child of similar constitution, and last year on two occasions, had bad abscesses followed by septic sores, but this year she has needed no medical attention.

*J. F.* on admission had a very weak heart with a systolic bruit which has much improved.

*E. M.* last year needed medical attention several times for tonsilitis and discharge from the right ear; this year she has had very good health.

I may add that in the case of every child there has been a good increase in weight, height, and girth.

**Eyesight.**

During the year Mr. Flemming, of Moorfields, has very kindly tested the eyesight of four children having apparently some eye defect. The result is that of the four one has been found to have an error of refraction which is to be rectified by the use of glasses, and which may improve; two have internal strabismus (squint), for which they are wearing glasses, they will probably improve; and the fourth is found to have retino choroiditis, and is not likely to improve.

**Encourag-  
ing cases  
(mental and  
moral).**

I now come to a very important part of my report, namely the mental and moral development of the children, and here too, taking them as a whole, I am pleased to be able to report favourably. There are, I fear, among them some children whose improvement can scarcely be expected to extend

beyond a limited point, and these, I hope, will be drafted out of the home to make room for others more capable of development. For that there is great possibility of development in some of these children is most certain, as is shown by some of the cases now under care at the home. Among the most encouraging I may mention:—

*A. M.*, who from being subject to violent fits of temper, has now become self-controlled.

*E. R.*, who simply owing to mental deficiency had excoriations round the mouth from constant salivation, and also suffered from nocturnal incontinence constantly, is much improved mentally and as a consequence is now cured of these habits.

*E. T.*, who was returned last year from East Cliff House on account of dirty habits, and who is now practically cured.

Another child I should like to mention as a particularly interesting and difficult case is *H. C.* She used to be subject to the most violent fits of temper during which she kicked and screamed passionately. At first she had them on an average three or four times weekly; from April to September of 1902 she was perfectly free from them, but since that time they have, unfortunately, recommenced, although in a less violent form.

With reference to the question of nocturnal incontinence (a most important one as illustrative of mental and moral condition), there is, I am happy to say, a distinct improvement in every case.

7 new children were admitted into the home during the year.

**Admissions and discharges.** On the other hand three have been placed at work, two are being employed in the Home, and of them the matron gives on the whole a good report. The third has gone into service as kitchen-maid, and she, though still sometimes subject to fits of temper, is on the whole satisfactory.

**New departures.** Within the last half-year a new departure has been made in two directions, one being the grant of pocket-money of one penny a week to each child, and the other the introduction of weekly drilling classes. In the first we hope to have not only an incentive to good behaviour but also a means for teaching the use of money and encouraging thrift; by the drilling it is hoped to inculcate smartness of movement and discipline.

Both are new departures, and hence it is impossible at present to speak of results, but I have great hopes that they will act beneficially. The preliminary indications are encouraging.

**Suggestions.** I hope that in the future it will be possible to introduce new methods that will both be of value for the general training of the children, and also by developing their powers of observation and manipulation fit them for taking up some occupation in the future.

This twofold object might be attained by the introduction into these homes of classes for basket and brush-making, straw-plaiting, or laundry work.

Another suggestion I should like to make is that at intervals—perhaps half-yearly—there should be little entertainments, prepared by the children themselves,

in the shape of drilling displays, &c. This would stimulate their imagination and give them an object to work for.

In closing this report I should like to say that much of the improvement in the children's condition which I have brought to your notice is due to the unfailing patience of the matron and her assistants, who have evidently the welfare of the children much at heart.

We can only hope that we may have an equal measure of success in the year that is coming.

(Signed) R. TURNER.

87, Gower Street, *December 31st, 1902.*

(b) 60, 62, 64, *KINGWOOD ROAD, FULHAM.*

The year 1902 having come to an end I thought it would be of interest to the Committee to have before them a short report dealing, from a medical point of view, with some of the results of the year's work as seen in the condition—physical, mental, and moral—of the boys in the home for deficient children at Fulham.

I am sorry to have to report that during the past year we have had a heavy return of illness, which may partly be accounted for by the fact that the home is situated in a poor and crowded neighbourhood, and that the boys now in the home are, taking them as a whole, both delicate physically and weak mentally, suffering in several cases from definite heart lesions and lung trouble.

**General  
medical  
report.**

Within the year there have been two severe epidemics of influenza. The first one was at the beginning of the year when twelve boys were attacked, one suffering subsequently from pneumonia (necessitating removal to his infirmary), one from pleurisy, and a third from stomatitis.

During the second outbreak which was in November, six boys were taken ill, and in two cases slight broncho-pneumonia supervened. Besides the pneumonia following influenza there was another case of that nature and this boy also had to be removed to his infirmary. In the latter case, symptoms came on acutely after the boy was said to have swallowed a pencil, but from subsequent events I should think the truth of this statement was most doubtful.

There have been in addition six cases of severe tonsillitis, two of acute rheumatism accompanied in one case by erythema nodosum of foot, and one acute case of gastritis with temperature rising above 104°.

Taking the boys as a whole, however, in spite of these many illnesses there is no doubt that they have in every, or almost every, case improved constitutionally, the improvement being specially marked in one or two—for instance in that of the boy *A. B.*, who on admission had an extremely weak heart but is now much stronger; and *E. M.* who when admitted was unable to walk owing to infantile paralysis of the left side, but who is now able to get about quite alone, and whose general condition is much improved.

**Eyesight.**

As several children have defective eyesight Mr. Flemming of Moorfields very kindly offered to see them for me, with the result that out of five sent to him three who had internal strabismus (squint) were ordered

glasses and should improve, one has very defective sight but should improve with time, and the fifth whose eyesight is impaired from old ulceration is not, he fears, likely to improve much.

**Mental and moral improvement.** Mentally, I am pleased to say, there is marked improvement in the condition of the children.

Among the most encouraging cases I should like to mention the boy *F. B.* When first admitted he was of a most melancholy temperament, suffering from definite fits of depression in which he would show a disposition to be alone and mope and give way to fits of crying. This boy has a bad mental family history, his mother having suffered from depression and committed suicide. *B.* is now far more cheerful, and for the time being practically cured from his attacks of melancholy. The boys *F. S.* and *A. L.* have become much brighter, and one is encouraged to hope that they may turn out successful cases.

*W. C.* on admission was very mischievous and troublesome. He is now much improved, and goes every Saturday to do a little work and has given satisfaction to his employer.

On the other hand we have had a failure in the boy *T. G.*, who was admitted into this home for a short time, but as he had dishonest propensities it was impossible to keep him. Perhaps it is hardly fair to mention him as a failure, as he was in the home such a short time, and was old when admitted. I think this case goes far to prove the advisability of not admitting older boys into these homes, as their influence is highly detrimental, and they themselves are not to any great extent benefited.

In connection with the question of improvement, I may mention that we have two or three children in this home who are not at all likely to improve, and I hope it may not be long before these are drafted out to make room for others who are more promising. I should like to draw your attention to another very important point as showing the mental and moral improvement—that namely, of nocturnal incontinence. On admission nearly every boy suffered from this frequently, but now only four continue the habit. In the case of two out of these four it has occurred about three times only in the year, and in the case of one of the remaining two boys, it is chiefly due to his being mentally very deficient.

**Admissions and discharges.** During the year three boys have been admitted, one of whom (*J. G.*) has since left.

Two others have also been discharged, one being a hopeless case, and the other having been placed in this home by a mistake.

It has been agreed within the last half-year to try the experiment of giving pocket money of one penny a week to each child, not only as an incentive to good behaviour, but also as a means of teaching the use of money and thrift.

It is early at present to speak of results, but the boys certainly appreciate the money, and have pleasure in spending it. It is also proposed to introduce drilling, as it is hoped that this may teach the children smartness of movement and discipline.

I should like to suggest that it would be desirable, as the boys improve, to allow them at intervals to give little entertainments, for which the best members of



the class could themselves make preparations in the shape of drilling displays, recitations, &c.

This would develop a spirit of emulation and give the boys an object to work for.

In closing this report I should like to say that as in the course of my duties I have seen the home under all aspects, I cannot fail to think that the improvement which has undoubtedly been made is in great part due to the wise and even temper of the matron and her assistants of whom I cannot speak too highly.

(Signed) R. TURNER.

87, Gower Street, December 31st, 1902.

(c) 16, *ELM GROVE, PECKHAM.*

**General  
medical  
report.**

During the year 1902 I am pleased to be able to report that there has been very little sickness in this home; and all the boys have physically improved very much.

**Encourag-  
ing cases  
(physical).**

One boy especially I should like to draw attention to, viz., *E. P.* Some years ago this boy was operated on for hip trouble—he had marked shortening of the left leg with wasting of the leg muscles of that side; formerly he was only able to get about with great difficulty on crutches, now, I am glad to say, he can move about well without using crutches; he has, however, of course, still to use leg irons.

**Eyesight.**

The boy *G. M.* has had his eyesight tested, as he was subject to repeated attacks of conjunctivitis. Since wearing the glasses, which were ordered for him, he has much improved in this respect.

**Mental  
progress.**

Mentally most of the boys have improved, although we still have in this home, I am sorry to say, boys who are not likely to improve much. Among the most encouraging cases, I may mention the boy *C. K.* who, from being subject to violent fits of temper, has now become self-controlled; he has also been moved from the "special school" into the ordinary school.

*W. M.*, who at the beginning of last year had several attacks of acute hysteria, during which he threatened and made several slight attempts at suicide, this year has had no return of these attacks.

**Admissions  
and  
discharges.**

Early in the year one boy, *E. B.*, was discharged as he was very delicate and exceedingly deficient mentally.

In the case of one boy, *J. W.*, he was removed from this home as he was so troublesome and said to be dishonest, but I am pleased to say he is now doing very well in the Fulham Home.

Two new boys have been admitted during the year; I am afraid neither are promising cases, however.

**Moral  
progress.**

During the year there have been several complaints of the boys behaving in a troublesome way; but on the whole I think they are improving, and when the bigger and more troublesome boys are placed under firmer discipline, the improvement in this respect, I think, will be greater.

(Signed) R. TURNER.

87, Gower Street, December 31st, 1902.

## APPENDIX IV.

## REMAND HOMES.

(a) Table showing number of children admitted during the year 1902 to each home :—

HOME.	Boys.	Girls.	Total.
Camberwell Green ... ..	693	81	774
Harrow Road ... ..	377	...	377
Pentonville Road ... ..	716	154	870
Total ... ..	1,786	235	2,021

(b) Table showing ages of the children admitted during the year 1902, and the number of children in each case :—

AGE IN YEARS.	Camberwell Green.	Harrow Road.	Pentonville Road.	Total.
2 ... ..	2	...	1	3
3 ... ..	6	...	2	8
4 ... ..	3	1	2	6
5 ... ..	4	2	6	12
6 ... ..	12	2	12	26
7 ... ..	14	14	20	48
8 ... ..	49	15	53	117
9 ... ..	53	25	83	161
10 ... ..	80	49	92	221
11 ... ..	72	48	133	253
12 ... ..	129	58	121	308
13 ... ..	164	61	142	367
14 ... ..	96	35	92	223
15 ... ..	57	52	91	200
16 ... ..	28	12	16	56
17 ... ..	5	3	3	11
18 ... ..	...	...	...	...
19 ... ..	...	..	1	1
Total ... ..	774	377	870	2,021

(c) Table showing periods for which children were remanded during 1902, and the number of children in each case:—

NUMBER OF DAYS.	Number of Children at Camberwell Green.	Number of Children at Harrow Road.	Number of Children at Pentonville Road.	Total.
1 ... ..	...	9	25	34
2 ... ..	16	6	29	51
3 ... ..	12	1	31	44
4 ... ..	21	3	12	36
5 ... ..	23	5	36	64
6 ... ..	29	4	42	75
7 ... ..	64	79	312	455
8 ... ..	288	123	85	496
9 ... ..	99	16	35	150
10 ... ..	23	5	16	44
11 ... ..	17	4	17	38
12 ... ..	...	4	26	30
13 ... ..	...	...	16	16
14 ... ..	54	27	93	174
15 ... ..	...	46	37	83
16 ... ..	74	20	9	103
17 ... ..	...	8	6	14
18 ... ..	25	...	2	27
19 ... ..	...	1	2	3
20 ... ..	...	1	3	4
21 ... ..	27	3	15	45
22 ... ..	...	5	8	13
23 ... ..	...	3	3	6
24 ... ..	...	2	2	4
25 ... ..	...	...	...	...
26 ... ..	...	...	...	...
27 ... ..	1	...	1	2
28 ... ..	...	1	...	1
29 ... ..	...	...	2	2
30 ... ..	...	1	1	2
31 ... ..	...	...	...	...
32 ... ..	...	...	1	1
33 ... ..	...	...	...	...
34 ... ..	...	...	1	1
35 ... ..	...	...	...	...
36 ... ..	1	...	2	3
<b>Total ... ..</b>	<b>774</b>	<b>377</b>	<b>870</b>	<b>2,021</b>

NOTE.—The longest period of remand allowed is seven days. Cases staying over this period have been sent back from the courts from time to time.

(d) Table showing the schools attended by the children prior to arrest :—

SCHOOL.	At Camberwell Green.	At Harrow Road.	At Pentonville Road.	Total.
Board schools ... ..	449	162	402	1,013
Roman Catholic schools ... ..	123	42	76	241
Grammar schools ... ..	5	...	...	5
Poor Law schools ... ..	1	3	9	13
Church of England schools ... ..	73	41	72	186
Nonconformist schools ... ..	31	...	1	32
Private schools ... ..	7	...	6	13
Jewish schools ... ..	...	1	11	12
Industrial schools .. ..	...	...	10	10
Schools for Defectives ... ..	...	...	3	3
Higher grade schools ... ..	...	...	4	4
Dr. Barnardo's Homes ... ..	...	...	4	4
Passmore Edwards' Cripple School ... ..	...	...	1	1
Regent Street Polytechnic ... ..	...	...	1	1
Public school ... ..	1	...	...	1
Infants and unknown ... ..	84	128	270	482
<b>Total ... ..</b>	<b>774</b>	<b>377</b>	<b>870</b>	<b>2,021</b>

(e) Table showing the offence with which the children were charged during 1902 :—

CHARGES.	Camberwell Green.	Harrow Road.	Pentonville Road.	Total.
Defrauding railway company ... ..	...	1	...	1
Felony ... ..	329	110	182	621
Unlawful possession ... ..	23	2	20	45
Larceny ... ..	16	39	110	165
Found on enclosed premises ... ..	19	...	..	19
Assault or maliciously wounding ... ..	29	5	2	36
Begging ... ..	73	70	131	274
Wandering or without visible means ... ..	137	92	275	504
Beyond control or not under control ... ..	99	23	32	154
Residing in a house of ill-fame ... ..	43	8	22	73
Suspected persons ... ..	6	...	13	19
Pocket-picking ... ..	...	...	21	21
Wilful damage ... ..	...	2	11	13
Burglary and house-breaking ... ..	...	7	12	19
Disorderly conduct ... ..	...	2	6	8
Sacrilege ... ..	...	4	...	4
Sleeping out ... ..	...	5	6	11
Missile throwing ... ..	...	1	5	6
Obtaining money by false pretences ... ..	...	...	3	3
Embezzlement ... ..	...	1	3	4
Gambling ... ..	...	2	3	5
Cruelty to animals ... ..	...	1	...	1
Trespassing .. ..	...	...	3	3
Truants ... ..	...	...	3	3
Deserting from the Army ... ..	...	...	2	2
Attempted suicide ... ..	...	...	1	1
Obstruction ... ..	...	1	...	1
Forgery ... ..	...	...	1	1
Furious riding ... ..	...	...	1	1
Loitering ... ..	...	...	1	1
Indecent assault ... ..	...	1	1	2
<b>Total ... ..</b>	<b>774</b>	<b>377</b>	<b>870</b>	<b>2,021</b>

(f) Table showing the result of the last appearances of the children before the magistrate during 1902 :—

RESULT.	Camberwell Green.	Harrow Road.	Pentonville Road.	Total.
Discharged to homes ... ..	267	94	142	503
Birched ... ..	27	3	16	46
Fined or bound over ... ..	39	20	22	81
Taken by police court missionary ... ..	42	3	...	45
Sent to training ships ... ..	72	46	36	154
Sent to reformatory or industrial or truant schools ... ..	301	125	239	665
Sent to workhouses and various homes ... ..	26	11	24	61
Sent to prison ... ..	...	3	3	6
Sent to coal mines in Yorkshire ... ..	...	2	...	2
Committed to the sessions ... ..	...	1	3	4
Escaped from police ... ..	...	1	...	1
Foreigners sent back to their countries ... ..	...	...	2	2
Sent to infirmaries ... ..	...	...	9	9
Handed over to military escort... ..	...	...	2	2
Result unknown ... ..	...	68	372	440
<b>Total ... ..</b>	<b>774</b>	<b>377</b>	<b>870</b>	<b>2,021</b>

(g) Table showing the religious persuasion of the children admitted during 1902 :—

RELIGIOUS PERSUASION.	Camberwell Green.	Harrow Road.	Pentonville Road.	Total.
Church of England ... ..	622	207	670	1,499
Roman Catholic ... ..	114	42	99	255
Nonconformists ... ..	38	...	5	43
Jews ... ..	...	1	29	30
No religion ... ..	...	4	...	4
Unknown ... ..	...	123	67	190
<b>Total ... ..</b>	<b>774</b>	<b>377</b>	<b>870</b>	<b>2,021</b>

(h) Table showing clothing given away during 1902 to children requiring it either in consequence of their not having sufficient on admission or of their own clothing having to be destroyed :—

ARTICLES.	Camberwell Green.	Harrow Road.	Pentonville Road.	Total.
Complete outfits ... ..	13	42	10	65
Coats... ..	6	...	26	32
Vests ... ..	3	...	16	19
Trousers ... ..	3	...	29	32
Braces ... ..	...	...	16	16
Shirts ... ..	3	16	43	62
Socks ... ..	8	16	42	66
Stockings ... ..	5	16	11	32
Articles of girl's underclothing ... ..	...	..	23	23
Hats and caps ... ..	2	...	21	23
Girl's jackets ... ..	1	...	1	2
Dresses .. ..	2	...	8	10
Boots and shoes (pairs) ... ..	16	45	89	150

## ANNUAL REPORT,

## APPENDIX V.

## COST PER HEAD.

SCHOOL OR HOME.	Average Daily Number of Inmates.	Percentage of Average Daily Number to Normal Accommodation.	Permanent Officers (all Grades), Highest Number.	Maintenance and Clothing per day.	Total cost per day, including all charges except rent.
				s. d.	s. d.
RINGWORM SCHOOLS—					
I. Bridge School ... .. (a)	150	94	34	0 7 $\frac{1}{32}$	2 1 $\frac{1}{32}$
(b)	155	97	41	0 5 $\frac{1}{32}$	1 7 $\frac{1}{32}$
SEASIDE HOMES—					
I. S. Anne's Home ... .. (a)	113	84	33	0 7 $\frac{5}{32}$	2 0 $\frac{1}{32}$
(b)	119	89	34	0 6 $\frac{2}{32}$	1 11 $\frac{7}{32}$
II. East Cliff House ... .. *(a)	69	...	25	0 9 $\frac{1}{32}$	2 5 $\frac{1}{32}$
(b)	92	101	27	0 6 $\frac{2}{32}$	1 10 $\frac{7}{32}$
HOMES FOR DEFECTIVE CHILDREN—					
Lloyd House and 12, Lloyd Street (a)	25	90	5	0 10 $\frac{5}{32}$	2 4 $\frac{1}{32}$
(b)	23	82	8	0 8 $\frac{1}{32}$	2 1 $\frac{1}{32}$
16, Elm Grove ... .. (a)	13	93	5	0 8 $\frac{1}{32}$	2 3 $\frac{1}{32}$
(b)	12	86	5	0 5 $\frac{3}{32}$	1 9 $\frac{5}{32}$
60, 62, 64, Kingwood Road ... (a)	20	91	6	0 9 $\frac{1}{32}$	2 1 $\frac{1}{32}$
(b)	19	86	6	0 9 $\frac{1}{32}$	1 9 $\frac{1}{32}$
REMAND HOMES—†					
Pentonville Road ... .. (a)	...	...	...	...	...
(b)	23	42	7	0 8 $\frac{7}{32}$	2 5 $\frac{4}{32}$
Harrow Road ... .. (a)	...	...	...	...	...
(b)	9	20	5	0 8 $\frac{2}{32}$	3 4 $\frac{2}{32}$
Camberwell Green ... .. (a)	...	...	...	...	...
(b)	22	44	5	0 7 $\frac{2}{32}$	1 8 $\frac{1}{32}$

(a) Half-year ending Lady-day, 1902.

(b) Half-year ending Michaelmas, 1902.

\* Extension opened during this period.

† Opened 1st January, 1902.

**APPENDIX VI.**  
**GENERAL STATISTICAL STATEMENT, 1902.**

HOMES.	Description and Name.	Date of Opening.	NUMBER OF CHILDREN.																								
			Remaining on 1st January, 1902.		Admitted during the Year.		Transferred from other Homes under the Board during the Year.		Discharged during the Year.		Transferred to other Homes under the Board during the Year.		Died during the Year.		Remaining on 31st December, 1902.		Total Number of Children admitted from opening of Home to 31st December, 1902.										
			Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total							
<i>I.—Ringworm.</i>																											
	Bridge School, Witham ...	12 February, 1901	71	77	148	60	64	124	4	1	5	49	63	112	...	...	...	...	...	...	...						
	Total accommodation, 160.																										
<i>II.—Convalescents.</i>																											
	S. Anne's Home, Herne Bay	26 December, 1897	76	39	115	126	39	165	41	1	42	107	46	153	43	1	44	1	1	2	92	31	123	526	371	897	
	Total accommodation, 134.																										
	East Cliff House, Margate ...	26 June, 1898 ...	13	51	64	20	140	160	...	29	29	22	108	130	...	29	5	5	11	78	89	182	394	576			
	Total accommodation, 91.																										
<i>III.—Defective Children.</i>																											
	Lloyd House, Pentonville ...	16 January, 1899	...	20	20	...	...	...	...	20	20	...	2	2	...	20	...	...	...	...	...	...	...	...	...	...	
	Total accommodation, 20.																										
	12, Lloyd Street, Pentonville	18 October, 1901	...	6	6	...	2	2	...	...	...	...	...	...	...	8	8	...	...	...	...	...	...	...	...	...	
	Total accommodation, 8.																										
	Elm Grove, Peckham, No. 16	25 January, 1901	14	...	14	3	...	3	15	...	15	2	...	2	...	16	...	...	...	...	...	...	...	...	...	...	
	Total accommodation, 14.																										
	Kingwood Road, Fulham,	17 September, 1900	21	...	21	3	...	3	23	...	23	2	...	2	...	25	...	...	...	...	...	...	...	...	...	...	
	Nos. 60, 62, and 64																										
	Total accommodation, 13.																										
<i>IV.—Remand Homes.</i>																											
	Pentonville Road, Nos. 70,	1 January, 1902	...	...	...	720	154	874	...	...	...	713	151	864	...	...	...	...	...	...	...	...	...	...	...	...	
	72, and 74																										
	45 Boys and 10 Girls.	Do.	...	...	...	377	...	377	...	...	...	372	...	372	...	...	...	...	...	...	...	...	...	...	...	...	
	Harrow Road, Nos. 203 & 205	Do.	...	...	...	698	81	774	...	...	...	686	79	765	...	...	...	...	...	...	...	...	...	...	...	...	
	Total accommodation, 45.																										
	Camberwell Green, Nos. 36,	Do.	...	...	...	388	2002	480	2482	83	51	134	1953	449	2402	84	58	142	1	6	7	249	221	470	2712	1193	3905
	37, and 38																										
	40 Boys and 10 Girls.	TOTALS ...	195	198	388	2002	480	2482	83	51	134	1953	449	2402	84	58	142	1	6	7	249	221	470	2712	1193	3905	

ANNUAL REPORT OF THE COMMITTEE OF MANAGEMENT OF  
THE TRAINING SHIP "EXMOUTH" FOR THE YEAR 1902.

June, 1903.

- Captain-superintendent.** 1. In our last annual report we noted the resignation of Captain Bouchier, R.N., who was in command of the ship for 26 years. In January, 1902, the Managers selected Commander A. J. Loane, R.N., to succeed Captain Bouchier. After a year's service, however, Commander Loane resigned the appointment. Owing, therefore, to the vacancy existing at the beginning of 1903 in the post of captain-superintendent, the annual report of that officer, which is usually appended to this report, is omitted on the present occasion.\*
- Admissions and discharges.** 2. During the year 329 boys were admitted and 381 discharged. Of the boys discharged, 116 went to the navy, 101 to the army, and 112 to the mercantile marine. 50 boys were discharged to their friends or returned to the unions from which they came, and 2 boys died. There were 535 boys remaining under training at the close of the year.
- Shipping home.** 3. The work of the Shipping Home at Limehouse has been carried on during the year on the same lines as before, and 112 boys have been found employment in the mercantile marine through this agency.
- Brigantine.** 4. The brigantine cruised from May to October with crews formed from the elder boys, and attended both assemblies of H.M. navy at Spithead. The work done in this vessel is most useful in giving the boys practical acquaintance with seamship.
- Annual inspection and prize distribution.** 5. The annual inspection of the ship by the Managers was held on June 7th. The Right Hon. Gerald Balfour, M.P., President of the Board of Trade, kindly distributed the prizes, and subsequently addressed the Managers and their friends on the work of the ship— with which, from the point of view of the mercantile marine, he expressed great

\* In March, 1903, the Board selected Captain R. B. Colmore, R.N., to fill the vacancy.



satisfaction. We have again to thank the gentlemen named in Table IV. for their kindness in presenting silver watches to the boys.

**Vacancies.** 6. We regret to be compelled to refer once again to the lack of interest taken by many Metropolitan Boards of Guardians in this ship. During the past year there has been no appreciable increase in the number of boys sent from the metropolis for training on board, and we should be glad if members of Boards of Guardians would visit the ship and satisfy themselves, by personal observation, of the value of the training given on board. The rapid progress made by many old "Exmouth" boys in the navy, and the praises they have gained, are sufficient testimony to the thoroughness of the preparation of these lads for a useful and healthy career in the service of their country. At the time this report goes to press there are some 50 vacancies on board.

**Works.** 7. During the year, certain necessary repairs have been carried out in connection with the electric light cable, new fore and mizzen tops have been provided, and the top floor ceilings in the infirmary (Sherfield House) have been raised, thereby improving the accommodation and extending the usefulness of that building.

**Condition of the ship.** 8. On the 3rd May we reported to the Board the receipt of a report on the condition of the ship from the captain-superintendent, in which it was suggested that she was past repair, and the Board on our recommendation decided to ask the Admiralty, as the owners of the hull, to have the vessel surveyed. We submitted to the Board, on the 18th October last, the report of the official appointed by the Admiralty, which practically condemned the vessel. Having regard to the serious nature of this report, we were authorised to make inquiries as to whether or not the Admiralty were in a position to lend the Board another ship of equal accommodation in place of the "Exmouth."

In answer to our inquiries, the Admiralty made an offer of the "Edgar" (old), an old three-decker, only four years younger than the "Exmouth"; but after a careful examination of the vessel had been made on our behalf, we had no difficulty in arriving at the conclusion that her condition was not such as to render it desirable for the Board to accept the offer.

We communicated our views to the Lords Commissioners of the Admiralty, and further negotiations in the matter were in progress at the end of the year.

**Records of visitors.** 9. The records made by visitors continue, as in past years, to afford evidence of the satisfactory impressions created in the minds of those who are enabled to inspect the ship, and see its work in detail. The following are some of these records:—

(1.) *Guardians of the Richmond Union (June 18th):—*

"We have visited the "Exmouth" to-day and we are very satisfied with all we saw."

(2.) *Guardians of the Kingston Union (July 17th):—*

"We have this day visited the "Exmouth" and after going over the ship, seeing the boys at school, and different instructions, are well satisfied with all we have seen."

(3.) *Guardians of the Watford Union (July 21st):—*

"Having inspected the boys from our district, and also the ship, we wish to express our satisfaction at the general appearance of the boys and the ship."

(4.) *Guardians of the Parish of Fulham (September 19th):—*

“We have visited the ship and inspected the infirmary. We found everything in capital order and were thoroughly satisfied with the condition of the boys, their drill, food, and the conduct of the ship generally.”

(5.) *Association of Head Teachers, School Board for London (October 11th):—*

“On behalf of a party of head teachers under the School Board for London, we this day paid a visit to the training ship ‘Exmouth.’ We wish to record our entire satisfaction and admiration of the discipline, drill, and happiness of the boys.”

(6.) *Lord Bishop of Colchester (October 29th):—*

“Visited the ship and held a confirmation. The conduct of the boys was all that could be desired, and everything was in perfect order.”

(7.) *Guardians of the Parish of Hammersmith:—*

“Your Committee interviewed the four lads chargeable to Hammersmith, and from their smiling and contented faces, it was evident that the training they were undergoing was having a beneficial effect upon them. The decks and sleeping berths were scrupulously clean, and discipline was well maintained. Your Committee are pleased to report that this is a helpful branch of work in connection with Poor Law, which is well carried out by the Metropolitan Asylums Board.”

**Expenditure.**

10. The cost per head per day for maintenance and clothing for the two half-years ending Lady Day and Michaelmas, 1902, was 8¾d. in each case, and including all charges (except outfits for boys going to sea and repayments of amounts raised on loan), 1s. 8¾d. and 1s. 8½d. respectively.

**Appendices.**

11. We append (I.) the reports of the medical officer, dentist, and chaplain, as well as reports on the ambulance, gymnastic, and band instructions, and (II.) the usual statistical tables.

(Signed) C. P. MARRIOTT,  
Chairman.



## (3) REPORT OF THE CHAPLAIN.

*“ January, 1903.*

“The conditions of work in this department change very little, and the ordinary routine has been followed during the past year. The Sunday services have been regularly conducted, and the boys continue to take an increasing interest and care in following their part of the service. The regular scriptural instruction on Tuesdays and Fridays, with the addition of Thursdays during the time of special preparation for confirmation, has received all the care and attention I could possibly devote to it. On Wednesday, October 29th, the Lord Bishop of Colchester visited the ship for the annual confirmation; 149 boys were presented for the sacred rite. A fortnight afterwards 142 of them attended All Saints' Church, and made their first communion. Twice during the year all the boys on board who have been confirmed have attended church for a special service and administration of Holy Communion. I have on several occasions examined the boys on subjects of general knowledge, and felt satisfied as to their progress.

“The infirmary has been constantly visited, and words of kindness and encouragement spoken to the boys.

“ (Signed) F. HASLOCK.”

## (4.) REPORT ON THE AMBULANCE WORK BY DR. COATES, R.N.

*“ 2nd June, 1902.*

“ I have the honour to report on the result of First Aid (Junior) Examination held by me on board the Training Ship ‘Exmouth,’ under your command, on May 30th, 1902. 21 boys came for the first time, and 1 for re-examination. Of the former, 14 passed and did their work in an intelligent manner, as did also the boy for re-examination.”

## (5.) REPORT ON THE GYMNASTICS BY PROFESSOR HARVIE.

*“ 2nd June, 1902.*

“ I have the honour to report that on my visit to judge the gymnastics of the boys on 31st May, 1902, I was at once struck with the idea how much younger than usual the competitors were; most of them must have been comparatively new arrivals on board, and could have been under physical training but for a short time. Of course, I did not expect great things from them under these conditions, but I was agreeably surprised to find that they showed an excellent standard of gymnastics. The work was uniformly good throughout, and in one or two cases where the boys had been longer under training it would compare well with anything the ship has ever done. It is very satisfactory to see that due attention is paid to the production of harmonious development of their bodies, not only strength and endurance, but form and courage are cultivated.

“The boys were bright, active, and alert, and seemed to quite enjoy the possession and using of their muscular powers—powers which will be of such immense service to them in the future.”

## (6.) REPORT ON THE BAND INSTRUCTION BY NAVAL BANDMASTER LIDIARD.

"I have the honour to submit the report of result of my inspection of the boys under musical instruction on board the training ship 'Exmouth,' under your command, and in so doing I beg to state that on the 1st and 2nd April I gave them a careful and precise examination.

"The first-class band (numbering 44) played a march and a valse which was in readiness for me to hear, and then played a march of my own selecting. The tone produced was good, and the playing in general very creditable, more especially being such young boys. Individually examined, I found that the boys had a fair knowledge of scales, and also of the elements of music; to the questions I received very quick and mostly correct answers. I consider this very satisfactory, as I did not find any boys left in this class that were in at my inspection of 1901, and therefore these boys have all been less than twelve months playing an instrument.

"In the second-class band the boys are quite beginners with their instruments. They are able to produce a fair tone and many of them able to play a scale correctly; and here again the questions on the elements of music were quickly answered, and they were invariably correct.

"The third-class band is purely elementary, and after verbally questioning them I set them tests on the blackboard in notation, value of notes, &c., which the majority worked quite correctly on their slates, the few mistakes that were made being very ordinary. The juniors of this class I had separately at verbal replies only and I found they are making a good beginning.

"The bugle and drum band played three marches in quick time, and one march in double time. They were well sustained and correctly played—the two leading buglers being very keen at their work, as also were the leading side and bass drummers. I also had the leading bugler to blow calls as I named them, and each boy to separately repeat the same calls, the whole doing remarkably well.

"The boys were very attentive throughout the examination, and the general results I consider very satisfactory."

APPENDIX II.

TABLE I.—BOYS ADMITTED AND DISCHARGED.

YEAR ... ..	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1900	1893	1897	1896	1895	1894	1893	1892	1891	1890	1889	1888	1887	1886	1885	1884	1883	1882	1881	1880	1879	1878	1877	1876	TOTALS.		
Admitted ... ..	104	494	188	210	289	226	340	350	326	267	374	241	301	329	290	223	322	290	307	278	347	325	323	341	423	413	329	423	413	329	423	413	329	423	413	329	423	413	329	423	413	329	8,357
Discharged to Royal Navy	1	6	1	8	72	85	155	141	95	128	114	95	87	104	108	89	83	102	133	163	137	129	123	149	115	151	116	149	115	151	116	149	115	151	116	149	115	151	116	149	115	151	2,690
Discharged to Mercantile Marine, of whom 40 were enrolled in Royal Naval Reserve ... ..	53	19	126	115	105	107	109	96	186	91	107	92	141	171	134	75	69	90	87	96	109	112	112	135	145	146	112	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	2,861
Discharged to Army as Musicians ... ..	9	11	9	31	17	27	46	74	61	43	55	36	18	56	48	42	66	28	26	37	49	28	32	52	93	56	101	93	56	101	93	56	101	93	56	101	93	56	101	93	56	101	1,157
Discharged to situations, of whom 8 subsequently went to sea ... ..	1	...	2	...	3	...	...	...	2	...	...	...	...	...	...	1	...	...	1	1	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	13		
Discharged to Unions by order of respective Boards of Guardians and Committee ... ..	21	23	47	30	61	43	27	33	52	39	49	44	45	44	36	18	51	34	54	41	51	29	39	39	39	31	50	39	39	39	39	39	39	39	39	39	39	39	39	39	39	1,060	
Boys died ... ..	...	...	2	1	...	4	1	...	2	2	5	1	2	1	1	...	1	3	2	1	3	2	1	1	1	2	2	1	3	2	1	3	2	1	3	2	1	3	2	1	3	41	
Totals ... ..	85	59	187	185	258	296	338	344	318	303	330	269	233	376	327	225	270	257	363	338	350	300	307	373	393	387	381	393	387	381	393	387	381	393	387	381	393	387	381	393	387	381	7,822
																																										535	
																																											8,357

Total number of boys discharged ... .. 7,822  
 Remaining under training 31st December, 1902 ... .. 535  
 Total ... .. 8,357

TABLE II.

Number of boys admitted from each of the metropolitan unions and parishes and from country unions during 1902 and during the whole time the ship has been established.

Year ending Dec. 31st, 1902.	Union or Parish.	From Mar. 31st, 1876, to Dec. 31st, 1902.	Year ending Dec. 31st, 1902.	Union or Parish.	From Mar. 31st, 1876, to Dec. 31st 1902.
	Number of boys in the ship when it was taken over from the managers of the Forest Gate School District ... ..	12	Bro. } 244 for. }	Brought forward	7,987
	<i>Metropolitan Unions.</i>				
2	City of London ... ..	120	2	Worcester ... ..	24
11	Fulham ... ..	280	—	Brentford ... ..	9
7	Greenwich ... ..	425	2	Richmond ... ..	14
20	Hackney ... ..	299	—	Gateshead ... ..	1
16	Holborn ... ..	276	—	Bicester ... ..	1
4	Hammersmith ... ..	16	—	Hendon ... ..	1
13	Lewisham ... ..	655	—	Hambleton ... ..	1
13	Mile End ... ..	209	10	Epsom ... ..	9
12	Poplar ... ..	403	—	Leeds ... ..	1
1	St. George's-in-the-East	127	1	Dewsbury ... ..	3
5	St. George's Union ...	277	9	Watford ... ..	16
—	St. Giles, Bloomsbury	39	5	Warwick ... ..	1
9	St. Giles, Camberwell	483	—	Croydon ... ..	26
1	St. John, Hampstead	32	2	Haslingden ... ..	1
1	St. Leonard, Shoreditch	145	27	Eastbourne ... ..	5
1	St. Luke, Chelsea ...	151	—	Isle of Thanet ... ..	28
8	St. Mary, Islington ...	255	—	Maidstone ... ..	25
1	St. Mary Abbots, Kensington	191	1	Gravesend ... ..	4
5	St. Mary, Lambeth ...	441	2	Steyning ... ..	10
2	St. Marylebone ... ..	496	—	West Ham ... ..	106
—	St. Mary, Paddington	142	—	Chelmsford ... ..	7
12	St. Matthew, Bethnal Green	217	1	Newbury ... ..	—
3	St. Olave's ... ..	287	1	Kettering ... ..	3
12	St. Pancras ... ..	465	1	Reigate ... ..	3
16	Southwark ... ..	444	2	Chippenham ... ..	2
—	Stepney ... ..	107	1	Westhampnett ... ..	3
—	Strand ... ..	32	—	Dorking ... ..	3
30	Wandsworth and Clapham	268	—	Banbury ... ..	2
1	Westminster ... ..	57	—	Thakcham ... ..	2
6	Whitechapel ... ..	159	1	Derby ... ..	13
18	Woolwich ... ..	343	—	Cuckfield ... ..	2
	<i>Country Unions.</i>		—	Brighton ... ..	1
2	Willesden ... ..	16	—	Orsett ... ..	2
3	Stockport ... ..	5	1	Hemel Hempstead ...	1
—	Bromley ... ..	14	—	Wilton ... ..	2
—	Bedford ... ..	20	—	Portsmouth ... ..	1
5	Strood ... ..	49	3	Sculcoats ... ..	1
—	Medway ... ..	21	1	Horsham ... ..	3
4	Kingston ... ..	53	5	Great Yarmouth ... ..	3
—	St. Albans ... ..	3	2	Maldon ... ..	2
—	Martley ... ..	3	1	Guildford ... ..	3
				Colchester ... ..	12
				Nottingham ... ..	4
				Foleshill ... ..	1
				Windsor ... ..	5
				Chesterfield ... ..	2
				Stow ... ..	1
Car. } 244 for. }	Carried forward	7,987	Total 329	Total ... ..	8,357

Admissions from country unions commenced only in the latter part of 1892.

TABLE III.—BOYS SHIPPED FROM THE SHIPPING HOME.

Year.	Number Shipped.	Year.	Number Shipped.	Year.	Number Shipped.	Year.	Number Shipped.
1876 ... ..	53	Bro. for ...	730	Bro. for ...	1,573	Bro. for ...	2,211
1877 ... ..	19	1884 ... ..	106	1891 ... ..	75	1898 ... ..	112
1878 ... ..	126	1885 ... ..	91	1892 ... ..	69	1899 ... ..	135
1879 ... ..	115	1886 ... ..	107	1893 ... ..	90	1900 ... ..	145
1880 ... ..	105	1887 ... ..	93	1894 ... ..	87	1901 ... ..	146
1881 ... ..	107	1888 ... ..	141	1895 ... ..	96	1902 ... ..	112
1882 ... ..	109	1889 ... ..	171	1896 ... ..	109		
1883 ... ..	96	1890 ... ..	134	1897 ... ..	112		
Car. for ...	730	Car. for ...	1,573	Car. for ...	2,211	TOTAL ...	2,861

TABLE IV.—PRIZE LIST FOR SPECIAL GOOD CONDUCT AND ABILITY.—Prize Day, 7th June, 1902.

NAME.	No. on Ship's Books.	No. on Watch Bill.	UNION OR PARISH.	RATING.	PRIZE.	AWARDED FOR	KINDLY GIVEN BY
G. Pope	7435	518	Lambeth	Chief Petty Officer, Chief Store-room Boy	Silver Watch	Special Good Conduct and Ability	Sir R. M. Hensley, J.P., Chairman of the Board.
W. Ehm	6791	286	Lewisham	Chief Petty Officer, Captain of Division	Silver Medal	Ditto	The Managers.
J. Morris	7605	287	Camberwell	Captain of Division	Ditto	Ditto	Ditto.
H. Inman	7445	192	Croydon	1st Class Petty Officer	Ditto	Ditto	Ditto.
R. Whittard	7461	198	Hackney	Chief Petty Officer, Captain of Division	Ditto	Ditto	Ditto.
E. Miles	7471	302	West Ham	Ditto	Ditto	Ditto	Ditto.
R. Soall	7654	365	Ditto	Ditto	Ditto	Ditto	Ditto.
A. G. Spiceley	7450	596	Hackney	Ditto	Ditto	Ditto	Ditto.
A. Northcott	7528	548	Lewisham	1st Class Petty Officer, Ship's Office Boy	Ditto	Ditto	Ditto.
R. Beard	7083	446	Camberwell	1st Class Petty Officer, Call Boy	Ditto	Ditto	Ditto.
J. Marshment	7162	467	West Ham	Chief Petty Officer, Captain of Division	Ditto	Ditto	Ditto.
P. G. Woodward	7230	85	Hackney	Ditto	Ditto	Ditto	Ditto.
T. Earl	7555	70	Lambeth	Ditto	Ditto	Ditto	Ditto.
T. Buckley	7132	232	Whitechapel	Ditto	Silver Watch	Most "Useful Boy"	Mr. R. Strong, J.P., one of the Managers.
F. Thompson	7730	15	Derby	Call Boy	Ditto	"Best Boy" in School	A Member of the Ship Committee.
F. Hobbs	7239	550	Wandsworth	Chief Petty Officer, Captain of Division	Ditto	"Popular Boy"	Capt. Brown's Legacy Fund.
T. Turner	7636	144	Fulham	Quarter-Master Boy	Ditto	"First Boy" in Gun Drill	Mr. W. H. Eeroyd, a member of the Board.



TABLE V.

The boys discharged to the army since 25th March, 1876, joined the under-mentioned regiments as band boys, viz. :—

1 to the Royal Horse Artillery.	1 to the 19th Hussars.	15 to the Welsh Fusiliers, Royal.
24 " Royal Artillery.	9 " 20th Hussars.	34 " Welsh Regiment.
1 " Royal Engineers.	2 " 21st Hussars.	1 " West Riding Regiment.
13 " Dragoon Guards.	8 " Grenadier Guards.	12 " East Lancashire Regiment.
1 " 3rd Hussars.	4 " Coldstream Guards.	8 " Loyal North Lancashire Regiment.
1 " 4th Hussars.	1 " Scots Guards.	17 " South Lancashire Regiment.
2 " 5th Lancers.	20 " Argyll and Sutherland Highlanders.	8 " Lancashire Regiment, Royal.
1 " 11th Hussars.	7 " Northumberland Fusiliers.	8 " Leicester Regiment.
24 " Berkshire Regiment, Royal.	13 " Oxfordshire Light Infantry.	4 " Leinster Regiment.
18 " Border Regiment.	17 " Rifle Brigade.	4 " Lincolnshire Regiment.
13 " Cheshire Regiment.	21 " Royal Fusiliers.	3 " Liverpool Regiment.
44 " Connaught Rangers.	3 " Royal Highlanders.	78 " Manchester Regiment.
21 " Derbyshire Regiment.	1 " Royal Marine Light Infantry.	14 " Middlesex Regiment.
2 " Devonshire Regiment.	40 " Scots, Royal (Lothian Regiment).	2 " Munster Fusiliers, Royal.
9 " Dorsetshire Regiment.	24 " Scots Fusiliers, Royal.	6 " Cameron Highlanders.
32 " Dublin Fusiliers, Royal.	7 " Scottish Rifles.	16 " Northamptonshire Regiment.
7 " Duke of Cornwall's Light Infantry.	2 " Seaforth Highlanders.	6 " Wiltshire Regiment.
20 " Durham Light Infantry.	8 " Shropshire Light Infantry.	11 " Worcester Regiment.
37 " Essex Regiment.	29 " Somersetshire Light Infantry.	21 " York & Lancaster Regiment.
5 " Gloucestershire Regiment.	1 " Staffordshire Regiment, North.	32 " Yorkshire Light Infantry.
13 " Gordon Highlanders.	29 " Staffordshire Regiment, South.	9 " Yorkshire Regiment.
5 " Highland Light Infantry.	26 " Suffolk Regiment.	13 " East Yorkshire Regiment.
9 " Inniskilling Fusiliers, Royal.	7 " Surrey Regiment, Royal West.	8 " West Yorkshire Regiment.
21 " Irish Fusiliers, Royal.	30 " Sussex Regiment, Royal.	1 " Army Hospital Corps.
10 " Irish Rifles, Royal.	16 " South Wales Borderers.	11 " Royal Army Medical Corps.
9 " Kent Regiment, East.	40 " Warwickshire Regiment, Royal.	14 " Surrey Regiment, East.
5 " Kent Regiment, Royal West.		5 " Bedford Regiment.
5 " King's Own Scottish Borderers.		
27 " King's Royal Rifle Corps.		
49 " Lancashire Fusiliers.		
1 " 13th Hussars.		
		<hr/> 1,157 Total.

TABLE VI.—SCHOOL PRIZE LIST.

Standard.	No. on Ship's Books.	No. on Watch Bill.	Name.	Prize.	Union or Parish.
				s. d.	
VI.	7713	557	Huggett, Wm. ... ..	6 0	Steyning.
	8322	200	Stevens, Geo. ... ..	6 0	Woolwich.
	8145	139	Palmer, Bert ... ..	4 0	Kingston.
	8162	98	Cortez, Wm. ... ..	4 0	Whitechapel.
	8253	373	Wigzell, W. ... ..	3 0	Hackney.
	8199	124	Elliott, E. ... ..	3 0	Wandsworth.
V.	7649	545	Yeomanson, A. ... ..	6 0	Camberwell.
	8079	384	Kellaway, J. ... ..	6 0	Fulham.
	7731	407	Record, J. ... ..	4 0	Derby.
	7773	396	Potter, J. ... ..	4 0	Strood.
	7739	417	Stone, S. ... ..	3 0	Kingston.
	8195	414	Ryan, T. ... ..	3 0	Poplar.
	8249	547	Oddy, G. ... ..	2 0	Bethnal Green.
	7877	132	Skinner, H. ... ..	2 0	St. Olave's.
IV.	8201	341	Orchard, W. ... ..	6 0	Wandsworth.
	8155	400	Falconer, A. ... ..	6 0	Camberwell.
	7795	489	Thatcher, F. ... ..	4 0	Paddington.
	7874	242	Hubbard, W. ... ..	4 0	Greenwich.
	7753	387	Perryman, G. ... ..	3 0	Hammersmith.
	7740	540	Marchant, F. ... ..	3 0	Kingston.
	8146	57	Delieu, T. ... ..	2 0	Lewisham.
	8181	224	Riddles, A. ... ..	2 0	Greenwich.
	III.	8024	531	Kitson, C. ... ..	5 0
7790		436	Overton, G. ... ..	5 0	Croydon.
7460		223	Wilson, W. ... ..	3 0	Camberwell.
8304		194	Tucker, R. ... ..	3 0	Woolwich.
7134		63	Holland, W. ... ..	2 0	Greenwich.
8100		560	Tremaine, S. ... ..	2 0	Strood.
7637		525	Bowen, A. ... ..	1 0	Fulham.
8257		580	Newell, F. ... ..	1 0	Hackney.
II.	8144	135	Wilson, A. ... ..	5 0	Nottingham.
	8240	188	Woodford, F. ... ..	5 0	West Ham.
	8053	259	Welham, L. ... ..	3 0	Colchester.
	8119	490	Coyle, T. ... ..	3 0	Lewisham.
	7930	51	Marmion, E. ... ..	2 0	Islington.
	8175	64	Ducklin, W. ... ..	2 0	Hammersmith.
	8036	225	Phillips, J. ... ..	1 0	West Ham.
	7744	240	Clarke, A. ... ..	1 0	Islington.
I.	8125	529	Coppin, J. ... ..	4 0	St. George's.
	8083	118	Simmons, C. ... ..	4 0	West Ham.
	8042	425	Barr, J. ... ..	2 6	"
	8335	328	Henderson, M. ... ..	2 6	St. Pancras.
	8399	43	Bolton, R. ... ..	1 0	West Ham.
	8043	168	Nunn, B. ... ..	1 0	"

## PASSED OUT BOYS (5 Sections).

No. on Ship's Books.	No. on Watch Bill.	Name.	Prize.	Union or Parish.
			s. d.	
7956	219	Blenkins, G. ... ..	5 0	Wandsworth.
7728	121	Baines, T. ... ..	5 0	Derby.
7292	429	West, G. ... ..	5 0	West Ham.
7714	83	Ramsay, H. ... ..	5 0	"
7588	95	Williams, S. ... ..	5 0	Holborn.
7618	513	Cooper, E. ... ..	3 0	Fulham.
7660	537	Fackney, G. ... ..	3 0	Stepney.
7668	558	White, H. ... ..	3 0	Fulham.
7298	551	Anslow, S. ... ..	3 0	Camberwell.
7902	169	Skinner, R. ... ..	3 0	Steyning.
7750	526	Atkins, W. ... ..	2 0	West Ham.
7592	366	Topliffe, A. ... ..	2 0	Holborn.
7932	399	Mudd, H. ... ..	2 0	Islington.
7520	62	Sinnett, A. ... ..	2 0	West Ham.
7836	190	Humphreys, S. ... ..	2 0	Bethnal Green.
7499	92	Fysh, E. ... ..	1 0	Wandsworth.
7422	418	Riches, G. ... ..	1 0	West Ham.
8134	495	Parris, W. ... ..	1 0	Hammersmith.
7931	71	Nichols, W. ... ..	1 0	Islington.
7840	449	Bigg, E. ... ..	1 0	Camberwell.

TABLE VII.—PARTICULARS OF OLD BOYS WHO HAVE VISITED THE "EXMOUTH" AND OF OTHERS OF WHOM INFORMATION HAS BEEN OBTAINED DURING 1902.

No.	Name.	No. on Ship's Books.	Union or Parish.	Date heard of.	Reported by	Remarks.
1	E. Baldwin	7178	Holborn	27 Feb.	Visited ship	Mercantile marine.
2	C. Everitt	5926	Woolwich	6 Apr.	"	Baker.
3	R. Hembrey	5651	Fulham	7 "	"	Mercantile marine.
4	G. Attwood	3383	Shoreditch	13 "	Wrote	On shore.
5	M. McCarthy	7980	Paddington	29 May	Visited ship	Mercantile marine.
6	F. Woodnutt	7308	Kingston	30 "	"	"
7	J. Kinder	3789	Camberwell	6 Jun.	Wrote	Passing for second mate.
8	J. Barnes	7616	Fulham	15 "	Visited ship	Mercantile marine.
9	G. Larkin	7758	Southwark	15 "	"	"
10	W. Goulding	2524	Lambeth	30 "	"	"
11	E. Gaines	7431	"	2 July	Wrote	Army bandboy.
12	F. Colton	7267	"	30 "	"	Mercantile marine.
13	E. Webber	4639	Fulham	4 Aug.	Visited ship	"
14	G. Ansell	4919	Lewisham	4 "	"	"
15	P. Marshall	4512	Hackney	4 "	"	"
16	J. Wood	3507	City of London	4 "	"	"
17	F. Varnham	7110	Greenwich	4 "	"	Army bandboy.
18	P. Groves	5182	Lambeth	10 Sep.	"	Royal navy A.B.S.
19	R. Want	6818	Greenwich	10 "	"	O.S.
20	A. Reeve	7375	Wandsworth	10 "	"	Army bandboy.
21	W. Luke	4103	St. Marylebone	16 "	Wrote	Mercantile marine.
22	J. Steare	3218	"	17 "	"	Army band corporal.
23	R. Raven	5093	Woolwich	18 "	Visited ship	Army.
24	J. Ife	6826	Fulham	18 "	"	Army bugler and drummer.
25	S. Weakling	6444	Lambeth	18 "	"	Mercantile marine.
26	E. Gibbs	7262	Chelmsford	18 "	"	Unemployed.
27	A. Puttman	6801	Holborn	18 "	"	"
28	P. Groves	5182	Lambeth	18 "	"	Royal navy signalman.
29	F. Elliott	6545	Wandsworth	18 "	"	Baker.
30	A. Davis	6107	St. George's	18 "	"	Unemployed.
31	E. Carr	6485	Whitechapel	18 "	"	Club waiter.
32	G. Thornhill	3947	Woolwich	18 "	Wrote	Woolwich Arsenal.
33	W. Cavett	5483	Paddington	20 "	Visited ship	Royal marines.
34	E. Webber	4639	Fulham	20 "	"	"
35	C. E. Green	7402	Lambeth	20 "	"	Mercantile marine.
36	A. Archer	7304	Greenwich	24 "	"	"
37	A. Willhams	5119	St. Pancras	24 "	"	"
38	F. Liston	5605	Poplar	24 "	"	Ship's cook, royal navy.
39	H. Plummer	6022	Fulham	24 "	"	Mercantile marine.
40	C. Hill	5550	Camberwell	24 "	"	1st Yorkshire regiment.
41	A. V. E. Engleback	2876	Mile End	24 "	"	Fisherman.
42	S. White	5665	Fulham	24 "	"	Signalman.
43	H. Matthews	3568	Hackney	29 "	Wrote	Bandboy, K.O.Y.L.I.
44	S. Ditchford	4202	Greenwich	29 "	"	Band corporal.
45	G. Arnold	5127	St. George's	29 "	"	Lance
46	L. Love	5333	Hackney	29 "	"	Bandsman
47	F. Tiggs	4737	St. Marylebone	29 "	"	"
48	C. Ward	4483	Southwark	29 "	"	"
49	W. Dean	6739	St. George's	29 "	"	"
50	D. V. Irwin	7380	Kensington	29 "	"	"
51	A. Bennett	6484	Whitechapel	29 "	"	"
52	H. Boon	6825	Woolwich	29 "	"	"
53	A. Chick	7502	Bethnal Green	29 "	"	"
54	R. Malton	4438	Lewisham	1 Oct.	Visited ship	Labourer.
55	J. Dolan	5164	Chelsea	1 "	"	Ship's cook, royal navy.
56	W. A. Baker	7060	Poplar	1 "	"	Mercantile marine.
57	G. F. Brown	7115	Fulham	1 "	"	"
58	S. Jones	7464	Holborn	1 "	"	Bandboy, royal navy.
59	J. Haskell	6930	Bethnal Green	1 "	"	Royal navy.
60	F. J. Jackman	7768	Hackney	1 "	"	Kodak Company.
61	J. Peck	6426	Strand	1 "	"	Cutler.
62	J. T. Berry	4698	Camberwell	1 "	"	Bluejacket, royal navy.
63	C. Andrews	6953	St. Marylebone	12 "	"	Mercantile marine.
64	A. Shillam	5710	Southwark	12 "	"	Waiter.
65	A. Stark	6059	Islington	14 "	"	Fruiterer.
66	A. Stygall	6184	Wandsworth	14 "	"	Royal navy.
67	C. Gull	6250	St. Pancras	18 "	"	"
68	S. Graves	6855	Fulham	18 "	"	"
69	C. Andrews	6853	West Ham	18 "	"	Army.
70	F. Rutland	4580	Lewisham	18 "	"	"
71	T. Latham	6974	Fulham	18 "	"	Mercantile marine.
72	J. Bliss	5586	Hackney	24 "	"	"
73	G. Howard	5241	Fulham	24 "	"	"
74	W. Green	5972	St. Pancras	24 "	"	"
75	H. Rowe	6448	Lambeth	24 "	"	"
76	W. Walters	3783	Southwark	24 "	"	Royal navy.
77	A. Porter	5814	Hackney	28 "	"	Mercantile marine.
78	C. Back	6358	Southwark	29 "	"	Waiter.

No.	Name.	No. on Ship's Books.	Union or Parish.	Date heard of.	Reported by	Remarks.
79	W. Campling...	4496	Kensington ...	4 Nov.	Visited ship ...	H.M.S. "Terrible."
80	G. Munsey ...	5398	Woolwich ...	10 "	"	Royal navy.
81	J. Davis ...	6161	Holborn ...	12 "	"	Bandsman, Sussex Regiment.
82	J. Hembrey ...	3069	Lambeth ...	27 "	"	Timekeeper.
83	B. Hales ...	6645	Stepney ...	30 "	"	Porter.
84	R. H. Strong ...	7340	Eastbourne ...	5 Dec.	Wrote ...	Army.
85	J. Gilead ...	7457	Poplar ...	8 "	Visited ship ...	"
86	F. Titley ...	3909	Islington ...	15 "	Wrote ...	Royal navy.
87	P. Groves ...	5182	Lambeth ...	16 "	Visited ship ...	"
88	C. Taylor...	4124	St. Olave's ...	18 "	"	"
89	T. Clulow ...	6983	St. Saviour's ...	19 "	"	"
90	A. Hollingworth ...	7350	Derby ...	19 "	"	"
91	G. F. Davey ...	7023	Richmond ...	19 "	"	"
92	H. Faley ...	7476	Maidstone ...	19 "	"	"
93	W. Plumridge ...	7224	Strood ..	19 "	"	"
94	W. Page ...	4830	Poplar ...	20 "	"	Army.
95	J. Wallace ...	3621	St. Marylebone	23 "	"	Royal navy.
96	W. Filby ...	6596	St. Pancras ...	24 "	"	"
97	G. Banfield ...	6995	Strand ...	24 "	"	Mercantile marine.
98	L. Birch ...	4780	Holborn ...	27 "	"	Army.
99	W. Hawkins ...	7570	Westminster ..	27 "	"	Mercantile marine.
100	F. Paddington ...	6052	St. Pancras ...	27 "	"	Laundryman.

## ANNUAL REPORT OF THE ASYLUMS COMMITTEE FOR 1902.

*March, 1903.***Intro-  
ductory.**

During 1902 the scope of our work has remained much as it was during the preceding year, but a great deal of time and thought has been devoted to one very important question, *i.e.*, that of imbecile accommodation and classification, as to which more will be said below.

**Additional  
accom-  
modation.**

The principal events of the year, perhaps, have been the completion and handing over to us of the Tooting Bec Asylum buildings, and the acquisition of the Brighton Road Schools property at Sutton.

**Tooting Bec  
Asylum.**

At the end of the year under review Tooting Bec Asylum was almost ready for the reception of 330 male and 420 female patients, mostly of the aged and infirm class for whose accommodation the institution was designed, although the receiving home for children which will ultimately be provided in connection with the asylum has yet to be erected. The medical superintendent, Dr. Beresford, commenced to reside at the asylum on the 22nd September, 1902; Miss Cottrill, an assistant matron in the hospitals service, was promoted to be matron of the asylum; and Mr. W. J. Gibbs, formerly store-keeper at the Kent County Asylum, Maidstone, was appointed to be steward.

It has been decided that all patients whom the Board may be called upon to receive shall be sent in the first place to Tooting Bec Asylum, where they will be kept under observation for a time, and thus the task of classification will, it is anticipated, be rendered much simpler than it has been heretofore. Until, however, the receiving home for children has been erected this decision will apply to adults only—the first reception of children still taking place at Darenth Asylum.

**Brighton  
Road  
Schools,  
Sutton.**

The property known as the Brighton Road Schools at Sutton, in Surrey, has at last come into the possession of the Metropolitan Asylums Board from the Managers of the recently-dissolved South Metropolitan School District. It comprises an estate of nearly 93 acres, on which stand four blocks of buildings, formerly used as residential schools for boys and infants, a probationary block, and an infirmary. At present the

St. Olave's Guardians, whose union formed one of the constituents of the South Metropolitan School District, are in occupation of the infants' school buildings as the Board's tenants, on a lease which will terminate on the 29th September, 1903. The remainder of the buildings are vacant, under the charge of a caretaker, pending the final decision of the Board and the Local Government Board as to the class of imbecile patients which shall be housed therein.

**Imbecile  
accom-  
modation  
and classi-  
fication :  
General  
question.**

The fact that the additional accommodation provided by Tooting Bec Asylum and the Brighton Road Schools would before long be available led to the raising of the question as to the policy which should be adopted with regard to the accommodation and classification of imbeciles, and in June we appointed a special sub-committee to consider such question and to report to us thereon.

In December the sub-committee submitted to us a comprehensive report, which we adopted after some slight amendment of a few points of detail, and submitted to the Board. As, however, the proposals contained in the report have not yet been definitely decided upon, no useful purpose would be served by recapitulating them in this report. Our report for 1903 will, we hope, record the Managers' final decisions, and indicate what progress has been made in giving effect to them.

**Consolida-  
tion of  
administra-  
tion of  
Darenth  
Asylum and  
Schools.**

In view of the doubt which was felt, more or less, throughout the year as to what the future of Darenth Asylum would be, and having regard also to the nature of the propositions with regard to the asylum which have latterly been made, it has been deemed wise not to press on during 1902 the work of consolidating the administration of the two departments of the asylum, which we have gradually been

effecting since 1899.

In the meantime, good work continues to be done at the institution, particularly in the schools department where new industries, such as woodchopping and bundling, peg making, fret work, fibre matmaking, &c., have been started.

**Resigna-  
tion of  
Dr. Taylor.**

In this connection we must record the resignation by Dr. Taylor, of the office of medical superintendent of Darenth Asylum, which he had held since May, 1899.\* The resignation, which we received with regret, was occasioned by Dr. Taylor having been appointed medical superintendent of the East Sussex County Asylum at Hellingley. In the meantime no steps have been taken towards appointing a permanent successor, in view of the suggested changes in the use of the asylum; but Dr. Harry A. Robinson, who has been the senior assistant medical officer at Darenth Asylum since the 2nd October, 1902, has been appointed acting medical superintendent of the institution for three months from the date of Dr. Taylor's leaving.

**Tuber-  
culosis.**

Whilst dealing with the general question of imbecile accommodation and classification our special sub-committee has given attention to the continued prevalence of tuberculosis at Leavesden Asylum in connection with a suggestion that tubercular patients from that institution should be

\* From April, 1898, to May, 1899, Dr. Taylor was medical superintendent of the adult department only of the asylum.

transferred elsewhere for segregation. In September, 1902, the sub-committee received from Dr. Arthur Shadwell (the author of the article on "Tuberculosis" in the tenth edition of the "Encyclopædia Britannica") a valuable and exhaustive report upon the "tuberculous insane," a copy of which can be obtained on application to the Clerk to the Board. The report discusses fully the reasons for the prevalence of tubercular disease at asylums, and especially at Leavesden, and it submits some very practical suggestions as to the means to be adopted to cope with the evil. In some instances these suggestions have already been acted upon; as regards others the mode in which effect shall be given to them is still under consideration. We would observe, however, that Dr. Shadwell did not recommend the removal of tubercular patients from Leavesden, where special measures have been adopted for their treatment.

**Rochester House Asylum.** At Rochester House satisfactory results continue to be achieved. On the 8th March the Managers fixed the number of patients which the institution was to accommodate at 156—*i.e.*, 60 females and 96 males—a number somewhat in advance of what had previously been expected to prove the limit of accommodation. Industrial training is being successfully prosecuted, and the teaching of ordinary school subjects has been placed upon a satisfactory basis.\* Further information regarding the institution will be found in reports by the medical expert (Dr. Shuttleworth) and the head schoolmistress and matron (Miss Hargreaves), which are printed on pp. 282 and 284 respectively.

**Patients.** The following is a summary of the admissions, deaths, and discharges during the year 1902:—

	ADMISSIONS.			DEATHS.			DISCHARGES.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Leavesden ...	85	91	176	60	74	134	24	18	42
Caterham ...	68	59	127	63	48	111	9	8	17
Darenth ...	108	62	170	32	42	74	78	14	92 (a)
Rochester House	65	10	75	1	...	1	10	4	14 (b)
Totals ...	326	222	548	156	164	320	121	44	165

(a) Includes 74 children transferred to Rochester House and 5 adults transferred to Leavesden.

(b) 12 of these patients were re-transferred to Darenth, the remaining 2 were sent temporarily to hospital.

On the 31st December, 1902, there were under treatment at—

	Males.	Females.	Total.
Leavesden ...	812	955	1,767
Caterham ...	882	1,047	1,929
Darenth ...	1,070	919	1,989
Rochester House...	94	60	154
Totals ...	2,858	2,981	5,839

\* The question of the employment of industrial trainers and school teachers generally is engaging the attention of our Special Purposes Sub-Committee.

The general character of the admissions has continued to be as in former years. The majority of the patients admitted, including many who on admission are described as "healthy," are of the helpless class which requires infirmary treatment.

Detailed information as to the statistics relating to the asylums will be found in the reports of the medical superintendents and the statistical tables printed on pp. 268 to 316.

**Expenditure.** The total expenditure in respect of the asylums during the year which ended at Michaelmas, 1902, was £178,700.

The average daily cost per head in respect of "maintenance" was  $7\frac{1}{3}$ d., whilst the average daily cost in respect of all charges, other than those of a special character, was 1s.  $6\frac{3}{4}$ d.

The expenditure out of current account, of a special character, has been as follows:—

	£
Leavesden Asylum .. .. .	5,620
Caterham ,, .. .. .	983
Darenth ,, .. .. .	3,484
Rochester House .. .. .	2,006
Tooting Bee Asylum .. .. .	—
Total .. .. .	<u>£12,093</u>

**Improvements.** Various works of improvement have been completed or commenced during 1902, reference to which will be found in the medical superintendents' reports. Among them the following more important works may be specially mentioned:—

*Leavesden Asylum.*

Alterations to laundry.

Reconstruction of drainage system.

Improvement of certain airing courts and construction of outdoor shelters.

Erection of boot room for patients.

Erection of new hair-picking building, including accommodation for steam disinfecter.

*Caterham Asylum.*

Alterations to laundry.

*Darenth Asylum.*

Reconstruction of sanitary arrangements at pavilions.

**Lunacy Commissioners' reports.** We append copies (as received from the Local Government Board) of reports made by the Visiting Commissioners in Lunacy who visited the Managers' asylums during 1902. All were of so gratifying a character that the Local Government Board did not ask for the observations of the Managers upon any of the reports.



**Resumption  
of ordinary  
visitation  
of patients.**

We may mention that the ordinary visitation of patients at the asylums by their friends, the suspension of which was alluded to in our report for 1901, was resumed at our direction in July last, in view of the decrease in the number of cases of smallpox in the metropolis which was then apparent.

**Letting of  
cottages on  
asylum  
estates.**

On the 17th February we received a report from a special sub-committee which we had appointed to consider the question as to the letting, and conditions of letting, of cottages on the Managers' asylum estates, and we adopted a number of recommendations, the result of which has been to secure uniformity in the terms upon which cottages are let to members of the staff, and the amount of rent which is paid for such cottages, at the several asylums.

**Resignation  
of the  
Rev. J. R. B.  
Watson, and  
appoint-  
ment of  
successor.**

On the 17th March we received with much regret the announcement of the resignation by the Rev. J. R. B. Watson of the appointment of chaplain of Leavesden Asylum, which he had held for thirty years. Mr. Watson's resignation was due to ill-health. We are glad of the opportunity of recording here our appreciation of the faithful manner in which he discharged his duties as chaplain, and of the interest which he always took in the welfare of the patients and staff. The Rev. E. Athelstan Clark, M.A., was appointed chaplain of Leavesden Asylum, in succession to Mr. Watson, on the 3rd May.

**Appendices.**

We append hereto, in addition to the reports of Lunacy Commissioners referred to above, (i.) a statement showing the area and appropriation of land belonging to the asylums; (ii.) the medical superintendents' annual reports for 1902 (see pp. 268—282); (iii.) reports by the medical expert and the head schoolmistress and matron of Rochester House (see pp. 282 and 284); and (iv.) a series of operative resolutions of the nature of standing orders which have been passed by us during 1902.

Signed on behalf of the Asylums Committee,

HERBERT H. SWIFT,  
*Chairman.*

## APPENDIX I.

*Area and Appropriation of Land belonging to the Asylums (see note).*

	CATERHAM.			LEAVESDEN.			DARENTH.		
	Acres.	Roods.	Poles.	Acres.	Roods.	Poles.	Acres.	Roods.	Poles.
1. Asylum buildings ( <i>i.e.</i> , administrative buildings and patients' blocks)	6	0	0	7	1	39	45	1	21½*
2. Airing courts ... ..	8	1	39	9	1	20			
3. Ornamental grounds ... ..	5	1	31	4	0	1			
4. Recreation grounds ... ..	9	0	0	4	2	29	15	3	2
5. Gasworks ... ..	0	2	33	0	3	38	1	1	11½
6. Farm buildings ... ..	0	2	28	1	2	0	3	3	39
7. Pasture land... ..	72	3	21	24	0	0	22	2	38½
8. Arable land ... ..	36	2	0	7	2	28	30	2	20
9. Kitchen garden ... ..	6	2	0	12	2	0	33	1	36½
10. Orchard... ..	1	2	0	1	0	0	5	0	19½†
11. Cemetery ... ..	0	3	21	1	1	34	1	0	28
12. Other parts, viz. :—									
(i.) Laundry drying ground	0	2	19	0	2	14			
(ii.) Cottages and gardens...							0	3	30
(iii.) Chaplain's house and " Firs " ... ..	2	0	0						
(iv.) Coal sheds, &c ... ..	0	1	0	0	0	37			
(v.) Wood ... ..							3	2	28½
(vi.) Roads, paths, &c. ...	3	0	0	8	2	0			
Totals ... ..	154	1	32	84	0	0	164	0	35

\* Includes roads.

† 3½ acres of orchard utilised as kitchen garden.

NOTE.—Rochester House and Tooting Bec Asylum have not been included in the table because the first-named place is not the property of the Managers, and is comparatively very small, and the second-named institution has come under the control of the Asylums Committee so recently that it has not yet been decided how the land belonging to it shall be appropriated.

## APPENDIX II.

OPERATIVE RESOLUTIONS OF THE NATURE OF STANDING ORDERS  
PASSED BY THE ASYLUMS COMMITTEE DURING THE YEAR  
ENDED 31ST DECEMBER, 1902.

## (1.) ALLOTMENT OF VACANCIES FOR PATIENTS.

That the chairman of the committee be authorised to decide what shall be done whenever difficulty is experienced in allotting vacancies for patients. [6th January, 1902, vol. III., p. 4.]

## (2.) FARM MANAGEMENT AND ACCOUNTS.

The committee's resolutions of the 11th November, 1901 (vol. II., pp. 182-3), (i.) as to the keeping of cows at the asylums was varied as regards Leavesden Asylum [6th January, 1902, vol. III., p. 10]; and (ii.) as to abolishing "veal" from the farm and garden accounts was rescinded [24th November, 1902, vol. III., p. 192].

## (3.) LETTING OF ASYLUM COTTAGES.

The committee passed a series of resolutions prescribing the conditions upon which the cottages on the Managers' asylum estates shall be let. [17th February, 1902, vol. III., pp. 36-8.]

That the allowance of 5s. a week in lieu of lodging and washing payable to those officials or servants who are entitled to those emoluments, and who occupy houses or cottages belonging to the Managers, and pay rent therefor, be increased to 6s. a week. [12th May, 1902, vol. III., p. 87.]

## (4.) DUTY OF MEDICAL SUPERINTENDENT TO REPORT GRAVE MISCONDUCT.

The opinion of the Darenth sub-committee that it is the duty of the medical superintendent to report immediately to the chairman of the sub-committee and the Clerk to the Board any instance of grave misconduct, known or only suspected, on the part of any person employed at the asylum, was endorsed as that of the Asylums Committee. [17th February, 1902, vol. III., p. 39.]

## (5.) ESTIMATES OF PROBABLE EXPENDITURE ON CONTEMPLATED WORKS.

That the procedure suggested by the Finance Committee with regard to the submission of completed estimates of probable expenditure on contemplated works be adopted in the case of works proposed to be carried out under the control of the Asylums Committee. [28th April, 1902, vol. III., p. 71.]

[The procedure referred to consists in the preparation and forwarding to the Finance Committee, upon the receipt of the architect's estimate, of a complete estimate of the probable expenditure on any contemplated work.]

## (6.) HALF-YEARLY RETURNS OF PROVISIONS AND NECESSARIES.

That . . . half-yearly returns of all provisions consumed, and necessaries and clothing, &c., issued at the several asylums, be in future submitted by the respective stewards as soon as possible after Lady-day and Michaelmas in each year, [and] that a copy of such returns be forwarded to each member of the Asylums Committee and to the Finance Committee. [12th May, 1902, vol. III., p. 86.]

That the half-yearly returns . . . do . . . stand referred to a special sub-committee for consideration and report,\* and that the special sub-committee do consist of the chairmen of the several institution sub-committees, together with the chairman and vice-chairman of the Asylums Committee. [8th December, 1902, vol. III., p. 195.]

\* On the 2nd February, 1903 (vol. IV., p. 31), this duty was transferred to a Special Purposes Sub-Committee then appointed.

## APPENDIX III.

REPORTS OF COMMISSIONERS IN LUNACY ON VISITS AT  
ASYLUMS DURING THE YEAR 1902.

A.—*Report by two of the Commissioners in Lunacy who visited Caterham Asylum on the 6th May, 1902.*

May, 1902.

We visited the Metropolitan District Asylum at Caterham on the 6th instant and as the result of our inspection are enabled to give a favourable report of the general state of efficiency and order in which it is maintained.

During the eleven months that had elapsed since the visit paid by our colleagues in June last, there have been admitted 116 patients, 13 have been discharged, one on recovery, and 104 have died. These changes left on the books on the day of our visit, 885 male and 1,044 female patients, all of whom we saw. They were all given opportunity to speak with us, and none made any complaint, although, as usual, a few appealed to be discharged. Their personal condition was for the most part good, but the dress of many of the male patients left much to be desired. The women, however, were neatly attired, and their dresses were agreeably varied in appearance. Thirty patients in all were wearing strong dresses.

We saw 33 patients in bed, but very few of these were seriously ill. Indeed, the general health of the establishment was undoubtedly good, and during 1901 the death-rate on the average number resident was as low as 5·7 per cent. The epileptics form 18·8 per cent. of the total number of patients, the proportion of those so affected being higher on the female than on the male side. There were only 10 patients suffering from general paralysis, or 0·5 per cent. All the epileptics sleep under constant observation, and there was no one considered to be actively suicidal.

Wet beds or bedding were reported on the morning of our visit in 143 instances, or 7·4 per cent., a not excessive proportion considering the class of patients detained in the asylum.

The dinner, which we saw served, consisted of meat-pie. Although the relative ingredients seemed to us to be decidedly disproportionate in amount, the quality both of meat and pastry seemed to be good, and we had evidence that the meal was satisfactory to the patients. We were glad to learn that since our colleagues' visit the authorities have improved the quality of the dietary.

We found the wards and dormitories in very good order, especially the female wards, which were altogether more bright and attractive than those on the male side. The beds and bedding were in good condition. We could not fail to be struck with the limited extent to which the practice of staining and dry-rubbing of floors is carried out; and were somewhat surprised to learn that the plan, which is now very largely adopted in asylums, has not been a success here, in regard to cleanliness. We are not satisfied, however, that the plan has been sufficiently tried, and trust that it will not be entirely abandoned.

The work of enlarging the laundry, which has been for some time in progress, is now practically completed, and new machinery has been set up. We were

informed that care will be taken to protect the machinery before work is commenced with it. The space now available is about twice the area of the former laundry, and the re-arrangement will not only ensure the complete separation of the sexes employed in the laundry work, but will enable many more female patients to engage in it than formerly.

In addition to other and minor improvements, we note that new shelters have been erected in airing courts, and that a steam fire-engine has been purchased and placed in a building constructed for the purpose. The organisation and drilling of a fire brigade staff has been commenced.

The isolation hospital is being put in telephonic communication with the main building. This hospital has of late been serving for the temporary quarantine of patients coming from London, owing to the prevalence of smallpox in the metropolis. This is doubtless a wise precaution, but we trust that when the occasion for such a practice has passed, the building will be strictly confined to the purpose for which it was erected.

Reverting to the patients, we learn, from statistical returns made to us, that, excluding 71 patients of the Roman Catholic faith, the proportion who usually attend the chapel services on Sunday is 17·3 per cent. For the Catholics a service is held every Sunday afternoon, and Mass is celebrated once a month.

Nearly 27 per cent. of the patients attend the associated entertainments. The large proportion of 68 per cent. are confined for exercise to the airing courts, 17 per cent. only walk out weekly or oftener beyond the asylum estate, and 5 per cent. only usually walk out daily beyond the airing courts. Arrangements are made to take parties of patients for walks in the plantation, the males twice and the females thrice a week. During summer months from 270 to 300 male patients spend the afternoons on the cricket field, and parties of female patients are taken for picnics in the home woods.

Employment is found for men in the proportion of 45·7 per cent., and for women 43·2 per cent.

Since our colleagues' visit, the asylum has been entirely free from cases of zymotic disease.

Of the 104 deaths that have occurred, 6·7 per cent. were due to general paralysis, 10·5 per cent. to phthisis, and 39·4 per cent. to senile decay. The causes of death were verified by *post-mortem* examination in 90 instances, or 86·5 per cent. of the total deaths. Bed-sores existed at the time of death in 6·7 per cent. of all the fatal cases.

One inquest was held. It was the case of a general paralytic, whose right thigh was fractured by his being accidentally pushed down by a fellow patient. The jury found that death was due to natural causes. In addition to that case, there have been four other serious, but non-fatal, casualties, in which fractures were sustained, 1 in a male and 3 in females; all were the result of accident.

There has been no mechanical restraint, and altogether 9 patients have been secluded on 43 occasions for periods amounting to 59 hours. Most of this seclusion was in the case of a single patient, 33 occasions for a total of 37 hours, the patient in question being subsequently sent to Cane Hill Asylum.

There are 52 male attendants, and 64 nurses on day duty—a proportion of 1 of the former to 17 male patients, and 1 of the latter to 16½ female patients.

These are considerable and very necessary advances on former proportions. For night duty there are 7 attendants and 10 nurses. As regards duration of service, 35·5 per cent. of attendants and 28·4 of nurses have been in the asylum service for more than 5 years; whilst 18·6 per cent. of the former and 25·6 per cent. of the latter have been employed for less than one year. Two attendants and 1 nurse have been dismissed for misconduct, and an attendant has been allowed to resign to escape dismissal.

We were informed by Dr. Campbell that the general bathing is supervised by the head attendant on each side, and that in addition, the matron, assistant matron, and superintendent nurse pay visits of inspection during the female bathing, and on the male side it has been arranged that the third assistant medical officer should visit periodically when bathing is in progress.

At the time of our visit there was a vacancy on the medical staff, there being only 2 assistant medical officers.

(Signed) SIDNEY COUPLAND,  
C. S. BAGOT,  
*Commissioners in Lunacy.*

*B.—Report of two of the Commissioners in Lunacy who visited Rochester House on the 14th June, 1902.*

14th June, 1902.

We have to-day paid a visit of inspection to Rochester House, an establishment at Little Ealing which has been provided by the Metropolitan Asylums Board as an asylum under the Metropolitan Poor Act, 1867. The premises are taken on lease for a period of eight years, determinable at the end of three or five years.

The main object of the Managers in acquiring the property was to relieve the pressure on the accommodation for children at Darent Asylum. They are selecting for transfer the better, or improvable, class of children whom they wish to treat quite apart from the vicinity of the hopeless class of imbeciles.

The establishment was opened in August last, and its organisation is now almost complete. It will accommodate 156 children, and is in charge of a head schoolmistress and matron, Miss Hargreaves. Dr. G. E. Shuttleworth, as visiting medical expert, attends weekly, and Dr. R. H. Dixon, as visiting medical attendant, daily. The rector of the parish acts as chaplain, and holds one service on Sunday and another during the week in the girls' dining room.

The staff employed instructing and attending upon the children is composed entirely of females, and comprises a housekeeper, seamstress, and eight nurses for day and two for night duty. There is also one non-resident teacher, and we understand that two certificated governesses are shortly to be engaged as resident teachers.

Boys will not be retained in the establishment after the age of fourteen, but there is no limit of age for girls.

The house has been suitably adapted to meet the requirements of the children,

and is well provided with baths, lavatories, and w.c.'s, and with alternative exits in case of fire.

Certain rooms have been set apart as school rooms and as work rooms, where needlework, tailoring, shoemaking, basketmaking, and other trades are taught. There is a laundry, where several of the girls are employed; it is at present without any apparatus for drying clothes, but we were informed that this want will be met before long.

Attached to the house are about four acres of land laid out partly as a pleasure garden, and partly as a kitchen garden. Two gravel playgrounds have been provided, the one used by the boys might with advantage have been larger.

We were quite satisfied with the result of our visit. The children were neatly dressed, happy, and, with but few exceptions, healthy and well nourished. Their clothing and bedding were good, and the house was in proper order throughout.

There were on the books to-day the names of 146 children, of whom 90 were boys and 56 girls. We saw them all at their work or lessons, and were struck with the interest displayed by many in their several occupations. We were subsequently present at the girls' dinner, and were much pleased with the orderly way in which the meal was served, the grace being sung by the children. The fare consisted of hash, with dumplings and bread, and was substantial and good.

Several of the patients suffer from epilepsy, but none of them are habitually faulty in their habits. Hitherto there has been no serious casualty, and no case of infectious disease. It is proposed to send any patients who may be so attacked to the local infectious hospital.

As a rule, all the children are taken once a week for a walk beyond the grounds.

We pointed out a gas bracket in the upper floor on the female side, the position of which seemed to us to be dangerous.

(Signed) E. MARRIOTT COOKE,  
G. HAROLD URMSON,  
*Commissioners in Lunacy.*

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*C.—Report by two of the Commissioners in Lunacy, who visited Darenth Asylum on the 12th June, 1902.*

Office of Commissioners in Lunacy,  
66, Victoria Street, S.W.,  
16th June, 1902.

On the 12th instant we visited the Darenth Asylum and inspected its several departments, seeing the patients resident therein, and inquiring into their care and treatment and the arrangements for their improvement. We have a good report to make upon these matters, and as to the state in which we found the asylum.

We learnt that since the last visit of our colleagues on the 19th March, 1901, there had been the following changes among the patients:—

	Males.	Females.
Admitted .. .. .	167	114
Discharged .. .. .	111	62
Of whom had recovered	2	—
Died .. .. .	50	46

The asylum at our visit contained 1,991 patients, of whom 1,074 were males and 917 females. There were vacancies for 3 women. Nearly 36 per cent. of the patients suffer from epilepsy; a considerable proportion are crippled or helpless, and a very large number have uncleanly habits, as is evinced by the fact that, in spite of precautions, as many as 256, or 15 per cent., were reported as having wetted their bedding the previous night. Nevertheless, as a whole, they presented a very creditable appearance, being well nourished, clean, and tidy. Four men, all belonging to the same ward, were in bed in the isolation block suffering from dysentery, and in the children's department, in a ward by themselves, were a few cases of ophthalmia, and some of ringworm, but, with these exceptions, the health of the establishment was satisfactory.

In the interval above-mentioned, however, four patients have been attacked with scarlet fever, one with smallpox, one with diphtheria, four with chickenpox, two with whooping-cough, two with German measles, and there have been seven cases each of erysipelas and dysentery. Having regard to the apparent liability of the patients to infectious disease, the one small isolation block cannot be regarded as sufficient; we are glad therefore to know that the Managers contemplate the provision of an additional building.

The percentage of deaths on the average number resident in 1901 was 4·78.

The 96 deaths since the last visit, over 84 per cent. of which were followed by *post-mortem* examination, were, with one exception, all due to natural causes. General paralysis accounted for 6·2 per cent., phthisis for 24 per cent., and there were two deaths from dysentery. Bed-sores existed on over 7 per cent. of the bodies at death, but none of the 33 patients we saw in bed were suffering from this complication.

The only inquest was held on the exceptional death above referred to. The case was that of a man who died from œsophageal obstruction three months after eating a piece of soda which he had picked up in the stores yard.

Three serious casualties have occurred, all resulting in fracture of bones, and all accidentally sustained.

The discharges included 148 children who have been transferred to Rochester House.

According to the journal, 119 men and 82 women were under medical treatment last week.

No one has been secluded or mechanically restrained.

From the returns furnished to us we learn that 37 per cent. of the patients attend chapel on Sundays; that 27 per cent. are usually present at the associated entertainments; that 67 per cent. walk out daily beyond the airing courts, to which 12 per cent. are altogether confined for exercise; and that 26 per cent. of the males



and 23 per cent. of the females are usefully employed. We visited the work-rooms and shops and saw the patients engaged in their various occupations.

The wards, dormitories, and bedding were in good order, and all parts of the building were properly ventilated. The day-rooms were bright and well supplied with plants and other objects calculated to amuse and interest the patients.

Various improvements have been effected since the last visit, of which the following demand special mention: The pavilions have been re-decorated throughout and pedestal closets and new lavatory fittings provided therein. In the adult department new heating apparatus has been fixed in the male and female bath-rooms and corridors; the airing courts have been laid out and the paths tar-paved, and some alterations have been effected in the laundry, where additional washing machinery has been provided. We understand that a scheme is at present before the Managers for re-modelling and further enlarging this laundry. More room is much needed, and we hope that the scheme will soon be carried into effect and that it will include the provision of a good-sized foul laundry containing its own drying apparatus. The present foul laundry is totally inadequate for the demands made upon it, and the clothes washed there have to be dried with those of the general wash, which seems to us to be a very objectionable arrangement. We think also that if more additional machinery is placed in the wash-house in the position pointed out to us as the one proposed, there will be insufficient space to comfortably work all the machines.

The trough closets in the children's department are to be replaced before long by others of the pedestal type. When this is done we hope advantage will be taken of the opportunity to place all the soil-pipes outside the building. We also trust that the recommendation of our colleagues with regard to the provision of telephonic communication throughout the asylum, the segregation of phthical cases from the rest of the patients, and the provision of a block for nurses will not be lost sight of.

As to the need of a block for nurses we would point out that no less than 19 rooms are at present utilised as bed-rooms for nurses, originally intended either as single rooms for restless, troublesome patients, or as stores for clothes, and which are now badly wanted for these purposes. We noticed also that several of the rooms occupied by female house servants were overcrowded.

With regard to the staff, there are 153 attendants (60 men and 93 women) for day duty and 51 attendants (18 men and 33 women) for night duty. Twenty-five female day attendants and 7 female night attendants have charge of male children. There is by day one attendant to every 13 patients on the male side, and one attendant to every  $13\frac{1}{2}$  patients on the female side.

Thirty-three per cent. of the men and 30 per cent. of the women have not yet completed a year's service, but 27 per cent. of the former and 23 per cent. of the latter have served over five years.

We are pleased to know that classes are now held by the medical staff for the instruction of the attendants in nursing.

(Signed) E. MARRIOTT COOKE,  
G. HAROLD URMSON,

*Commissioners in Lunacy.*

D.—*Report by two of the Commissioners in Lunacy who visited Leavesden Asylum on the 22nd November, 1902.*

On the 22nd of November, 1902, we paid our annual visit to the Leavesden Asylum, inspecting all parts of it, and seeing all the resident patients, and we are able to express a very favourable opinion of its general condition and management.

We found the rooms warm, bright, and comfortable, and the beds and bedding clean and properly attended to.

The patients were well cared for in person, and neatly and suitably dressed, and a general air of contentment prevailed among them.

Very few complaints were made to us, and they were trivial in character and obviously not well founded. Considering the class of patients received into this asylum, their general health was good, only 67, or less than 4 per cent., being confined to bed. The nursing of these appeared to be skilled and careful, and only one was suffering from a small healing bed sore. The phthisical cases, and those with tuberculous disease generally, continue to be kept in separate wards, apart from the other patients, both in their daily life, religious services, amusements, and exercise, and under more sanitary conditions as regards air space, ventilation, and heating, which are regulated by well-considered written instructions.

We saw a good and substantial dinner of stew, suet pudding, and bread served to, and evidently enjoyed by, the patients, but we thought that the service might have been more rapid with advantage.

Many important and useful improvements have been made since the last visit or are now in progress. They include a new *post-mortem* room and laboratory, the external and internal painting of the whole asylum, the provision of low-pressure hot-water radiators for heating the corridors, the re-arrangement of the laundry and the introduction of new machinery, the erection of a boot-room, and of a hair-picking room, which is to serve also as a cricket pavilion in the summer when hair-picking will be conducted out of doors, additions to cottages, the relaying of drains, and the re-arrangement and re-decoration of the chapel. In this last connection we may mention that the chapel was re-opened during our visit by the Bishop of Colchester at a bright and attractive service which we were glad to have the opportunity of attending. In addition to the improvements recited above, most of the hitherto somewhat bare airing courts have been transformed into pleasant gardens, in four of which good rustic shelters have been erected, a provision which is much needed in all of them. A water steriliser and softener has been provided, but not yet brought into use, and the water supply is, therefore, still unsatisfactory. Plans have been prepared and sanctioned for the erection of an isolation hospital, a nurses' home, an attendants' recreation room, sanitary annexes, and 24 new cottages.

These numerous works which are thus either completed or proceeding, afford satisfactory evidence of the progressive spirit which animates the administration of the asylum.

We desire to suggest an addition to the looking glasses in the dressing-rooms, the removal and making safe of looped pipes and projections in the w.c.'s, which, from their situation cannot be under constant supervision, and the provision of new pianos to replace those which are worn out.

At the previous visit to this asylum, on the 29th May, 1901, our colleagues found 1,768 patients in residence, a number which was only exceeded by one at the visit to which this report relates, when there remained 11 vacant beds. Between the dates of the two visits 272 patients were admitted, 54 were discharged, and 217 died, all of them from natural causes, with the exception of two in which death resulted from the fracture of bones, of a third from choking, and of a fourth from obstruction of the bowels caused by a foreign body, in all of which inquests were held.

In the very satisfactory proportion of 93 per cent. *post-mortem* examinations were made, bedsores being present in 8·3 per cent., the slightest abrasion being included in the term.

As many as 33 per cent. of the deaths were the result of tuberculous disease. One death resulted from enteric fever, of which there were 4 cases, as also one of smallpox, 1 of scarlet fever, and 3 of erysipelas.

The non-fatal but serious casualties consisted of 20 fractures and dislocations of bones, and a cut throat. We found 22 per cent. of epileptics and 1·2 per cent. of general paralytics, among the resident patients.

Every patient in the asylum now sleeps under constant supervision, and about 2½ per cent. wet their beds or bedding at night. Upwards of 50 per cent. attend the chapel services, and the same percentage the frequent and varied entertainments.

While not more than 9 per cent. walk regularly beyond the asylum estate, 50 per cent. take exercise daily outside the airing gardens, to which only 18 per cent. are altogether confined.

Forty-two per cent. of the patients, large numbers of whom are very helpless, are usefully employed.

The staff of attendants and nurses consists of 66 men and 78 women, a total of 144, 111 of whom are for day and 33 for night duty, the day numbers giving one attendant to every 12½ male, and 12¼ female patients.

The duration of service is not unsatisfactory, for, although 22 per cent. have served less than a year, 17 per cent. can record upwards of five years' service.

Numerically the medical staff remains the same, Dr. Elkins having the aid of three assistant medical officers, who might be advantageously supplemented by clinical clerks, whose help would be valuable both in the pathological research, which is now being prosecuted in the asylum, in clinical investigation and treatment in the wards, and in the training of the attendants and nurses which is organised upon a comprehensive scheme.

(Signed) F. NEEDHAM,  
HARDINGE F. GIFFORD,  
*Commissioners in Lunacy.*

ANNUAL REPORT OF THE AMBULANCE COMMITTEE  
FOR 1902.

9th February, 1903.

We submit our report on the work of the ambulance service of the Board during the year 1902.

**Smallpox epidemic.** The beginning of the year 1902 found the Managers combating the severest outbreak of smallpox which had occurred in London since the epidemic of 1884-5, and it is natural that matters relating thereto should take the first place in this report. During the last month of 1901 the mean daily removals of smallpox cases to hospital numbered 26; on some days as many as 45 were conveyed to hospital. In January, 1902, the mean daily removals had increased to 40, and on some occasions 78 and 85 were removed in one day. In February the mean daily removals had further risen to 53, and in March to 60. At the same time considerable numbers of fever and diphtheria cases had to be dealt with. The strain on the resources of the ambulance service was severe, and it was accentuated by the necessity which arose for the supply of a number of vehicles and drivers for the transport of patients between Long Reach and the Gore Farm Hospital at Darent. It would have been impossible for the local hospital sub-committee to obtain the vehicles required from any other source, a fact impressed upon us when we endeavoured to replace them by the purchase of ready-made ambulances and omnibuses. None of the firms who build such vehicles had any suitable ones in stock. At the commencement, the transport between the smallpox hospitals failed to work satisfactorily and we lent the services of Mr. Craig, superintendent of the Western Ambulance Station, for the purpose of thoroughly re-organising the arrangements and putting them upon a proper working basis. This he successfully accomplished.

**Extensions of ambulance service.** Usually the months of greatest smallpox activity are April and May, and the outlook in February and March caused us considerable anxiety as to whether the land and river services would be sufficiently powerful to deal with the large number of patients, and with the numerous visitors to patients, in the two later months.

To strengthen the river service we purchased two steamboats. One called the "Solent," afterwards re-named the "Red Cross," was a new boat, built at Southampton for the London and South Western Railway Company, but found to be unsuitable for their purposes. It was at first proposed to use her for "uninfected traffic," that is, for the conveyance of recovered patients, staff on leave, visitors to patients, stores, &c., but we found she was admirably suited for use as an ambulance boat. We accordingly had her fitted up for that purpose. She has three hospital wards, one fore and two aft, capable of carrying altogether 68 recumbent patients. For the "uninfected traffic" we adapted the old "Albert Victor." This vessel was purchased from the London Steamboat Company for use during the epidemic of 1884-5, and could only carry 22 recumbent patients. It was considered that she would be more useful as a passenger and store ship, and when her patients' beds were removed from the cabins and she was fitted up for passengers she was found capable of carrying 300. As a reserve, in the event of the "Albert Victor" being put out of commission, we purchased an old steamboat the "Conservator" for £900. There was some opposition on the part of the Managers to our desire to purchase this vessel because of her age. She has, however, entirely fulfilled our expectations and served the purpose we had in view, and the most expensive new boat could have done no more.

With these additions to our fleet we were put in a very strong position. We could, if the necessity had arisen, have conveyed 456 recumbent patients from London to Long Reach (each boat making three journeys a day), and 580 passengers on the uninfected boats (one journey each only). We never expected that the necessity for the conveyance of such very large numbers would arise, but in a service of this kind it is obvious that provision must be made for it to be carried on without interruption, even if one or more of the vessels be put out of commission by accidental injury or for necessary overhauling and repairs. The greatest numbers conveyed in one day were—of patients to Long Reach 157, and of visitors and other persons 96.

As regards the land service, we made such arrangements as would have enabled us to have met all probable demands by increasing our staff of nurses, men, and horses at the several ambulance stations, and by providing a constant all night service, had it become necessary to do so.

When, however, the Managers decided to double their hospital accommodation we were compelled to re-consider our position. For the transport facilities which would have been ample for feeding 2,000 beds would have failed for 4,000 beds. We had some idea of establishing a special smallpox ambulance station in some central position. From inquiries made we soon found that to obtain suitable premises or a suitable site would be very difficult, tedious, and extremely expensive.

The weakest point of our service was in the western districts, and it was eventually decided that a station of considerable proportions should be erected on the vacant land adjoining the West Wharf in Townmead Road, Fulham. This we named the Mead Ambulance Station; it was opened for work on the 30th April, 1902, but the epidemic was already subsiding, and it was closed, so far as the removal of cases was concerned, on the 12th July. We found the laundry of the station of great use for doing the washing of the River Ambulance Service, when the smallpox hospitals' laundries could not undertake it, owing to the pressure of their own work.

We are contemplating utilising this station in connection with the non-infectious work which we have undertaken for the Asylums and Children's Committees, pending the completion of the station adjoining the Tooting Bec Asylum.

In the course of the epidemic we found the work of the South-Eastern Ambulance Station impeded owing to the extremely limited accommodation existing there for smallpox ambulance nurses. The relative position of this station to the South Wharf and some of the most densely populated central parts of London should make it one of the most useful stations for smallpox purposes the Managers possess. The Managers have now approved of additional accommodation being provided by the erection of a storey over the present female quarters, and the matter is in the hands of the Works Committee.

In the earlier months of the epidemic, when most of the cases were arising in the north-west and central parts of London, the reception of patients was concentrated at South Wharf, Rotherhithe, where we erected several new buildings, particulars of which are given in the section of this report relating to the wharves. Subsequently the disease shifted to the eastern districts, and about the same time the Managers agreed to admit patients from the borough of West Ham, the borough hospitals being full. We therefore, on the 14th April, opened the North Wharf at Blackwall for the reception of patients from those districts, thereby reducing very considerably the distances travelled by the patients.

**River service impeded by fog.**

Any transport service, whether by land or water, is liable to be impeded by fog or ice, but the chances of a complete stoppage occurring on the river are much greater than on land. In the year 1895, from the 10th to the 23rd February, the ambulance steamboats were frozen up at South Wharf. Fogs sufficient to completely stop traffic on the river Thames for short periods are of frequent occurrence in the winter months; but it is very improbable that traffic by road, although it might be impeded, would be entirely suspended.

**Proposed road transport to the smallpox hospitals.**

It appeared, therefore, to be our duty to provide for the contingency of a stoppage of the river transport, and to make preparations for the transport of patients by road to the smallpox hospitals at Long Reach and Darenth. In connection with such a system of transport, a resting place about midway between London and the hospitals would certainly be an advantage and for the benefit of the patients. On our recommendation, the Board authorised us to take all the necessary preliminary steps for securing sufficient freehold land for the purposes of an ambulance station and shelters for the patients. The alternative of rail transport did not pass unconsidered by us, but, in our opinion, the practical difficulties in the way of its adoption, and the expense, were prohibitive.

Probably the Managers were influenced in their adoption of our recommendation by a knowledge of an incident which occurred immediately before the Board meeting at which the matter was discussed (8th March, 1902). On the night of 6th March, owing to fog having prevented the steamboats going to Long Reach, no fewer than 120 patients had accumulated at South Wharf, and it became absolutely necessary to remove some of the patients in order to make room for the next day's admissions. A number of those patients able to bear the journey

sitting up were, on the morning of the 7th March, conveyed to Long Reach in omnibuses. By that means room was made for the first of the fresh arrivals at the wharf. Fortunately the fog lifted in the early afternoon, and the remainder of the patients were taken to the hospitals by the steamboats.

As the result of our inquiries for a suitable site, we recommended the purchase of a plot of 13 acres of land at Blendon for £5,000; we failed to obtain the assent of the Board to our proposal.

In connection with this question of long distance transport by road we considered the question of the applicability of automobile traction to ambulances capable of carrying several persons at a time in a recumbent position. In the result a contract was entered into with the Thorneycroft Steam Wagon Company for the construction of a steam motor ambulance which we hope will enable us to convey 8 patients in a recumbent position, in comfort and with less fatigue than would be incidental to horse traction.

We are still strongly of opinion that the Managers ought to possess a resting place where the patients can receive special attention on the way to the hospitals.

#### LAND SERVICE.

##### Removals to the Managers' hospitals.

On reference to appendix I. A (p. 193) it will be seen that the total number of fever patients removed to the Managers' hospitals during the year was 24,410 (*25,532\**). The removals of smallpox patients numbered 7,830 (*1,848*). The aggregate removals during the year, including the transfer of patients from one hospital to another, numbered 43,350 (*39,966*), and the mileage run by the vehicles was 388,996 (*317,278*).

##### Patients conveyed to other places than the Managers' hospitals.

Under the powers conferred by section 79 (3) of the "Public Health (London) Act, 1891," 360 (*388*) persons suffering from dangerous infectious disorders were conveyed in the Managers' ambulances to other places than the Managers' hospitals during the year 1902. Of these 72 (*56*) were stated to have measles, 72 (*102*) scarlet fever, 92 (*118*) enteric fever, 25 (*57*) diphtheria, 48 (*33*) erysipelas, 10 (*7*) puerperal fever, 19 (*3*) chickenpox, 13 (*3*) smallpox, 5 (*8*) suspected smallpox, 1 continued fever, 1 rheumatic fever, 1 membranous croup, and one other disease.

The total sum received by the Managers under this section of the Act during 1902 was £117 13s. 6d. (*£124 4s.*), of which £27 (*£30 13s.*) was in respect of the services of nurses. In a considerable number of cases payment was remitted on account of the want of means of the patients.

##### Children and other persons conveyed.

In addition, during the year 120 (*180*) children suffering from ringworm and 23 (*96*) improvable imbecile children have been conveyed to their several destinations; and 65 (*13*) children were transferred from the homes for defective children to railway stations on their annual holidays and 64 were brought back.

The vehicles for this work are not kept at the ambulance stations which undertake the removal of infectious patients.

##### Work of Ambulance stations.

Tables A and B (see pp. 193 and 194) show the work performed by the ambulance stations during the past year.

\* Italic figures in brackets throughout are the corresponding figures for 1901.

The following table briefly summarises the year's work of each station :—

STATION.	Number of Removals.	Number of Journeys.	Miles Run by Vehicles.
Eastern ... ..	9,748 (9,725)*	7,259 (6,536)	78,446 (61,372)
North-Western ... ..	7,956 (6,978)	5,241 (4,682)	55,820 (41,528)
Western .. ...	6,787 (6,413)	4,807 (4,734)	57,731 (58,765)
Mead (opened 30th April, closed 12th July, 1902) ... ..	319	460	8,248
South-Western ... ..	5,693 (5,314)	5,354 (4,611)	51,980 (45,066)
South-Eastern ... ..	7,736 (7,592)	7,079 (6,395)	75,544 (70,538)
Brook ... ..	5,111 (3,944)	4,951 (3,629)	61,601 (40,009)
Totals ... ..	43,350 (39,966)	35,151 (30,587)	388,996 (317,278)

The following table shows (a) the greatest number of patients removed to hospital in a single day by each station; and (b) the heaviest week's work of each station :—

STATION.	(a) Greatest number of patients removed in one day.		(b) Heaviest week's work.		
	Date.	Number.	Week ended	Removals (including transfers, &c.).	Mileage travelled.
Eastern... ..	Feb. 11	38 (40)	Mar. 8	219 (307)	2,771 (1,826)
North-Western ... ..	Jan. 6	33 (30)	„ 8	147 (222)	2,260 (1,399)
Western ... ..	„ 7	37 (32)	Jan. 11	197 (227)	2,142 (2,431)
Mead ... ..	May 26	14	May 24	61	1,104
South-Western ... ..	Mar. 4	26 (30)	July 26	141 (214)	1,375 (1,591)
South-Eastern ... ..	„ 3	38 (39)	Mar. 8	249 (249)	2,247 (2,448)
Brook ... ..	„ 10	36 (28)	„ 8	184 (130)	2,817 (1,646)

The average lengths of the journeys from the respective ambulance stations were as follow :—

	Removals from Home.		Transfers.	Average of every kind of Journey.
	Miles.		Miles.	Miles.
	Smallpox.	Fever.		
Eastern ... ..	15.4 (17.7)	5.9 (8.3)	21.0 (19.4)	10.1 (9.4)
North-Western ... ..	21.7 (16.4)	7.1 (7.5)	21.1 (21.0)	10.7 (8.8)
Western ... ..	20.1 (20.3)	8.6 (10.3)	28.1 (26.6)	12.0 (12.4)
Mead ... ..	20.1		18.0	17.9
South-Western ... ..	— —	9.3 (9.2)	32.1 (20.2)	9.7 (9.7)
South-Eastern ... ..	10.9 (12.3)	9.9 (10.3)	23.5 (19.5)	10.7 (11.0)
Brook ... ..	18.8 (20.2)	8.9 (9.9)	24.6 (19.7)	12.4 (11.0)

\* Italic figures in brackets throughout are the corresponding figures for 1901.



**Ambulance stations.** The six ambulance stations continue to be maintained in a satisfactory state of repair, the minor repairs and painting being executed by the staff. All repairs to the vehicles at each station have been effected by the coachsmith.

As already mentioned, a seventh station has now been built, viz., the Mead Station, Townmead Road, Fulham. This station has accommodation for 19 vehicles, 24 horses, and 42 men, and for 20 nurses and 9 domestic servants and laundry women, besides quarters for the superintendent and a nursing superintendent and housekeeper.

**New vehicles, harness, &c.** The increased work and the opening of a new station caused a considerable expenditure on new plant. During the year there were purchased 31 van ambulances, 23 brougham ambulances, 3 omnibuses, and 3 cabs, 77 air beds and pillows, and 55 sets of single and 5 sets of double harness.

**Staff.** The health of the staff, both male and female, has been well maintained. At the Eastern Station 11 (7)\* members have been off duty, involving in the aggregate a loss of service of 148 (65) days. At the North-Western Station 6 (5) members have been off duty for an aggregate of 48 (59) days. At the Western Station 14 (10) persons were off duty for an aggregate of 131 (252) days (1 had a mild attack of smallpox). At the Mead Station 1 member was off duty for 6 days. At the South-Western Station 6 (3) persons were off duty for 106 (55) days. At the South-Eastern Station 5 (8) persons were off duty for a total of 58 (88) days. At the Brook Station 11 (5) persons were off duty for an aggregate of 124 (44) days.

There were 52 (43) resignations, 42 (20) discharges, and 93 (88) appointments to the staff during the year; 4 (2) persons left without notice, and 20 (2) persons were transferred to other institutions.

#### RIVER SERVICE

**Steamers.** The three steamboats—"Maltese Cross," "Albert Victor," and "Geneva Cross"—and the steam launch "White Cross," and the steamboats "Red Cross" and "Conservator" (purchased during the year, see p. 135), have been maintained in working order. The distance run collectively by the steamers to and from the Hospital Ships at Long Reach was 35,834 (16,054) miles, and they conveyed 24,616 (5,453) patients and other passengers, and 179 tons (76 tons 3 cwt.) of stores, &c. (see Table C, p. 195).

As in former years, several barges and other craft have come into collision with the Managers' steamers while lying at their moorings. The damage sustained has been made thoroughly good in every instance, and the total amount recovered in respect thereof during the year was £444 11s. 6d. (£381 10s. 6d.), making a total of £5,522 0s. 8d. recovered since 1885, in which year the present system of insurance against damage of all kinds, without the usual restrictive clauses, was first adopted.

\* Italic figures, &c., in brackets throughout are the corresponding items for 1901.

**Wharves.** The South Wharf is the headquarters of the River Ambulance Service. On it are shelters for smallpox patients who cannot at once be sent down the river to the Hospital Ships and for patients whom the medical officer desires to detain under observation. The ambulance steamboats are also moored off the wharf. It is therefore necessary to maintain a somewhat considerable staff on the premises, even in times when smallpox is not active.

**New buildings.** In our report for the year 1900, we stated that plans for the erection of new quarters for the medical officer and for the subordinate male staff were under consideration. These were approved by the Local Government Board on the 8th February, 1901, and we hoped the buildings would have been completed and ready for occupation before the next winter, when we expected there would be a greater prevalence of smallpox than for several years past, but not to the extent that actually occurred. The accommodation to be provided was to consist of a residence for a medical officer, seven cottages for married men, and a building containing quarters for 10 single men. Owing, however, to various difficulties, amongst others the failure of the firm by whom the contract was first taken, the buildings were still in the early stages of construction when the outbreak of smallpox occurred, and we found it necessary to abandon the proposal to erect a permanent residence for a medical officer, and instead to put up a temporary building for one officer and three assistants. Wooden huts for 18 men were also constructed.

For patients two new receiving rooms, bathrooms, room for patients' own clothing, &c., were erected at the head of the pier; and on the wharf, near the existing isolation shelters, another shelter, consisting of six separate rooms for each sex.

For the nurses and the domestic staff additional temporary buildings were erected which provided 10 bedrooms, bathrooms, and change rooms, also a waiting room for patients' friends.

A steam disinfecter was also installed.

**North Wharf.** This wharf was put in complete readiness for the embarkation of patients. The house adjoining it was fitted up for a medical officer, three nurses, and the necessary domestic servants.

Two detention shelters and an isolation shelter for patients and a waiting room for patients' friends were also erected.

**Staff.** The epidemic of smallpox caused us to make considerable additions to the staff employed in the River Ambulance Service.

**Medical Staff.** We are much indebted to the Hospitals Committee for providing a most efficient medical staff for the service.

Dr. Wanklyn, assistant medical superintendent at the Hospital Ships, was deputed to take charge of medical matters for the service, and in the beginning of the year the Managers considered it advisable to invest him with all the powers of a medical superintendent of a hospital. On the opening of North Wharf for the reception of patients, the Managers transferred thereto Dr. Cameron, who had been assisting Dr. Wanklyn at South Wharf.

Amongst the staff of nurses and wardmaids and domestic servants employed in the service, there were 35 appointments, 11 transferred temporarily from other hospitals, 16 resignations, and 2 discharges.

*Male Subordinate Staff.* A wharf foreman was appointed to assist the superintendent of the River Ambulance Service. Amongst the staff employed on the steam-boats and at the wharves there were 45 appointments, 12 resignations, and 32 discharges.

COST OF AMBULANCE SERVICES.

The total expenditure for the year ended at Michaelmas last was as under:—

	Ordinary.			Special.			Total.		
	£	s.	d.	£	s.	d.	£	s.	d.
Eastern Station... ..	5,591	0	0	1,564	0	0	7,155	0	0
	<i>(4,526</i>	<i>0</i>	<i>0)*</i>	<i>(539</i>	<i>0</i>	<i>0)</i>	<i>(5,065</i>	<i>0</i>	<i>0)</i>
North-Western Station ... ..	4,708	0	0	697	0	0	5,405	0	0
	<i>(3,723</i>	<i>0</i>	<i>0)</i>				<i>(3,723</i>	<i>0</i>	<i>0)</i>
Western Station ... ..	4,565	0	0	407	0	0	4,972	0	0
	<i>(4,011</i>	<i>0</i>	<i>0)</i>				<i>(4,011</i>	<i>0</i>	<i>0)</i>
South-Western Station ... ..	3,922	0	0	373	0	0	4,295	0	0
	<i>(3,872</i>	<i>0</i>	<i>0)</i>				<i>(3,872</i>	<i>0</i>	<i>0)</i>
South-Eastern Station... ..	4,925	0	0	781	0	0	5,706	0	0
	<i>(4,802</i>	<i>0</i>	<i>0)</i>				<i>(4,802</i>	<i>0</i>	<i>0)</i>
Brook Station ... ..	4,930	0	0	1,032	0	0	5,962	0	0
	<i>(3,710</i>	<i>0</i>	<i>0)</i>				<i>(3,710</i>	<i>0</i>	<i>0)</i>
Mead ... ..	1,406	0	0	2,160	0	0	3,566	0	0
Totals ... ..	30,047	0	0	7,014	0	0	37,061	0	0
	<i>(£24,644</i>	<i>0</i>	<i>0)</i>	<i>(£539</i>	<i>0</i>	<i>0)</i>	<i>(£25,183</i>	<i>0</i>	<i>0)</i>
River Service (Transport) ... ..	13,904	0	0	3,498	0	0	17,402	0	0
	<i>(5,448</i>	<i>0</i>	<i>0)</i>	<i>(555</i>	<i>0</i>	<i>0)</i>	<i>(6,003</i>	<i>0</i>	<i>0)</i>
„ (Medical) ... ..	5,162	0	0	792	0	0	5,954	0	0
	<i>(1,148</i>	<i>0</i>	<i>0)</i>	...			<i>(1,148</i>	<i>0</i>	<i>0)</i>
Totals ... ..	£19,066	0	0	£4,290	0	0	£23,356	0	0
	<i>(£6,596</i>	<i>0</i>	<i>0)</i>	<i>(£555</i>	<i>0</i>	<i>0)</i>	<i>(£7,151</i>	<i>0</i>	<i>0)</i>

The ambulance nurses have, as in previous years, been drawn from the hospitals in proximity to the ambulance stations. For purposes of account and comparison as between the different institutions of the Board, the cost of their services has been again assumed to be fairly represented by the fixed charge of 2s. 6d. per journey, and in the aggregate these charges amount to no less a sum than £3,917 2s. 6d. (£3,670 11s.) for the past year.

(Signed) DONERAILE,  
Chairman of the Committee.

\* Italic figures in brackets throughout are the corresponding figures for 1901.

## ANNUAL REPORT OF THE HOSPITALS COMMITTEE FOR 1902.

23rd April, 1903.

**Meetings.** During the twelve months we have held 25 meetings. Our sub-committees have held 362 meetings, making an aggregate of 387 meetings; and in addition interim visits have been paid to the hospitals by members of sub-committees during the year.

**Chairman and vice-chairman.** Under the standing order of the Board Mr. Augustus C. Scovell, J.P., retired from the position of chairman, after three years' service in that capacity, and Mr. J. R. Hill, M.R.C.S., L.R.C.P., was appointed in his place. Mr. Jackson Hunt, J.P., was re-elected to the position of vice-chairman.

**Patients—Fever and diphtheria, 1901.** At the close of 1901 there remained under treatment:—

3,132 scarlet fever patients.	149 enteric fever patients.
1,187 diphtheria patients.	120 other diseases.

**Patients—Fever and diphtheria, 1902.** An aggregate of 29,139 persons came under the care of the Board during 1902 under medical certificates that they were suffering from one or other of the infectious fevers which the Board are authorised to treat in their hospitals. Full details concerning these patients are contained in the Board's annual statistics.

The number of scarlet fever patients admitted in 1902 was 14,503, and diphtheria 6,520.

**Anti-toxin supply.** The use of anti-toxin in the treatment of diphtheria cases is being continued at the discretion of the medical superintendents. The quantity supplied to them for the twelve months amounted to 101,058 doses of 1,000 units each.

**Enteric fever, 1902.** Enteric fever patients numbered 1,420 during the year.

**Other diseases, 1902.** 2,108 patients suffering from other diseases were admitted. At the close of 1902 there remained under treatment:—

2,472 scarlet fever patients.	172 enteric fever patients.
835 diphtheria patients.	129 other diseases.

**Post-scarlatinal diphtheria.** We alluded in our second annual report (p. 132) to the experiment of testing the extent, if any, to which the separation of hospitals for different infectious disorders might diminish the liability of patients suffering from scarlet fever to develop diphtheria, and *vice versa*, and mentioned that for purposes of this test it had been decided for a limited period to treat scarlet fever cases only at the Fountain Hospital, and diphtheria and enteric fever cases only at the Grove Hospital.

From the reports which we received upon the result of this experiment, it did not appear that the incidence of post-scarlatinal diphtheria in scarlet fever cases was diminished, and we therefore gave orders for this temporary arrangement to be discontinued.

**"Return Cases"—Medical investigator.** Mr. A. G. R. Cameron, M.B., B.S., M.R.C.S., L.R.C.P., D.P.H. (Cantab.), has continued throughout the year his investigations into return cases, and in addition he has from time to time investigated matters concerning patients which have been brought to notice by various correspondents.

**Medical instruction in fever.** At ten of the Board's hospitals during the year, the medical superintendents have given clinical instruction to 544 students, of whom 39 were women. In 1901, the students numbered 525.

**Hospital provision for fever and diphtheria cases.** A memorandum on this subject prepared by the Clerk to the Board, and referred to us "with instructions to consider and report to the Board what action, if any, ought to be taken upon the facts therein disclosed," received our careful consideration, and we submitted to the Board (31st May, 1902), a report advising them to adopt the principle that more accommodation was needed. The whole matter was, however, referred back to us for further consideration, and this important and difficult question is before us at the present time. We hope to be able to report thereon shortly.

**Bacteriological examination of diphtheria cultures.** Under the special arrangement made with the Royal Colleges of Physicians and Surgeons, bacteriological examinations of doubtful diphtheria cultures have been made by Dr. Cartwright Wood, upon requests made by medical superintendents.

**Isolation provision for plague cases.** It will be remembered that, at the instance of the Local Government Board, accommodation at certain of the hospitals was set apart for the isolation of plague cases and suspects. The need for this provision did not arise during the year, and, with the Local Government Board's assent, sanction was given to the opening of the plague wards at the Eastern and South-Eastern Hospitals for other diseases. The beds set apart at the Western Hospital are still reserved for cases of plague.

**Staff—General salaries.** The daily average of staff employed at the hospitals in 1902 was 3,623 of all grades. As the result of our consideration of applications for increases of salaries, the Board sanctioned the following alterations, viz. :—

(i.) ASSISTANT MEDICAL OFFICERS—(See below).

(ii.) HEAD SEMPSTRESSES—Salary raised from £26 per annum, board (beer not allowed), lodging, washing, and uniform, to £30 per annum with the same emoluments (at smallpox hospitals from £28 to £32 per annum).

(iii.) STEWARD'S CLERKS.—Salary raised from £60 per annum with board to £60 per annum, rising by two annual increments of £5 to £70 per annum with the same emolument.

(iv.) HEAD GARDENERS.—Wages raised from 27s. per week with uniform to 28s., rising by two annual increments of 1s. per week to 30s. per week with the same emolument.

(v.) UNDER GARDENERS.—Wages raised from 24s. per week with uniform to 24s., rising by two annual increments of 1s. per week to 26s. per week with the same emolument.

(vi.) ASSISTANT STEWARDS.—Salary raised from £75 per annum with board, lodging, and washing, to £75 per annum, rising by two annual increments of £5 to £85 per annum with the same emoluments.

**Staff - Principal Officers.** MEDICAL SUPERINTENDENTS.—These have remained the same during the year.

ASSISTANT MEDICAL OFFICERS.—Of this class 17 left the Board's service and 17 entered it.

By maintaining a certain reserve of assistant medical officers, the need for the occasional employment of a *locum tenens* has been considerably lessened. During the year they were engaged for 122 weeks at a cost of £375, as against 199 weeks in 1901 at a cost of £611, and 326 weeks in 1900 at a cost of £990, and since July it has only been found necessary to employ temporary medical officers of this class on two occasions. It is, we feel, a more satisfactory system to rely upon regularly appointed medical men than upon temporary help hurriedly obtained at the moment of emergency or pressure.

The whole question of the salaries of assistant medical officers in the hospitals service has received consideration.

For seven years the old scale had been in force, and difficulties had arisen, and seemed likely to continue, in obtaining suitable candidates in sufficient numbers for the needs of the service. Moreover, the scale assigned a uniform rate of pay, and the senior assistant medical officer, although his responsibilities were necessarily beyond those of the other assistants, was on no better footing as regards salary.

A new scheme was adopted by the Board. It divides the medical staff into two classes, viz. : —

CLASS I. Senior Assistant Medical Officer,

CLASS II. Assistant Medical Officer,

with a salary assigned to Class I. at the rate of £280 per annum for the first year, and at the rate of £300 per annum for the second and subsequent years; and to Class II. of £180 per annum, rising, subject to our sanction, by £20 annually to £240 per annum, with emoluments in both cases of board, lodging, attendance, and washing.

STEWARDS.—By the death of Mr. T. Arrowsmith, who for nearly 26 years held office as steward of the Western Hospital, the Board lost the services of a faithful and zealous officer.

Vacancies were also occasioned by the resignations of Mr. W. F. Chapman, North-Western Hospital, whose position was filled by the appointment of Mr. Alexander Fraser, and of Mr. Clifford Chadwick, Brook Hospital.

MATRONS.—Miss E. J. West, matron of the Grove Hospital, resigned her appointment in July, and Miss A. A. Browne was appointed to fill the vacancy.

**Nurses.** The total average number of this class employed daily during 1902 was 1,506, of whom 382 were charge nurses, 427 were first assistants, 682 second assistants, and 15 nurse attendants. During the year, 752 were appointed, and 770 left the service.

**Other subordinate officers and servants.**

Of these, 315 males left and 312 entered the service. Of female officers and servants, other than matrons and nurses, 725 left the service and 752 were engaged.

**Smallpox, 1902.**

A reference to our last annual report will show that, at the close of the year, the metropolis was in the midst of what, at any moment, might develop into a very serious epidemic of smallpox, and we gave certain details of the emergency measures we had adopted up to the 31st December, 1901, to cope with the disease.

It is not necessary to recount here the difficulties which must be encountered in dealing with such a disease as smallpox, for we have already pointed them out in each of our former annual reports. It will be sufficient for the purpose of this record merely to refer to the fact that the main difficulty is the impossibility of gauging what course smallpox is likely to take.

The Board's policy, settled long ago, is that, so far as they are concerned, no case shall remain unremoved, and our energies were directed to give effect to that policy. Full powers to provide such smallpox isolation accommodation as we might think necessary were vested in us, and giving the difficult subject our best consideration, we deemed it prudent to add very considerably to the then existing resources.

The temporary hospital which in November, 1901, we had ordered to be erected at Long Reach abreast the ships was nearing its completion at the close of the year, and early in 1902, at a most critical time, it rendered invaluable service. The second temporary hospital (named "The Orchard"), ordered to be built at the beginning of 1902, was ready for occupation in the following August, if the need for its use had arisen.

In addition we provided further accommodation at Gore Farm,  $4\frac{1}{2}$  miles away from Long Reach, by the extension of the upper hospital; and considerable additions, amounting practically to a large hospital, were erected on the land surrounding the lower Gore Farm Hospital.

By the adoption of these measures, the Board were placed in a very strong position, and they would have been able to cope with an outbreak of very serious dimensions had the epidemic continued to increase. But, happily, the vigorous efforts adopted throughout the metropolis arrested its progress earlier than had at one time seemed likely. The highest number of cases under treatment on one day (11th March) was 1,604, but with truth it may be said that at the commencement of the outbreak there was a general uneasiness that London might be on the eve of a smallpox visitation of greater magnitude than had been experienced for many years.

The gratifying result achieved was due, we believe, to the alertness and diligence of the medical officers of health of the metropolis in searching out every case, and the promptitude of the Board in isolating each case as it was reported.

All concerned in smallpox work, from the highest official to the lowest servant of the Board, co-operated with the Board in its efforts to carry out its duties to the public satisfactorily, and the Board marked its appreciation of the work done by special votes of thanks to all, and grants of gratuities in certain cases.

In setting up a defence of this sort against smallpox, the cost must of necessity be large. It has been pointed out before in connection with the difficulties of determining what accommodation should be provided, that on the one hand there is the risk of providing too much, and on the other hand, the still greater risk of being unready. By the arrest of the epidemic, the Board's

resources have proved to be more than sufficient, but the public at large will regard this as a fortunate circumstance, and looking at the great issues involved will not, we believe, grudgingly pay the cost of security from so dire a scourge as smallpox.

**Smallpox—** The year began with 714 patients under treatment, and during the  
**Number of** year 7,916 new cases were admitted. At the close of the year, 14  
**cases.** cases were under treatment.

**Hospital** The Hospital Ships, which have since 1884 rendered useful service,  
**ships—** are now empty, and their disuse on the completion of the Joyce Green  
**Disuse.** permanent hospital has been decided upon. The question of the future of these  
ships will shortly have to be taken into consideration.

**Smallpox—** The concentration of the Board's smallpox arrangements has received  
**Concentra-** our careful consideration, and we have decided that the various  
**tion of** organisations, viz., the Hospital Ships, the Long Reach and Orchard  
**arrange-** temporary hospitals, the Joyce Green permanent hospital and the  
**ments.** local smallpox transport service shall be worked as one system complete in itself,  
by one sub-committee—the "Smallpox Hospitals Sub-Committee"—the Gore  
Farm Hospital being for the present worked distinct from the other part of the  
smallpox hospital service by a separate sub-committee. This hospital has been  
practically closed down, and now stands ready for any use to which the Board  
may order it to be put.

**Smallpox—** While smallpox was prevalent, numerous applications were received,  
**Facilities** both from students and qualified medical men, to be granted facilities  
**for** for obtaining clinical instruction and experience in smallpox. Owing  
**students.** to the pressure on the Board's accommodation, it was felt that it would be extremely  
difficult, if not impossible, to comply with the Local Government Board's order of  
the 30th October, 1893, requiring the residence of students at the smallpox  
hospitals. Draft rules and regulations, omitting this provision, were accordingly  
forwarded to the Local Government Board, with a request that they would so  
modify the terms of their order as to remove the obligation of residence by  
students and to enable qualified medical men to attend special demonstrations  
to be given at the smallpox hospitals from time to time. Fresh regulations on  
these lines have received the Local Government Board's approval.

Arrangements were made, also, so long as there was sufficient clinical material  
at the smallpox hospitals, for such of the assistant medical officers in the hospitals  
service as were desirous of obtaining instruction in smallpox to reside at Long  
Reach for this purpose for a fortnight in each case.

**Electric** The Eastern and Western Hospitals are at present lighted by gas,  
**Lighting.** and with the approval of the Board, steps are being taken for the  
substitution of the electric light.

**Fire** We continued for another year the services of the fire inspector,  
**Precautions** Mr. G. Webb.

**Conclusion.** In concluding our third annual report, we record with pleasure the  
continued assistance which we have received from the medical super-  
intendents and the other principal officers whenever we have called upon them to  
furnish information for our use.

(Signed) J. R. HILL,  
*Chairman of the Hospitals Committee.*



ANNUAL REPORT OF THE STATISTICAL COMMITTEE  
FOR THE YEAR 1902.

17th June, 1903.

We submit our report for the year 1902 upon the statistics concerning:—

- (1) The notification of cases of infectious disease in the Metropolis;
- (2) The work of the ambulance service; and
- (3) The inmates of the various institutions under the Managers' control.

i. INFECTIOUS DISEASES.

**Notification Statistics.** (1.) During the year there were notified in the Metropolis 71,785 (*40,361*)\* cases of infectious disease. Of these, 40,239 (*35,501*) were legally admissible to the Managers' hospitals. The remainder—mainly cases of chickenpox and erysipelas, but including also 311 (*253*) cases of puerperal fever—were not admissible. Out of the admissible cases 31,076 (*26,521*)† cases or 77·23 (74·7) per cent. were actually admitted.

Since 1890, the first complete year in which compulsory notification was in force, the proportion of admissions to the total number of legally admissible cases has been steadily increasing (with the exception of a decrease in the year 1893, see p. 150, and slight decreases in the years 1895 and 1896) from 33·59 to 77·23 as follows:—

1890	..	..	..	33·59 per cent.
1891	..	..	..	36·69 „
1892	..	..	..	43·17 „
1893	..	..	..	36·91 „
1894	..	..	..	52·23 „
1895	..	..	..	50·31 „

\* Italic figures in brackets throughout are the corresponding figures for 1901.

† Excluding Tottenham and other Extra-Metropolitan cases.

1896	..	..	..	52·37 per cent.
1897	..	..	..	58·50 „
1898	..	..	..	65·50 „
1899	..	..	..	68·08 „
1900	..	..	..	70·63 „
1901	..	..	..	74·70 „
1902	..	..	..	77·23 „

Table A, p. 148A shows the number of notifications of, and deaths from those notifiable diseases which are admissible to the Managers' hospitals, the ratio of such notifications and deaths to the population, the number of notifications of other notifiable diseases, and the grand total of cases notified during 1902.

For the second year in succession there was a decrease in the ratio of diphtheria to scarlet fever. The notifications exceeded those of scarlet fever in only 1 (*3*)\* district, viz., City of London.

Facing p. 149 we give four charts tracing the course throughout the year of scarlet fever, diphtheria, enteric fever, and smallpox respectively. Each chart shows week by week (*a*) the notifications of the disease to which it relates, (*b*) the admissions, and (*c*) the number of patients under treatment.

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\* Italic figures in brackets throughout are the corresponding figures for 1901.



Table 1. Summary of data

Year	Month	Number of birds			Total	Mean	Standard deviation	Range	Notes
		Male	Female	Immature					
1961	Jan	10	12	5	27	1.5	0-15	...	
1961	Feb	8	10	4	22	1.2	0-12	...	
1961	Mar	15	18	8	41	2.0	0-25	...	
1961	Apr	20	25	12	57	2.5	0-35	...	
1961	May	30	35	20	85	3.5	0-50	...	
1961	Jun	40	45	25	110	4.5	0-60	...	
1961	Jul	50	55	30	135	5.5	0-70	...	
1961	Aug	60	65	35	160	6.5	0-80	...	
1961	Sep	70	75	40	185	7.5	0-90	...	
1961	Oct	80	85	45	210	8.5	0-100	...	
1961	Nov	90	95	50	235	9.5	0-110	...	
1961	Dec	100	105	55	260	10.5	0-120	...	
1962	Jan	110	115	60	285	11.5	0-130	...	
1962	Feb	120	125	65	310	12.5	0-140	...	
1962	Mar	130	135	70	335	13.5	0-150	...	
1962	Apr	140	145	75	360	14.5	0-160	...	
1962	May	150	155	80	385	15.5	0-170	...	
1962	Jun	160	165	85	410	16.5	0-180	...	
1962	Jul	170	175	90	435	17.5	0-190	...	
1962	Aug	180	185	95	460	18.5	0-200	...	
1962	Sep	190	195	100	485	19.5	0-210	...	
1962	Oct	200	205	105	510	20.5	0-220	...	
1962	Nov	210	215	110	535	21.5	0-230	...	
1962	Dec	220	225	115	560	22.5	0-240	...	
1963	Jan	230	235	120	585	23.5	0-250	...	
1963	Feb	240	245	125	610	24.5	0-260	...	
1963	Mar	250	255	130	635	25.5	0-270	...	
1963	Apr	260	265	135	660	26.5	0-280	...	
1963	May	270	275	140	685	27.5	0-290	...	
1963	Jun	280	285	145	710	28.5	0-300	...	
1963	Jul	290	295	150	735	29.5	0-310	...	
1963	Aug	300	305	155	760	30.5	0-320	...	
1963	Sep	310	315	160	785	31.5	0-330	...	
1963	Oct	320	325	165	810	32.5	0-340	...	
1963	Nov	330	335	170	835	33.5	0-350	...	
1963	Dec	340	345	175	860	34.5	0-360	...	

Notes: ...

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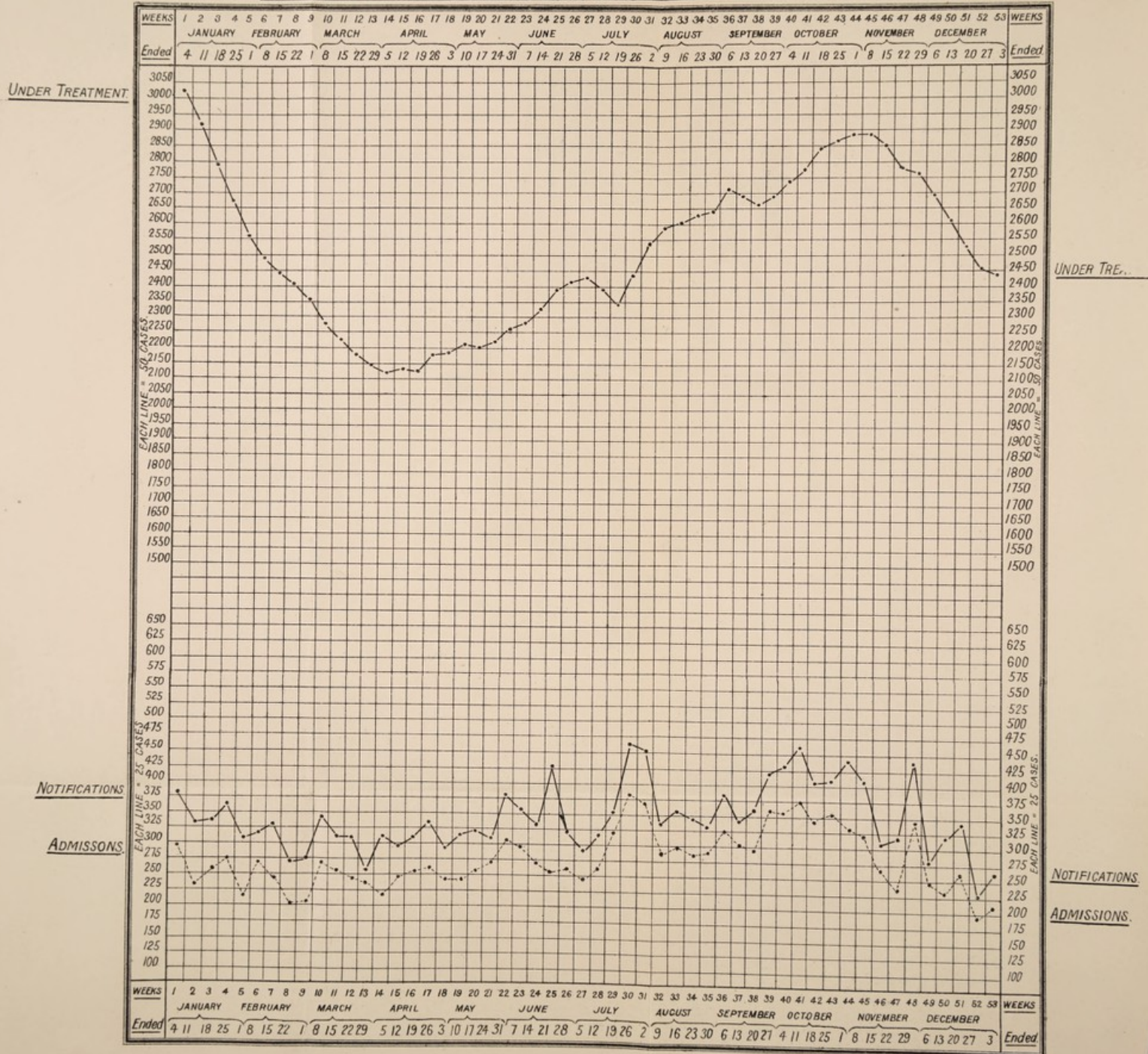
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# METROPOLITAN ASYLUMS BOARD.

CHART showing the mean number of SCARLET FEVER patients remaining under treatment each week, also the number of cases notified and the number admitted during each week of 1902 (uncorrected for mistakes in diagnosis.)

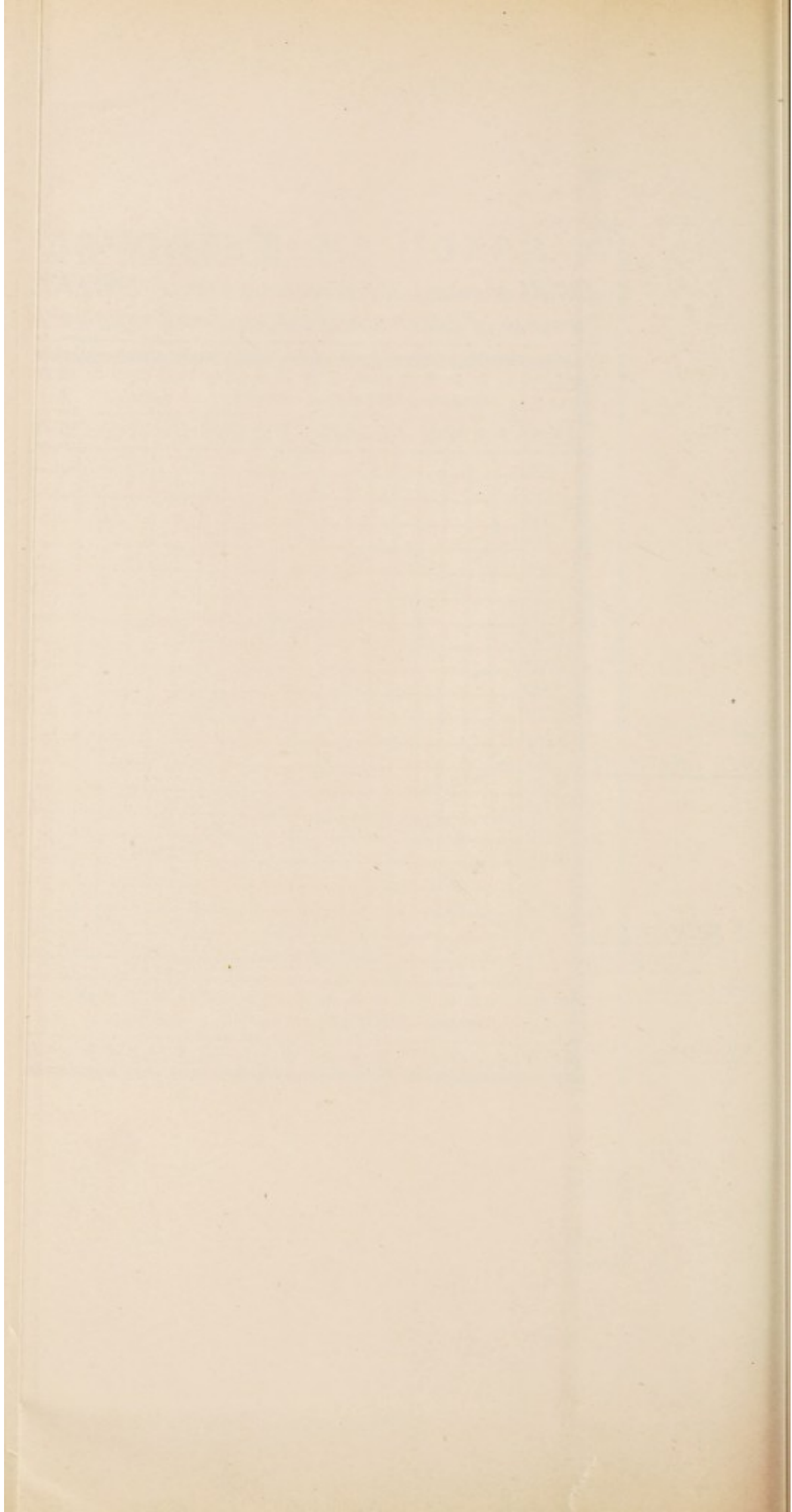


ATMEN











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The numbers of notifications and admissions in each chart are based upon the figures in the following table:—

TABLE A1.—Cases of Scarlet Fever, Diphtheria, Enteric Fever, and Smallpox notified, number Admitted, and Percentage of Admissions to Notifications for each week during 1902.

WEEK ENDED	SCARLET FEVER.			DIPHTHERIA.			ENTERIC FEVER.			SMALLPOX.		
	Notifica- tions.	Admissions.	Percentage of Admissions.	Notifica- tions.	Admissions.	Percentage of Admissions.	Notifica- tions.	Admissions.	Percentage of Admissions.	Notifica- tions.	Admissions.	Percentage of Admissions.
1902.												
1 Jan. 4	378	297	78·57	207	153	73·91	48	21	43·75	249	253	* 101·61
2 " 11	331	235	70·99	190	136	71·58	49	25	51·02	297	293	98·65
3 " 18	335	255	76·2	236	176	74·58	39	16	41·03	230	208	90·43
4 " 25	368	275	74·73	245	186	75·92	40	17	42·50	184	189	102·72
5 Feb. 1	306	213	69·60	238	161	67·65	34	13	38·24	422	431	102·13
6 " 8	316	267	84·49	215	157	73·02	37	12	32·43	304	272	89·47
7 " 15	328	244	74·39	194	144	74·23	48	29	60·42	368	355	96·47
8 " 22	271	201	74·17	194	160	82·47	43	23	53·49	417	430	103·12
9 Mar. 1	275	203	73·82	208	142	68·27	47	24	51·06	350	320	91·43
10 " 8	340	272	80·00	196	141	71·94	44	21	47·73	466	490	105·15
11 " 15	310	255	82·26	196	142	72·45	32	19	59·38	429	389	90·67
12 " 22	309	242	78·32	226	169	74·78	26	12	46·15	418	410	98·09
13 " 29	256	237	92·58	213	167	78·40	33	19	57·58	340	347	102·06
14 Apr. 5	312	219	70·19	217	139	64·06	14	7	50·00	351	334	95·16
15 " 12	294	246	83·67	174	127	72·98	28	12	42·86	278	249	89·57
16 " 19	307	254	82·74	202	145	71·78	26	13	50·00	272	251	92·28
17 " 26	336	264	78·27	204	125	61·27	52	29	55·77	279	287	102·87
18 May 3	291	242	83·16	211	142	67·30	49	23	46·94	213	202	94·84
19 " 10	317	244	76·97	198	140	70·71	29	12	41·38	220	208	94·55
20 " 17	324	255	78·70	200	158	79·00	43	12	27·91	181	184	101·66
21 " 24	318	271	85·22	188	136	72·34	37	21	56·76	271	274	101·11
22 " 31	381	315	80·05	185	133	71·89	52	32	61·54	264	237	89·77
23 June 7	360	297	82·50	205	162	79·02	65	29	44·62	206	183	88·84
24 " 14	332	271	81·63	179	123	68·72	57	34	59·65	165	155	93·94
25 " 21	428	256	59·81	210	165	78·57	82	46	57·00	101	98	97·03
26 " 28	324	260	80·25	196	147	75·0	74	43	58·11	127	124	97·64
27 July 5	291	246	84·54	163	116	71·60	85	50	58·82	77	52	67·53
28 " 12	318	261	82·08	216	162	75·00	78	34	43·59	47	42	89·36
29 " 19	354	324	91·53	221	173	78·28	95	60	63·16	47	43	91·49
30 " 26	463	379	82·06	210	159	75·71	112	66	58·04	21	23	109·52
31 Aug. 2	451	369	81·82	243	197	81·07	68	40	58·82	46	43	93·48
32 " 9	331	222	67·37	208	164	78·85	71	40	56·34	25	20	80·00
33 " 16	353	295	83·57	194	139	71·65	70	16	22·86	22	24	109·09
34 " 23	345	283	82·03	174	138	71·13	59	33	55·33	26	18	69·23
35 " 30	328	289	88·11	166	132	79·52	87	65	74·71	12	11	91·67
36 Sep. 6	385	325	84·42	165	142	86·06	104	65	62·50	13	12	92·31
37 " 13	336	302	89·88	188	148	78·72	127	72	56·69	8	7	87·50
38 " 20	357	298	83·47	185	145	78·38	136	60	44·12	4	4	100·00
39 " 27	422	360	85·31	159	122	76·73	104	61	58·65	3	3	100·00
40 Oct. 4	430	356	82·79	199	133	66·83	100	53	53·00	3	2	66·67
41 " 11	464	375	80·82	162	135	83·33	123	54	43·90	4	2	50·00
42 " 18	405	340	83·95	213	159	74·65	109	71	65·13	3	2	66·67
43 " 25	411	351	85·40	170	146	85·88	89	55	61·79	2	1	50·00
44 Nov. 1	441	329	74·60	225	150	66·67	105	65	61·90	5	5	100·00
45 " 8	410	321	78·29	223	161	72·20	71	45	63·37	3	...	...
46 " 15	308	268	87·01	226	163	73·01	72	37	51·38	2	2	100·00
47 " 22	320	235	73·44	184	135	73·37	78	36	46·15	6	6	100·00
48 " 29	442	348	78·73	192	156	81·25	56	26	46·43	3	4	133·33
49 Dec. 6	281	249	88·61	186	142	76·34	71	31	43·66	7	6	85·71
50 " 13	322	231	71·74	159	113	71·07	51	21	41·17	1	1	100·00
51 " 20	345	263	76·23	200	150	75·00	47	29	61·70	2	4	200·00
52 " 27	226	193	85·40	176	120	68·18	55	28	50·90	1	...	...
1903.												
53 Jan. 3	266	208	78·20	205	144	70·24	63	35	55·55	1	1	100·00
	18,252	14,659	80·34	10,538	7,820	74·20	3,407	1,822	53·18	7,796	7,511	96·34

(N.B.—Extra-metropolitan cases admitted into the Board's hospitals are deducted from the weekly admissions. Enteric fever cases taken to London general hospitals are added to the weekly admissions.)  
\* For an explanation of the percentage rates of smallpox cases, see p. 150.

This table is of interest as showing the great variations from week to week in the percentages of cases admitted to hospital. The variations range from 59·81 (61·80)\* to 92·58 (91·02) in the case of scarlet fever; from 61·27 (58·28) to 88·24 (92·02) in the case of diphtheria; and from 22·86 (25·00) to 74·71 (65·91) in the case of enteric fever. Practically all cases of smallpox find their way into the Managers' hospitals, less than 4 (3) per cent. of the cases notified in the year being treated elsewhere. It will be observed that the smallpox admissions frequently exceed the number of notifications. This is probably due to the disinclination of medical practitioners to send their certificates to the medical officers of health until they know whether the diagnosis has been confirmed by the Board's experts.

The following table, A<sub>2</sub>, shows the number of cases of infectious disease admissible to the Managers' hospitals which were notified during the years 1890 to 1902:—

TABLE A<sub>2</sub>.—Number of cases of admissible Diseases† notified during the years from 1890 to 1902.

YEARS.	Scarlet.	Diphtheria.	Enteric.	Typhus.	Smallpox.	Relapsing Fever.‡	Continued Fever.‡	TOTALS.
1890	15,330	5,870	2,877	35	60	7	237	24,416
1891	11,398	5,907	3,372	27	114	39	152	21,009
1892	27,095	7,781	2,465	20	423	7	147	37,938
1893	36,901	13,026	3,663	22	2,813	4	205	56,634
1894	18,440	10,655	3,360	21	1,192	2	162	33,832
1895	19,757	10,772	3,506	14	979	3	105	35,136
1896	25,647	13,362	3,190	6	225	3	103	42,536
1897	22,848	12,803	3,103	4	104	1	67	38,930
1898	16,894	11,543	3,024	16	32	1	55	31,565
1899	18,089	13,346	4,453	13	29	1	69	36,000
1900	13,800	11,776	4,291	7	87	—	73	30,034
1901	18,381	11,968	3,194	20	1,700	—	48	35,311
1902	18,252	10,538	3,407	4	7,796	2	47	40,046

The proportion which the hospital admissions bear to the total number of cases is of great importance to the Managers in considering the question of the amount of accommodation which should be provided to meet the wants of the Metropolis. In this connection the following table will be of interest:—

TABLE A<sub>3</sub>.—Percentage of Admissions to Notifications of each admissible Disease during the years 1890 to 1902.

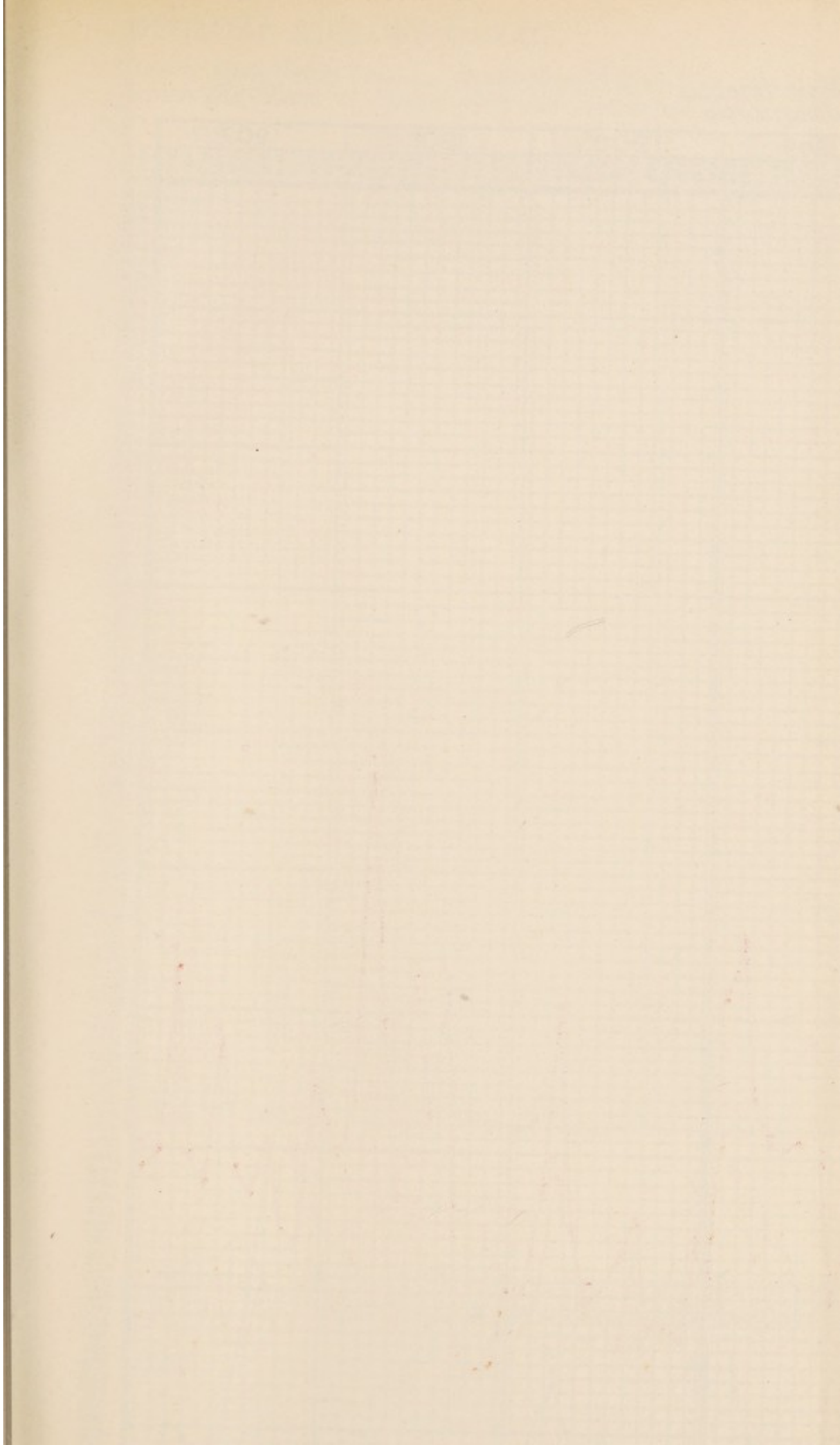
DISEASES.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
Scarlet Fever	42·82	46·84	48·80	39·68	63·94	58·20	62·65	66·99	73·16	74·34	75·15	78·89	80·31
Diphtheria ...	17·87	25·07	30·19	24·52	38·89	41·55	39·92	51·64	62·12	69·69	72·48	74·85	72·87
Enteric Fever	22·49	27·34	25·27	20·01	20·24	24·13	27·02	30·36	36·64	40·78	47·70	45·34	53·18
Typhus Fever	42·86	70·37	60·00	36·36	61·90	42·86	33·33	50·00	87·50	84·62	57·14	85·00	—
Smallpox ...	36·67	55·26	66·67	81·23	78·44	84·58	61·78	66·34	15·62	55·17	73·56	97·29	96·34

N.B.—These percentages are exclusive of extra-metropolitan cases, but are not corrected for cases of mistaken diagnosis discovered after admission to hospital, and therefore do not correspond exactly with the percentages obtained by taking the corrected admissions as shown in the Fever Statistical Tables.

\*Italic figures in brackets throughout are the corresponding figures for 1901.

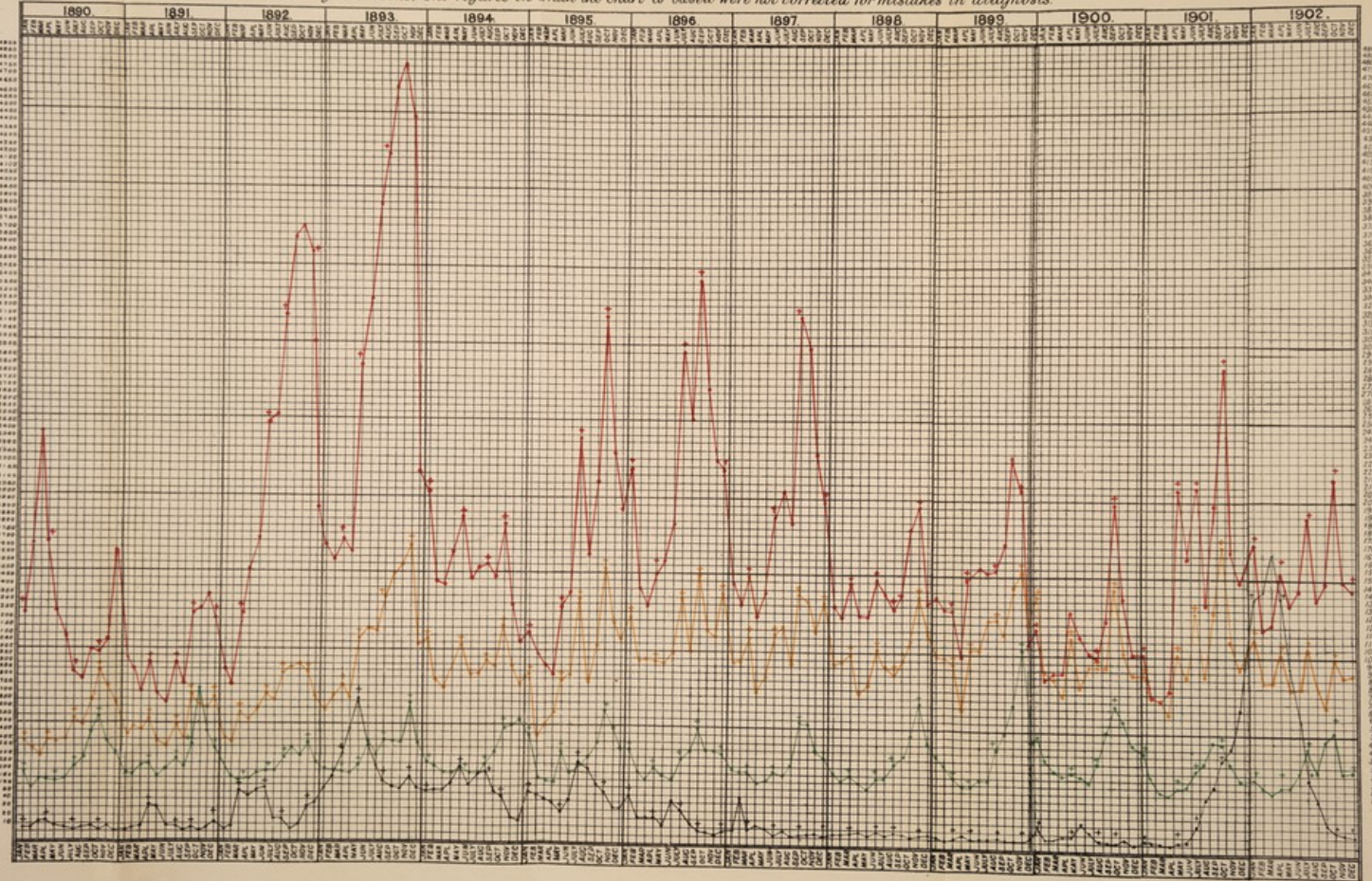
† Cases of membranous croup are not included in this table. See Note, p. 148A.

‡ Although relapsing and continued fevers are admissible to the Managers' hospitals, few cases so certified are sent in.



### METROPOLITAN ASYLUMS BOARD.

NOTIFICATION CHART.—Monthly notifications, Scarlet fever, Red line—, Enteric fever, Green line—, Diphtheria, Yellow line—, Smallpox, Black line—.  
N.B. The crosses indicate months including five weeks. The figures on which the Chart is based were not corrected for mistakes in diagnosis.





The proportion of scarlet fever admissions to notifications has risen from 42·82 to 80·31, of diphtheria cases from 17·87 to 72·87 (74·85)\*, and of enteric cases from 22·49 to 53·18. The low figures of 1893, 1895, and 1896 were due to the fact that scarlet fever and diphtheria were unusually prevalent in those years, and the Board's hospital accommodation was quite inadequate.

The chart facing this page traces the course of scarlet fever, diphtheria, enteric fever, and smallpox month by month during each year from 1890 to 1902.

SPOTTED MAPS. Maps spotted to show the distribution of the principal fevers throughout the Metropolis during 1902 will be found in the pocket at the end of this volume.

In all, there are eight maps, dealing with five diseases.

*Scarlet Fever* cases are spotted on four maps—one for each quarter of the year.

*Diphtheria* cases are on two maps—one for each half-year.

*Enteric Fever* cases are on one map.

*Smallpox* and *Typhus Fever* cases are shown on one map, the former being represented by spots and the latter by crosses.

Similar maps have been published for the past 13 years. In future we do not propose to issue any in respect of fever and diphtheria notifications. Before coming to this decision we consulted the metropolitan medical officers of health, and the general consensus of opinion was that, although still of interest, they were not now of much practical value. The publication of the map showing smallpox and typhus fever cases will be continued.

We desire to draw particular attention to the smallpox map, in view of the allegation made by the medical officer of health for the borough of Bermondsey, in a report on smallpox in the borough from October, 1901, to October, 1902, to the effect that the presence of South Wharf (to which most of the patients were brought for examination by the Managers' expert before being placed on the ambulance steamboats *en route* for the smallpox hospitals) in the borough was largely to blame for the cases of smallpox which arose in the wharf's vicinity. The evidence he advanced in support of his allegation was most inconclusive, and he himself admitted "It is not safe to draw conclusions from so few facts." That being his opinion, it is a matter for regret that he did draw conclusions. For, as is clearly seen on the map, there were many localities in London where the disease was much more prevalent than in the borough of Bermondsey.

AGE AND SEX DISTRIBUTION. Tables A<sub>4</sub>, A<sub>5</sub>, A<sub>6</sub>, and A<sub>7</sub> exhibit the age and sex of cases notified as scarlet fever, diphtheria, enteric fever, and smallpox respectively during the year. Scarlet fever and diphtheria are most prevalent amongst children; over two-thirds of the cases being under ten years of age. But whereas scarlet fever is most prevalent amongst children from five to ten years of age, diphtheria is most so amongst those under five years. As might be expected, owing to the protection afforded by vaccination in infancy, smallpox was not so prevalent amongst children as amongst adults, the age period in which the greater number of cases were notified being from 20 to 30 years.

\* Italic figures in brackets throughout are the corresponding figures for 1901.

*Ages of Cases Notified—1902.*

TABLE A4.—SCARLET FEVER.				TABLE A5. DIPHTHERIA.			TABLE A6. ENTERIC FEVER.			TABLE A7. SMALLPOX.		
AGES.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
Under 1 ... ..	132	103	235	137	73	210	3	3	6	83	93	176
1 to 2 ... ..	362	308	670	352	305	657	7	6	13	47	56	103
2 ,, 3 ... ..	651	629	1,280	438	430	868	20	8	28	56	45	101
3 ,, 4 ... ..	885	883	1,768	574	511	1,085	31	17	48	78	75	153
4 ,, 5 ... ..	974	956	1,930	556	619	1,175	24	31	55	79	74	153
Total under 5	3,004	2,879	5,883	2,057	1,938	3,995	85	65	150	343	343	686
5 to 10 ... ..	3,289	3,668	6,957	1,508	1,901	3,409	201	200	401	336	311	647
10 ,, 15 ... ..	1,341	1,460	2,801	562	673	1,235	347	213	560	268	331	599
15 ,, 20 ... ..	601	588	1,189	278	352	630	354	207	561	464	398	862
20 ,, 25 ... ..	326	363	689	172	284	456	308	214	522	709	480	1,189
25 ,, 30 ... ..	148	238	386	124	195	319	230	211	441	622	461	1,083
30 ,, 35 ... ..	62	109	171	76	136	212	142	125	267	506	336	842
35 ,, 40 ... ..	39	42	81	30	85	115	108	69	177	405	237	642
40 ,, 45 ... ..	21	33	54	19	56	75	74	59	133	284	168	452
45 ,, 50 ... ..	8	10	18	14	21	35	46	45	91	196	105	301
50 ,, 55 ... ..	1	10	11	6	17	23	22	20	42	134	60	194
55 ,, 60 ... ..	2	3	5	5	10	15	19	11	30	74	29	103
Upwards ... ..	2	5	7	9	9	18	18	14	32	107	89	196
Unrecorded ... ..	...	...	...	...	1	1	...	...	...	...	...	...
Totals	8,844	9,408	18,252	4,860	5,678	10,538	1,954	1,453	3,407	4,448	3,348	7,796

**Ambulance Work.** (2.) The statistical tables concerning the work of the ambulance service will be found on pp. 193 to 195.

During the year 32,240 (27,380)\* fever, diphtheria, and smallpox patients were conveyed to the various hospitals of the Managers; 4,210 (5,223) convalescent patients were transferred to the Northern and other hospitals; and 4,489 (5,539) recovered patients were brought back to London. Further, 360 (388) private persons were removed on payment to other places than the Managers' hospitals; 51 (159) were taken from the out-patient departments of general hospitals to their homes owing to there being no suitable beds immediately available in the Managers' hospitals (they were admitted the following day), none of these cases being smallpox; and 59 (98) enteric patients were removed from their homes to the general hospitals, where arrangements for their reception had been made by the Managers.

Altogether, 43,350 (39,966) removals were effected by the land ambulance service during 1902, and the various vehicles made 35,151 (30,587) journeys, and ran 388,996 (317,278) miles.

The steamboats of the river ambulance service conveyed 24,616 (5,453) passengers to and from the hospital ships at Long Reach; of that number 7,239 (1,614) were patients taken to the hospital ships; 6,002 (633) were recovered patients brought back to London, and 11,375 (3,206) were visitors, staff, workmen, &c.

\* Italic figures in brackets throughout are the corresponding figures for 1901.

**Hospital Accommodation.**

(3.) FEVER AND DIPHTHERIA.—The normal accommodation at the fever hospitals open at the end of the year was as under :—

HOSPITAL.	No. of Beds.
Eastern Hospital .. .. .	362
North-Eastern Hospital (including temporary buildings)	600
North-Western Hospital (including some temporary buildings) .. .. .	460
Western Hospital.. .. .	450
South-Western Hospital (including temporary hut) ..	366*
Fountain Hospital .. .. .	402
Grove Hospital .. .. .	522
South-Eastern Hospital (including small temporary buildings) .. .. .	432*
Park Hospital .. .. .	548
Brook Hospital .. .. .	488
Northern Hospital (including temporary buildings) ..	748
Total .. .. .	5,378

Further accommodation will be provided at :—

Southern Convalescent Hospital .. .. .	800
Grand total .. .. .	<u>6,178</u>

This accommodation is capable of further increase in times of pressure by placing extra beds in the wards of several of the hospitals; but from the total should be deducted 100 beds to the use of which the Urban District of Tottenham is entitled.

SMALLPOX.—For this disease the Managers possessed at the end of 1902 the following accommodation :—

Hospital Ships .. .. .	250 beds†
Long Reach Hospital .. .. .	300 „
Orchard Hospital .. .. .	800 „
Gore Farm Hospitals (Upper and Lower) ..	1,850 „
	<u>3,200</u>

In addition to this number there will be at

Joyce Green Hospital, which is approaching completion, a further .. .. .	940 „
	<u>4,140</u>

(4.) FEVER.—On the last day of 1901 there were 4,588 (*4,142*) patients in the fever hospitals.

By 10th May, 1902, the number under treatment had fallen to the minimum 3,281 (*April 25th, 1901, 2,563*).‡ After that date, the number rose to 3,647 by the 1st July, when it began to decline, and on the 12th of that month it was reduced to 3,488. It then began to rise again, and attained the maximum, 4,321, for the year on October 28th (*November 3rd, 1901, 5,165*), and then

**Hospital Statistics.**

\* The Board have decided to demolish the hut at the South-Western Hospital and a hut at the South-Eastern Hospital, which will represent losses of 20 and 24 beds respectively.

† On the 2nd November, 1901, the Board decided to discontinue the use of the hospital ships as soon as the hospital at Joyce Green should be opened for the reception of patients.

‡ Italic figures and dates in brackets throughout are the corresponding figures and dates for 1901.

declined until the end of the year, when 3,608 (4,588)\* patients remained under treatment.

Distribution of patients amongst the several fever hospitals on 10th May, 1902 :—

*Minimum number under treatment.*

HOSPITAL.	BEDS OCCUPIED.					
	Scarlet.	Diphtheria.	Typhus.	Enteric.	Other Diseases.	TOTAL.
Eastern Hospital... ..	...	145	...	8	...	153
North-Eastern Hospital...	231	115	..	15	...	361
North-Western ,, ...	265	108	...	...	...	373
Western ,, ...	188	104	...	15	...	307
South-Western ,, ...	190	53	...	12	...	255
Fountain ,, ...	382	...	...	...	...	382
Grove ,, ...	...	145	...	21	...	166
South-Eastern ,, ...	87	103	...	21	...	211
Park ,, ...	224	71	...	2	...	297
Brook ,, ...	287	123	...	15	...	425
Northern ,, ...	321	30	...	...	...	351
TOTALS ... ..	2,175	997	...	109	...	3,281

Distribution of patients amongst the several hospitals on 28th October, 1902 :—

*Maximum number under treatment.*

HOSPITAL.	BEDS OCCUPIED.					
	Scarlet.	Diphtheria.	Typhus.	Enteric.	Other Diseases.	TOTAL.
Eastern Hospital ... ..	20	156	...	38	...	214
North-Eastern Hospital..	377	54	...	44	...	475
North-Western ,, ...	315	117	...	41	...	473
Western ,, ...	233	120	...	40	...	393
South-Western ,, ...	239	62	...	25	...	326
Fountain ,, ...	391	...	...	...	...	391
Grove ,, ...	152	135	...	60	...	347
South-Eastern ,, ...	80	92	...	93	..	265
Park ,, ...	288	85	...	23	...	396
Brook ,, ...	290	98	...	56	...	444
Northern ,, ...	565	32	...	...	...	597
Gore Farm ,, ...	...	...	...	...	...	...
TOTALS ... ..	2,950	951	...	420	...	4,321

Owing to the continued prevalence of smallpox, Gore Farm Hospital was used for that disease only.

\* Italic figures in brackets throughout are the corresponding figures for 1901.

For the first time we have prepared a table showing the number of cases of scarlet and enteric fevers and diphtheria notified in the respective borough areas, and the number of such cases which were admitted to the Managers' hospitals. The Managers are obliged to keep their records of admissions according to the Poor Law districts to which the patients are chargeable. The areas of these districts are not in all cases co-extensive with the borough areas. Both areas are included in the table, and, in certain instances, several parishes or unions are grouped together to make a total corresponding to the borough areas.

*Notifications and Admissions, 1902.*

Metropolitan Boroughs and Populations estimated to the middle of 1902.	Corresponding Poor Law Parishes and Unions and Populations.*	Scarlet Fever.		Diphtheria (including Membraneous Croup).		Enteric Fever (including Continued Fever).		Total.		Percentage of Admissions to Notifications.
		Notifications.	Admissions.	Notifications.	Admissions.	Notifications.	Admissions.	Notifications.	Admissions.	
Paddington ... 145,107	Paddington ... —	364	276	222	121	84	33	670	430	64·19
Kensington ... 177,605	Kensington ... —	378	285	186	115	87	32	650	432	66·46
Hammersmith 114,210	Hammersmith —	353	281	182	107	52	18	587	406	69·17
Fulham ... 143,102	Fulham ... —	553	451	429	309	74	30	1,057	790	74·74
Chelsea ... 74,018	Chelsea ... —	204	167	133	89	35	14	372	270	72·58
City of Westminster ... 180,800	{ Strand ... 20,740 Westminster 32,581 St. George's W. 127,479 }	475	388	285	152	133	35	893	575	64·38
St. Marylebone 132,145	St. Marylebone —	414	345	237	125	96	40	747	510	68·27
Hampstead ... 83,743	Hampstead ... —	254	144	98	48	47	18	399	210	52·63
St. Pancras ... 235,521	St. Pancras ... —	1,219	1,039	836	544	199	69	2,254	1,652	73·29
Islington ... 337,270	Islington ... —	1,379	1,054	881	543	268	103	2,529	1,700	67·22
Stoke Newington 51,700	{ Hackney ... 273,626 }	1,085	690	819	469	212	76	2,116	1,235	58·36
Hackney ... 221,926	{ Hackney ... 273,626 }	1,085	690	819	469	212	76	2,116	1,235	58·36
Holborn ... 58,535	{ Holborn ... 128,071 Bloomsbury 30,951 }	595	559	356	223	128	55	1,078	837	77·64
Finsbury ... 100,487	{ Bloomsbury 30,951 City of London — }	83	51	97	55	16	5	196	111	56·63
City of London 25,598	City of London —	83	51	97	55	16	5	196	111	56·63
Shoreditch ... 118,004	Shoreditch ... —	250	219	233	126	154	65	637	410	64·36
Bethnal Green 129,865	Bethnal Green —	529	399	323	166	132	55	984	620	63·01
Stepney ... 300,551	{ Stepney ... 58,080 St. George's E. 49,521 Whitechapel 79,350 Mile End O.T. 113,600 }	1,069	800	780	460	296	120	2,144	1,380	64·37
Poplar ... 169,214	Poplar ... —	670	450	470	259	209	90	1,349	799	59·23
Southwark ... 206,825	Southwark ... —	1,099	973	538	372	193	88	1,830	1,433	78·31
Bermondsey ... 130,218	St. Olave's ... —	506	402	283	162	131	73	920	637	69·24
Lambeth ... 305,102	Lambeth ... —	1,354	1,091	488	277	229	91	2,071	1,459	70·45
Battersea ... 171,401	{ Wandsworth & Clapham ... 413,211 }	1,973	1,534	1,052	653	242	103	3,268	2,290	70·07
Wandsworth ... 241,810	{ Wandsworth & Clapham ... 413,211 }	1,973	1,534	1,052	653	242	103	3,268	2,290	70·07
Camberwell ... 262,775	Camberwell ... —	1,390	1,043	693	382	146	54	2,229	1,479	66·35
Deptford ... 111,577	{ Greenwich ... 187,550 Lewisham ... 139,855 Woolwich ... 134,173 }	2,052	1,559	1,105	658	267	112	3,423	2,329	68·04
Greenwich ... 98,013	{ Greenwich ... 187,550 Lewisham ... 139,855 Woolwich ... 134,173 }	2,052	1,559	1,105	658	267	112	3,423	2,329	68·04
Lewisham ... 132,432	{ Greenwich ... 187,550 Lewisham ... 139,855 Woolwich ... 134,173 }	2,052	1,559	1,105	658	267	112	3,423	2,329	68·04
Woolwich ... 119,556	{ Greenwich ... 187,550 Lewisham ... 139,855 Woolwich ... 134,173 }	2,052	1,559	1,105	658	267	112	3,423	2,329	68·04
Totals ...	Totals ...	18,248	14,200	10,726	6,415	3,430	1,379	32,403	21,994	67·87

\* Populations are the same as in the boroughs unless otherwise stated.

N.B.—The admissions in this table are taken from Fever Table III., p. 158, in which the cases are recorded according to the Poor Law areas in which they resided, and from the Boards of Guardians of which the Managers recover the cost of the patients' maintenance.

The variations in the percentages of admissions are considerable, ranging from 52·63 in the case of Hampstead to 78·31 in Southwark. We can understand that in Hampstead a large proportion of the residents can conveniently and safely isolate their sick at home. But why in a working class district like Bethnal Green the percentage of admissions should be so low as 56·91 is not clear.

*Fever Hospital Tables.*—Tables I. to VIII. and the accompanying chart summarise the several fever hospital tables given on pp. 210 to 231.

TABLE I.—Admissions, Discharges, and Deaths at Fever Hospitals during 1902.

DISEASES.	Re- main- ing on Dec. 31, 1901.	Admitted.	Total under treatment during 1902.	Dis- charged.	Died.	Mortality per cent.	Re- main- ing on Dec. 31, 1902.
Scarlet ... ..	3,132	14,503	17,635	14,652	512	3·45	2,472
Diphtheria ... ..	1,187	6,520	7,707	6,130	739	11·04	835
Enteric ... ..	149	1,420	1,569	1,178	218	15·48	172
Typhus ... ..	...	...	...	...	...	...	...
Totals ... ..	4,468	22,443	26,911	21,960	1,469	6·04	3,479
Other diseases ... ..	120	2,108	2,228	1,915	178	8·47	129
Grand Totals... ..	4,588	24,551	29,139	23,875	1,647	...	3,608

NOTES.—The mortalities returned as above include all deaths occurring from intercurrent diseases, particulars of which will be found in the annual reports of the medical superintendents.

The mortality rates are calculated according to the Registrar-General's formula—*i.e.*, by dividing the deaths, multiplied by 100, by half the sum of the admissions, discharges, and deaths for the year.

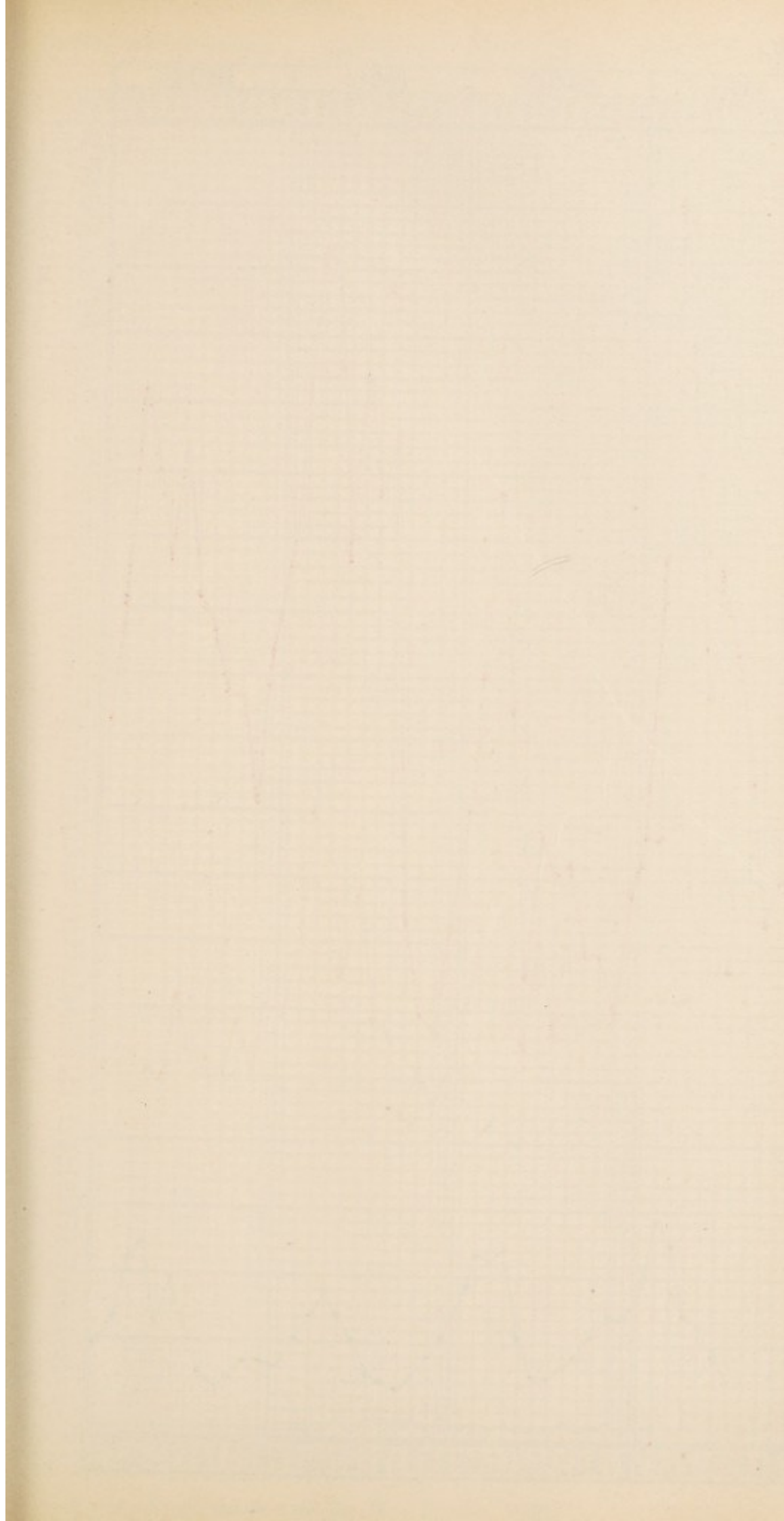
Cases of enteric fever admitted into general hospitals under arrangements made with those hospitals by the Managers are not included in this table. If they were, the number of admissions would be increased by 66 (including 9 not conveyed to the hospitals by the Managers' Ambulances).

The total number of patients treated during the year was 671 less than in the preceding year, which was the highest on record.

TABLE II.—Monthly Admissions, Deaths, and Mortality per cent at Fever Hospitals during 1902.

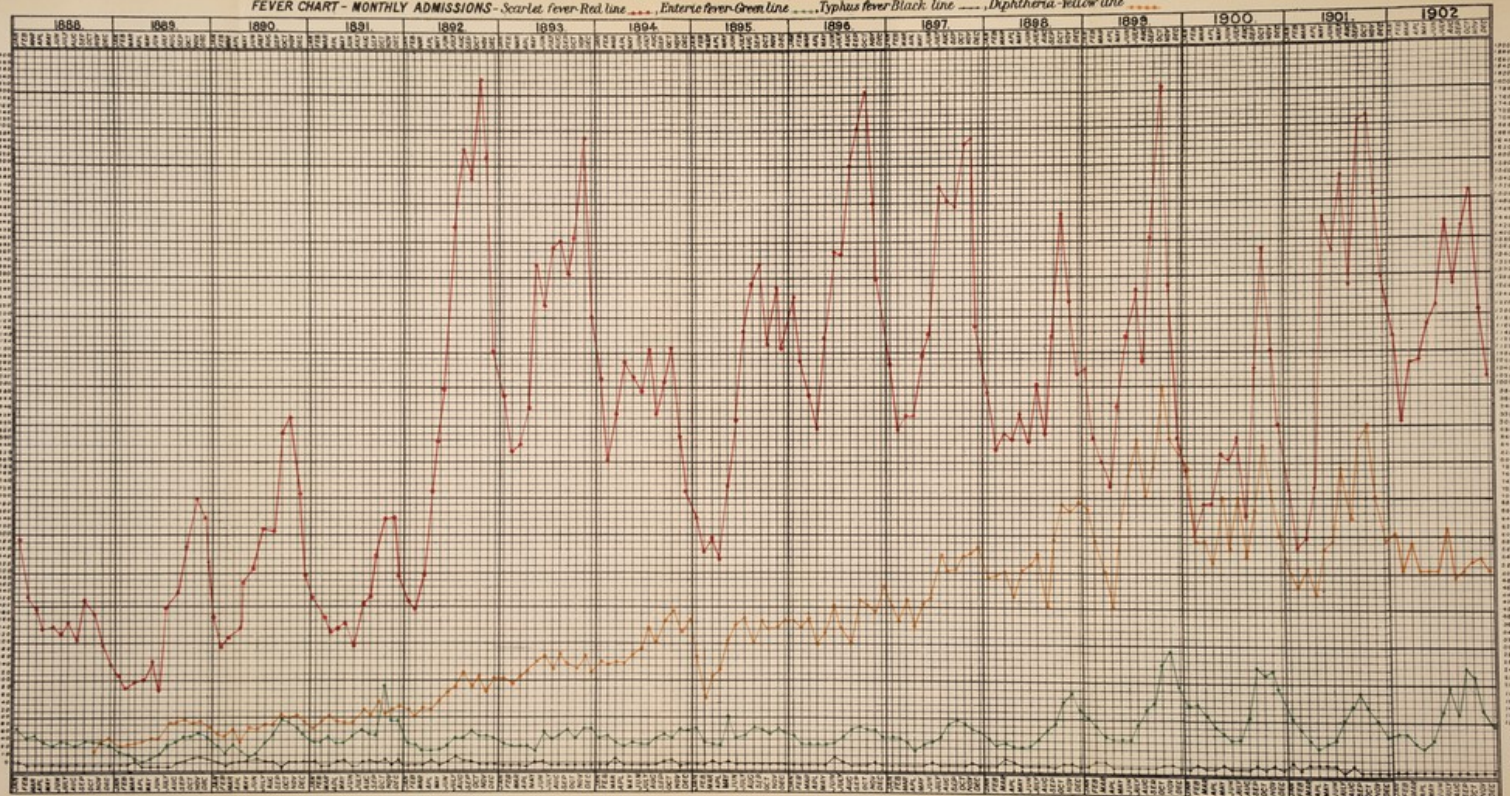
MONTH.	ADMISSIONS.						DEATHS.						MORTALITY PER CENT.*					
	Scarlet.	Diphtheria.	Enteric.	Typhus.	Other Diseases.	Total.	Scarlet.	Diphtheria.	Enteric.	Typhus.	Other Diseases.	Total.	Scarlet.	Diphtheria.	Enteric.	Typhus.	Other Diseases.	Total.
Jan. ...	1,146	618	67	...	156	1,987	49	78	10	...	14	161	4·16	11·68	11·76	...	8·70	6·90
Feb. ...	911	533	67	...	139	1,650	43	78	14	...	20	155	4·17	14·10	21·87	...	14·39	8·67
March	1,062	581	45	...	171	1,863	41	64	11	...	25	141	3·51	10·89	19·30	...	15·11	7·12
April...	1,077	517	35	...	154	1,783	39	57	4	...	22	122	3·73	10·25	9·09	...	13·70	6·75
May ...	1,174	519	53	...	190	1,936	41	61	4	...	13	119	3·56	10·60	8·33	...	7·41	6·10
June ...	1,223	518	129	...	202	2,072	48	42	14	...	11	115	4·34	8·12	15·21	...	5·73	6·03
July ...	1,440	628	196	...	146	2,410	35	61	28	...	11	135	2·52	10·11	18·48	...	6·79	5·85
Aug. ...	1,276	494	123	...	209	2,102	55	50	25	...	12	142	4·52	9·90	18·80	...	6·05	6·92
Sept. ...	1,432	514	248	...	159	2,353	39	48	33	...	4	124	2·83	9·09	16·38	...	2·41	5·46
Oct. ...	1,519	538	226	...	207	2,490	39	66	32	...	12	149	2·63	12·11	15·61	...	6·00	6·12
Nov. ...	1,211	542	135	...	199	2,087	31	61	27	...	16	135	3·96	11·95	16·31	...	8·21	6·27
Dec. ...	1,028	518	96	...	176	1,818	42	73	16	...	18	149	3·61	13·36	9·88	...	9·70	7·25
Totals	14,503	6,520	1,420	...	2,108	24,551	512	739	218	...	178	1,647	3·45	11·04	15·48	...	8·47	6·54

\* Calculated according to the Registrar-General's formula. See footnote to Table I.



### METROPOLITAN ASYLUMS BOARD.

FEVER CHART - MONTHLY ADMISSIONS - Scarlet fever-Red line ---, Enteric fever-Green line ---, Typhus fever-Black line ---, Diphtheria-Yellow line



NOTE.—Diphtheria cases were not admitted into the Board's Hospitals until the 23rd October, 1888.



The total monthly admissions were lowest in February (*February*)\* and highest in October (*October*).

The accompanying chart shows the monthly admissions of each kind of fever from and including the year 1887.

During the thirty-one years which have elapsed since the first of the Managers' fever hospitals was opened, the scarlet fever admissions fell to the minimum for the year thirteen times in February, four times in March, eight times in April, four times in June, once in September, and once in December (1888); while the maximum number of admissions was reached once in January (1888), twice in July, four times in September, sixteen times in October, six times in November, and twice in December. The enteric fever admissions fell to the minimum for the year three times in March, ten times in April, nine times in May, eight times in June, and once in July; and rose to the maximum once in May, six times in September, thirteen times in October, ten times in November, and once in December.

Diphtheria cases were not admitted to the Managers' hospitals until October, 23rd, 1888. Since then the minimum admissions have occurred twice in January, four times in February, six times in April, once in August, and once in September; while the maximum admissions took place twice in July, once in August, twice in September, four times in October, twice in November, and thrice in December.

The maxima of scarlet fever, diphtheria, and enteric fever admissions must not, however, be regarded as indicating with accuracy the greatest seasonal prevalence of these diseases, for the reason that on several occasions the accommodation in the Managers' hospitals became completely exhausted, and consequently any further rise in the number of admissions was impossible.

The maximum death-rate was for scarlet fever in August, for diphtheria in February, and for enteric fever in February. The minimum rate was for scarlet fever in July, for diphtheria in June, and for enteric fever in May.

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\* Months in italics in brackets are the corresponding months for 1901.

TABLE III.—Admissions and Deaths of Patients at Fever Hospitals during 1902, divided according to Parishes or Unions.

PARISH OR UNION.	Scarlet.	Diphtheria.	Enteric.	Typhus.	Other Diseases.	Total Admissions.	Total Deaths.
Kensington ... ..	285	115	32	...	32	464	34
Hammersmith ... ..	281	107	18	...	27	433	25
Fulham ... ..	451	309	30	..	57	847	72
Paddington ... ..	276	121	33	...	29	459	37
Chelsea ... ..	167	89	14	...	20	290	17
St. George's, Hanover Square	235	84	17	...	29	365	21
Westminster... ..	120	58	4	...	40	222	14
St. Marylebone ... ..	345	125	40	...	66	576	50
St. Pancras ... ..	1,039	544	61	...	114	1,766	144
Hampstead ... ..	144	48	18	...	17	227	17
Islington ... ..	1,054	543	103	...	125	1,825	120
Hackney ... ..	690	469	76	..	135	1,370	84
St. Giles & St. George, Bloomsbury	68	25	6	...	5	104	11
Strand ... ..	33	10	14	...	8	65	5
Holborn ... ..	491	198	49	...	57	795	58
London, City of ... ..	51	55	5	...	5	116	9
Shoreditch ... ..	219	126	65	...	65	475	38
Bethnal Green ... ..	399	166	55	...	101	721	44
Whitechapel ... ..	244	145	18	...	84	491	25
St. George-in-the-East ... ..	91	80	20	...	27	218	11
Stepney ... ..	200	115	42	...	51	408	33
Mile End Old Town ... ..	265	120	40	...	56	481	26
Poplar ... ..	450	259	90	...	63	862	62
Southwark ... ..	973	372	88	...	153	1,586	96
St. Olave's ... ..	402	162	73	...	108	745	51
Lambeth ... ..	1,091	277	91	...	126	1,585	99
Wandsworth and Clapham ... ..	1,534	653	103	...	171	2,461	145
Camberwell... ..	1,043	382	54	...	133	1,612	107
Greenwich ... ..	792	243	52	...	81	1,168	59
Woolwich ... ..	263	172	43	...	50	528	38
Lewisham ... ..	504	243	17	...	38	802	56
Port and Tower of London ... ..	...	...	...	...	2	2	...
Tottenham ... ..	297	101	41	...	33	472	39
Beyond Metropolitan Area ... ..	6	4	...	...	...	10	...
Totals ... ..	14,503	6,520	1,420	...	2,108	24,551	1,647

In several districts mentioned in the foregoing table III. the admissions were considerably in excess of those of the previous year, the most notable instances being, as regards scarlet fever cases, St. Pancras, 1,039 (839)\*; Islington, 1,054 (927); Lambeth, 1,091 (798); Wandsworth, 1,534 (962); Greenwich, 792 (661); Lewisham, 504 (332); and as regards diphtheria cases, Strand, 50 (9); City of London, 131 (39); Wandsworth, 653 (483); Lewisham, 243 (178).

\* Italic figures in brackets throughout are the corresponding figures for 1901.

SCARLET FEVER.—TABLE IV.—Admissions, Deaths, and Mortality per cent. of Scarlet Fever Patients during 1902, divided according to age and sex.

AGES.	MALES.			FEMALES.			TOTAL.		
	Admitted.	Died.	Mortality per cent.	Admitted.	Died.	Mortality per cent.	Admitted.	Died.	Mortality per cent.
Under 1 ...	97	9	9·28	62	9	14·52	159	18	11·32
1 to 2 ...	280	31	11·07	283	28	9·89	563	59	10·48
2 ,, 3 ...	557	66	11·85	501	44	8·78	1,058	110	10·40
3 ,, 4 ...	722	52	7·20	717	51	7·11	1,439	103	7·16
4 ,, 5 ...	777	33	4·25	798	23	2·88	1,575	56	3·56
Totals under } 5 years ... }	2,433	191	7·85	2,361	155	6·57	4,794	346	7·22
5 to 10 ...	2,720	55	2·02	2,937	66	2·25	5,657	121	2·14
10 ,, 15 ...	1,115	8	0·72	1,150	7	0·61	2,265	15	0·66
15 ,, 20 ...	454	8	1·76	417	2	0·48	871	10	1·15
20 ,, 25 ...	231	4	1·73	226	9	3·98	457	13	2·84
25 ,, 30 ...	96	1	1·04	143	3	2·10	239	4	1·67
30 ,, 35 ...	52	1	1·92	83	2	2·41	135	3	2·22
35 ,, 40 ...	22	...	...	24	...	...	46	...	...
40 ,, 45 ...	5	...	...	15	...	...	20	...	...
45 ,, 50 ...	6	...	...	7	...	...	13	...	...
50 ,, 55 ...	1	...	...	4	...	...	5	...	...
55 ,, 60 ...	...	...	...	1	...	...	1	...	...
And upwards	...	...	...	...	...	...	...	...	...
Grand Totals	7,135	268	3·76	7,868	244	3·31	14,503	512	3·53

The total admissions of scarlet fever cases in 1902 were 14,503 (14,539)\*: the female were 233 (371) in excess of the male admissions. The total mortality, calculated on the admissions, was 3·53 (3·73) per cent.

DIPHTHERIA.—TABLE V.—Admissions, Deaths, and Mortality per cent. of Diphtheria Patients during 1902, divided according to age and sex.

AGES.	MALES.			FEMALES.			TOTAL.		
	Admitted.	Died.	Mortality per cent.	Admitted.	Died.	Mortality per cent.	Admitted.	Died.	Mortality per cent.
Under 1 ...	57	19	33·33	39	15	38·46	96	34	35·42
1 to 2 ...	208	44	21·15	209	41	19·62	417	85	20·38
2 ,, 3 ...	297	39	13·13	326	57	17·48	623	96	15·41
3 ,, 4 ...	396	68	17·17	386	69	17·88	782	137	17·52
4 ,, 5 ...	406	54	13·30	415	70	16·87	821	124	15·10
Total under } 5 years ... }	1,364	224	16·42	1,375	252	18·33	2,739	476	17·38
5 to 10 ...	1,009	111	11·00	1,314	119	9·05	2,323	230	9·90
10 ,, 15 ...	334	4	1·20	380	13	3·42	714	17	2·38
15 ,, 20 ...	117	2	1·80	163	5	3·07	280	7	2·50
20 ,, 25 ...	75	1	1·33	114	...	...	189	1	0·53
25 ,, 30 ...	38	...	...	72	...	...	110	...	...
30 ,, 35 ...	31	...	...	50	...	...	81	...	...
35 ,, 40 ...	9	2	22·22	25	2	8·00	34	4	11·76
40 ,, 45 ...	7	...	...	18	...	...	25	...	...
45 ,, 50 ...	8	2	25·00	6	...	...	14	2	14·29
50 ,, 55 ...	1	...	...	4	...	...	5	...	...
55 ,, 60 ...	2	...	...	1	...	...	3	...	...
And upwards	1	1	100·00	2	1	50·00	3	2	66·67
Grand Totals	2,996	347	11·65	3,524	392	11·12	6,520	739	11·33

\* Italic figures in brackets throughout are the corresponding figures for 1901.

The total admissions of diphtheria were fewer in number by 1,102 (251)\* cases than in 1901, and the death-rate, 11·33 per cent., was ·19 above that of the previous year.

ENTERIC FEVER.—TABLE VI.—Admissions, Deaths, and Mortality per cent. of Enteric Fever Patients during 1902, divided according to age and sex:—

AGES.	MALES.			FEMALES.			TOTAL.		
	Admitted.	Died.	Mortality per cent.	Admitted.	Died.	Mortality per cent.	Admitted.	Died.	Mortality per cent.
Under 5 ...	28	3	10·71	29	...	...	57	3	5·26
5 to 10 ...	85	4	4·71	82	8	9·76	167	12	7·19
10 ,, 15 ...	161	9	5·60	106	7	6·60	267	16	5·99
15 ,, 20 ...	161	23	14·91	98	12	12·24	259	35	13·51
20 ,, 25 ...	149	26	17·45	93	22	23·66	242	48	19·84
25 ,, 30 ...	99	24	24·24	82	16	19·51	181	40	22·10
30 ,, 35 ...	49	16	32·65	56	8	14·29	105	24	22·86
35 ,, 40 ...	40	9	22·50	25	7	28·00	65	16	24·62
40 ,, 45 ...	26	6	23·08	13	7	53·85	39	13	33·33
45 ,, 50 ...	10	3	30·00	14	2	14·29	24	5	20·83
50 ,, 55 ...	3	2	66·67	5	1	20·00	8	3	37·50
55 ,, 60 ...	2	2	100·00	3	...	...	5	2	40·00
And upwards	1	1	100·00	...	...	...	1	1	100·00
Totals ...	814	128	15·72	606	90	14·85	1,420	218	15·35

N.B.—The above table does not include Board's cases admitted into general hospitals.

There were 291 more cases of enteric fever admitted than during 1901.

The total death-rate was ·15 per cent. lower than in that year.

Thirteen cases of typhus fever were admitted during the year 1901, and not one during 1902.

Table VIII., pp. 220-231, gives details of the cases of miscellaneous diseases admitted during 1902, and is further referred to in the paragraph on p. 171 relating to cases of mistaken diagnosis.

LENGTH OF RESIDENCE OF PATIENTS IN HOSPITAL. We have again had tables prepared to show the length of residence of patients treated in the Managers' hospitals.

For scarlet fever and diphtheria there are two tables for each disease, one dealing with cases treated to termination at the Board's town hospitals and the other with cases that completed their treatment at the convalescent hospital.

\* Italic figures in brackets throughout are the corresponding figures for 1901.

SCARLET  
FEVER  
PATIENTS.

TABLE IXA.—Length of Residence of Scarlet Fever Patients treated to Recovery or Death in the Board's Town Hospitals during the year 1902.

HOSPITAL.	Total Number of Cases (including Deaths).	Number of Days' Residence.	Average Residence (days).	Recovered Cases only.	Number of Days' Residence	Average Residence (days).
Eastern ... ..	146 (109)*	6,933 (5,227)	47.48 (47.95)	139 (98)	6,870 (4,993)	49.43 (50.95)
North-Eastern ...	1,653 (1,373)	108,965 (85,304)	65.88 (62.13)	1,593 (1,279)	107,769 (84,014)	67.65 (65.69)
North-Western ...	989 (743)	60,000 (43,135)	60.66 (58.06)	892 (660)	58,544 (41,643)	65.63 (63.09)
Western ... ..	1,002 (757)	65,168 (49,571)	65.03 (65.48)	944 (707)	64,268 (48,786)	68.08 (69.00)
South-Western ...	991 (807)	70,998 (52,628)	71.04 (65.21)	944 (755)	70,160 (51,616)	74.32 (68.37)
Fountain ... ..	1,743 (1,674)	105,329 (99,291)	60.43 (59.31)	1,678 (1,621)	104,103 (98,520)	62.04 (60.78)
Grove ... ..	376 (133)	18,609 (8,253)	49.50 (62.06)	354 (123)	18,354 (8,089)	51.85 (65.76)
South-Eastern ...	507 (457)	30,350 (28,697)	59.86 (62.79)	472 (408)	29,779 (27,563)	63.09 (67.56)
Park ... ..	1,950 (1,734)	102,031 (86,707)	52.32 (50.00)	1,879 (1,634)	100,682 (85,423)	53.58 (52.28)
Brook ... ..	1,666 (1,263)	103,980 (81,680)	62.41 (64.67)	1,623 (1,218)	103,427 (81,234)	63.73 (66.15)
Totals ... ..	11,023 (9,050)	672,363 (540,493)	61.00 (59.72)	10,518 (8,513)	663,956 (531,881)	62.65 (62.48)

TABLE IXB.—Length of Residence of Scarlet Fever Patients who completed their Recovery or Died at the Board's Convalescent Hospital during the year 1902.

HOSPITAL.	Total Number of Cases (including Deaths).	Number of Days' Residence.			Average Residence.			Recovered Cases only.	Number of Days' Residence.			Average Residence.		
		Town Hospital.	Convalescent Hospital.	Total.	Town Hospital.	Convalescent Hospital.	Total.		Town Hospital.	Convalescent Hospital.	Total.	Town Hospital.	Convalescent Hospital.	Total.
Northern...	4,141 (3,708)	129,269 (109,910)	150,474 (160,728)	279,743 (270,638)	31.22 (29.64)	36.34 (43.35)	67.55 (72.99)	4,134 (3,703)	129,086 (109,736)	150,218 (160,611)	279,304 (270,347)	31.23 (29.63)	36.34 (43.37)	67.56 (73.01)
Gore Farm	..	..	..	..	(Used for small pox cases).			..	..	..	..	..	..	..

The average duration of residence of scarlet fever cases was at the town hospitals 61.00 (59.72)\* days including deaths, and 62.65 (62.48) days if the fatal cases be excluded. At the convalescent hospital the average duration was 67.55 (72.99) and 67.56 (73.01) days respectively (including residence in the town hospitals). So that, on the whole, the total residence of cases who completed their

\* Italic figures in brackets throughout are the corresponding figures for 1901.

recovery at the convalescent hospital was 4.91 (12.21)\* days longer than that of cases at the town hospitals.

As regards the residence of the recovered patients in the town hospitals, there are very considerable variations. The shortest residence was 49.43 (50.95) days at the Eastern Hospital (*Eastern Hospital*), or 13.22 (11.53) below the average, and the longest was 74.32 (69.00), or 11.67 (5.89) days above the average, at the South-Western Hospital (*Western Hospital*).

DIPHTHERIA PATIENTS. TABLE XA.—*Length of Residence of Diphtheria Patients treated to Recovery or Death in the Board's Town Hospitals during the year 1902.*

HOSPITAL.	Total Number of Cases (including Deaths).	Number of Days' Residence.	Average Residence. (days)	Recovered Cases only.	Number of Days' Residence.	Average Residence. (days).
Eastern ... ..	955 (1,066)	55,724 (58,830)	58.35 (55.19)	847 (917)	54,445 (57,223)	64.28 (62.40)
North-Eastern ...	626 (316)	29,761 (11,368)	47.54 (34.97)	555 (252)	29,275 (10,803)	52.75 (42.86)
North-Western ...	851 (873)	40,014 (38,510)	47.01 (44.11)	742 (751)	38,803 (37,107)	52.29 (49.41)
Western ... ..	765 (656)	33,324 (34,913)	43.56 (53.22)	672 (570)	32,613 (34,138)	48.53 (59.89)
South-Western ...	435 (422)	22,138 (20,253)	50.87 (47.99)	393 (380)	21,750 (19,871)	55.34 (52.29)
Fountain ... ..	4 (97)	105 (6,084)	26.25 (62.72)	3 (96)	97 (6,077)	32.33 (63.30)
Grove ... ..	1,051 (1,226)	56,456 (69,988)	53.72 (57.09)	973 (1,135)	55,840 (69,025)	57.39 (60.81)
South-Eastern ...	616 (628)	34,220 (37,412)	55.19 (59.57)	537 (538)	33,165 (36,276)	61.30 (67.43)
Park ... ..	488 (840)	23,589 (35,017)	48.34 (41.69)	421 (724)	22,727 (33,920)	53.98 (46.85)
Brook ... ..	743 (802)	40,493 (42,289)	54.50 (52.73)	652 (714)	39,499 (41,557)	60.58 (58.20)
Totals ... ..	6,534 (6,926)	335,824 (354,664)	51.40 (51.21)	5,795 (6,077)	328,214 (345,997)	56.64 (56.94)

TABLE XB.—*Length of Residence of Diphtheria Patients who completed their Recovery or Died at the Board's Convalescent Hospital during the year 1902.*

HOSPITAL.	Total Number of Cases (including Deaths).	Number of Days' Residence.			Average Residence (days).			Recovered Cases only.	Number of Days' Residence.			Average Residence (days).		
		Town Hospital.	Convalescent Hospital.	Total.	Town Hospital.	Convalescent Hospital.	Total.		Town Hospital.	Convalescent Hospital.	Total.	Town Hospital.	Convalescent Hospital.	Total.
Northern...	...	...	(No deaths.) (No deaths.)	...	...	...	337 (593)	12,635 (23,069)	9,456 (22,245)	22,091 (45,314)	37.49 (38.97)	28.06 (37.57)	65.55 (76.54)	

\* Italic figures, &c., in brackets throughout are the corresponding figures for 1901.

The average length of residence of diphtheria patients at the town hospitals was 51.40 (51.21)\* days including deaths, and 56.64 (56.94) if the fatal cases be omitted. At the convalescent hospital, where there was no death, the average residence (including residence in the town hospitals) was 65.55 (76.54) days or 8.91 (19.60) days longer than in the town hospitals.

The variations in length of residence at different hospitals are again very remarkable, ranging from 48.53 (42.86) days at the Western Hospital (*North-Eastern Hospital*) 8.11 (14.08) days below the average, to 64.28 (67.43) days at the Eastern Hospital (*South-Eastern Hospital*) or 7.64 (10.49) days above the average.

ENTERIC FEVER PATIENTS. TABLE XL.—*Length of Residence of Enteric Fever Patients treated to Recovery or Death in the Board's Town Hospitals during the year 1902.*

HOSPITAL.	Total Number of Cases (including Deaths).	Number of Days' Residence.	Average Residence. (days).	Recovered Cases only.	Number of Days' Residence.	Average Residence (days).
Eastern ... ..	147 (165)	7,980 (10,417)	54.29 (53.13)	129 (155)	7,808 (10,228)	60.53 (65.99)
North-Eastern ...	157 (31)	7,406 (1,272)	47.17 (41.08)	127 (23)	7,074 (1,235)	55.70 (53.69)
North-Western ...	179 (237)	7,203 (9,985)	40.24 (42.13)	136 (194)	6,656 (9,485)	48.94 (48.89)
Western ... ..	130 (134)	6,583 (9,345)	50.64 (69.74)	116 (119)	6,503 (9,185)	56.09 (77.18)
South-Western ...	85 (73)	5,609 (4,123)	65.99 (56.48)	80 (62)	5,546 (4,041)	69.32 (65.18)
Grove ... ..	196 (227)	8,463 (13,853)	43.18 (61.26)	147 (202)	7,946 (13,392)	54.06 (66.29)
South-Eastern ...	264 (107)	13,564 (6,634)	51.38 (62.00)	235 (93)	13,125 (6,484)	55.85 (69.72)
Park ... ..	62 (168)	3,191 (7,950)	51.47 (47.32)	50 (146)	3,117 (7,604)	62.34 (52.04)
Brook ... ..	175 (190)	10,146 (10,884)	57.98 (57.28)	157 (163)	9,902 (10,555)	63.07 (64.75)
Total ... ..	1,395 (1,312)	70,145 (74,463)	50.28 (55.90)	1,177 (1,157)	67,680 (72,209)	57.50 (62.41)

N.B.—Two cases at the Fountain Hospital are not included in this table.

The average residence of enteric fever patients was 50.28 (55.9) days including deaths, and 57.50 (62.4) days if the fatal cases be excluded. The shortest residence of recovered cases was 48.94 (48.9) days, or 8.56 (13.5) days below the average, at the North-Western Hospital (*North-Western Hospital*), and the longest 69.32 (77.1) days, or 11.82 (14.7) days above the average, at the South-Western Hospital (*Western Hospital*).

\* Italic figures, &c., in brackets throughout are the corresponding figures for 1901.

MISCELLANEOUS DISEASES. **TABLE XII.**—*Length of Residence of Patients suffering from Miscellaneous Diseases treated to Recovery or Death in the Board's Town Hospitals during the year 1902.*

HOSPITAL.	Total Number of Cases (including Deaths).	Number of Days' Residence.	Average Residence. (days).	Recovered Cases only.	Number of Days' Residence.	Average Residence. (days).
Eastern ... ..	237 (237)	5,494 (6,316)	23·18 (26·65)	216 (215)	5,305 (6,085)	24·56 (28·30)
North-Eastern ... ..	265 (379)	6,576 (10,009)	24·82 (26·41)	239 (363)	6,220 (9,813)	26·03 (27·03)
North-Western ... ..	179 (227)	3,294 (5,144)	18·40 (22·66)	164 (200)	3,155 (4,751)	19·24 (23·75)
Western ... ..	215 (141)	4,804 (3,243)	22·34 (23·00)	192 (126)	4,585 (2,874)	23·88 (22·81)
South-Western ... ..	135 (144)	4,254 (4,668)	31·51 (32·42)	120 (132)	4,164 (4,579)	34·70 (34·69)
Fountain ... ..	89 (71)	1,493 (1,176)	16·78 (16·56)	87 (67)	1,454 (1,162)	16·71 (17·64)
Grove ... ..	250 (264)	6,146 (7,851)	24·58 (29·74)	227 (244)	5,948 (7,651)	26·20 (30·99)
South-Eastern ... ..	284 (266)	5,009 (5,197)	17·64 (19·54)	263 (242)	4,782 (5,007)	18·18 (20·69)
Park ... ..	269 (446)	4,961 (7,608)	18·44 (17·05)	256 (434)	4,730 (7,518)	18·48 (17·32)
Brook ... ..	170 (190)	3,293 (4,207)	19·37 (22·14)	151 (175)	3,184 (3,923)	21·09 (22·42)
Totals ... ..	2,093 (2,365)	45,324 (55,419)	21·66 (23·43)	1,915 (2,198)	43,257 (53,363)	22·72 (24·28)

Of the cases of miscellaneous diseases (cases of mistaken diagnosis) treated, the average residence of each patient was 21·66 (23·43)\* days including deaths, and 22·72 (24·28) days if the fatal cases be excluded. The shortest residence of recovered cases was at the Fountain Hospital (*Park Hospital*) 16·71 (17·32) days, or 6·01 (6·96) days below the average, and the longest at the South-Western Hospital (*South-Western Hospital*) 34·70 (34·69) days, or 11·98 (10·41) days above the average.

SMALLPOX PATIENTS. Of smallpox patients 8,627 were treated. Average residence, including deaths, 30·24 (24·10) days, or, excluding deaths, 34·48 (29·94) days.

SMALLPOX HOSPITAL TABLES. **TABLE XIII.**—The following table is a condensed form of Table I. on p. 250A:—

\* Italic figures, &c., in brackets throughout are the corresponding figures for 1901



TABLE XIII.—Admissions, Deaths, and Discharges at Smallpox Hospitals during 1902.

PARISH OR UNION.	Remaining in Hospital on 1st January, 1902.				Admissions.			Deaths.			Discharges.			Remaining in Hospital on 31st December, 1902.						
	Class A.	Class B.	Class C.	Total.	Class A.	Class B.	Class C.	Total.	Class A.	Class B.	Class C.	Total.	Class A.	Class B.	Class C.	Total.	Class A.	Class B.	Class C.	Total.
	Vaccinated.	Doubtful.	Unvaccinated.	Total.	Vaccinated.	Doubtful.	Unvaccinated.	Total.	Vaccinated.	Doubtful.	Unvaccinated.	Total.	Vaccinated.	Doubtful.	Unvaccinated.	Total.	Vaccinated.	Doubtful.	Unvaccinated.	Total.
Kensington	5	1	...	6	72	3	15	90	8	...	...	10	69	4	13	86	...	...	...	...
Hammersmith	23	1	...	26	71	5	8	84	4	...	...	10	91	3	7	100	...	...	...	...
Fulham	10	2	...	12	67	7	18	92	4	...	...	5	73	7	12	92	...	...	...	...
Paddington	4	1	...	6	82	7	16	105	11	...	...	8	75	7	9	91	...	...	...	...
Chelsea	1	...	...	1	27	3	6	36	1	...	...	4	27	1	2	30	...	...	...	...
St. George's	6	...	...	6	97	11	5	113	13	...	...	3	88	8	4	100	...	...	...	...
Westminster	4	...	...	4	15	2	2	19	12	...	...	1	19	...	...	22	...	...	...	...
St. Marylebone	4	1	...	6	98	3	18	119	12	...	...	9	90	4	4	104	...	...	...	...
St. Pancras	48	4	...	72	213	12	74	299	33	...	...	31	228	7	63	298	...	...	...	...
Hampstead	1	...	...	1	15	...	2	17	...	...	...	3	16	...	...	16	...	...	...	...
Islington	14	2	...	17	189	10	65	264	19	...	...	5	182	6	40	228	...	...	...	...
Hackney	56	...	...	73	268	18	144	430	26	...	...	41	268	13	109	390	...	...	...	...
St. Giles and St. George, Bloomsbury	26	1	...	15	72	89	2	31	122	16	...	12	129	3	34	166	...	...	...	...
Strand	10	1	...	13	61	7	8	76	8	...	...	6	63	6	4	73	...	...	...	...
Holborn	50	4	...	66	187	18	64	269	9	...	...	12	227	10	51	288	...	...	...	...
London, City of	3	...	...	3	22	1	8	31	3	...	...	2	22	1	7	30	...	...	...	...
Shoreditch	4	2	...	7	241	6	147	394	20	...	...	3	224	6	97	326	...	...	...	...
Bethnal Green	8	...	...	12	312	14	148	474	21	...	...	2	299	12	115	426	...	...	...	...
Whitechapel	46	...	...	51	352	20	67	439	64	...	...	9	334	11	49	394	...	...	...	...
St. George-in-the-East	2	...	...	2	80	4	24	108	11	...	...	2	71	2	17	90	...	...	...	...
Stepney	14	...	...	14	130	11	59	290	13	...	...	1	131	10	43	184	...	...	...	...
Mile End Old Town	11	...	...	11	306	21	171	498	26	...	...	5	291	16	121	428	...	...	...	...
Poplar	16	1	...	18	409	25	153	587	37	...	...	7	388	19	121	528	...	...	...	...
Southwark	30	2	...	43	352	27	104	463	32	...	...	8	339	21	86	437	...	...	...	...
St. Olave's	19	5	...	31	148	8	37	193	19	...	...	4	157	9	31	198	...	...	...	...
Lambeth	20	1	...	25	262	15	71	348	30	...	...	11	252	5	58	315	...	...	...	...
Wandsworth and Clapham	27	1	...	41	199	15	63	277	29	...	...	4	206	12	54	272	...	...	...	...
Camberwell	11	...	...	23	215	11	95	321	28	...	...	6	203	5	78	286	...	...	...	...
Greenwich	1	...	...	1	151	10	53	214	26	...	...	5	126	5	32	163	...	...	...	...
Woolwich	4	...	...	6	181	18	38	237	21	...	...	7	164	11	27	202	...	...	...	...
Port of London	1	1	...	2	67	3	17	87	7	...	...	5	61	3	14	78	...	...	...	...
Beyond Metropolitan area	33	3	...	40	704	1	...	909	63	...	...	12	674	21	106	801	...	...	...	...
Totals	512	34	165	711	5,663	347	1,906	7,916	593	133	646	1,372	5,578	247	1,416	7,241	4	1	9	14

N.B.—Admissions, &c., from "other diseases" during the year are not included in this table. Note.—The columns headed "Doubtful" contain the particulars of cases stated to have been vaccinated but having no visible evidence of the operation, and also of those in which no statement was made, but the nature of the eruption or other cause prevented any observation of the marks, if any existed. An analysis of these cases appears in Table XV., p. 163.

In addition to the 7,916 (1,743)\* genuine smallpox cases included in the foregoing table, there were of non-smallpox cases 24 (27) admitted to the smallpox hospitals (exclusive of 19 (8) uncertified infants who developed smallpox after admission with their mothers); 211 (73) persons were detained at the observation shelters at South Wharf for upwards of two days (excluding 21 infants not certified); 406 (157) were returned direct to their homes on the day of admission or the following day (excluding 2 infants not certified), 6 (4) were transferred to a fever hospital, and 5 (3) died at South Wharf.

The highest number under treatment at one time was 1,604 on the 11th March.

TABLE II., p. 250B, shows the ages and condition as regards vaccination of the patients admitted during 1902. All of the 7,916 (1,743) cases admitted during the year had been completed (*i.e.*, had died or been discharged recovered) before the date of this report. It has therefore been possible to deal with the whole number in this table.

The following tables XIV<sub>A</sub> and XIV<sub>B</sub> are summaries of the totals of each class as shown in Table II., p. 250B, and in the similar table for the year 1901, and therefore contain particulars of all the cases treated during the entire epidemic of 1901-2.

TABLE XIV<sub>A</sub>.

	Admissions.	Deaths.	Mortality per cent.
A. Vaccinated class :—			
A <sup>1</sup> , half and upwards of half square inch total area of cicatrices ...	5,163	379	7·34
A <sup>2</sup> , one-third, but less than half ditto ... ..	835	131	15·69
A <sup>3</sup> , less than one-third ditto ...	860	162	16·87
A <sup>4</sup> , area not recorded ... ..	87	33	37·93
Totals of vaccinated class ...	6,945	705	10·15
B. Doubtful class ... ..	436†	171	39·22
C. Unvaccinated class ... ..	2,278	753	23·06
Grand totals ... ..	9,659	1,629	16·87

\* Italic figures in brackets throughout are the corresponding figures for 1901.

† For details concerning these cases, see Table III., p. 250C, and pp. 118-120 in the report for 1901.



During the two years there were, under ten years, only 134 vaccinated cases and two deaths; 33 doubtful cases, of whom 6 died; and 1,274 unvaccinated cases, of whom 442 died—a percentage of 34·69.

Under 20, there were 1,297 vaccinated cases, of whom 25 died—a percentage of 1·93; 106 doubtful cases, of whom 21 died—a percentage of 19·81; and 1,893 unvaccinated cases of whom 592 died—a percentage of 31·27.

The diminution after the age of 20 years in the protective power afforded by infant vaccination is shown by the rise in the death-rate from 4·7 in vaccinated cases between 20 and 25 years of age to 18·07 in cases between 35 and 40.

The contrast between the number of vaccinated and the number of unvaccinated children attacked is very striking, but is absolutely in accordance with all experience of epidemic smallpox. We have already pointed out that only 134 vaccinated children under ten years of age were admitted, amongst whom the mortality was at the rate of 1·4 per cent. only. Of unvaccinated children under ten years of age, 1,274 were admitted, amongst whom the mortality was at the rate of 34·7 per cent.



TABLE XVII.—The following particulars are taken from Table V., p. 251, which is a list of the cases stated to have previously suffered from smallpox and, included in Table II., p. 250B:—

Number of Cases stated to have previously suffered from Smallpox.	TYPE OF DISEASE.					
	Discrete.		Confluent.		Hæmorrhagic.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
20	16	1	3	3	1	1

TABLE XVIII.—The following particulars are taken from Table VI., p. 252, which contains a list of cases stated to have been (a) successfully revaccinated\* and (b) unsuccessfully revaccinated previous to infection by smallpox:—

(a) *Successfully revaccinated.*

Total number of Cases.	TYPE OF DISEASE.					
	Discrete.		Confluent.		Hæmorrhagic.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
276	236	3	34	18	6	6

(b) *Revaccination unsuccessful.*

Total number of Cases.	TYPE OF DISEASE.					
	Discrete.		Confluent.		Hæmorrhagic.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
86	68	1	13	8	5	5

In 93 of the 276 patients stated to have been successfully revaccinated the vaccination cicatrices afforded presumptive evidence of the operation having been successfully performed. In all but 5 cases it had been performed upwards of 10 years previous to the attack of smallpox, indeed, in 69 cases upwards of 15 years had elapsed. Of these 93 cases 3 died; in one case revaccination had been performed 37 years, in one 36 years, and in the third case 24 years before the attack of smallpox. In 47 cases the evidence of revaccination was uncertain, but capable of interpretation in the affirmative. Five of these cases died; two had been revaccinated 36 years before the attack of smallpox, one 25 years, one 23 years, and one 15 years. In 136 cases the appearance of the vaccination cicatrices

\* These cases of reputed vaccination are those only which occurred among the patients who were treated for smallpox at the Hospital Ships or the Long Reach Hospital.

afforded no evidence of the revaccination having been successfully performed. 19 of these cases died.

**CASES OF MISTAKEN DIAGNOSIS.** *Fever.*—In the course of the year 1902 no fewer than 2,108 (2,365)\* patients, or a percentage on the total admissions of 8.6 (9.2), were, after admission at the fever hospitals, found not to be suffering from the diseases mentioned in the medical certificates upon which they were removed to hospital (see Table VIII., pp. 220–231). The largest number of cases thus admitted to any one hospital was at the North-Eastern Hospital (*Park Hospital*), where the proportion was 288 (436) out of 3,433 (3,643) admissions, or 8.4 (11.9) per cent. of the total. The percentage on the total scarlet fever cases was 4.7 (5.6), diphtheria cases 13.5 (12.8), and enteric fever cases 21.2 (25.5).

Amongst the 708 (857) cases wrongly certified as scarlet fever there were 91 (91) of morbilli, 48 (108) of rubella, 154 (173) of tonsillitis, 159 (162) of erythema, and 70 (168) had no obvious disease. Amongst the 1,016 (1,118) cases wrongly certified as diphtheria were 44 (47) of morbilli, 750 (880) of tonsillitis, 26 (21) had no obvious disease. Amongst the 381 (384) cases wrongly certified as enteric fever were 22 (13) of influenza, 13 (22) of febricula, 88 (86) of pneumonia, 18 (9) of bronchitis, and 19 (12) had no obvious disease.

*Smallpox.*—In the case of smallpox the original medical certificate is revised by a medical officer of the Board at the London wharves. If therefore we take the total number of cases originally certified in London as smallpox and removed to the wharves, we find that the mistaken diagnoses numbered 607 (245) out of 7,842 (1,845), or 7.7 (13.3) per cent.; and these are the figures properly to be compared with those given above in the case of fever.

**Statistics since Establishment of the Managers' Hospitals.** (5.) **FEVER.**—The return on p. 174 shows the annual admissions and deaths of patients at the Managers' fever hospitals, with the mortality per cent. since the establishment of the first hospital in 1870, together with extracts from the Registrar-General's annual summaries showing the annual mortality per 1,000 persons living of the population of the Metropolis from scarlet, typhus, and enteric fevers and diphtheria.

There was a slight decrease in the mortality amongst scarlet fever patients, as compared with the previous year, the rate being 3.45 as compared with 3.81. The rate was as low as 2.97 in 1900, and 2.65 in 1899.

There is also a further decline in the percentage mortality amongst diphtheria patients. The mortality rate from this disease has, with the exception of the year 1893, shown a yearly decrease for the last 14 years. The rates were as follow:—

1889	..	..	40.74	1896	..	..	21.20
1890	..	..	33.55	1897	..	..	17.69
1891	..	..	30.63	1898	..	..	15.37
1892	..	..	29.35	1899	..	..	13.95
1893	..	..	30.42	1900	..	..	12.27
1894	..	..	29.29	1901	..	..	11.15
†1895	..	..	22.85	1902	..	..	11.04

\* Italic figures in brackets throughout are the corresponding figures for 1901.

† Antitoxic serum treatment first adopted.

In connection with the mortality of diphtheria cases, we draw special attention to the rate per 1,000 of the estimated population. For some years prior to 1893 it had been steadily advancing, notwithstanding occasional reductions, until in the year mentioned it had attained the very high figure of 0·76. Since 1893, however, the rate has shown a distinct tendency to fall, and this fall has been coincident with the introduction and increasing use of the antitoxic serum treatment of diphtheria.

**Antitoxin  
treatment  
of Diph-  
theria.**

In further illustration of this point we submit the following tables, which summarise the results of the antitoxin treatment of diphtheria in the Board's hospitals during the years 1895-1902, and compare them with the results obtained before the use of that treatment:—

TABLE XIX.—*Summary of the Antitoxin Treatment of Diphtheria at the Board's Hospitals during the years 1895-1902, compared with the results obtained before the adoption of that treatment:—*

TABLE A.—ALL FORMS OF DIPHTHERIA.

YEAR.	Cases treated with Antitoxin.			Cases not so treated.*		
	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.
1890-3 ... ..	Before	use of anti	toxins.	7,111	2,161	30·39
1894 ... ..	Antitoxin	in occasio	nal use.	3,042	902	29·65
Antitoxin years—						
1895 ... ..	2,182	615	28·1	1,347	181	13·4
1896 ... ..	2,764	717	25·9	1,411	154	10·9
1897 ... ..	4,381	896	20·4	1,078	62	5·75
1898 ... ..	5,186	906	17·5	1,186	84	7·8
1899 ... ..	7,038	1,082	15·38	977	44	4·5
1900 ... ..	7,271	936	12·88	954	51	5·3
1901 ... ..	6,499	817	12·57	1,013	32	3·15
1902 ... ..	6,015	714	11·8	824	27	3·27

TABLE B.—LARYNGEAL CASES.

YEAR.	Cases treated with Antitoxin.			Cases not so treated.*		
	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.
1890-3 ... ..	Before	use of anti	toxins.	(Particu lars not pu blished.)		
1894 ... ..	Antitoxin	in occasio	nal use.	466	289	62·0
Antitoxin years—						
1895 ... ..	461	195	42·2	82	35	42·68
1896 ... ..	488	141	28·8	28	12	42·85
1897 ... ..	473	142	30·0	18	10	55·56
1898 ... ..	624	199	31·9	30	26	86·66
1899 ... ..	669	190	28·4	18	11	61·1
1900 ... ..	777	182	23·2	22	14	63·63
1901 ... ..	753	159	21·1	15	10	66·66
1902 ... ..	618	125	20·2	21	9	42·85

\* At all the hospitals antitoxin is given to every case on admission which is judged to be sufficiently severe to require it. Hence the death-rate from cases not treated is very low. It would be nil except for certain exceptional cases, a few which die from intercurrent affections, a few which are moribund on admission, and a very small number which are admitted after the second week of the disease. At this late stage antitoxin is known to be powerless, and is therefore usually withheld.



TABLE C.—TRACHEOTOMY CASES.

YEAR.	Cases treated with Antitoxin.			Cases not so treated.*		
	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.
1890-3 ... ..	Before use of antitoxin.			364	241	66·2
1894 ... ..	Antitoxin in occasional use.			261	184	70·49
Antitoxin years—						
1895 ... ..	225	113	50·2	30	12	40·0
1896 ... ..	197	80	40·6	15	7	46·66
1897 ... ..	258	103	39·9	6	4	75·0
1898 ... ..	305	113	37·0	8	6	75·0
1899 ... ..	377	147	39·1	5	2	40·0
1900 ... ..	377	127	33·65	13	12	92·3
1901 ... ..	367	111	30·2	5	4	80·0
1902 ... ..	257	82	31·9	7	4	57·1

TABLE XX.—Summary of number of Cases of Laryngeal and Non-Laryngeal Post-Scarlatinal Diphtheria at the Board's Hospitals during the years 1896-1902.

YEAR.	LARYNGEAL CASES.					NON-LARYNGEAL CASES.					ALL CASES.				
	Cases.	Total Deaths.	Deaths from causes other than Diphtheria.	Deaths from Diphtheria.	Diphtheria Mortality per cent.	Cases.	Total Deaths.	Deaths from causes other than Diphtheria.	Deaths from Diphtheria.	Diphtheria Mortality per cent.	Cases.	Total Deaths.	Deaths from causes other than Diphtheria.	Deaths from Diphtheria.	Diphtheria Mortality per cent.
1896	79	18	...	18	22·78	626	18	2	16	2·56	705	36	2	34	4·82
1897	119	10	1	9	7·56	677	20	4	16	2·36	796	30	5	25	3·14
1898	82	5	1	4	4·88	579	19	2	17	3·04	661	24	3	21	3·18
1899	84	10	1	7	8·33	608	15	1	13	2·14	692	25	5	20	2·89
1900	27	4	...	4	14·81	378	8	2	6	1·59	405	12	2	10	2·47
1901	40	9	2	8	20·00	340	14	10	2	0·59	380	23	13	10	2·63
1902	55	11	4	7	12·72	369	10	4	6	1·62	424	21	8	13	3·06

On p. 208 the medical superintendent of the Brook Hospital (Dr. J. MacCombie) gives the results of the antitoxin treatment at that hospital during the past six years. He states: "Not a single death has taken place among the cases that came under treatment on the first day of disease." . . . "Were it possible to secure the admission to hospital of all cases on the first or second day of illness, the lives of a large number of patients would thereby be saved."

\* At all the hospitals antitoxin is given to every case on admission which is judged to be sufficiently severe to require it. Hence the death-rate from cases not treated is very low. It would be nil except for certain exceptional cases, a few which die from intercurrent affections, a few which are moribund on admission, and a very small number which are admitted after the second week of the disease. At this late stage antitoxin is known to be powerless, and is therefore usually withheld.

TABLE XXI.—Showing the Admissions and Deaths of Patients and Mortality per cent. at the Managers' FEVER HOSPITALS during each Year since the opening of the first hospital on 25th January, 1870, together with the Annual Mortality per 1,000 persons living of the Population of the Metropolis from Scarlet, Typhus, and Enteric Fevers and Diphtheria, extracted from the Registrar-General's Annual Summaries.

YEAR	ADMISSIONS.					DEATHS.					Mortality per cent. of Patients treated in Managers' Hospitals.				Annual Mortality per 1,000 of estimated Population.				
	Scarlet.	Diphtheria	Typhus	Enteric.	Total.	Scarlet.	Diphtheria	Typhus.	Enteric.	Total.	Scarlet.	Diphtheria	Typhus.	Enteric.	Scarlet.	Diphtheria	Typhus.	Enteric.	
1871	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.58	0.11	0.12	0.27	
1872 } (15 months to Dec. 31st, 1872)	108	...	134	279	864	11	...	30	57	168	10.78	...	23.62	21.96	0.28	0.08	0.05	0.24	
1873	92	...	401	881	1,145	6	...	91	56	211	6.55	...	23.15	15.13	0.19	0.09	0.08	0.27	
1874	804	...	536	435	2,134	89	...	106	63	342	12.15	...	19.62	14.87	0.77	0.12	0.09	0.26	
1875	1,182	...	65	299	1,815	160	...	16	78	308	13.69	...	23.35	24.68	1.06	0.17	0.04	0.23	
1876	671	...	139	288	1,392	90	...	28	59	248	12.13	...	19.31	20.34	0.65	0.11	0.04	0.22	
1877	479	...	170	372	1,207	54	...	36	79	202	12.10	...	23.07	22.93	0.44	0.09	0.04	0.25	
1878	679	...	168	484	1,564	91	...	47	100	278	14.34	...	26.25	20.26	0.49	0.15	0.04	0.28	
1879	1,469	...	48	385	2,098	211	...	11	74	335	15.27	...	21.56	19.73	0.72	0.15	0.02	0.23	
1880	1,949	...	28	248	2,454	242	...	6	43	328	12.30	...	20.68	15.63	0.82	0.14	0.02	0.19	
1881	1,477	...	219	415	2,322	168	...	34	86	334	11.10	...	16.95	21.47	0.55	0.17	0.02	0.25	
1882	1,850	...	148	515	2,867	189	...	27	104	380	10.37	...	16.92	20.71	0.52	0.22	0.01	0.25	
1883	1,920	...	45	486	2,720	234	...	11	74	385	12.38	...	21.15	15.64	0.51	0.24	0.01	0.25	
1884	1,845	...	29	493	2,547	234	...	5	98	392	12.27	...	20.00	18.82	0.36	0.24	0.01	0.23	
1885	1,353	...	53	220	1,855	130	...	7	36	219	9.47	...	12.17	15.82	0.18	0.23	0.01	0.15	
1886	1,780	...	10	333	2,197	151	...	4	47	224	9.04	...	42.10	14.85	0.17	0.21	0.00	0.15	
1887	5,900	...	35	441	6,537	489	...	4	61	613	9.54	...	11.59	14.59	0.36	0.23	0.00	0.15	
1888	4,408	99	1	450	5,152	501	46	...	72	60	679	9.89	59.35	14.64	0.30	0.32	0.00	0.17	
1889	4,518	722	23	290	5,772	366	275	6	41	48	736	8.85	40.74	15.15	0.19	0.39	0.00	0.13	
1890	6,537	942	16	498	8,334	510	316	5	93	81	1,005	7.86	33.55	19.68	0.21	0.33	0.00	0.15	
1891	5,262	1,312	18	755	7,809	357	397	1	106	102	963	6.67	30.63	14.52	0.14	0.32	0.00	0.13	
1892	13,093	2,009	19	430	16,276	839	583	2	65	140	1,629	7.28	29.35	13.20	0.27	0.46	0.00	0.10	
1893	14,548	2,848	2	544	18,674	901	865	1	110	105	1,982	6.11	30.42	20.54	0.37	0.76	0.00	0.16	
1894	11,598	3,666	6	534	16,667	717	1,035	1	96	150	1,999	5.92	29.29	16.67	0.22	0.62	0.00	0.15	
1895	11,271	3,635	3	661	16,447	591	820	...	119	142	1,672	5.45	22.85	18.13	0.22	0.54	0.00	0.14	
1896	15,982	4,508	9	600	22,273	636	948	2	96	109	1,821	4.29	21.20	25.0	0.21	0.60	0.00	0.13	
1897	15,113	5,673	2	664	22,869	619	987	...	124	140	1,870	4.07	17.69	25.0	0.18	0.51	0.00	0.12	
1898	12,125	6,566	9	869	21,057	514	991	1	143	147	1,796	4.12	15.37	11.11	0.13	0.39	0.00	0.13	
1899	13,290	8,676	11	1,535	25,094	353	1,182	...	240	160	1,935	2.65	13.95	...	0.09	0.43	0.00	0.17	
1900	10,343	7,873	4	1,728	21,654	313	988	1	245	167	1,714	2.97	12.27	22.22	0.08	0.34	0.00	0.16	
1901	14,539	7,622	13	1,129	23,668	542	849	4	175	167	1,737	3.81	11.15	30.77	0.13	0.29	0.00	0.11	
1902	14,503	6,520	...	1,420	24,551	512	739	...	218	178	1,647	3.45	11.04	...	0.12	0.25	0.00	0.12	
Totals	190,688	62,671	2,364	18,181	294,425	10,850	11,021	487	3,058	2,736	28,152	5.69	17.59	20.60	...	...	...	...	...

NOTE.—1. From 1st December, 1870, to the end of September, 1871, smallpox cases only were admitted to the Board's hospitals.

2. The deaths of fever patients include those deaths due to intercurrent maladies.

3. Diphtheria cases have only been admitted into the Managers' hospitals since 23rd October, 1888. The use of antitoxic serum in the treatment of diphtheria began in 1894.

4. The mortality rates of patients in the Managers' hospitals are calculated according to the Registrar-General's formula, i.e., by dividing the deaths, multiplied by 100, by half the sum of the admissions, discharges, and deaths for the year.

SMALLPOX. (6.) The following table shows the admissions and deaths of patients in the Managers' smallpox hospitals during each year since the opening of the first hospital at the end of 1870:—

TABLE XXII.—Admissions, Deaths, and Mortality per cent. of Smallpox Patients since 1st December, 1870, together with the Annual Mortality per 1,000 persons living of the Population of the Metropolis from Smallpox, extracted from the Registrar-General's Annual Summaries.

YEAR.	ADMISSIONS.			DEATHS.			Mortality per cent. of Patients treated in Managers' Hospitals.	Total Annual Mortality per 1,000 of estimated Population.
	Smallpox.	Other Diseases.	Total.	Smallpox	Other Diseases.	Total.	Smallpox.	Smallpox.
1st Dec., 1870, to 3rd Feb., 1871	582	...	582	97	...	97	20·81	...
1871-2 (4th Feb., 1871, to 31st Jan., 1872) ...	13,139	6	13,145	2,460	...	2,460	18·95	2·42
1872-3 (year ended 31st Jan., 1873)	2,359	3	2,362	467	1	468	17·84	0·54
1873-4 (year ended 31st Jan., 1874)	174	17	191	35	...	35	17·02	0·03
1874 (11 months ended 31st Dec.)	112	8	120	10	...	10		0·02
1875 ... ..	89	22	111	22	...	22	17·02	0·01
1876 ... ..	2,134	16	2,150	372	1	373		21·64
1877 ... ..	6,516	104	6,620	1,214	4	1,218	17·92	0·71
1878 ... ..	4,558	96	4,654	824	9	833	17·99	0·39
1879 ... ..	1,628	60	1,688	273	5	278	15·69	0·12
1880 ... ..	1,982	50	2,032	286	2	288	15·95	0·12
1881 ... ..	8,551	120	8,671	1,417	14	1,431	16·61	0·62
1882 ... ..	1,799	55	1,854	260	3	263	12·96	0·11
1883 ... ..	598	28	626	93	...	93	16·06	0·03
1884 ... ..	6,363	204	6,567	940	3	943	15·98	0·31
1885 ... ..	6,146	198	6,344	1,052	3	1,055	15·80	0·35
1886 ... ..	99	33	132	22	2	24	14·28	0·01
1887 ... ..	56	3	59	3	...	3		0·00
1888 ... ..	62	5	67	8	...	8	14·28	0·00
1889 ... ..	5	...	5	...	...	...		...
1890 ... ..	22	5	27	3	...	3	14·28	0·00
1891 ... ..	63	1	64	8	...	8		0·00
1892 ... ..	325	23	348	35	...	35	11·29	0·01
1893 ... ..	2,376	*118	2,494	180	2	182	7·64	0·05
1894 ... ..	1,117	*120	1,237	102	7	109	8·87	0·02
1895 ... ..	941	*81	1,022	64	1	65	6·36	0·01
1896 ... ..	190	*41	231	9	1	10	4·01	0·00
1897 ... ..	70	*26	96	13	1	14	18·44	0·00
1898 ... ..	5	*9	14	...	...	...	...	0·00
1899 ... ..	18	*18	36	3	...	3	20·69	0·00
1900 ... ..	66	*19	85	3	...	3	4·3	0·00
1901 ... ..	1,743	*107	1,850	257	3	260	18·51	0·05
1902 ... ..	7,916	*608	8,524	1,337	5	1,342	16·60	0·28
Totals ... ..	71,804	2,204	74,004	11,869	67	11,936	16·53	...

\* Most of these were patients who were detained for observation at South Wharf.

The following table is founded on the returns of the Registrar-General, and will be of interest to the Managers in relation to the history of smallpox in the Metropolis:—

YEARS.	Estimated Population in the Middle of each Year.	DEATHS FROM SMALLPOX.		
		Annual Total.	Annual Rate per Million of Population.	Rate per Million on Averages of Five Years.
1838	1,766,169	3,817	2,161	—
1839	1,802,751	634	352	—
1840	1,840,091	1,235	671	—
1841	1,878,205	1,053	561	—
1842	1,917,108	360	188	787
1843	1,954,041	438	224	399
1844	2,033,816	1,804	887	506
1845	2,073,298	909	438	460
1846	2,113,535	257	122	372
1847	2,202,673	955	434	421
1848	2,244,837	1,620	722	521
1849	2,287,302	521	228	389
1850	2,330,054	499	214	344
1851	2,373,081	1,062	448	409
1852	2,416,367	1,159	480	418
1853	2,459,899	211	86	291
1854	2,503,662	694	277	301
1855	2,547,639	1,039	408	340
1856	2,591,815	531	205	291
1857	2,636,174	156	59	207
1858	2,680,700	242	90	208
1859	2,725,374	1,158	425	237
1860	2,770,181	898	324	221
1861	2,815,101	217	77	195
1862	2,860,117	366	128	209
1863	2,905,210	1,996	687	328
1864	2,950,361	547	185	280
1865	2,995,551	640	214	258
1866	3,040,761	1,391	457	334
1867	3,085,971	1,345	436	396
1868	3,131,160	597	191	297
1869	3,176,308	275	87	277
1870	3,221,394	973	302	295
1871	3,267,251	7,912	2,421	688
1872	3,319,736	1,786	537	708
1873	3,373,065	113	33	676
1874	3,427,250	57	16	661
1875	3,482,306	46	12	602
1876	3,538,246	736	207	161
1877	3,595,085	2,551	709	194
1878	3,652,837	1,417	387	266
1879	3,711,517	450	120	287
1880	3,771,139	471	124	309
1881	3,824,964	2,367	617	391
1882	3,862,876	430	110	271
1883	3,901,164	136	34	201
1884	3,939,832	1,236	307	228
1885	3,978,883	1,419	347	283
1886	4,018,321	24	5	160
1887	4,058,150	9	2	139
1888	4,098,374	9	2	132
1889	4,138,996	—	—	71
1890	4,180,021	4	1	2
1891	4,221,452	8	2	1.4
1892	4,263,294	41	10	3
1893	4,306,411	206	50	12
1894	4,349,166	89	22	16
1895	4,392,346	55	13	18
1896	4,421,955	9	2	18
1897	4,463,169	16	4	17
1898	4,504,766	1	0.2	7.6
1899	4,546,752	3	0.6	3.8
1900	4,589,129	4	0.8	1.4
1901	4,544,983	229	50	11
1902	4,579,110	1,372	300	71

**Staff Illness in the Fever and Smallpox Hospitals.** On p. 178A is a summary of the returns submitted by the medical superintendents of the several hospitals, showing the total number of members of the staff who were off duty during the year on account of illness.

There were 4,339 (4,162)\* persons employed at the fever hospitals during the course of the year, 196 (197) or 4·5 (4·7) per cent. fell ill with fever or diphtheria, and 1 (1) died; while 1,198 (1,216) or 27·6 (29·2) per cent. suffered from other forms of illness. One ambulance driver and one laundrymaid suffered from smallpox; the latter was employed at a fever hospital; both recovered.

The table also shows that 974 (575) persons were employed at the smallpox hospitals during the year, of whom 339 (226) or 34·8 (39·8) per cent. suffered from various forms of illness.

Of these 989 persons, 494 were nurses; only 2 contracted smallpox, 1 at the Hospital Ships and 1 at the Gore Farm Hospital. In regard to the first mentioned, the medical superintendent states in his report (p. 248):—

“The nurse came from one of the Board’s fever hospitals, and she was stated, about five months before her transfer, to have been successfully revaccinated. The difficulty of judging when a person is sufficiently protected against smallpox by vaccination is sometimes so considerable that we make it a rule never to rely on a certificate of successful revaccination. Even when the certificate is given by a medical officer at another hospital of the Board, it is the practice to judge each case on its merits on the arrival of the person at this hospital, and, if necessary to repeat the vaccination here. In the case under discussion, the arm on examination presented four pigmented marks, showing evidence of recent scarification, but not necessarily of successful revaccination. In the ordinary course of events the revaccination would for that reason have been repeated. But it happened, unfortunately, that these scarifications had been performed on the site of the old vaccination scars, with the consequence that there was presented the fallacious appearance of recent scars of successful revaccination.

“The operation, therefore, was not repeated, and a very mild attack of smallpox was developed. With regard to the question whether or not the revaccination performed five months before was really successful, I have no direct evidence. All my own experience tells against the former view. The medical officer who vaccinated her at the other hospital was satisfied at the time. The nurse’s own description of the resulting lesions was such as to lead me to suppose that the reaction was at least abnormal. And the fact may be taken into account that the lymph used was of a brand which was known to have been giving unsatisfactory results at that time.”

In regard to the case at Gore Farm Hospital, the medical superintendent states in his report (p. 249):—

“The exception was an assistant nurse—she entered on duty on the 22nd March, contracted, and fell ill with smallpox on the 2nd of April. This case is of peculiar interest, inasmuch as the reason why I did not revaccinate her was because her skin showed pitting indistinguishable from that which is caused by smallpox, and she informed me that she had suffered from smallpox in December, 1901, being taken ill on the 27th or 28th of that month. I communicated with the medical man who attended her during her illness in December, 1901, and he assured me that the illness from which she suffered was smallpox, and that the attack was a typical one. I inquired from the nurse herself the symptoms, &c., of the illness in question, and her description corresponded with the symptoms, &c., of smallpox. The attack in April was undoubtedly smallpox, and from the evidence I am led to believe that the illness in December, 1901, was also smallpox.”

\* Italic figures in brackets throughout are the corresponding figures for 1901.

At the six ambulance stations which were employed in the removal of smallpox cases, 170 coachmen (who all help to carry patients) were employed; only one man contracted the disease in a very mild form; he recovered.

Further, there were 81 nurses employed on smallpox ambulance duty during the year (including the nurses in the river ambulance service), and 25 assistant piermen (who help to carry patients); not one contracted smallpox.

We have many times in our annual reports drawn attention to the almost absolute impunity with which a hospital staff can be brought into contact with smallpox, provided the members are properly protected by revaccination; and the evidence afforded during the recent epidemic is still to the same effect.

## ii. IMBECILITY.

### Accommodation for Imbecile Patients.

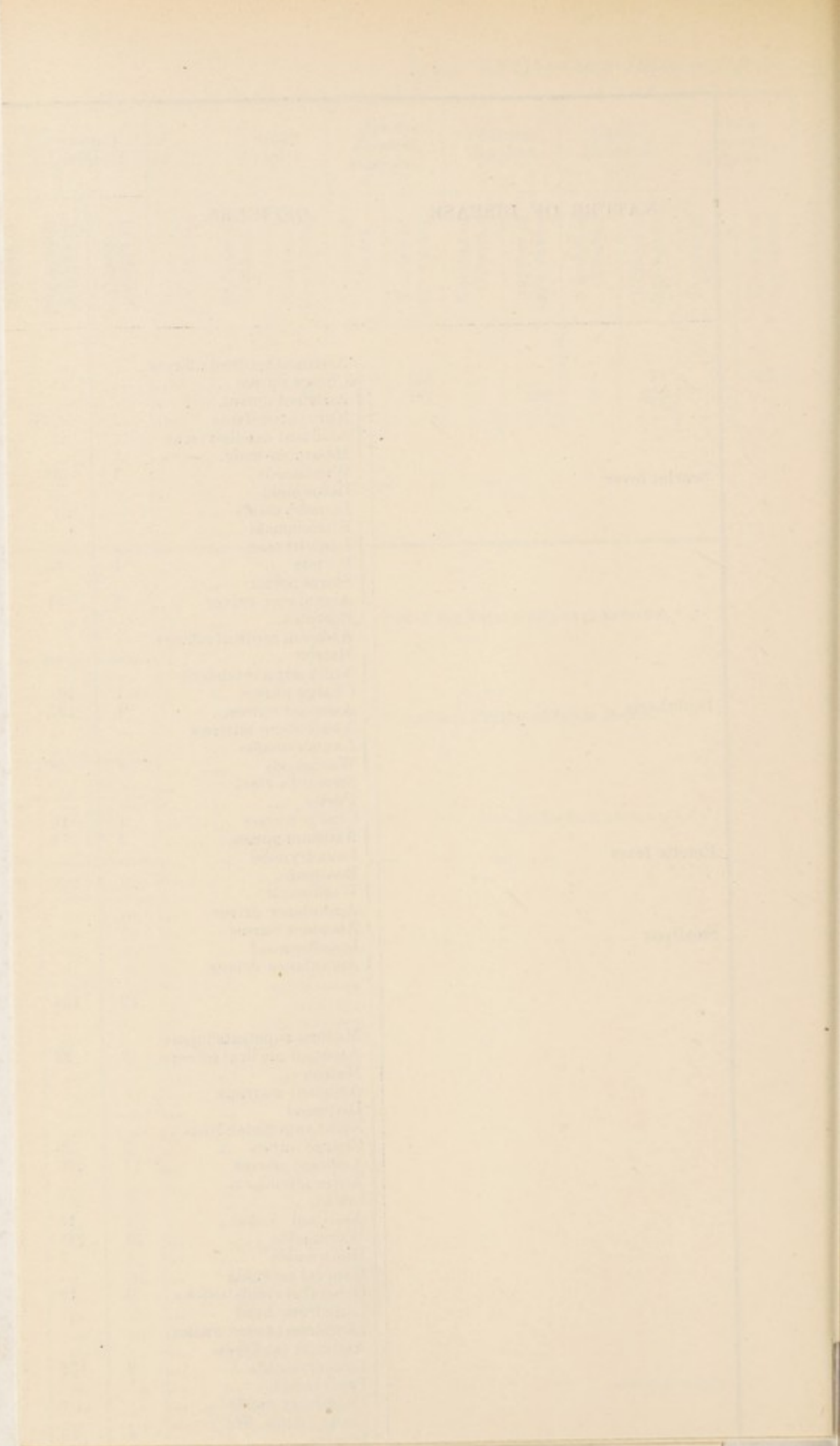
(1.) The following table gives particulars of the accommodation for imbecile patients which the Managers now possess:—

INSTITUTION.	Males.	Females.	Total.
Leavesden Asylum ... ..	818	962	1,780
Caterham ,, ... ..	888	1,065	1,953
Darenth ,, (Adult Department) ... }	1,070	924	1,994
,, (Schools Department) }			
Rochester House ... ..	96	60	156
Tooting Bec Asylum ... ..	341	431	772
In course of erection:—			
Tooting Bec Asylum—Receiving Home for Children—56 beds) ... ..	...	...	56
Total ... ..	3,213	3,442	6,655
	...	...	6,711

### Annual Reports.

The annual reports of the medical superintendents of the asylums will be found on pp. 268-287.







**Asylum Statistics.** The annual statistical tables for each asylum are printed on pp. 288-316.

The following tables summarises the statistics of the four asylums:—

TABLE I.—*Admissions, Re-admissions, Discharges, and Deaths at Asylums during 1902.*

	Males.	Females.	Total.
In the asylums, January 1st, 1902 ... ..	2,809	2,967	5,776
<b>Cases admitted—</b>	<b>Males.</b>	<b>Females.</b>	<b>Total.</b>
First admissions ... ..	245	205	450
Not first admissions ... ..	1	2	3
From other asylums of the Board ...	80	15	95
Total cases admitted during the year ... ..	326	222	548
Total cases under care during the year ... ..	3,135	3,189	6,324
<b>Discharged—</b>	<b>Males.</b>	<b>Females.</b>	<b>Total.</b>
Recovered ... ..	4	2	6
Relieved ... ..	10	3	13
Not improved ... ..	26	24	50
To other asylums of the Board ... ..	81	15	96
Died... ..	156	164	320
Total cases discharged and died during the year ... ..	277	208	485
Remaining in the asylums, December 31st, 1902 ... ..	2,858	2,981	5,839
Average number resident during the year ... ..	2,853	2,972	5,825
Persons* under care during the year† ... ..	3,125	3,185	6,310
Persons admitted ... ..	316	218	534
Persons recovered ... ..	4	2	6
Transferred from other asylums not under the Board‡ ... ..	28	75	103
Transferred to other asylums not under the Board§ ... ..	17	23	40

The medical superintendents continue to draw attention to the weakness, age, and decrepitude of many of the patients sent for care and treatment to the asylums, many of them requiring infirmary treatment on their arrival. It is partly for the reception of this latter class of patients that the Managers are now providing accommodation at Tooting Bec.

Of the discharges, 23 were transferred to county asylums as “dangerous to themselves or others.”

\* Persons, i.e., separate persons in contradistinction to “cases,” which may include the same individual more than once.  
 † Total cases, minus re-admissions of patients discharged during the current year.  
 ‡ Included in first admissions.  
 § Included with not improved cases.

TABLE IA.—(1) *Previous Attacks among Persons Admitted at the Asylums during 1902, and (2) the Number of Times they have previously Recovered in one of those Asylums or any other Asylum.*

(1) NUMBER OF PREVIOUS ATTACKS.	PERSONS.		
	Males.	Females.	Total.*
Have had 1 attack ... ..	4	8	12
„ 2 attacks ... ..	3	4	7
„ 3 „ ... ..	...	...	...
„ 4 „ ... ..	...	...	...
„ 5 „ ... ..	...	...	...
„ 6 „ ... ..	...	1	1

(2) NUMBER OF TIMES PATIENTS RECOVERED.	IN BOARD'S ASYLUMS.			IN ANY ASYLUM.		
	M.	F.	Total.	M.	F.	Total.†
Once ... ..	2	1	3	..	...	...
Twice ... ..	...	...	...	...	...	...
3 times ... ..	...	...	...	...	...	...
4 „ ... ..	...	...	...	...	...	...
5 „ ... ..	...	...	...	...	...	...
6 „ ... ..	...	...	...	...	...	...

TABLE II.—*Admissions, Re-admissions, Discharges, and Deaths from the opening of the Asylums to the 31st December, 1902.*

	Males.	Females.	Total.	Males.	Females.	Total.
Persons admitted during the period of 32 years and 94 days ... ..	11,672	10,970	22,642			
Re-admissions ... ..	159	114	273			
Admissions from other asylums of Board... ..	1,240	1,282	2,522			
Total cases admitted ... ..				13,071	12,366	25,437
Discharged cases—	Males.	Females.	Total.			
Not insane* ... ..	27	24	51			
Recovered* ... ..	604	407	1,011			
Relieved* † ... ..	837	591	1,428			
Not improved* ... ..	887	779	1,666			
To other asylums of the Board... ..	952	810	1,762			
Died ... ..	6,906	6,774	13,680			
Total cases discharged and died since opening of the asylums ... ..				10,213	9,385	19,598
Remaining December 31st, 1902 ... ..				2,858	2,981	5,839
Average number resident during the 32 years and 94 days ... ..				2,826	3,068	5,894
Transferred from other asylums not under the Board ‡ ... ..				337	655	992
Transferred to other asylums not under the Board § ... ..				228	219	447

\* No figures given in respect of Rochester House.

† These include a few escapes which have occurred since the opening of the asylums.

‡ Included in the admissions.

§ Included with the not improved cases.

|| See notes to Summary, Table II., pp. 288-289.

TABLE II A.—*Admissions and Recoveries of Persons from the opening of the Asylums to the 31st December, 1902 (32 Years and 94 Days).*

	Males.	Females.	Total.
Persons * admitted ... ..	9,193	8,802	17,995
Persons discharged recovered during the same period ...	521	327	848
Of whom were re-admitted relapsed † ... ..	...	...	...
Recovered persons who have not relapsed ... ..	...	...	...
Relapsed persons discharged recovered ‡ ... ..	...	...	...
Not recovered persons § ... ..	...	...	...

N.B.—This is an incomplete table. See notes to Summary, Table II A., pp. 290-291.

\* Persons, *i.e.*, separate persons in contradistinction to "cases," which may include the same individual more than once.

† *i.e.*, persons who have relapsed one or more times.

‡ *i.e.*, after last re-admission, if relapsed more than once.

§ *i.e.*, recovered persons, sane at the present time, so far as the asylum statistics show.

TABLE III.—Admissions, Discharges, and Deaths, with the Mean Annual Mortality and proportion of Recoveries per cent. on the Admissions at the Asylums for 1893, and each subsequent year.

YEAR	ADMITTED.						DISCHARGED.						DIED.			Remaining 31st December in each year.			Average Numbers Resident.			Percentage of Recoveries on Admissions.			Percentage of Deaths on Average Numbers Resident.											
	From Parishes and Unions.*			From other Asylums of Board.			Total.			Re. covered.		Re. relieved.		Not Im. proved.†		To other Asylums of Board.		Total.		Males.		Females.		Total.		Males.		Females.		Total.		Males.		Females.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.			
1893 ...	334	266	600	45	44	89	879	310	689	19	16	35	20	18	38	41	26	67	45	44	89	257	241	498	2,871	3,092	5,963	2,872	3,096	5,968	5.7	6.0	5.8	8.9	7.8	8.3
1894 ...	331	342	673	40	13	53	371	355	726	20	11	31	16	9	25	36	15	51	38	13	51	265	262	527	2,867	3,137	6,004	2,862	3,100	5,962	6.0	3.2	4.6	9.3	8.4	8.8
1895 ...	307	279	586	26	46	72	333	325	658	23	5	28	19	11	30	30	31	61	26	46	72	195	245	440	2,907	3,124	6,031	2,883	3,121	6,004	7.5	1.8	4.8	6.8	7.8	7.3
1896 ...	306	218	524	28	29	57	334	247	581	19	12	31	30	22	52	43	24	67	28	29	57	221	178	399	2,900	3,106	6,006	2,899	3,114	6,013	6.2	5.5	5.9	7.6	5.7	6.6
1897 ...	305	217	522	24	33	57	329	250	579	15	9	24	33	19	52	34	20	54	24	33	57	209	190	399	2,914	3,085	5,999	2,891	3,092	5,983	4.9	4.1	4.6	7.2	6.1	6.6
1898 ...	260	289	549	19	25	44	279	314	593	24	12	36	15	13	28	41	34	75	19	25	44	202	216	418	2,892	3,099	5,991	2,953	3,087	6,040	9.2	4.1	6.6	6.8	6.9	6.9
1899 ...	298	228	526	26	21	47	324	249	573	12	8	20	31	8	39	43	33	76	26	21	47	214	217	431	2,890	3,061	5,951	2,874	3,069	5,943	4.0	3.5	3.9	7.4	7.0	7.2
1900 ...	175	209	384	48	70	118	223	279	502	10	8	18	14	6	20	24	27	51	48	70	118	235	284	519	2,782	2,945	5,727	2,836	2,995	5,831	5.7	3.8	4.7	8.2	9.4	8.9
1901 ...	218	219	437	43	55	98	261	274	535	5	1	6	1	3	4	15	21	36	43	55	98	170	172	342	2,809	2,967	5,776	2,769	2,919	5,688	2.3	0.5	1.4	6.1	5.9	6.0
1902 ...	246	207	453	80	15	95	326	222	548	4	2	6	10	3	13	26	24	50	61	15	96	156	164	320	2,858	2,981	5,839	2,770	2,914	5,684	1.6	1.0	1.3	5.6	5.6	5.6

\* Including transfers from asylums not under Board.

† Including transfers to asylums not under Board.

‡ Includes 3 males, 1 female, not insane.

TABLE IV.—History of the Annual Admissions since the opening of the Asylums, with the Discharges and Deaths, and the numbers of each year remaining on the 31st December, 1902.

(Table VIII. in reports previous to 1900.)

YEAR.	ADMITTED.				OF EACH YEAR'S ADMISSIONS DISCHARGED AND DIED IN 1902.				TOTAL DISCHARGED AND DIED OF EACH YEAR'S ADMISSIONS.				Remaining of each year's Admissions 31st December, 1902.																													
	New Cases.		Re-lapsed Cases.		From other Asylums of the Board.		Total.		Recovered.		Relieved.		Not Improved.		To other Asylums of the Board.		DIED.		Total.																							
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.																						
1870 (part of)	624	758	...	...	...	...	1,382	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1871	1,184	1,415	...	...	...	...	2,599	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1872	422	417	...	...	...	...	839	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1873	324	332	...	...	...	...	656	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1874	355	318	...	...	...	...	673	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1875	316	322	...	...	...	...	638	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1876	400	285	...	...	...	...	685	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1877	305	79	...	...	...	...	384	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1878	276	64	...	...	...	...	340	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1879	345	237	...	...	...	...	582	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1880	291	390	...	...	...	...	681	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1881	273	239	...	...	...	...	512	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1882	403	411	...	...	...	...	814	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1883	342	377	...	...	...	...	719	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1884	269	291	...	...	...	...	560	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1885	216	226	...	...	...	...	442	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1886	284	268	...	...	...	...	552	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1887	307	278	...	...	...	...	585	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1888	275	272	...	...	...	...	547	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1889	451	370	...	...	...	...	821	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1890	448	421	...	...	...	...	869	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1891	443	412	...	...	...	...	855	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1892	381	339	...	...	...	...	720	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1893	328	293	...	...	...	...	621	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1894	323	341	...	...	...	...	664	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1895	305	275	...	...	...	...	580	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1896	301	215	...	...	...	...	516	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1897	303	215	...	...	...	...	518	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1898	256	286	...	...	...	...	542	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1899	201	226	...	...	...	...	427	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1900	170	204	...	...	...	...	374	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1901	216	219	...	...	...	...	435	...	...	...	...	...	...	...	...	...	...	...	...	...																						
1902	245	205	...	...	...	...	450	...	...	...	...	...	...	...	...	...	...	...	...	...																						
Total	11,672	10,970	159	114	1,240	1,282	13,071	12,366	25,437	4	2	6	10	3	13	26	24	59	81	15	96	156	164	320	612	421	1,033*	837	522	1,429	906	789	1,695	952	810	1,762	6,906	6,774	13,680	2,858	2,981	5,839

\* Includes the "not insane" cases in Table II., p. 180 (Darent Asylum).

† Includes the "not insane" cases in Table II., p. 180 (Leavesden and Caterham Asylums).

TABLE V.—Causes of Death at the Asylums

(Table VII. in

CAUSE OF DEATH.	5 and under 10.		10 and under 20.		20 and under 25.		25 and under 30.		30 and under 35.		35 and under 40.		40 and under 45.		45 and under 50.									
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.						
<b>CEREBRO-SPINAL DISEASES—</b>																								
Apoplexy												1	1											
Chronic meningitis and pulmonary tuberculosis												1	1											
Cerebral softening																								
Cerebral softening and pulmonary tuberculosis																		1						
Dementia																		1						
Epilepsy	1	1	2	2	4	3	1	4	1	1	1	1	1	1	2	3	1	1						
Epilepsy and pulmonary tuberculosis										1	1	1	1					2						
General paralysis				3	1	4			1	1	2	2	4	4	1	1	1	1						
General paralysis, acute enteritis, and pulmonary tuberculosis															1	1								
General paralysis and general tuberculosis				1	1																			
General paralysis and pulmonary tuberculosis						1	1	1	1						1	1								
Hydrocephalus														1	1									
Imbecility				1	1					2	2													
Meningitis				1	1																			
Organic disease of brain																	1	1						
Sarcoma of brain													1	1										
<b>THORACIC DISEASES—</b>																								
Abscess of lung																		1						
Acute endocarditis	1	1																						
Bronchitis																								
Broncho-pneumonia				1	1	2																		
Empyema								1	1															
Fatty degeneration of heart																								
Phthisis	1	1	1	2	3	1	4	5	1	1	2	1	3	4	1	1	1	2						
Pneumonia				3	1	4	1	3	4	1	1	2	1	1	2	1	1	2						
Pneumonia and dysentery																								
Pulmonary tuberculosis				1	1				1	1	2	2	4	1	1	1	1	2						
Pyo-pneumo-thorax				1	1																			
Valvular disease of heart				1	1	1	1	1	1	2	2						2	4						
Valvular disease of heart and pneumonia																								
Valvular disease of heart and tubercular abscess																								
<b>ABDOMINAL DISEASES—</b>																								
Abscess of liver																								
Acute nephritis							1	1																
Bright's disease, chronic																								
Chronic nephritis									1	1					1	1								
Chronic rheumatic arthritis																								
Diarrhoea				2	2																			
Liver, disease of (cirrhosis)										1	1													
Peritonitis															1	1								
Prostate disease																								
Strangulated hernia																								
Tubercular peritonitis																								
Volvulus				1	1								1	1										
<b>GENERAL DISEASES—</b>																								
Acute enteritis																								
Acute enteritis and pulmonary tuberculosis							1	1																
Cancer																		1						
Enteric fever, pneumonia, and pulmonary tuberculosis									1	1														
Erysipelas						1	1																	
Influenza	1	1	1	1	1																			
Marasmus				1	1																			
Pyæmia							1	1																
Senile decay																								
Senile gangrene																								
Tubercular disease of bone																								
Tuberculosis				1	1		1	1					1	1	2			1						
<b>ACCIDENT OR VIOLENCE—</b>																								
Asphyxia from choking																								
Foreign body in stomach												1	1											
Totals	3	1	4	19	11	30	8	11	19	4	8	12	10	10	20	8	5	13	6	8	14	6	11	17

N.B.—Number of cases in which the cause of death was ascertained



From the foregoing table it will be seen that other principal causes of death were pneumonia, tuberculosis, epilepsy, general paralysis, diseases of the heart, and senile decay.

TABLE VI.—*Length of Residence in those Discharged Recovered and in those who have Died at the Asylums during 1902. (Table IX. in reports previous to 1900).*

LENGTH OF RESIDENCE.	RECOVERED.			DIED.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 1 Month... ..	...	...	...	3	...	3
From 1 to 3 Months ...	1	...	1	13	6	19
" 3 " 6 " " ...	...	1	1	12	3	15
" 6 " 9 " " ...	2	...	2	8	6	14
" 9 " 12 " " ...	...	...	...	6	5	11
" 1 " 2 Years ...	1	...	1	19	15	34
" 2 " 3 " " ...	...	...	...	15	19	34
" 3 " 5 " " ...	...	...	...	11	23	34
" 5 " 7 " " ...	...	...	...	14	7	21
" 7 " 10 " " ...	...	1	1	9	18	27
" 10 " 12 " " ...	...	...	...	8	12	20
" 12 " 15 " " ...	...	...	...	3	12	15
" 15 " 20 " " ...	...	...	...	7	14	21
" 20 " 25 " " ...	...	...	...	8	1	9
" 25 " 30 " " ...	...	...	...	20	23	43
" 30 years, and upwards }	...	...	...			
Totals ...	4	2	6	156	164	320

Most of the patients who died had been inmates for many years; 43 of them upwards of 25 years.

TABLE VII.—*Duration of Insanity on Admission in the Admissions, Discharges, and Deaths at the Asylums during 1902.*

CLASS.	DURATION OF DISEASE ON ADMISSION IN FIVE CLASSES.											
	Admissions.			Recoveries.			Removals not Recovered.			Deaths.		
	M.	F.	TL.	M.	F.	TL.	M.	F.	TL.	M.	F.	TL.
First class—First attack—												
Within 1 week on admission...	...	1	1	...	...	...	...	...	...	3	...	3
" 1 month " " ...	1	1	2	...	...	...	1	...	1	3	2	5
" 2 months " " .	1	2	3	...	1	1	2	...	2	1	..	1
" 3 " " " ...	...	3	3	...	..	...	1	1	2	...	1	1
Second class—First attack—												
Above 3 and within 6 months on admission ...	5	5	10	1	...	1	...	...	...	1	..	1
Above 6 and within 12 months on admission ...	10	9	19	...	..	...	...	3	3	8	5	13
Third class—Not first attack, and within 1 month on admission	...	...	...	...	..	...	...	...	...	...	1	1
" 6 months " " ...	...	..	...	...	...	...	...	...	...	...	2	2
" 12 " " " ...	...	1	1	1	...	1	...	...	...	2	1	3
Fourth class—First attack or not, but not over 12 months on admission	78	86	164	1	..	1	19	7	26	52	57	109
Fifth class—Congenital ...	107	49	156	..	...	...	31	21	52	47	59	106
Unknown ...	124	65	189	1	1	2	53	6	59	38	36	74
Totals ...	326	222	548	4	2	6	167	38	145	155	164	319

Of the six recoveries, two were of patients admitted within 12 months of the first attack.



TABLE VIII.—*Ages of Patients Admitted, Recovered, and Died at the Asylums during 1902, and of those remaining on 31st December, 1902.*

(In place of Tables X. and XI. in reports previous to 1900.)

AGES.	ADMISSIONS.						TOTAL ADMISSIONS.			RECOVERIES.			DEATHS.			PATIENTS RESIDENT 31ST DECEMBER, 1902.		
	From Parishes and Unions.*			From other Asylums of the Board.														
	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.
Under 5 years ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
From 5 and under 10 years	55	14	69	26	3	29	81	17	98	...	...	...	4	3	7	98	58	156
" 10 " 15 "	30	12	42	40	9	49	70	21	91	...	...	...	5	3	8	223	138	361
" 15 " 20 "	22	23	45	8	2	10	30	25	55	...	...	...	13	9	22	290	188	487
" 20 " 25 "	22	11	33	...	...	...	22	11	33	1	...	1	8	9	17	296	232	528
" 25 " 30 "	9	14	23	1	...	1	10	14	24	...	...	...	4	7	11	334	231	565
" 30 " 35 "	13	18	31	1	...	1	14	18	32	...	2	2	11	10	21	228	245	473
" 35 " 40 "	7	10	17	2	1	3	9	11	20	...	...	...	7	5	12	229	200	429
" 40 " 45 "	13	12	25	1	...	1	14	12	26	2	...	2	6	9	15	200	296	436
" 45 " 50 "	4	12	16	...	...	...	4	12	16	...	...	...	6	11	17	195	261	456
" 50 " 55 "	12	15	27	...	...	...	12	15	27	...	...	...	13	9	22	196	229	425
" 55 " 60 "	9	8	17	...	...	...	9	8	17	...	...	...	10	15	25	156	224	380
" 60 " 65 "	10	15	25	...	...	...	10	15	25	1	...	1	15	7	22	126	248	374
" 65 " 70 "	14	13	27	...	...	...	14	13	27	...	...	...	16	16	32	117	181	298
" 70 " 75 "	17	12	29	...	...	...	17	12	29	...	...	...	15	18	33	90	157	247
" 75 " 80 "	5	10	15	...	...	...	5	10	15	...	...	...	14	19	33	51	86	137
" 80 " 85 "	3	7	10	...	...	...	3	7	10	...	...	...	4	10	14	11	51	62
" 85 " 90 "	2	1	3	...	...	...	2	1	3	...	...	...	4	2	6	6	9	15
" 90 " 95 "	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3	1	3	4
" 95 " 100 "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3
" 100 " 105 "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3
Unknown ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3
Total ... ..	247	207	454	79	15	94	326	222	548	4	2	6	156	164	320	2,858	2,981	5,839
Mean age ... ..	33	42	37	13	14	13	28	40	33	42	32	39	51	54	53	36	44	40

Of the direct admissions 109 were patients over 60 years of age. One patient over 60 years of age was discharged as recovered. There were 25 patients over 85 years old remaining in the asylums at the end of the year.

TABLE IX.—*Condition as to Marriage of Patients Admitted, Recovered, and Died at the Asylums during 1902.*

(Included in Table XIII. in reports previous to 1900.)

CONDITION AS TO MARRIAGE.	ADMISSIONS.						TOTAL ADMISSIONS.			RECOVERIES.			DEATHS.		
	From Parishes and Unions.*			From other Asylums of Board.											
	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.
Single ... ..	181	130	311	80	16	96	261	146	407	1	1	2	68	73	141
Married ... ..	33	37	70	...	...	...	33	37	70	2	...	2	34	19	53
Widowed ... ..	33	33	66	1	...	1	34	33	67	1	...	1	26	34	60
Unknown ... ..	4	...	4	..	...	...	4	...	4	...	...	...	28	38	66
Totals ... ..	251	200	451	81	16	97	332	216	548	4	1	5	156	164	320

311 out of a total of 451 direct admissions are recorded as unmarried.

\* Including transfers from asylums not under the Board.

TABLE X.—*Probable Causes of Insanity in the Patients admitted at the Asylums during 1902.*

(Table XI. in reports previous to 1900.)

CAUSES OF INSANITY.	NUMBER OF INSTANCES IN WHICH EACH CAUSE WAS ASSIGNED.											
	Number of Cases. Admissions—Males, 307; Females, 182; Total, 489.											
	As predisposing cause.			As exciting cause.			As predisposing or exciting, where these could not be distinguished.			Total.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
<b>MORAL—</b>												
Domestic trouble (including loss of relatives and friends) ...	4	...	4	6	2	8	...	...	...	10	2	12
Mental anxiety and worry (not included under the above head) and overwork ...	...	...	...	...	10	10	...	...	...	...	10	10
Religious excitement ...	...	...	...	...	1	1	...	...	...	...	1	1
Fright and nervous shock ...	...	...	...	...	7	7	...	...	...	...	7	7
<b>PHYSICAL—</b>												
Intemperance in drink ...	4	2	6	11	6	17	...	...	...	15	8	23
Venereal disease ...	5	...	5	4	...	4	1	1	2	10	1	11
Self-abuse, sexual ...	1	...	1	1	...	1	...	...	...	2	...	2
Sunstroke ...	...	...	...	...	1	1	...	...	...	1	...	1
Accident or injury ...	...	1	1	30	9	39	...	...	...	30	10	40
Epilepsy ...	...	...	...	8	16	24	...	...	...	8	16	24
Parturition and the puerperal state ...	...	...	...	...	1	1	...	...	...	...	1	1
Unknown ...	...	...	...	...	...	...	10	9	19	10	9	19
Drug habits ...	1	...	1	1	...	1	...	...	...	2	...	2
Change of life ...	...	6	6	...	...	...	...	...	...	...	6	6
Fevers ...	...	...	...	2	1	3	...	...	...	2	1	3
Privation and starvation ...	...	...	...	1	1	2	...	1	1	1	2	3
Old age ...	16	14	30	11	15	26	...	...	...	27	29	56
Other bodily diseases or disorders ...	3	...	3	26	10	36	...	...	...	29	10	39
Previous attacks ...	2	7	9	...	...	...	...	...	...	2	7	9
Hereditary influences ...	48	31	79	...	...	...	...	...	...	48	31	79
Congenital defect, ascertained	36	35	71	...	...	...	...	...	...	36	35	71
Other ascertained causes ...	...	...	...	1	...	1	...	...	...	1	...	1

NOTE.—With reference to the distinction between "predisposing" and "exciting" causes, it must be understood that no single cause is enumerated as both predisposing and exciting in the case of any individual patient.

The figures in the total column represent the entire number of instances in which the several causes (either alone or in combination with others) were stated to have produced the mental disorder. The excess of the aggregate of such causes over the number of patients admitted is owing to combinations of causes.

Transfers from other asylums are not included in this table.

Intemperance in drink is assigned as a predisposing cause in only 6 instances, and as an exciting cause in 17, hereditary influence in 79, and congenital defect in 71.

TABLE XI.—*Form of Mental Disorder in the Admissions, Recoveries, and Deaths at the Asylums during 1902 and of Inmates on 31st December, 1902 (excluding Rochester House Asylum).*

(Includes Tables IV. and V. in reports previous to 1900.)

FORM OF MENTAL DISORDER.	ADMISSIONS.			RECOVERIES.			DEATHS.			REMAINING IN ASYLUMS.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
<b>CONGENITAL OR INFANTILE MENTAL DEFICIENCY—</b>												
Congenital—(a) with epilepsy	72	34	106	...	...	...	14	21	35	542	403	945
(b) without „	72	46	118	1	...	1	34	39	73	1,224	1,053	2,277
Epilepsy acquired ... ..	15	9	24	...	1	1	4	11	15	134	102	236
General paralysis of the insane	14	8	22	...	...	...	15	7	22	16	13	29
<b>MANIA—</b>												
Acute ... ..	2	3	5	1	...	1	1	...	1	11	6	17
Chronic ... ..	6	6	12	...	...	...	1	3	4	200	253	453
Recurrent ... ..	...	...	...	...	...	...	...	...	...	54	17	71
A potù ... ..	...	...	...	...	...	...	...	...	...	2	2	4
Senile ... ..	...	...	...	...	...	...	...	...	...	...	6	6
<b>MELANCHOLIA—</b>												
Acute ... ..	4	9	13	1	1	2	...	...	...	4	9	13
Chronic ... ..	5	1	6	...	...	...	...	...	...	16	58	74
Recurrent ... ..	...	...	...	...	...	...	...	...	...	3	...	3
Senile ... ..	...	...	...	...	...	...	...	...	...	3	5	8
<b>DEMENTIA—</b>												
Primary ... ..	...	4	4	...	...	...	2	2	4	20	34	54
Secondary ... ..	35	54	89	...	...	...	37	34	71	378	816	1,194
Senile ... ..	33	36	69	...	...	...	43	47	90	147	138	285
Organic (i.e., from tumours, coarse brain disease, &c.) ...	3	2	5	1	...	1	4	...	4	10	6	16
Totals ... ..	261	212	473	4	2	6	155	164	319	2,764	2,921	5,685

3,487 out of the 5,685 patients remaining in the asylums at the end of the year were cases of congenital insanity, 453 of chronic mania, 74 of chronic melancholia, 1,194 of secondary dementia, and 285 of senile dementia.

TABLE XII.—*Station or Occupation of Patients Admitted at the Asylums during 1902.*

(Included in Table XIII. in reports previous to 1900.)

STATION OR OCCUPATION.	Males.	Females.	STATION OR OCCUPATION.	Males.	Females.
Acrobat ... ..	1	...	Brought forward ...	73	43
Artificial leafmaker... ..	...	1	Leather dresser ... ..	1	...
Art metal-worker ... ..	1	...	Lighterman ... ..	1	...
Baker ... ..	1	...	Machinists... ..	1	1
Ballast heaver ... ..	1	...	Milliners ... ..	...	2
Basket maker ... ..	1	...	Ostlers ... ..	2	...
Bricklayer ... ..	1	...	Pedlar... ..	1	...
Bus drivers ... ..	2	...	Pianoforte tuner ... ..	1	...
Butcher ... ..	1	...	Porters ... ..	11	...
Cab attendant ... ..	1	...	Potman ... ..	1	...
Cab driver ... ..	1	...	Printers ... ..	2	...
Cabinet-maker ... ..	1	...	Quarryman ... ..	1	...
Captain of tug ... ..	1	...	Rigger ... ..	1	...
Carmen ... ..	3	...	Seamen ... ..	2	...
Carpenters... ..	3	...	Seed sorter ... ..	...	1
Chair-caner ... ..	...	2	Sempstresses ... ..	...	3
Charwomen ... ..	...	14	Servants ... ..	...	21
Clerks... ..	4	...	Shipwright ... ..	1	...
Coachmen ... ..	3	...	Shoeblocks ... ..	2	...
Cooks ... ..	...	2	Shoemakers ... ..	3	...
Coppersmith ... ..	1	...	Shopkeeper ... ..	1	...
Crossing sweeper ... ..	...	1	Silver burnisher ... ..	...	1
Dancer ... ..	...	1	Smiths' hammerman ... ..	1	...
Dressmakers ... ..	...	6	Sorter... ..	...	1
Engineer ... ..	1	...	Stonemason ... ..	1	...
Errand boy ... ..	1	...	Street newsvendor ... ..	1	...
Excavator ... ..	1	...	Tailoresses ... ..	...	2
Factory hands ... ..	...	2	Teacher of music ... ..	1	...
Farrier ... ..	1	...	Teacher of languages ... ..	1	...
Furrier ... ..	...	1	Telegraphist ... ..	...	1
Gardener ... ..	1	...	Traveller ... ..	1	...
Governess ... ..	...	1	Tripe seller ... ..	1	...
Hairdressers ... ..	1	1	Umbrella maker ... ..	1	...
Hawkers ... ..	5	1	Veterinary surgeon .. ..	1	...
Horsekeeper ... ..	1	...	Washing women ... ..	...	3
Housewives ... ..	...	9	Wood dealer ... ..	...	1
Ironmoulder ... ..	1	...	Wood turner ... ..	1	...
Labourers ... ..	33	...	Zinc worker ... ..	2	...
Laundry assistant ... ..	...	1	Unknown ... ..	...	5
Carried forward... ..	73	43	No occupation ... ..	130	123
			Totals ... ..	247	208

NOTE.—Transfers from other asylums of the Board are not included in this table.

TABLE XIII.—*Table of Heredity in Patients admitted in the Asylums during 1902 (excluding Rochester House Asylum).*

DEGREE.	Males.	Females.	Total.
<b>I. DIRECT —</b>			
Paternal ... ..	5	4	9
Maternal ... ..	9	5	14
Grandparents ... ..	5	4	9
<b>II. COLLATERAL—</b>			
Brothers or sisters ... ..	7	6	13
Paternal uncles or aunts ... ..	5	2	7
Maternal „ „ ... ..	5	4	9
Maternal or paternal uncles or aunts ... ..	1	...	1
Paternal grandparents ... ..	...	1	1
Maternal „ „ ... ..	...	..	...
Cousins ... ..	..	1	1
<b>III. REMOTE —</b>			
Undefined ... ..	1	4	5
Totals ... ..	33	31	69
Total number of admissions ... ..	261	212	473
Number in which causes were assigned ... ..	138	121	259
Percentage of heredity on admissions ... ..	14·34	14·62	14·53

In the 69 cases dealt with, there appears to have been a history of insanity in the parents or grandparents of the patients in 32 cases and in other relatives in 32 cases.

iii. CHILDREN'S HOMES.

**Statistics.** Into the homes at Herne Bay and Margate for children requiring the benefits of seaside air there were admitted during the year 207 (121)\* boys and 209 (137) girls. There were discharged 172 (109) boys and 184 (127) girls, and 1 (2) boy and 6 (5) girls died.

In the homes for defective children there have been under training 41 (37) boys and 28 (29) girls.

During the year 2,021 children passed through the remand homes.

There remained under care at the end of the year in all the homes 245 (195) boys and 221 (193) girls.

iv. TRAINING SHIP "EXMOUTH."

**Statistics.** The number of boys admitted during the year was 330 (413) (including 99 (144) from extra-metropolitan parishes and unions), while the number discharged was 381 (385).

Of the latter number 116 (151) entered the royal navy, 112 (146) the mercantile marine, 101 (56) the army as musicians, and 50 (32) were returned to their respective parishes and unions. There were 2 (2) deaths.

\* Italic figures in brackets throughout are the corresponding figures for 1901.

At the end of the year there remained 535 (587)\* boys under training, of whom 156 (169) were chargeable to extra-metropolitan districts.

The statistical tables on pp. 112-118 supply detailed information concerning the boys under training.

#### v. GENERAL SUMMARY.

In conclusion, the Committee submit the following brief summary of the number of persons who have been under the care of the Managers in their several institutions since the opening of the first hospital in 1870 :—

NUMBER OF PERSONS. (Re-admissions are not included.)	Admitted direct from Homes or Parishes and Unions.	Remaining in the various Institutions, Dec. 31st, 1902.
Fever patients (including 218 cases of relapsing fever treated in 1870) ...	294,643	3,608
Smallpox patients ...	74,004	14
Imbeciles ...	22,642	5,839
Boys on training ship "Exmouth" ...	8,357	535
Children at homes and special schools ...	3,905	470
Totals ...	403,551	10,466

#### vi. MEDICAL SUPPLEMENT.

In continuance of the arrangement begun in 1896, there will be found at the end of this volume a Medical Supplement, edited by two of the Board's medical superintendents (Dr. F. M. Turner and Dr. H. E. Cuff), who have been appointed for that purpose by their colleagues. In this supplement there are included, in the first place, reports based on the records of the fever hospitals for 1902, dealing with the following subjects of a medical rather than of a general statistical nature :—

1. Complications and co-existent infectious diseases.
2. Post-scarlatinal diphtheria.
3. Antitoxin treatment of diphtheria.

There are also included papers by members of the Managers' medical staff on various subjects of interest in connection with the treatment of infectious disease.

(Signed) V. B. KENNETT-BARRINGTON,  
*Chairman.*

\* Italic figures in brackets throughout are the corresponding figures for 1901.

APPENDIX I.—INFECTIOUS DISEASES.

A.—LAND AMBULANCE SERVICE.

Number of Patients removed by the Ambulances of the Board.

	From 1881 to 1894	1895	1896	1897	1898	1899	1900	1901	1902	TOTALS.
<b>FEVER :—</b>										
From homes to Hospitals	94,035	16,725	22,152	22,795	20,923	24,917	21,430	25,532	24,410	272,919
Convalescents to North- ern and other Hospitals	31,533	5,037	9,998	8,941	6,437	7,973	5,394	5,223	4,210	84,746
Recovered cases from Northern Hospital to Town Hospitals for discharge ...	24,792	4,464	5,899	5,259	4,226	4,530	2,681	4,300	4,489	60,640
Recovered cases dis- charged from Northern Hospital conveyed from Eastern, Western, and South-Eastern Hos- pitals to other Hospitals	381	82	154	111	1	99	29	126	293	1,276
Recovered cases from Gore Farm Hospital to Town Hospitals for discharge ...	5,562	...	3,629	3,658	2,445	3,374	2,735	1,239	Nil.	22,642
Recovered cases from Gore Farm Hospital conveyed from the South-Eastern, the South-Western, and the Brook Hospitals to other Hospitals ...	421	...	31	181	125	31	233	87	Nil.	1,109
Other transfers between Hospitals and Wharves	7	61	1	10	2	8	39	201	66	395
From Hospitals to homes	*3,568	256	377	350	317	385	577	642	623	7,095
From General Hospitals to homes, owing to want of room in the Managers' Hospitals, or to the patients being extra - Metropolitan residents ...	611	724	1,287	752	71	144	20	159	51	3,819
Enteric Fever cases from homes to General Hos- pitals ...	386	241	109	186	133	247	201	98	59	1,660
Patients returned home who were wrongly certified ...	...	...	...	...	...	...	..	...	33	33
<b>Total Fever Patients</b>	<b>161,296</b>	<b>27,590</b>	<b>43,637</b>	<b>42,243</b>	<b>34,680</b>	<b>41,708</b>	<b>33,339</b>	<b>37,607</b>	<b>34,234</b>	<b>456,334</b>
<b>SMALLPOX :—</b>										
From homes to Hospitals and Wharves ...	17,951	1,045	265	121	36	28	94	1,848	7,830	29,218
From Hospitals to Wharves	5,492	...	...	...	...	8	...	3	16	5,519
Other transfers between Hospitals & Wharves	7	3	...	...	...	7	...	2	33	52
From Hospitals and Wharves to homes ...	10,489	77	39	33	1	1	31	118	567	11,356
Patients returned home who were wrongly certified ...	...	...	...	...	...	...	...	...	310	310
<b>Total Smallpox Patients</b>	<b>33,939</b>	<b>1,125</b>	<b>304</b>	<b>154</b>	<b>37</b>	<b>44</b>	<b>125</b>	<b>1,971</b>	<b>8,756</b>	<b>46,455</b>
Conveyance of Patients to other places than the Managers' Hospitals ...	1,550	326	433	361	326	369	327	388	360	4,440
<b>Grand Totals ...</b>	<b>196,785</b>	<b>29,041</b>	<b>44,374</b>	<b>42,758</b>	<b>35,043</b>	<b>42,121</b>	<b>33,791</b>	<b>39,966</b>	<b>43,350</b>	<b>507,229</b>

\* Includes some smallpox cases.

N.B.—In addition to the above removals, 23 imbecile children of the improvable class were conveyed from Darenth Asylum to Rochester House, Little Ealing; 120 children to the Liverpool Street railway station *en route* to the Bridge School at Witham, and 65 defective children from the home at Kingwood Road, Fulham, to railway stations on their annual holidays, and 64 on their return.

## B.—LAND AMBULANCE SERVICE—(continued).

Return of Work for the Twelve Months ended December 31st, 1902.

PARTICULARS OF WORK.	Number of Journeys.	MILES RUN.				
		By Horses.				By Vehicles.
		1	2	3	4	
<b>REMOVALS FROM HOME—</b>						
To the Board's Hospitals—						
Fever Patients ... ..	23,331	203,097	154	...	...	203,251
Smallpox Patients... ..	1	7	...	...	...	7
To the Board's Wharves—						
Smallpox Patients... ..	7,262	119,523	770	...	...	120,293
To General Hospitals—						
Enteric Patients ... ..	57	569	...	...	...	569
<b>OTHER REMOVALS—</b>						
From General Hospitals to homes owing to want of room in the Board's Hospitals, or to the patients being extra-Metropolitan residents ...	52	621	...	...	...	621
Non-Smallpox Patients returned home ... ..	304	4,390	...	...	...	4,390
Other Patients returned home... ..	31	253	...	...	...	253
Patients sent for, but for various causes not removed ...	582	4,507	...	...	...	4,507
Patients' friends taken from home to Hospital ... ..	128	1,516	...	...	...	1,516
Patients' friends taken from Hospital to home ... ..	128	1,515	...	...	...	1,515
<b>TRANSFERS BETWEEN HOSPITALS—</b>						
Fever Patients to and from Northern Hospital... ..	877	4,588½	17,264½	...	...	21,853
Fever Patients to and from Gore Farm Hospital ... ..	3	126	...	...	...	126
Other transfers between Hospitals Board's Hospitals to Wharves ...	141	1,697	535	38	...	2,270
Board's Hospitals to Wharves ...	12	206	...	...	...	206
<b>RECOVERED PATIENTS TAKEN HOME—</b>						
From Fever Hospitals ... ..	559	6,295	34	...	...	6,329
From Wharves:—Smallpox ... ..	†548	8,648	174	...	...	8,822
Service requirements ... ..	770	8,081	327	...	...	7,958
Conveyance of Ambulance Committee ... ..	4	14	8	...	...	22
Conveyance of Hospitals Committee ... ..	1	9	...	...	...	9
Conveyance of Hospital Stores ... ..	6	55	...	...	...	55
	34,797	365,717½	19,266½	38	...	384,572
Conveyance of Patients to other places than Managers' Hospitals (private removals) }	354	3,854	570	...	...	4,424
Totals for 1902 ... ..	35,151	369,571½	19,836½	38	...	388,996
Totals for 1901 ... ..	30,587	290,758	26,580	48	...	317,278
Totals for 1900 ... ..	24,808	203,532	29,224	92	...	232,848
Totals for 1899 ... ..	28,184	222,128	37,855	452	...	260,367
Totals for 1898 ... ..	23,120	182,255	32,421	33	...	214,677
Totals for 1897 ... ..	26,055	231,143	39,417	810	41	271,411
Totals for 1896 ... ..	26,646	249,376	46,792	337	301	296,792
Totals for 1895 ... ..	19,963	189,360	23,004	...	...	212,364
Totals for 1894 ... ..	19,796	176,602	26,918	72	...	203,820
Totals for 1893 ... ..	24,017	214,884	30,186	...	241	245,311
Totals for 1892 ... ..	17,607	147,606	27,497	...	3,535	178,638
Totals for 1891 ... ..	8,254	66,129	12,958	...	791	79,873
Totals for 1890 ... ..	8,644	67,443	14,167	415	2,405	84,423
Totals for 1889 ... ..	5,594	40,957	6,276	232	881	48,346
Totals for 1888 ... ..	5,550	34,842	12,767	...	1,910	49,519
Totals for 1887 ... ..	6,507	51,894	5,223	...	1,009	58,126
Totals for 1886 ... ..	2,073	13,578	1,980	...	...	15,558
<b>Grand Totals</b> ... ..	<b>312,556</b>	<b>2,752,058½*</b>	<b>393,101½</b>	<b>2,529</b>	<b>11,342</b>	<b>3,158,347</b>

\* Includes 684 miles by horses only.

† Includes some non-smallpox cases.



C.—RIVER SERVICE.

Number of Patients, Visitors, Staff, &c., conveyed to and from Long Reach during the year 1902.

MONTH.	Patients conveyed to Long Reach.	Recovered cases conveyed from Long Reach	Visitors conveyed to and from Long Reach (including Managers).	Staff, &c., conveyed to and from Long Reach.	Totals.
January ... ..	1,134	574	345	304	2,357
February ... ..	1,312	818	668	269	3,067
March ... ..	1,719	1,064	1,064	432	4,279
April ... ..	1,154	981	1,213	507	3,855
May ... ..	1,014	858	1,433	567	3,872
June ... ..	626	739	525	764	2,654
July ... ..	156	579	266	780	1,781
August ... ..	76	254	133	615	1,078
September ... ..	21	86	47	476	630
October ... ..	7	25	8	368	408
November ... ..	15	14	4	344	377
December ... ..	5	10	2	241	258
Totals for 1902 ... ..	7,239	6,002	5,708	5,667	24,616
Totals for 1901 ... ..	1,614	633	1,300	1,906	5,453
Totals for 1900 ... ..	64	69	42	1,460	1,635
Totals for 1899 ... ..	11	6	17	1,434	1,468
Totals for 1898 ... ..	6	5	7	937	955
Totals for 1897 ... ..	69	55	132	1,027	1,283
Totals for 1896 ... ..	188	243	153	1,815	2,399
Totals for 1895 ... ..	925	792	862	2,372	4,951
Totals for 1894 ... ..	1,101	1,009	1,762	3,742	7,614
Totals for 1893 ... ..	2,364	2,053	2,195	4,040	10,652
Totals for 1892 ... ..	298	235	121	735	1,389
Totals for 1891 ... ..	63	53	155	503	774
Totals for 1890 ... ..	26	25	38	339	428
Totals for 1889 ... ..	5	4	51	445	505
Totals for 1888 ... ..	62	63	246	476	847
Totals for 1887 ... ..	54	45	395	478	972
Totals for 1886 ... ..	130	145	458	*3,929	4,662
Totals for 1885 ... ..	5,468	5,809	†	†	11,277
Totals for 1884 ... ..	5,592	4,267	†	†	9,859
Grand Totals ... ..	25,279	21,513	13,642	31,305	91,739

STEAMERS.

STEAMER.	Fires alight.		Under Steam.		Under Way.		Coal consumed.		Number of days when steam raised.	Distance run.
	Hours.	Mins.	Hours.	Mins.	Hours.	Mins.	Tons.	Cwt.		
" Albert Victor " ...	3,636	...	3,402	...	648	59	273	10	147	5,104
" Geneva Cross " ...	4,700	...	4,560	...	813	19	361	4	205	8,140½
" Maltese Cross " ...	4,197	30	3,894	...	1,027	21	346	9	225	9,273½
" White Cross " ...	1,292	30	984	...	565	24	99	11	110	5,280
" Red Cross " ...	2,955	...	2,323	...	545	30	248	...	94	4,968
" Conservator " ...	658	...	496	...	366	51	93	...	60	3,068
Totals ...	17,439	...	15,659	...	3,967	24	1,421	14	841	35,834

Quantity of Stores, Parcels, &c., conveyed to and from Long Reach.

Number, 5,812. Weight, 179 tons 2 cwt. 2 qrs. 27 lbs.

\* Included in this number is the number of contractors' workmen who were engaged on building and other work in connection with the Smallpox Hospitals, and who were conveyed to and from Long Reach each week.

† No figures were given in the Committee's Report for 1884 and 1885.

D.

## REPORTS OF THE MEDICAL SUPERINTENDENTS OF THE FEVER HOSPITALS FOR THE YEAR 1902.

### No. 1.

#### EASTERN HOSPITAL.

HOMERTON, N.E.,

*January 26th, 1903.*

**Statistics.** During the year, 1,852 patients have been under treatment. Of these 1,331 have been discharged from the hospital, 212 have been transferred to the Northern Hospital, and 154 have died, leaving 155 under treatment at the end of the year.

**Scarlet Fever.** The number of scarlet fever cases under treatment has been 215. Of these 7 died, and the percentage mortality is 3·70.

**Post-Scarlatinal Diphtheria.** There have been 4 cases of post-scarlatinal diphtheria, all of which recovered. They all occurred in "Courage," the only ward used for scarlet fever patients. There were 4 cases of secondary tonsillitis.

**Diphtheria.** The number of cases of diphtheria under treatment was 1,232. Of these 108 died, a mortality of 10·03 per cent., almost exactly the same as last year. Included amongst the fatal cases are 17 in which death was due to other zymotic diseases either present on admission or contracted during convalescence, viz., scarlet fever 9, measles 6, and whooping cough 2. Making allowance for these cases the mortality is 8·45 per cent. All but 25 of the diphtheria cases were treated with antitoxin.

**Enteric Fever.** Of enteric fever 163 cases have been under treatment. Of these 18 died, a percentage mortality of 12·28. In one of the fatal cases death was due to concomitant diphtheria, and in two others the patient was also the subject of chronic renal disease.

**Combined mortality.** The combined mortality of the above-mentioned diseases is 9·41 per cent.

**Other diseases.** Of the 1,582 cases admitted directly from their homes, 225, or 14·2 per cent., were found to be suffering from diseases other than those notifiable diseases which are usually admitted to the Managers' hospitals. The percentage of error was—for scarlet fever 14·0, for diphtheria 12·0, and for enteric fever 25·5. The only case certified to be typhus fever was found on admission to be hæmorrhagic smallpox.

**Smallpox.** In the early part of the year, when smallpox was very prevalent, this disease was on three occasions introduced into the wards—in two instances during the incubation period by patients suffering from diphtheria, and in the third case during the prodromal period in mistake for enteric fever. In consequence of these cases some 20 patients were on each occasion exposed to the infection of smallpox. All such as required it were either vaccinated or revaccinated, the consent of the parents being obtained in the case of children. There were only two refusals to my application for permission to vaccinate. No further case of smallpox occurred in these wards.

**Works.** The wards reserved for plague remained unoccupied all through the year. All the other wards were repainted, and the floors of most of them were repaired, stained, and varnished.

**Staff illness.** There has been rather more sickness than usual amongst the staff; and I deeply regret to have to record three deaths, those of assistant nurse Mary Case from enteric fever, laundry maid Wollerson from influenza, and porter Elmes from rapid consumption.

(Signed) E. W. GOODALL,  
*Medical Superintendent.*

## No. 2.

### NORTH-EASTERN HOSPITAL.

ST. ANN'S ROAD, TOTTENHAM, N.,  
*February 23rd, 1903.*

**Statistics.** During 1902 the number of patients treated at this hospital was 3,968, the figures for the various diseases being as follows:—

Scarlet fever	..	2,811 cases with 60 deaths.	Mortality, 2·46 per cent.
Diphtheria	..	678     "     71     "	11·9     "
Enteric fever	..	176     "     30     "	18·63     "
Other diseases	..	303     "     26     "	9·36     "

**Works.** The completion of the boundary wall on the north side of the hospital is the only work of any importance that has been carried out during the past year.

**Staff.** 380 subordinate officers were employed during the year; 13 male and 107 female officers were engaged, while 10 male and 124 female officers left, the total of the subordinate staff on December 31st being 312.

The average daily number of patients during 1902 was 470·9, the average daily number of staff being 313·7, made up as follows:—

Medical staff, 6; nursing staff, 147·4; other staff, 160·2.

**Staff illness** 22 members of the staff contracted scarlet fever, diphtheria, or enteric during the past year. All recovered. 179 suffered from other illnesses, and of these one charge nurse died from influenza and bronchitis.

(Signed) H. E. CUFF,  
*Medical Superintendent.*

### No. 3.

#### NORTH-WESTERN HOSPITAL.

LAWN ROAD, FLEET ROAD,  
HAMPSTEAD, N.W.,  
*February 4th, 1903.*

**Statistics.** There were in the hospital on the 31st of December, 1901, 375 patients, consisting of 274 scarlet fever cases, 90 diphtheria, and 11 enteric, since which date to the end of 1902 have been added 3,468, leaving in hospital at the termination of the year, 245, comprised of the different classes.

Of the 3,468 patients admitted direct from their homes or institutions, 2,277 were those of scarlet fever, 812 of diphtheria, 193 of enteric fever, and 186 were at the time of admission, or subsequently, found to be suffering from diseases other than those certified.

\* \* \* \*

**Scarlet Fever.** 69.3 per cent. of the total admissions suffered from scarlet fever, causing 97 deaths, either *per se* or by its complications. The mortality percentage, as calculated according to the Registrar-General's formula, being 4.15.

With regard to age, 35.4 per cent. of the cases were under 5 years, and 38.8 per cent. between 5 and 10 years.

**Diphtheria.** Of the 812 affected with diphtheria 109 died, the mortality therefore being 13.10, or slightly lower than shown in last year's returns; 41.5 of the cases were under 5 years of age, and 30.9 between the ages of 5 and 10. The type of this disease, from my apprehension, is steadily, year by year, becoming of a more benign character, and, as with scarlet fever, toxic and true malignant cases are met with more rarely than in past times.

The results obtained by tracheotomy in the laryngeal cases have been most satisfactory, 86.4 per cent. resulting in recovery.

**Enteric Fever.** Of the 193 suffering from enteric fever 43 died, a percentage of 23.11. The cases, therefore, were for the most part very severe in character, and not a few were admitted at an advanced stage of the disorder thus materially reducing their chance of recovery.

**Other diseases.** Of other diseases, 186 were received, and 15 died, giving a mortality of 8.19 per cent.

**Deaths shortly after admission.**

Of the gross number in three classes of disorders, many were admitted within a comparatively short time before death took place, thus :—

Within 48 hours	..	15 scarlet fever patients died.	
		26 diphtheria	“ “
		4 enteric	“ “
Within 72 hours	..	17 scarlet fever	“ “
		33 diphtheria	“ “
		6 enteric	“ “

If, therefore, those in either one or the other of these sections were subtracted from the deaths, the results would necessarily assume a different character, and it will, I venture to think, scarcely be contended that such patients can be deemed to have come under medical treatment at all.

**Post-Scarlatinal Diphtheria.**

The incidence of diphtheria during recovery from scarlet fever was greater than in the previous year; that is to say, in 1901, 13 only were seen, whereas in 1902 there were 36. In five cases antitoxin was not injected. There was one death.

**Transfers.**

1,398 convalescent scarlet fever patients were transferred to the Northern Hospital, or 61·4 per cent.; but for the occurrence of measles, chickenpox, and so forth at times in different wards, and many children being under two years of age, increased advantage would have been taken of that institution.

**Staff illness.**

Of the staff illness, 13 contracted scarlet fever, 4 diphtheria, 1 enteric fever, and of other non-specific disorders there were 35. No death occurred.

(Signed) W. M. GAYTON,  
*Medical Superintendent.*

**No. 4.****WESTERN HOSPITAL.**

SEAGRAVE ROAD, FULHAM, S.W.,

*February 10th, 1903.*

**Statistics.**

During the year 1902, the number of patients treated was 2,955. Of these, 1,924 were discharged recovered, 503 were transferred to other hospitals of the Board, and 188 died; 340 patients remained at the close of the year.

**Scarlet Fever.**

Of the total number treated, 1,646 were cases of scarlet fever. Of these, 944 were discharged recovered, 419 were transferred, and 58 died, leaving under treatment 225.

The scarlet fever mortality was 4·10 per cent.

**Post-Scarlatinal Diphtheria.** There were 26 cases of post-scarlatinal diphtheria, of which 1 was fatal, death being due to lobar pneumonia.

**Diphtheria.** Of diphtheria, 944 cases were treated, of which 672 were discharged recovered, 84 were transferred, and 93 died, leaving 95 in hospital.

The percentage mortality of diphtheria was 11.13.

Tracheotomy was performed in 45 cases with 20 deaths, giving a mortality of 44.4 per cent.

**Enteric Fever.** Of enteric fever, 143 cases were treated, 116 were discharged, and 14 died, leaving 13 under treatment.

The enteric fever mortality was 10.81 per cent.

**Other diseases.** Of miscellaneous diseases, which constituted 8.3 per cent. of the total admissions, 212 cases were treated, 192 were discharged, and 23 died, the percentage mortality being 10.77.

The original diagnosis was found to be erroneous in 3.6 per cent. of the cases certified to have scarlet fever, in 13.2 per cent. of those certified as diphtheria, and in 21.3 per cent. of those certified as enteric fever.

**Plague accommodation.** The accommodation which during 1901 was set apart for plague cases, and plague suspects, is still held in reserve, rendering 16 isolation beds unavailable for present use.

**Staff illness.** During the year, 150 officers were warded for various illnesses. Of these, 15 suffered from infectious diseases, viz., 7 from scarlet fever, 6 from diphtheria, 1 from enteric fever, and 1 (an ambulance driver) from small-pox. All recovered.

With the deepest regret I record the death, in October last, after nearly 26 years' faithful service as steward, of my friend and much-respected colleague, Mr. T. Arrowsmith.

\* \* \* \*

**Works.** Beyond the cleaning and painting of some of the wards and administrative buildings, no works of importance or structural additions were carried out during the year.

(Signed) R. M. BRUCE,  
*Medical Superintendent.*

## No. 5.

### SOUTH-WESTERN HOSPITAL.

LANDOR ROAD, STOCKWELL, S.W.,  
*January 31st, 1903.*

**Statistics.** Of the 2,158 patients who came under treatment during the year 1902, 1,746 were either discharged cured or were transferred to one of the convalescent hospitals, and 109 died, while 303 remained in hospital on December 31st.

The mortality of the scarlet fever cases was 4·01, that of the diphtheria cases was 9·18, that of the enteric fever cases was 5·98, and that of the miscellaneous diseases was 10·6.

15 cases of scarlet fever contracted diphtheria, an incidence of 1·2 per cent. Of these, 2 died, but in one of them death was due to the severity of the original disease.

19 cases of diphtheria contracted scarlet fever, an incidence of 4·1 per cent. All of them recovered.

A satisfactory feature is the lowness of the enteric fever mortality, viz., 5·9 per cent.

**Other diseases.**

7·9 per cent. of the patients received during the year were held to be wrongly certified on admission. As is usual, the largest number of mistakes occurred in connection with enteric fever, viz., 34·4 per cent. For diphtheria they were 9·5 per cent., and scarlet fever 4·7 per cent.

**Works.**

No works of a structural character of any importance were carried out during the year except the reflooring of H 1 ward.

**Staff illness.**

10 members of the staff contracted an infectious disease in the course of their duties. There were 7 cases of scarlet fever, 2 of enteric fever, and 1 of diphtheria. All recovered.

Two of the assistant medical officers, viz., Dr. A. W. Daniel and Dr. A. S. Morley, left the service during the year.

\* \* \* \*

For several months during the summer Dr. W. J. Stewart was temporarily detached for the duty of superintending the vaccination of the workmen employed on the Gore Farm estate.

\* \* \* \*

(Signed) F. FOORD CAIGER,  
*Medical Superintendent.*

## No. 6.

### FOUNTAIN HOSPITAL.

TOOTING GROVE,

TOOTING GRAVENY,

*March 4th, 1903.*

**Reservation hospital for one disease only.**

The experiment begun in 1901, by order of the Board, of reserving this hospital solely for patients suffering from scarlet fever, has been continued up to the present time. The object of this experiment was to see what effect the reservation of the hospital for this disease would have upon the incidence of post-scarlatinal diphtheria. For it was alleged that this incidence was due to the admission of both diseases—scarlet fever and

diphtheria—to the same hospital. I tabulate below the result for the past two years, during which only patients suffering from scarlet fever have been admitted, and for reference I have included the incidence of post-scarlatinal diphtheria for 1900, in which year diphtheria patients, as well as those suffering from scarlet fever, were admitted:—

Year.	Scarlet Fever Admissions.	Diphtheria Admissions.	No. of Cases of Post-Scarlatinal Diphtheria.	Rate per cent.
1900 ... ..	1,076	799	33	3·7
1901 ... ..	2,038	97*	47	2·3
1902 ... ..	2,377	4†	75	3·1

**Scarlet  
Fever  
mortality.**

A marked and persistent fall has occurred in the mortality of scarlet fever of late years. Thus the annual average mortality during 1894–98 was 4·2 per cent., and during 1899–1902 was 2·4 per cent. The mortality for the past year, calculated according to the prescribed formula, was 2·7 per cent.

The original diagnosis was not confirmed in 90 out of the 2,372 patients admitted—a percentage of 3·8.

**Staff  
illness.**

3 assistant nurses, 2 wardmaids, and 1 laundry-maid contracted scarlet fever, 2 assistant nurses contracted diphtheria, and 1 laundry-maid contracted smallpox, for which no origin existed inside the hospital, and 96 members of the staff were warded with various other complaints. All recovered.

\* \* \* \*

(Signed) C. E. MATTHEWS,  
*Medical Superintendent.*

\* Remained in hospital from 1900.

† Erroneously notified scarlet fever.



## No. 7.

## GROVE HOSPITAL.

TOOTING GROVE,

TOOTING GRAVENY, S.W.,

*February 3rd, 1903.*

**Statistics.** The number of patients under treatment during the past year (1902) has been 2,198. Of these, 1,701 were discharged recovered, and 172 died, leaving in hospital at the end of the year a total of 325. The admissions included 494 cases of scarlet fever, 966 of diphtheria (including 18 convalescent patients, who were transferred from the South-Eastern Hospital), 196 of enteric fever, and 245 suffering from other diseases.

**Scarlet Fever.** The Managers' decision to again re-admit patients suffering from scarlet fever was carried on 5th June, and arrangements were at once made for cleaning and disinfecting the eight wards set apart for the purpose. The regular admission of scarlet fever patients was commenced on 11th July. Of the 494 cases who were admitted 22 died, showing a mortality of 5.05 per cent. In this connection it is interesting to note that 64 of the scarlet fever patients were certified to be suffering from diphtheria at the time of their admission, and in 11 cases the attack terminated fatally.

**Diphtheria.** Of the 948 diphtheria patients who were admitted direct from their homes 78 died, showing a mortality of 7.87 per cent. Antitoxin was given in 95.1 per cent. of the cases.

**Enteric Fever.** As regards enteric fever, 196 patients were admitted, and 49 deaths occurred, giving a case mortality of 25.0 per cent. This is more than double the rate which was recorded in the previous year, viz., 12.69 per cent., and is due to the severe nature of the attacks from which most of the patients suffered.

**Other diseases.** The original diagnosis was not confirmed in 245 of the 1,883 patients who were admitted direct from their homes.

The percentage of cases in which a different diagnosis was made subsequent to admission amounted to 4.3 in the case of scarlet fever patients, 14.8 in the case of diphtheria patients, and 22.82 for the enteric fever patients.

Six of the scarlet fever patients suffered from diphtheria during convalescence, or a percentage incidence of 1.5 on the completed cases. All recovered.

Thirty-nine of the 1,051 completed cases of diphtheria contracted scarlet fever while in hospital, or a percentage incidence of 3.7. The incidence during the previous year had been 3.0 per cent.

**Average residence.**

The average stay of patients in hospital shows some reduction for all classes of patients.

In this connection I have had a table prepared showing the percentage of patients discharged after each week's stay in hospital:—

Number of Weeks	Under 1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	Over 12	Total.
Scarlet fever ...	...	0.28	...	0.84	4.23	27.40	24.29	18.33	9.03	5.08	1.97	1.97	6.49	99.94
Diphtheria ...	...	...	0.52	4.29	7.12	20.23	16.03	12.78	7.96	7.54	6.28	3.87	13.31	99.93
Enteric fever ...	...	...	0.68	5.44	8.16	17.68	18.36	14.96	7.48	12.92	3.40	6.12	4.76	99.96
Other diseases ...	2.20	14.09	23.78	32.15	14.97	3.96	3.08	1.76	0.88	0.44	0.44	1.32	0.88	99.95

From this it will be seen that the great majority (70.05 per cent.) of the scarlet fever patients were discharged after a stay of between five and eight weeks, after this the proportion rapidly falls, only 9.43 per cent. staying in over ten weeks.

Amongst the diphtheria patients a higher proportion was discharged under five weeks than in the case of the scarlet fever patients, while the proportion discharged after five to eight weeks' stay was lower, viz., 49.04 per cent. The proportion remaining in after ten weeks was, however, much higher, viz., 23.46 per cent.

**Illness of staff.**

(a) Infectious diseases—13 officers contracted scarlet fever, 22 contracted diphtheria, and 7 contracted enteric fever. All recovered.

(b) Other diseases—141 officers were warded with various ailments. All recovered.

**Works.**

The most important work undertaken during the year was the erection and opening of the waiting room for visitors to dangerously-ill patients. It has been a convenience to the patients' friends, and at the same time has facilitated the work of the nurses in attendance upon them.

(Signed) J. E. BEGGS,  
*Medical Superintendent.*

**No. 8.****SOUTH-EASTERN HOSPITAL.**

AVONLEY ROAD, S.E.,  
*February 12th, 1903.*

**Statistics.**

The total number of admissions was 1,991, and the total number under treatment was 2,282, as against the corresponding figures of 1,993 and 2,325 for the preceding year. During these two years the numbers were considerably lower than during any other year of recent times, owing to the reservation of part of the hospital for plague.

The total number of deaths was 164, as against 177 during 1901. The death rates for scarlet fever, diphtheria, and enteric fever were 4·34, 11·78, and 10·88 respectively, as against 5·32, 12·57, and 13·27 in the preceding year. There was thus an improvement of 1 per cent. in the scarlet rate,  $\frac{3}{4}$  per cent. in the diphtheria, and  $2\frac{1}{2}$  per cent. in the enteric.

The diphtheria death rate is lower than ever previously reached here.

Of diseases contracted in hospital the total number was 129. The greatest item was scarlet fever contracted by cases of diphtheria.

**Works.** No structural works of importance have been undertaken.

**Plague  
accommo-  
dation.**

The withdrawal of the Local Government Board restriction reserving certain wards for use of plague patients has enabled me to utilise ward No. 6, consisting of 22 cubicles, for the isolation of doubtful cases of scarlet fever and diphtheria. Such accommodation was not previously provided at this hospital, the isolation wards in existence being usually fully occupied with cases of mixed infection.

(Signed) F. M. TURNER,  
*Medical Superintendent.*

## No. 9.

### PARK HOSPITAL.

HITHER GREEN, S.E.,  
*February 2nd, 1903.*

**Statistics.** The hospital was opened for the reception of patients on the 8th November, 1897. Since then 15,323 patients have been admitted, 14 were transferred from other hospitals of the Board, 11,105 have been discharged, 2,757 have been transferred to hospitals for convalescents, 1,094 have died, and 381 remained in hospital on the 31st December, 1902.

The mortality was 7·24 in 100.

Of the admissions 8,678 had scarlet fever, 4,554 diphtheria, 589 enteric fever, 2 typhus fever, and 1,500 other diseases. That is, for every 100 patients admitted, 56 had scarlet fever, 34 diphtheria or enteric, and 10 other diseases.

368 beds were provided for scarlet fever, 120 for enteric fever or diphtheria, and 60 for isolation. That is, for every 100 beds provided, 67 were for scarlet fever, 22 for diphtheria, and 11 for other diseases.

From these figures it would appear that fewer beds might be provided for scarlet fever, and more for diphtheria and enteric fever in building another

hospital; whilst (assuming the stay in hospital would be less) the accommodation for other diseases is about right.

These isolation beds have, with the observation beds, been also used for infectious complications and co-existent diseases, as shown later on.

**Errors of diagnosis.** The 1,500 patients not having one of the four diseases includes 3 born in hospital and 8 admitted with their mothers; it does not include those returned to their homes in the ambulances without being admitted.

676 were certified to be suffering from scarlet fever, 680 from diphtheria, 133 from enteric fever, and the 11 babies—total, 1,500.

The respective errors of diagnosis were for every 100 admissions of each disease:—Scarlet fever 7·7, diphtheria 14·9, and enteric fever 22·5, whilst the total was 9·7.

\* \* \* \*

The following tables give the admissions, deaths, and mortality for each year since the hospital was opened:—

#### I.—Admissions.

Year.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Other Diseases.	Totals.
1897 ... ..	231	42	...	8	281
1898 ... ..	1,449	810	60	209	2,528
1899 ... ..	1,566	1,315 + 1 (transfer)	100	245	3,228
1900 ... ..	1,356 + 1 (transfer)	1,018	237	322	2,999
1901 ... ..	2,262 + 8 ,,	821 + 1 (transfer)	124	436	3,643
1902 ... ..	1,814 + 2 ,,	842 + 1 ,,	68	280	2,644

#### II.—Deaths and Mortality.

Year.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Other Diseases.	Totals.
1897 ... ..	12 9'02	4 17'39	...	2 33'33	18 11'11
1898 ... ..	64 4'04	96 13'03	9 20'22	12 6'00	181 7'43
1899 ... ..	40 2'56	163 12'75	13 13'19	16 6'34	232 7'27
1900 ... ..	37 2'62	161 13'86	35 15'32	17 5'37	250 8'02
1901 ... ..	100 4'72	116 13'92	22 15'07	12 2'72	250 7'06
1902 ... ..	71 3'77	67 13'08	12 18'46	13 4'72	163 5'99
Totals ... ..	324 3'78	607 13'44	91 15'07	72 4'83	1,094 7'24

\* \* \* \*

**Period of residence in hospital.**

The following table shows the stay in hospital of recovered patients. It is interesting to compare it with the next table, giving the numbers of patients transferred to the convalescent hospitals. In scarlet fever the mildest being sent away there is the longest stay when most go:—

VII.—*Stay in Hospital of Recovered Patients.*

Year.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Other Diseases.
	Days.	Days.	Days.	Days.
1899 ... ..	62·3	61·1	67·2	23·1
1900 ... ..	68·1	54·9	58·9	16·7
1901 ... ..	52·28	46·85	52·08	17·32
1902 ... ..	53·14	53·15	62·34	18·47

VIII.—*Transfers to Convalescent Hospitals.*

Year.	Diphtheria.	Scarlet Fever.
1899 ... ..	788	66
1900 ... ..	866	140
1901 ... ..	231	5
1902 ... ..	...	...

\* \* \* \*

(Signed) R. A. BIRDWOOD,  
*Medical Superintendent.*

## No. 10.

## BROOK HOSPITAL.

SHOOTERS HILL, WOOLWICH,  
18th February, 1903.

**Statistics.**

The total number of cases treated was 3,136 (3 being transfers from other hospitals). Of these, 2,583 were discharged recovered, 5 were transferred to other hospitals of the Board, and 171 died. There remained under treatment on 31st December, 377 patients.

**Scarlet Fever.**

The number of cases treated was 1,930. Of these, 1,623 were discharged recovered, 1 was transferred, and 43 died. The mortality was therefore 2·63 per cent.

**Diphtheria.** The number of cases treated was 838. Of these, 652 were discharged recovered, 1 was transferred, and 91 died. The mortality was therefore 12·38 per cent.

There were 26 hæmorrhagic cases, and 23 died within 24 hours of admission. Tracheotomy was performed on 47 patients, of whom 15 died.

**Antitoxin treatment.** Of 744 completed cases, 639 were treated with antitoxin. The following table shows the results of the antitoxin treatment with special reference to the day of disease on which the treatment began :—

AGES.	DAY OF DISEASE ON WHICH TREATMENT BEGAN.										TOTAL.	Percentage Mortality.	
	1st.		2nd.		3rd.		4th.		5th.				
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Under 1 ... ..	0	0	3	0	1	1	1	0	1	0	6	1	16·6
1 to 2 ... ..	0	0	8	2	9	0	4	0	20	7	41	9	21·9
2 to 3 ... ..	4	0	11	0	14	4	16	6	16	5	61	15	24·3
3 to 4 ... ..	1	0	12	0	16	2	14	4	25	6	68	12	17·6
4 to 5 ... ..	0	0	18	1	23	5	16	5	27	5	84	16	19·0
5 to 10 ... ..	6	0	56	4	61	4	43	6	71	13	237	27	11·3
10 to 15 ... ..	2	0	18	0	24	0	15	1	11	0	70	1	1·4
15 to 20 ... ..	0	0	15	0	6	1	7	1	4	0	32	2	6·2
20 and upwards	0	0	9	0	16	1	5	1	10	0	40	2	5·0
Total ... ..	13	0	150	7	170	18	121	24	185	36	639	85	...
Percentage Mortality	0·0		4·6		10·5		19·8		19·4		13·3		...

For the purpose of comparison I give the results of the antitoxin treatment here for the six years 1897 to 1902 inclusive :—

	1897.	1898.	1899.	1900.	1901.	1902.
Of cases treated on 1st day of disease the mortality per cent. was	0·0	0·0	0·0	0·0	0·0	0·0
“ “ “ 2nd “ “	5·4	5·0	3·8	3·6	4·1	4·6
“ “ “ 3rd “ “	11·5	14·3	12·2	6·7	11·9	10·5
“ “ “ 4th “ “	19·0	18·1	20·0	14·9	12·4	19·8
“ “ “ 5th day and after “	21·0	22·5	20·4	21·2	16·6	19·4

During the past six years the total number of cases treated with antitoxin has been 4,202. Not a single death has taken place among the cases that came under treatment on the first day of disease, and among those coming under treatment on the second day of disease, the mortality has not exceeded 5·4, and has been as low as 3·6. While among those that came under treatment later the average mortality is very much higher. Were it possible to secure the admission to hospital of all cases on the first or second day of illness, the lives of a large number of patients would thereby be saved.

**Enteric Fever.** The number of cases treated was 191. Of these, 157 were discharged recovered, and 18 died. The mortality was therefore 10·43 per cent.

**Illness of staff.** (a) *Infectious diseases*.—12 officers contracted scarlet fever, 5 contracted diphtheria, and 4 contracted enteric fever. All recovered.  
 (b) *Other diseases*.—138 officers were warded with various ailments. All recovered.

(Signed) JOHN MACCOMBIE,  
*Medical Superintendent.*

## No. 11.

### NORTHERN HOSPITAL.

WINCHMORE HILL, N.,  
*January 30th, 1902.*

**Statistics.** The total number of patients treated during the year 1902 was 4,931. Of these, 764 were in hospital at the end of 1901, and 4,167 were admitted during 1902; 4,479 were discharged, and 7 died; 445 remaining under treatment at the end of the year.

Of the numbers treated, 4,569 were scarlet fever and 362 diphtheria. The mortality of the former was 0·17, of the latter *nil*.

140 cases of post-scarlatinal diphtheria were completed, with 2 deaths.

During the first three months of the year transfer of patients to this hospital, except under circumstances of pressure, was discontinued, and the numbers fell in March to 16. The occasion was made use of for the cleansing of the interior of the pavilions and huts, a considerable number of the hospital staff being meantime transferred for service at the smallpox hospitals of the Board.

**Works.** A gate-porter's lodge replacing the former temporary structure, and containing accommodation for visitors to patients, has been erected; and an addition made to the steward's house.

The whole of the external wood and iron work of the institution was repainted.

A new set of steam mains has been erected, and connections made by which one set of boilers, instead of two, is utilised for the supply of steam for both lighting and administrative purposes. This arrangement effects a considerable economy, and has so far been unattended by any difficulty or inconvenience.

**Illness of staff.** 95 members of the staff were warded for illness. Of these, 8 had scarlet fever, and 7 diphtheria. All recovered. The head sempstress left the hospital service on account of a carcinoma, which subsequently was fatal.

The statistical tables are appended.

(Signed) F. N. HUME,  
*Medical Superintendent.*

EASTERN HOSPITAL.									
DISEASES.	Remain- ing on Dec. 31st, 1901.	Admitted during 1902.		Total under treatment during 1902.	Discharged during 1902.		Died during 1902.	Mortality per cent.	Remain- ing on Dec. 31st, 1902.
		Direct from homes.	From other Hospitals of Board.		Re- covered.	To other Hospitals of Board.			
Scarlet ... ..	30	178	7	215	139	47	7	3·70	22
Diphtheria ... ..	199	1,033	...	1,232	845	( <sup>2</sup> ) 167	108	10·03	112
Enteric ... ..	17	146	...	163	128	( <sup>1</sup> ) 1	18	12·28	16
Typhus ... ..	...	...	...	...	...	...	...	...	...
Other diseases ... ..	246	1,357	7	1,610	1,112	( <sup>3</sup> ) 215	133	9·41	150
	17	225	...	242	216	...	21	9·09	5
Totals ... ..	263	1,582	7	1,852	1,338	( <sup>3</sup> ) 215	154	...	155
NORTH-EASTERN HOSPITAL.									
Scarlet ... ..	397	2,414	...	2,811	1,593	( <sup>1</sup> ) 803	60	2·46	355
Diphtheria ... ..	112	566	...	678	555	( <sup>1</sup> ) 1	71	11·90	51
Enteric ... ..	11	165	...	176	127	...	30	18·63	19
Typhus ... ..	...	...	...	...	...	...	...	...	...
Other diseases ... ..	520	3,145	...	3,665	2,275	( <sup>2</sup> ) 804	161	5·04	425
	15	288	...	303	239	( <sup>2</sup> ) 2	26	9·36	36
Totals ... ..	535	3,433	...	3,968	2,514	( <sup>4</sup> ) 806	187	...	461
NORTH-WESTERN HOSPITAL.									
Scarlet ... ..	274	2,277	...	2,551	892	( <sup>1</sup> ) 1,398	97	4·15	164
Diphtheria ... ..	90	812	...	902	742	1	109	13·10	50
Enteric ... ..	11	193	...	204	136	...	43	23·11	25
Typhus ... ..	...	...	...	...	...	...	...	...	...
Other diseases ... ..	375	3,282	...	3,657	1,770	( <sup>1</sup> ) 1,399	249	7·43	239
	...	186	...	186	164	( <sup>1</sup> ) 1	15	8·19	6
Totals ... ..	375	3,468	...	3,843	1,934	( <sup>2</sup> ) 1,400	264	...	245
WESTERN HOSPITAL.									
Scarlet ... ..	244	1,402	...	1,646	944	419	58	4·10	225
Diphtheria ... ..	123	821	...	944	672	84	93	11·13	95
Enteric ... ..	14	129	...	143	116	...	14	10·81	13
Typhus ... ..	...	...	...	...	...	...	...	...	...
Other diseases ... ..	381	2,352	...	2,733	1,732	503	165	6·94	333
	10	212	...	222	192	...	23	10·77	7
Totals ... ..	391	2,564	...	2,955	1,924	503	188	...	340
SOUTH-WESTERN HOSPITAL.									
Scarlet ... ..	218	1,166	...	1,384	944	185	47	4·01	208
Diphtheria ... ..	67	456	...	523	393	24	42	9·18	64
Enteric ... ..	11	82	...	93	80	...	5	5·98	8
Typhus ... ..	...	...	...	...	...	...	...	...	...
Other diseases ... ..	296	1,704	...	2,000	1,417	209	94	5·49	280
	10	148	...	158	120	...	15	10·60	23
Totals ... ..	306	1,852	...	2,158	1,537	209	109	...	303
FOUNTAIN HOSPITAL.									
Scarlet ... ..	393	2,372	5	2,770	1,678	695	65	2·70	332
Diphtheria ... ..	...	4	...	4	3	...	1	25·00	...
Enteric ... ..	...	4	...	4	2	...	...	...	2
Other diseases ... ..	393	2,380	5	2,778	1,683	695	66	2·73	334
	1	90	...	91	87	...	2	2·23	2
Totals ... ..	394	2,470	5	2,869	1,770	695	68	...	336
GROVE HOSPITAL.									
Scarlet ... ..	10*	494	...	504	354	...	22	5·05	128
Diphtheria ... ..	244*	948	18	1,210	973	...	78	7·73	159
Enteric ... ..	23*	196	...	219	147	...	49	25·00	23
Typhus ... ..	...	...	...	...	...	...	...	...	...
Other diseases ... ..	277	1,638	18	1,933	1,474	...	149	9·14	310
	20*	245	...	265	227	...	23	9·36	15
Totals ... ..	297	1,883	18	2,198	1,701	...	172	...	325



TABLE I.—Admissions, Discharges, and Deaths during 1902.

SOUTH-EASTERN HOSPITAL.									
DISEASES.	Remain- ing on Dec. 31st, 1901.	Admitted during 1902.		Total under treatment during 1902.	Discharged during 1902.		Died during 1902.	Mortality per cent.	Remain- ing on Dec. 31st, 1902.
		Direct from homes.	From other Hospitals of Board.		Re- covered.	To other Hospitals of Board.			
Scarlet ... ..	134*	783	1	918	472	318	35	4.34	93
Diphtheria ... ..	101*	673	...	774	537	53	79	11.78	105
Enteric ... ..	28*	267	...	295	235	...	29	10.88	31
Typhus ... ..	...	...	...	...	...	...	...	...	...
Other diseases ... ..	263 28*	1,723 267	1 ...	1,987 295	1,244 263	371 ...	143 21	8.26 7.31	229 11
Totals ... ..	291	1,990	1	2,282	1,507	371	164	...	240
PARK HOSPITAL.									
Scarlet ... ..	396	1,814	( <sup>1</sup> ) 2	2,212	1,879	...	71	3.77	262
Diphtheria ... ..	85	482	1	568	421	...	67	13.80	80
Enteric ... ..	13	68	...	81	50	...	12	18.46	19
Typhus ... ..	...	...	...	...	...	...	...	...	...
Other diseases ... ..	494 10	2,364 280	( <sup>1</sup> ) 3 ...	2,861 290	2,350 256	...	150 13	6.16 4.72	361 20
Totals ... ..	504	2,644	( <sup>1</sup> ) 3	3,151	2,606	( <sup>1</sup> ) 1	163	...	381
BROOK HOSPITAL.									
Scarlet ... ..	325	1,603	( <sup>2</sup> ) 2	1,930	1,623	1	43	2.63	263
Diphtheria ... ..	113	725	...	838	652	1	91	12.38	94
Enteric ... ..	21	170	...	191	157	...	18	10.43	16
Typhus ... ..	...	...	...	...	...	...	...	...	...
Other diseases ... ..	459 9	2,498 167	( <sup>2</sup> ) 2 1	2,959 177	2,432 151	2 ( <sup>3</sup> ) 3	152 19	5.98 11.14	373 4
Totals ... ..	468	2,665	( <sup>2</sup> ) 3	3,136	2,583	( <sup>3</sup> ) 5	171	...	377
NORTHERN HOSPITAL.									
Scarlet ... ..	711	...	3,858	4,569	4,134	8	7	0.17	420
Diphtheria ... ..	53	...	309	362	337	...	...	...	25
Other diseases ... ..	764	...	4,167	4,931	4,471	8	7	0.16	445
Totals ... ..	764	...	4,167	4,931	4,471	8	7	...	445
GORE FARM HOSPITAL.									
Scarlet ... ..	...	...	...	...	...	...	...	...	...
Diphtheria ... ..	...	...	...	...	...	...	...	...	...
Enteric ... ..	...	...	...	Used for	smallpox	patients.	...	...	...
Other diseases ... ..	...	...	...	...	...	...	...	...	...
Totals ... ..	...	...	...	...	...	...	...	...	...
SUMMARY.									
Scarlet ... ..	3,132	14,503	( <sup>3</sup> ) 3,875	17,635	14,652	( <sup>2</sup> ) 3,874	512	3.45	2,472
Diphtheria ... ..	1,187	6,520	328	7,707	6,130	( <sup>2</sup> ) 331	739	11.04	835
Enteric ... ..	149	1,420	...	1,569	1,178	( <sup>1</sup> ) 1	218	15.48	172
Typhus ... ..	...	...	...	...	...	...	...	...	...
Other diseases ... ..	4,468	22,443	( <sup>2</sup> ) 4,203	26,911	21,960	( <sup>6</sup> ) 4,206	1,469	6.40	3,479
Other diseases ... ..	120	2,108	( <sup>1</sup> ) 1	2,228	1,915	( <sup>7</sup> ) 7	178	8.47	129
Grand Totals ... ..	4,588	24,551	( <sup>4</sup> ) 4,204	29,139	23,875	( <sup>13</sup> ) 4,213	1,647	...	3,608

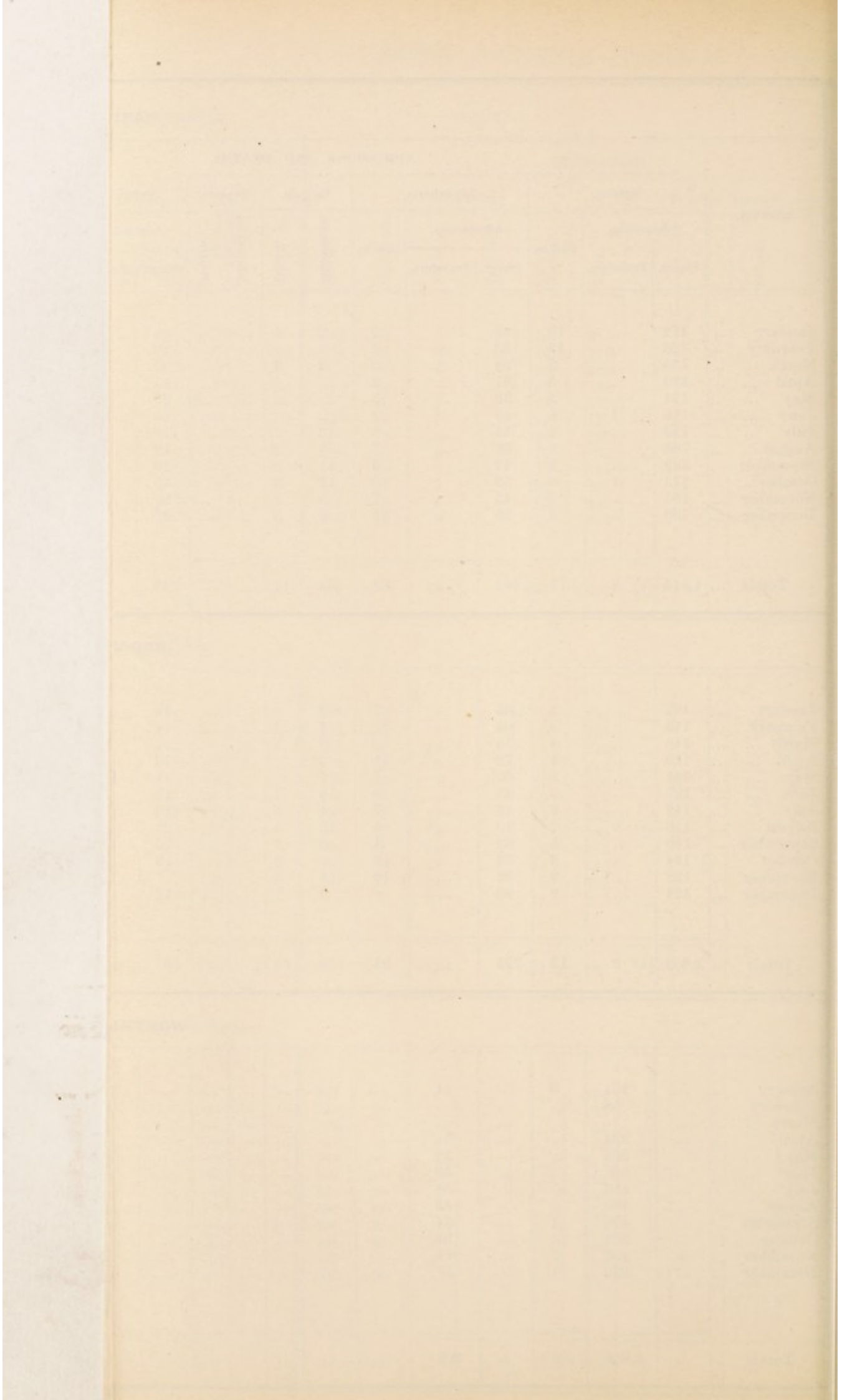
NOTES.—The mortalities returned as above include all deaths occurring from intercurrent diseases, particulars of which will be found in the annual reports of the medical superintendents.  
 The mortality rates are calculated according to the Registrar-General's Formula—i.e., by dividing the deaths, multiplied by 100, by half the sum of the admissions, discharges, and deaths for the year.  
 The small figures in brackets represent cases admitted from or transferred to the smallpox hospitals of the Board.  
 \* These figures differ slightly from those given in the committee's report for 1901, p. 71, owing to the subsequent correction of errors of diagnoses.

SECTION 1		SECTION 2		SECTION 3		SECTION 4		SECTION 5	
DATE	DESCRIPTION	DATE	DESCRIPTION	DATE	DESCRIPTION	DATE	DESCRIPTION	DATE	DESCRIPTION
1890	...	1890	...	1890	...	1890	...	1890	...
1891	...	1891	...	1891	...	1891	...	1891	...
1892	...	1892	...	1892	...	1892	...	1892	...
1893	...	1893	...	1893	...	1893	...	1893	...
1894	...	1894	...	1894	...	1894	...	1894	...
1895	...	1895	...	1895	...	1895	...	1895	...
1896	...	1896	...	1896	...	1896	...	1896	...
1897	...	1897	...	1897	...	1897	...	1897	...
1898	...	1898	...	1898	...	1898	...	1898	...
1899	...	1899	...	1899	...	1899	...	1899	...
1900	...	1900	...	1900	...	1900	...	1900	...



Date		Description		Amount		Balance	
Month	Day	To	By	Dr	Cr	Dr	Cr
Jan	1						
Jan	2						
Jan	3						
Jan	4						
Jan	5						
Jan	6						
Jan	7						
Jan	8						
Jan	9						
Jan	10						
Jan	11						
Jan	12						
Jan	13						
Jan	14						
Jan	15						
Jan	16						
Jan	17						
Jan	18						
Jan	19						
Jan	20						
Jan	21						
Jan	22						
Jan	23						
Jan	24						
Jan	25						
Jan	26						
Jan	27						
Jan	28						
Jan	29						
Jan	30						
Jan	31						
Feb	1						
Feb	2						
Feb	3						
Feb	4						
Feb	5						
Feb	6						
Feb	7						
Feb	8						
Feb	9						
Feb	10						
Feb	11						
Feb	12						
Feb	13						
Feb	14						
Feb	15						
Feb	16						
Feb	17						
Feb	18						
Feb	19						
Feb	20						
Feb	21						
Feb	22						
Feb	23						
Feb	24						
Feb	25						
Feb	26						
Feb	27						
Feb	28						
Feb	29						
Feb	30						
Feb	31						
Mar	1						
Mar	2						
Mar	3						
Mar	4						
Mar	5						
Mar	6						
Mar	7						
Mar	8						
Mar	9						
Mar	10						
Mar	11						
Mar	12						
Mar	13						
Mar	14						
Mar	15						
Mar	16						
Mar	17						
Mar	18						
Mar	19						
Mar	20						
Mar	21						
Mar	22						
Mar	23						
Mar	24						
Mar	25						
Mar	26						
Mar	27						
Mar	28						
Mar	29						
Mar	30						
Mar	31						













FEVER STATISTICS.—TABLE IV.—Scarlet Fever Admissions

AGES.	EASTERN HOSPITAL.						NORTH-EASTERN HOSPITAL.						NORTH-WESTERN HOSPITAL.						WESTERN HOSPITAL.								
	MALES.			FEMALES.			MALES.			FEMALES.			MALES.			FEMALES.			MALES.			FEMALES.					
	Admitted.	Died.	Total.	Admitted.	Died.	Total.	Admitted.	Died.	Total.	Admitted.	Died.	Total.	Admitted.	Died.	Total.	Admitted.	Died.	Total.	Admitted.	Died.	Total.	Admitted.	Died.	Total.			
Under 1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
1 to 2	5	1	6	3	...	3	18	10	2	20	17	1	18	8	2	10	51	9	60	37	4	41	25	3	28		
2 to 3	9	...	9	7	...	16	92	7	99	99	85	7	92	16	7	23	85	7	92	95	6	101	88	13	101		
3 to 4	9	2	11	15	1	16	114	7	121	121	145	15	160	24	3	27	116	11	127	125	8	133	261	26	287		
4 to 5	7	...	7	7	...	14	139	3	142	142	128	7	135	14	1	15	125	8	133	125	8	133	253	15	268		
5 to 10	20	...	20	48	...	68	485	8	493	493	383	9	392	68	15	83	383	9	392	502	8	510	885	17	902		
10 to 15	4	...	4	15	...	19	210	1	211	211	139	1	140	19	2	21	139	1	140	178	1	179	317	2	321		
15 to 20	...	...	...	12	...	12	90	1	91	91	47	...	47	12	2	14	69	1	70	69	1	70	116	1	117		
20 to 25	1	...	1	7	...	8	47	2	49	49	20	2	22	8	3	11	52	3	55	52	3	55	72	5	77		
25 to 30	1	...	1	5	...	6	8	1	9	9	17	...	17	2	2	19	17	...	17	22	2	24	39	2	41		
30 to 35	...	...	...	3	...	3	9	...	9	9	9	...	9	3	...	12	9	...	9	16	...	16	25	...	25		
35 to 40	...	...	...	...	...	...	5	4	9	9	4	...	4	...	...	7	7	...	7	...	...	11	...	...	...		
40 to 45	...	...	...	...	...	...	...	1	1	1	...	1	...	...	...	1	...	1	...	1	...	1	...	...	...		
45 to 50	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...		
50 to 55	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
55 to 60	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
And upwards	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Totals...	56	3	59	122	4	126	31	1145	29	1174	1047	51	1098	46	2,277	1047	51	1098	46	2,277	97	664	28	738	30	1,402	58
<b>FOUNTAIN HOSPITAL.</b>																											
Under 1	13	...	13	11	...	24	9	9	18	18	24	2	26	24	3	27	24	2	26	12	1	13	3	1	4		
1 to 2	31	3	34	26	1	27	24	2	26	26	81	7	88	38	2	40	38	2	40	38	2	40	62	4	66		
2 to 3	50	7	57	48	7	55	81	5	86	86	97	5	102	58	3	61	97	5	102	139	10	149	41	4	45		
3 to 4	50	3	53	49	6	55	97	7	104	104	97	5	102	24	1	25	97	5	102	196	12	208	50	6	56		
4 to 5	74	2	76	58	4	62	104	5	109	109	104	5	109	27	1	28	104	5	109	234	6	240	55	3	58		
5 to 10	235	6	241	218	7	225	480	10	490	490	480	10	490	104	6	110	480	10	490	9,001	19	9,020	192	6	198		
10 to 15	82	...	82	89	...	171	192	4	196	196	49	...	49	30	1	50	30	1	31	79	1	80	79	1	80		
15 to 20	38	1	39	22	...	41	85	3	88	88	10	...	10	9	...	19	9	...	19	19	...	19	17	...			
20 to 25	26	...	26	19	...	45	42	...	42	42	9	...	9	8	...	17	8	...	17	17	...	17	17	...			
25 to 30	8	...	8	4	...	12	20	...	20	20	3	...	3	2	...	5	3	...	5	5	...	5	4	...			
30 to 35	3	...	3	4	...	7	7	...	7	7	2	...	2	1	...	3	2	...	3	3	...	3	4	...			
35 to 40	3	...	3	1	...	4	3	...	3	3	1	...	1	...	2	2	1	...	2	2	...	2	2	...			
40 to 45	1	...	1	2	...	3	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
45 to 50	1	...	1	...	...	1	2	...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
50 to 55	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
55 to 60	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
And upwards	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Totals...	359	21	380	424	14	438	359	21	380	424	14	438	359	21	380	424	14	438	359	21	380	424	14	438	359		
<b>GROVE HOSPITAL.</b>																											
Under 1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
1 to 2	10	...	10	12	...	22	1	1	2	2	10	...	10	12	...	22	1	1	2	2	10	...	10	12	...		
2 to 3	17	...	17	24	...	41	17	...	17	17	24	...	24	24	...	41	17	...	17	24	...	24	...	24			
3 to 4	26	...	26	24	...	50	26	...	26	26	24	...	24	24	...	50	26	...	26	24	...	24	...	24			
4 to 5	28	...	28	27	...	55	28	...	28	28	27	...	27	27	...	55	28	...	28	27	...	27	...	27			
5 to 10	88	...	88	104	...	192	88	...	88	88	104	...	104	104	...	192	88	...	88	104	...	104	...	104			
10 to 15	49	...	49	30	...	79	49	...	49	49	30	...	30	30	...	79	49	...	49	30	...	30	...	30			
15 to 20	9	...	9	8	...	17	9	...	9	9	8	...	8	8	...	17	9	...	9	8	...	8	...	8			
20 to 25	3	...	3	5	...	8	3	...	3	3	5	...	5	5	...	8	3	...	3	5	...	5	...	5			
25 to 30	2	...	2	2	...	4	2	...	2	2	2	...	2	2	...	4	2	...	2	2	...	2	...	2			
30 to 35	1	...	1	1	...	2	1	...	1	1	1	...	1	1	...	2	1	...	1	1	...	1	...	1			
35 to 40	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
40 to 45	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
45 to 50	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
50 to 55	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
55 to 60	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
And upwards	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Totals...	359	21	380	424	14	438	359	21	380	424	14	438	359	21	380	424	14	438	359	21	380	424	14	438			
<b>SOUTH-EASTERN HOSPITAL.</b>																											
Under 1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
1 to 2	11	...	11	11	...	22	11	...	11	11	11	...	11	11	...	22	11	...	11	11	...	11	...	11			
2 to 3	26	...	26	26	...	52	26	...	26	26	26	...	26	26	...	52	26	...	26	26	...	26	...	26			
3 to 4	48	...	48	48	...	96	48	...	48	48	48	...	48	48	...	96	48	...	48	48	...	48	...	48			
4 to 5	49	...	49	49	...	98	49	...	49	49	49	...	49	49	...	98	49	...	49	49	...	49	...	49			
5 to 10	58	...	58	58	...	116	58	...	58	58	58	...	58	58	...	116	58	...	58	58	...	58	...	58			
10 to 15	218	...	218	218	...	436	218	...	218	218	218	...	218	218	...	436	218	...	218	218	...	218	...	218			
15 to 20	82	...	82	82	...	164	82	...	82	82	82	...	82	82													







FEVER STATISTICS.—TABLE VI.—Enteric Fever

AGES.	EASTERN HOSPITAL.						NORTH-EASTERN HOSPITAL.						NORTH-WESTERN HOSPITAL.						WESTERN HOSPITAL.							
	MALES.			FEMALES.			MALES.			FEMALES.			MALES.			FEMALES.			MALES.			FEMALES.				
	Admitted.	Died.	Of Direct Admissions.	Admitted.	Died.	Of Transferred Cases.	Admitted.	Died.	Of Direct Admissions.	Admitted.	Died.	Of Transferred Cases.	Admitted.	Died.	Of Direct Admissions.	Admitted.	Died.	Of Transferred Cases.	Admitted.	Died.	Of Direct Admissions.	Admitted.	Died.	Of Transferred Cases.		
Under 5	5	...	7	3	...	...	4	...	...	...	...	5	...	...	10	...	...	5	...	...	8	...	...	2	...	...
5 to 10	12	...	25	11	...	...	9	...	...	...	...	8	...	...	17	...	...	9	...	...	17	...	...	1	...	...
10 to 15	12	...	20	21	...	...	11	...	...	...	...	23	...	...	41	...	...	5	...	...	41	...	...	5	...	...
15 to 20	18	...	29	21	...	...	10	...	...	...	...	10	...	...	33	...	...	6	...	...	33	...	...	8	...	...
20 to 25	14	...	25	18	...	...	11	...	...	...	...	3	...	...	29	...	...	5	...	...	29	...	...	7	...	...
25 to 30	9	...	20	9	...	...	15	...	...	...	...	5	...	...	24	...	...	4	...	...	24	...	...	7	...	...
30 to 35	3	...	8	5	...	...	7	...	...	...	...	2	...	...	14	...	...	2	...	...	14	...	...	1	...	...
35 to 40	4	...	5	2	...	...	2	...	...	...	...	8	...	...	13	...	...	2	...	...	13	...	...	3	...	...
40 to 45	1	...	3	2	...	...	2	...	...	...	...	3	...	...	4	...	...	1	...	...	4	...	...	2	...	...
45 to 50	...	...	1	...	...	...	...	...	...	...	...	2	...	...	3	...	...	1	...	...	3	...	...	1	...	...
50 to 55	...	...	2	...	...	...	...	...	...	...	...	...	...	...	5	...	...	2	...	...	5	...	...	2	...	...
55 to 60	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...
And upwards	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals...	81	11	146	92	16	7	73	14	165	30	...	106	23	87	20	193	43	...	...	...	81	9	48	5	129	14
	<b>SOUTH-WESTERN HOSPITAL.</b>						<b>FOUNTAIN HOSPITAL.</b>						<b>GROVE HOSPITAL.</b>						<b>SOUTH-EASTERN HOSPITAL.</b>							
Under 5	1	...	3	...	...	...	1	...	...	...	...	2	...	...	5	...	...	1	...	...	5	...	...	2	...	...
5 to 10	5	...	10	1	...	...	1	...	...	...	...	10	...	...	19	...	...	3	...	...	19	...	...	1	...	...
10 to 15	7	...	12	...	...	...	1	...	...	...	...	20	...	...	37	...	...	2	...	...	37	...	...	...	...	...
15 to 20	10	...	11	...	...	...	...	...	...	...	...	18	...	...	35	...	...	7	...	...	35	...	...	...	...	...
20 to 25	11	...	13	...	...	...	...	...	...	...	...	18	...	...	34	...	...	12	...	...	34	...	...	...	...	...
25 to 30	3	...	12	1	...	...	...	...	...	...	...	16	...	...	20	...	...	7	...	...	20	...	...	...	...	...
30 to 35	4	...	11	...	...	...	...	...	...	...	...	9	...	...	23	...	...	6	...	...	23	...	...	...	...	...
35 to 40	2	...	5	...	...	...	...	...	...	...	...	3	...	...	7	...	...	4	...	...	7	...	...	...	...	...
40 to 45	3	...	3	...	...	...	...	...	...	...	...	5	...	...	9	...	...	5	...	...	9	...	...	...	...	...
45 to 50	...	...	1	...	...	...	...	...	...	...	...	2	...	...	5	...	...	1	...	...	5	...	...	...	...	...
50 to 55	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...
55 to 60	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
And upwards	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals...	46	3	82	2	36	2	36	2	82	5	...	104	26	92	23	196	49	...	...	...	153	21	114	8	267	29



FEVER STATISTICS.—TABLE VIII.—*Details of*

Disease as certified on admission.	Number of Cases.	Disease as diagnosed after admission.	EASTERN HOSPITAL.		NORTH-EASTERN HOSPITAL.		NORTH-WESTERN HOSPITAL.		WESTERN HOSPITAL.	
			No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
Scarlet Fever ...	605	<b>GENERAL DISEASES.</b>								
		Arthritis, suppurative	...	...	...	...	...	...	...	...
		Febricula ... ..	2	...	...	...	...	...	...	...
		Influenza ... ..	...	...	...	...	...	...	...	...
		Morbilli ... ..	...	...	23	2	13	2	14	1
		Pertussis ... ..	...	...	1	...	...	...	1	...
		Purpura ... ..	...	...	1	...	...	...	...	...
		Pyrexia ... ..	...	...	...	...	...	...	...	...
		Rheumatism	...	...	...	...	...	...	...	...
		"    acute ...	1	...	...	...	...	...	...	...
		Ricketts ... ..	...	...	...	...	...	...	1	...
		Rubella ... ..	2	...	...	...	3	...	7	...
		Scabies ... ..	...	...	...	...	...	...	...	...
		Syphilis ... ..	...	...	...	...	...	...	1	...
		Tuberculosis, pulmo- nary, acute ... ..	...	...	...	...	...	...	...	...
		Vaccinia ... ..	...	...	...	...	...	...	...	...
		Varicella ... ..	...	...	5	...	1	...	5	...
		Variola ... ..	...	...	1	...	1	...	1	1
		<b>LOCAL DISEASES.</b>								
		<i>Digestive System.</i>								
		Dentition ... ..	1	...	...	...	...	...	...	...
		Diarrhœa ... ..	...	...	1	1	...	...	...	...
		Pharyngitis ... ..	...	...	...	...	...	...	...	...
		Stomatitis ... ..	...	...	...	...	...	...	...	...
		Tabes Mesenterica ...	...	...	...	...	...	...	1	1
		Tonsillitis ... ..	5	...	20	...	2	...	8	...
		<i>Ear, Diseases of.</i>								
		Otitis media ... ..	...	...	...	...	...	...	...	...
		<i>Respiratory System.</i>								
		Bronchitis ... ..	1	...	1	...	...	...	2	...
		Broncho-pneumonia ...	...	...	1	...	1	...	...	...
		Empyema ... ..	...	...	...	...	1	1	...	...
		Laryngitis ... ..	...	...	...	...	...	...	...	...
		Pleuritis ... ..	...	...	1	...	...	...	...	...
		Pneumonia... ..	3	...	3	3	1	...	2	...
		<i>Nervous System.</i>								
		Cerebral abscess ...	...	...	...	...	...	...	...	...
		Epilepsy ... ..	...	...	...	...	...	...	...	...
		Meningitis ... ..	...	...	...	...	...	...	...	...
		"    tubercular ...	...	...	1	1	...	...	...	...
		Syringomyelia ... ..	...	...	...	...	...	...	...	...
		<i>Urinary System.</i>								
		Albuminuria ... ..	...	...	...	...	...	...	...	...
Nephritis ... ..	...	...	2	2	...	...	...	...		
<i>Nose, Disease of.</i>										
Rhinitis ... ..	...	...	...	...	...	...	...	...		
<i>Skin Diseases.</i>										
Dermatitis ... ..	...	...	...	...	...	...	1	1		
Drug rash ... ..	...	...	3	...	...	...	...	...		
Eczema ... ..	1	...	...	...	...	...	...	...		
Enema rash ... ..	...	...	...	...	...	...	...	...		
Erythema ... ..	4	...	43	...	10	...	1	...		
Impetigo ... ..	...	...	...	...	...	...	...	...		
Ichthyosis ... ..	...	...	...	...	...	...	...	...		
Urticaria ... ..	...	...	2	...	...	...	1	...		
Carried forward	605	...	20	...	109	9	33	3	46	



Miscellaneous Diseases admitted during 1902.

SOUTH-WESTERN HOSPITAL.		FOUNTAIN HOSPITAL.		GROVE HOSPITAL.		SOUTH-EASTERN HOSPITAL.		PARK HOSPITAL.		BROOK HOSPITAL.		SUMMARY.	
No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
...	...	...	...	...	...	1	...	...	...	...	...	1	...
...	...	...	...	1	...	...	...	...	...	...	...	3	...
...	...	1	...	...	...	1	...	2	...	...	...	4	...
11	1	7	1	...	...	4	1	15	3	4	2	91	13
...	...	...	...	...	...	1	...	4	...	1	...	8	...
...	...	...	...	...	...	...	...	1	...	...	...	2	...
...	...	...	...	...	...	...	...	3	...	...	...	3	...
...	...	...	...	...	...	...	...	...	...	1	...	1	...
...	...	...	...	...	...	...	...	...	...	...	...	1	...
5	...	16	...	1	...	5	...	6	...	3	...	48	...
1	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	...	1	...	...	...	2	...
1	1	...	...	...	...	...	...	...	...	...	...	1	1
...	...	...	...	...	...	2	...	2	...	...	...	4	...
...	...	1	...	1	...	2	...	2	...	...	...	17	...
2	1	...	...	...	...	1	1	1	...	2	...	9	3
...	...	...	...	...	...	...	...	...	...	...	...	1	...
3	...	...	...	1	...	...	...	2	...	...	...	3	1
1	...	...	...	...	...	...	...	...	...	...	...	4	...
...	...	...	...	...	...	...	...	...	...	...	...	1	...
15	...	37	...	5	...	24	...	22	...	16	...	154	1
...	...	...	...	...	...	1	...	...	...	...	...	1	...
2	...	1	...	...	...	...	...	6	...	1	...	12	...
...	...	2	...	...	...	1	...	3	...	...	...	10	...
...	...	...	...	...	...	...	...	1	1	...	...	2	2
...	...	...	...	...	...	...	...	1	...	...	...	1	...
...	...	1	...	...	...	2	...	3	1	2	1	17	5
...	...	...	...	...	...	1	1	...	...	...	...	1	1
...	...	1	...	...	...	...	...	...	...	...	...	1	...
...	...	1	1	...	...	...	...	...	...	...	...	1	1
1	...	...	...	...	...	...	...	1	1	...	...	2	2
...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	1	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	1	...	2	1	...	...	5	3
...	...	...	...	...	...	...	...	1	...	...	...	1	...
1	...	...	...	...	...	...	...	1	...	1	...	3	1
...	...	...	...	1	...	1	...	4	...	...	...	10	...
...	...	2	...	...	...	...	...	...	...	2	...	3	...
11	...	15	...	...	...	12	...	57	...	6	...	2	...
...	...	...	...	1	...	...	...	...	...	1	...	159	...
...	...	...	...	...	...	...	...	1	...	...	...	2	...
...	...	1	...	...	...	...	...	1	...	2	...	7	...
54	3	86	2	12	...	60	3	143	7	42	3	605	34

FEVER STATISTICS.—TABLE VIII. (continued)—Details

Disease as certified on admission.	Number of Cases.	Disease as diagnosed after admission.	EASTERN HOSPITAL.		NORTH-EASTERN HOSPITAL.		NORTH-WESTERN HOSPITAL.		WESTERN HOSPITAL.			
			No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.		
Brought forward	605	... ..	20	...	109	9	33	3	46	4		
Scarlet Fever (continued)	84	<i>Circulatory System.</i> Endocarditis, malignant	...	...	...	...	...	...	...	...		
		<i>Locomotive System.</i> Osteomyelitis ... ..	...	...	...	...	...	...	...	...		
		<i>Lymphatic System.</i> Adenitis ... ..	...	...	...	...	...	...	1	...		
		<i>Poisons.</i> Ptomaine poisoning...	...	...	...	...	...	...	...	...		
		<i>Local Injuries.</i> Burns ... ..	...	...	1	1	...	...	...	...		
		Scalds ... ..	2	...	...	...	...	...	...	...		
		<i>Not Classified.</i> Abscess ... ..	...	...	...	...	...	...	...	...		
		Parturition... ..	...	...	...	...	...	...	...	...		
		No obvious disease ...	7	...	13	...	10	...	5	...		
		} 19 {	Admitted with mother	...	...	9	1	6	1	...	...	
			Born in hospital ...	...	...	...	...	...	...	...	...	
			708		29	...	132	11	49	4	52	4
		Diphtheria ..	163	<b>GENERAL DISEASES.</b>								
Erysipelas ... ..	...			...	...	...	...	...	...	...		
Influenza ... ..	1			...	...	...	...	...	...	...		
Morbilli ... ..	7			2	2	1	6	5	11	2		
Parotitis, specific ...	...			...	...	...	1	...	...	...		
Pertussis ... ..	2			...	...	...	...	...	...	...		
Pyæmia ... ..	...			...	...	...	...	...	...	...		
Ricketts ... ..	...			...	...	...	...	...	...	...		
Rubella ... ..	...			...	...	...	...	...	...	...		
Septicæmia ... ..	...			...	...	...	...	...	...	...		
Syphilis ... ..	1			...	...	...	1	...	...	...		
Vaccinia ... ..	...			...	...	...	...	...	...	...		
<i>Eye, Diseases of.</i>												
Conjunctivitis ... ..	...			...	...	...	1	...	...	...		
Panophthalmitis ...	...			...	...	...	...	...	...	...		
<b>LOCAL DISEASES.</b>												
<i>Respiratory System.</i>												
Bronchitis ... ..	...			...	1	...	...	...	...	...		
Broncho-pneumonia ..	...			...	1	1	2	1	...	...		
Coryza ... ..	8			...	...	...	...	...	...	...		
Empyema ... ..	...			...	...	...	...	...	...	...		
Laryngitis ... ..	25			...	3	1	...	...	1	...		
Larynx, papilloma of ...	...			...	...	...	...	...	1	...		
„ syphilis of ...	...	...	...	...	...	...	4	...				
Phthisis ... ..	...	...	...	...	...	...	1	1				
Pneumonia ... ..	4	3	...	...	...	...	5	4				
<i>Digestive System.</i>												
Sarcoma of tonsil ...	...	...	...	...	...	...	...	...				
	163	Carried forward ...	48	5	7	3	11	6	23	7		
Carried forward	871	... ..	77	5	139	14	60	10	75	11		

of Miscellaneous Diseases admitted during 1902.

SOUTH-WESTERN HOSPITAL.		FOUNTAIN HOSPITAL.		GROVE HOSPITAL.		SOUTH-EASTERN HOSPITAL.		PARK HOSPITAL.		BROOK HOSPITAL.		SUMMARY.	
No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
54	3	86	2	12	...	60	3	143	7	42	3	605	34
...	...	...	...	1	1	...	..	...	...	...	...	1	1
...	...	...	...	...	...	1	...	...	...	...	...	1	...
...	...	...	...	1	...	...	...	...	...	...	...	2	...
...	...	...	...	...	...	...	...	1	...	...	...	1	...
...	...	...	...	1	...	...	...	2	...	...	...	4	1
...	...	...	...	...	...	...	...	...	...	...	...	2	...
...	...	...	...	...	...	...	...	2	...	..	...	2	...
...	...	...	...	...	...	...	...	1	...	...	...	1	...
3	...	1	...	7	...	2	...	22	...	...	...	70	...
...	...	2	...	...	...	...	...	...	...	1	...	18	2
...	...	1	...	...	...	...	...	...	...	...	...	1	...
57	3	90	2	22	1	63	3	171	7	43	3	708	38
...	...	...	...	...	...	...	...	1	...	...	...	1	...
1	...	...	...	...	...	...	...	1	...	...	...	3	...
2	...	...	...	5	3	3	1	6	1	2	1	44	16
...	...	...	...	1	...	...	...	...	...	...	...	2	...
...	...	...	...	1	...	1	...	1	...	...	...	5	...
...	...	...	...	...	...	...	...	...	...	1	1	1	1
...	...	...	...	...	...	1	...	1	...	...	...	1	...
1	1	...	...	1	1	...	...	...	...	...	...	1	...
1	...	...	...	5	...	1	...	...	...	...	...	2	2
...	...	...	...	..	...	1	...	...	...	2	...	11	...
...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	1	1	...	...	...	...	...	...	1	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	1	...	1	...	...	...	...	...	3	...
4	3	...	...	3	1	4	2	1	...	2	2	17	10
...	...	...	...	...	...	...	...	...	...	...	...	8	...
...	...	...	...	...	...	...	...	1	1	...	...	1	1
7	...	...	...	...	...	3	...	...	...	...	...	39	1
...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	...	...	...	...	...	4	...
...	...	...	...	...	...	...	...	...	...	...	...	1	1
...	...	...	...	2	...	...	...	...	...	3	...	14	7
1	...	...	...	...	...	...	..	...	...	...	...	1	...
17	4	...	...	20	6	15	3	12	2	10	4	163	40
74	7	90	2	42	7	78	6	183	9	53	7	871	78

FEVER STATISTICS—TABLE VIII. (continued)—Details

Disease as certified on admission.	Number of Cases.	Disease as diagnosed after admission.	EASTERN HOSPITAL		NORTH-EASTERN HOSPITAL.		NORTH-WESTERN HOSPITAL.		WESTERN HOSPITAL.	
			No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
Brought forward	871	...	77	5	139	14	60	10	75	11
Brought forward —Diphtheria	163	...	48	5	7	3	11	6	23	7
Diphtheria (continued)		<i>Digestive System</i> (contd.)	...	...	...	...	...	...	...	...
	851	Dental caries ...	...	...	...	...	...	...	...	...
		Inflammation of fauces ...	...	...	...	...	...	...	...	...
		Palate, necrosis of ...	...	...	...	...	...	...	...	...
		Pharyngitis ...	1	...	...	...	...	...	...	...
		Retro-pharyngeal abscess ...	1	...	...	...	1	...	1	...
		Stomatitis ...	...	...	2	...	1	...	8	...
		Tabes mesenterica ...	...	...	...	...	...	...	1	...
		Thrush ...	...	...	...	...	...	...	...	...
		Tonsillitis ...	79	...	101	...	98	...	86	...
		Ulceration of intestine, tuberculous...	1	1	...	...	...	...	...	...
		Ulceration of tongue	2	...	...	...	...	...	...	...
		<i>Circulatory System.</i>	...	...	...	...	...	...	...	...
		Endocarditis, malignant	...	...	...	...	...	...	...	...
		<i>Ear, Diseases of.</i>	...	...	...	...	...	...	...	...
		Otitis, Media	...	...	...	...	...	...	...	...
	<i>Nervous System.</i>	...	...	...	...	...	...	...	...	
	Cerebral abscess ...	...	...	...	...	...	...	...	...	
	Hemiplegia ...	1	...	...	...	...	...	...	...	
	Laryngismus ...	...	...	...	...	...	...	...	...	
	Meningitis ...	2	1	...	...	2	2	...	...	
	<i>Skin Diseases.</i>	...	...	...	...	...	...	...	...	
	Eczema ...	1	...	...	...	...	...	...	...	
	Erythema ...	...	...	...	...	1	...	...	...	
	Herpes ...	...	...	...	...	3	...	...	...	
	<i>Generative System.</i>	...	...	...	...	...	...	...	...	
	Vulvitis ...	...	...	...	...	...	...	...	...	
	<i>Nose, Diseases of.</i>	...	...	...	...	...	...	...	...	
	Coryza ...	...	...	...	...	...	...	...	...	
	Rhinitis ...	...	...	...	...	...	...	...	...	
	<i>Urinary System.</i>	...	...	...	...	...	...	...	...	
	Albuminuria ...	1	...	...	...	...	...	...	...	
	Nephritis ...	1	...	...	...	...	...	...	...	
	<i>Not Classified.</i>	...	...	...	...	...	...	...	...	
	Abscess ...	...	...	...	...	...	...	...	...	
	Cellulitis Cervical ...	...	...	...	...	...	...	...	...	
	Marasmus ...	...	...	2	2	...	...	...	...	
	No obvious disease ...	4	...	3	...	2	...	6	...	
	2 Admitted with mother	...	...	...	...	...	...	...	...	
	1,016	...	142	7	115	5	119	8	125	7
Carried forward	1,724	...	171	7	247	16	168	12	177	11

of Miscellaneous Diseases admitted during 1902.

SOUTH-WESTERN HOSPITAL.		FOUNTAIN HOSPITAL.		GROVE HOSPITAL.		SOUTH-EASTERN HOSPITAL.		PARK HOSPITAL.		BROOK HOSPITAL.		SUMMARY.	
No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
74	7	90	2	42	7	78	6	183	9	53	7	871	78
17	4	...	...	20	6	15	3	12	2	10	4	163	40
...	...	...	...	...	...	...	...	1	...	...	...	1	...
...	...	...	...	...	...	...	...	1	...	...	...	1	...
6	...	...	...	...	...	...	...	3	...	...	...	10	...
...	...	...	...	4	...	...	...	1	1	...	...	8	1
2	...	...	...	3	...	1	...	...	...	4	...	21	...
...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	1	...	...	...	...	...	...	...	1	...
22	...	...	...	128	...	117	3	59	...	60	...	750	3
...	...	...	...	...	...	...	...	...	...	...	...	1	1
...	...	...	...	...	...	...	...	...	...	...	...	2	...
...	...	...	...	...	...	...	...	...	...	1	1	1	1
...	...	...	...	...	...	1	...	...	...	...	...	1	...
...	...	...	...	1	1	...	...	...	...	...	...	1	1
...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	1	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	...	...	...	...	...	4	3
...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	...	...	...	...	...	3	...
...	...	...	...	...	...	1	...	...	...	...	...	1	...
...	...	...	...	...	...	...	...	1	...	...	...	1	...
...	...	...	...	...	...	1	...	1	...	1	...	3	...
...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	1	...	1	...	...	...	3	...
...	...	...	...	...	...	...	...	...	...	...	...	1	...
1	...	...	...	...	...	...	...	...	...	2	...	2	...
...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	5	...	...	...	6	...	...	...	2	2
...	...	...	...	...	...	...	...	...	...	...	...	26	...
...	...	...	...	2	...	...	...	...	...	...	...	2	..
48	4	...	...	165	7	137	6	87	3	78	5	1,016	52
105	7	90	2	187	8	200	9	258	10	121	8	1,724	90

FEVER STATISTICS.—TABLE VIII. (continued) Details

Disease as certified on admission.	Number of Cases.	Disease as diagnosed after admission.	EASTERN HOSPITAL.		NORTH-EASTERN HOSPITAL.		NORTH-WESTERN HOSPITAL.		WESTERN HOSPITAL.		
			No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	
Brought forward	1,724	...	171	7	247	16	168	12	177	11	
Enteric Fever ...	287	<b>GENERAL DISEASES.</b>									
		Alcoholism ...	...	...	...	...	...	...	...	1	...
		Cerebro spinal fever...	...	...	...	...	...	...	...	...	...
		Dysentery ...	1	1	1	...	1	...	...	...	...
		Febricula ...	8	...	...	...	...	...	...	...	...
		Influenza ...	4	1	5	...	1	...	...	4	...
		Pertussis ...	...	...	...	...	...	...	...	...	...
		Puerperal fever ...	...	...	1	...	1	1	...	...	...
		Purpura hæmorrhagica ...	...	...	...	...	...	...	...	...	...
		Pyæmia ...	2	2	1	1	...	...	...	...	...
		Rheumatism ...	...	...	...	...	...	...	...	...	...
		Septicæmia ...	...	...	...	...	...	...	...	...	...
		Toxæmia ...	...	...	...	...	...	...	...	...	...
		Tuberculosis ...	2	2	2	2	...	...	...	2	2
		" acute miliary ...	...	...	...	...	...	...	...	...	...
		Vaccinia ...	...	...	...	...	...	...	...	...	...
		Variola ...	1	...	...	...	...	...	...	...	...
			<b>LOCAL DISEASES.</b>								
			<i>Respiratory System.</i>								
			Bronchitis ...	1	...	5	...	1	...	1	...
			Broncho-pneumonia...	...	...	...	...	...	...	...	...
			Empyema ...	...	...	1	...	...	...	...	...
			Laryngitis ...	...	...	...	...	...	...	...	...
			Phthisis ...	1	...	1	1	...	...	1	...
			Pleuritic effusion ...	1	1	...	...	...	...	...	...
			Pleuritis ...	...	...	2	...	...	...	...	...
			Pneumonia ...	11	...	8	1	1	1	11	...
			Pulmonary oedema ...	...	...	...	...	...	...	...	...
		<i>Circulatory System.</i>									
		Anæmia ...	...	...	...	...	...	...	...	...	
		Aneurism, abdominal ...	...	...	...	...	...	...	...	...	
		Endocarditis ...	...	...	...	...	...	...	...	...	
		" malignant ...	3	3	...	...	...	...	...	...	
		Pericarditis ...	1	...	...	...	...	...	1	...	
		Thrombosis of lateral sinus ...	...	...	...	...	...	...	...	...	
		<i>Digestive System.</i>									
		Appendicitis ...	...	...	...	...	...	...	...	1	
		Cirrhosis of liver ...	1	...	1	1	...	...	...	...	
		Colic ...	1	...	...	...	...	...	...	...	
		Colitis ...	...	...	...	...	...	...	...	...	
		Constipation ...	1	...	...	...	...	...	...	...	
		Diarrhœa ...	...	...	...	...	3	...	...	...	
		Enteritis ...	...	...	2	...	1	...	...	...	
		" gastro ...	...	...	...	...	...	...	...	3	
		Gastritis ...	...	...	...	...	1	...	...	...	
		Hepatic abscess ...	...	...	...	...	...	...	...	...	
		Ischio rectal abscess...	...	...	...	...	1	1	...	...	
		Jaundice ...	...	...	1	1	...	...	...	...	
		Peritoneal abscess ...	...	...	...	...	...	...	...	...	
	287	Carried forward ...	39	10	31	7	11	3	26		
Carried forward	2,011	...	210	17	278	23	179	15	203		

of Miscellaneous Diseases admitted during 1902.

SOUTH-WESTERN HOSPITAL.		FOUNTAIN HOSPITAL.		GROVE HOSPITAL.		SOUTH-EASTERN HOSPITAL.		PARK HOSPITAL.		BROOK HOSPITAL.		SUMMARY.	
No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
105	7	90	2	187	8	200	9	258	10	121	8	1,724	90
...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	...	1	...	...	...	1	...
1	...	...	...	1	...	2	...	...	...	...	...	2	1
1	...	...	...	3	...	2	...	1	...	1	...	13	...
...	...	...	...	1	...	...	...	...	...	...	...	22	1
...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	...	...	...	...	...	2	1
3	2	...	...	1	1	2	*2	...	...	1	1	1	1
...	...	...	...	...	...	2	...	...	...	...	...	9	8
...	...	...	...	...	...	...	...	1	1	...	...	1	1
1	1	...	...	1	1	...	...	...	...	...	...	1	1
...	...	...	...	4	3	...	...	...	...	...	...	9	8
...	...	...	...	...	...	...	...	...	...	...	...	2	2
...	...	...	...	...	...	...	...	...	...	1	...	1	...
...	...	...	...	...	...	...	...	...	...	1	...	2	...
3	...	...	...	2	...	4	1	...	...	1	...	18	2
...	...	...	...	1	...	1	...	1	...	1	...	4	...
...	...	...	...	1	1	2	...	...	...	...	...	4	1
...	...	...	...	...	...	1	...	1	...	...	...	1	...
...	...	...	...	...	...	1	...	...	...	1	1	5	2
3	...	...	...	2	...	2	...	...	...	...	...	1	1
11	2	...	...	15	4	8	1	2	1	2	...	12	...
...	...	...	...	1	1	...	...	...	...	21	4	88	18
...	...	...	...	...	...	...	...	...	...	...	...	1	1
...	...	...	...	...	...	1	...	...	...	...	...	1	...
...	...	...	...	...	...	1	1	...	...	...	...	1	1
...	...	...	...	...	...	1	...	1	...	...	...	2	...
...	...	...	...	...	...	2	1	1	1	...	...	6	5
...	...	...	...	...	...	...	...	...	...	...	...	2	1
1	...	...	...	...	...	...	...	...	...	...	...	1	...
1	...	...	...	1	1	1	1	...	...	5	2	9	4
...	...	...	...	...	...	1	1	...	...	...	...	3	2
1	...	...	...	...	...	...	...	...	...	...	...	2	...
...	...	...	...	1	...	1	1	...	...	...	*1	2	2
1	...	...	...	...	...	...	...	...	...	2	...	4	...
4	1	...	...	...	...	...	...	1	...	1	...	9	1
1	...	...	...	5	...	9	...	...	...	2	...	20	...
...	...	...	...	...	...	9	...	1	...	...	...	1	...
2	...	...	...	...	...	...	...	...	...	1	...	16	...
1	1	...	...	...	...	...	...	...	...	...	...	1	1
...	...	...	...	...	...	...	...	...	...	...	...	1	1
...	...	...	...	...	...	...	...	...	...	...	...	1	1
1	...	...	...	...	...	...	...	...	...	...	...	1	...
36	7	...	...	40	12	52	9	11	3	41	9	287	68
141	14	90	2	227	20	252	18	269	13	162	17	2,011	158

\* One admitted during 1901.

FEVER STATISTICS.—TABLE VIII (continued)—Details of

Disease as certified on admission.	Number of Cases.	Disease as diagnosed after admission.	EASTERN HOSPITAL.		NORTH-EASTERN HOSPITAL.		NORTH-WESTERN HOSPITAL.		WESTERN HOSPITAL.	
			No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
Brought forward	2,011	... ..	210	17	278	23	179	15	203	19
Brought forward —Enteric Fever	287	... ..	39	10	31	7	11	3	26	8
Enteric Fever (continued)		<i>Digestive System (contd.)</i>	Peritonitis ... ..	...	...	...	...	...	...	...
		„ perforating gastric ulcer	...	...	...	...	...	...	...	...
		„ pelvic	...	...	...	...	...	...	...	...
		„ tuberculous	...	...	1	...	...	...	...	...
		Tabes mesenterica	...	...	...	...	...	...	...	...
		Tonsillitis ... ..	1	...	...	...	...	...	...	...
		<i>Ear, Diseases of.</i>								
		Otitis media ... ..	...	...	...	...	...	...	...	...
		<i>Nervous System.</i>								
		Cerebral abscess ... ..	...	...	...	...	...	...	1	1
		„ hæmorrhage	...	...	...	...	...	...	...	...
		Hysteria ... ..	...	...	...	...	...	...	...	...
		Mania ... ..	...	...	...	...	...	...	1	...
		Meningitis ... ..	1	1	1	...	...	...	3	...
		„ tuberculous	...	...	1	1	...	...	...	...
		<i>Urinary System.</i>								
		Albuminuria ... ..	1	...	...	...	...	...	...	...
		Cystitis ... ..	...	...	...	...	...	...	1	...
		Nephritis ... ..	2	2	1	...	...	...	...	...
		Uræmia ... ..	...	...	...	...	...	...	...	...
		Urethritis ... ..	...	...	...	...	...	...	...	...
	81	<i>Nose, Disease of.</i>								
		Abscess of Nasal Septum ... ..	...	...	...	...	...	...	...	...
		<i>Generative System.</i>								
		Ovarian tumour ... ..	...	...	...	...	...	...	...	...
		Parametritis ... ..	...	...	...	...	...	...	1	...
		Pelvic abscess ... ..	...	...	...	...	...	...	...	...
		Pyosalpinx ... ..	...	...	...	...	...	...	...	...
		Uterine fibroid ... ..	...	...	...	...	...	...	...	...
		<i>Locomotive System.</i>								
		Acute necrosis ... ..	...	...	2	2	...	...	...	...
		Morbus coxae ... ..	1	...	...	...	...	...	...	...
		Osteomyelitis, acute infective ... ..	...	...	...	...	...	...	...	1
		Osteo-arthritis	...	...	...	...	...	...	...	...
		<i>Not Classified.</i>								
		Abdominal tumour ...	1	...	...	...	...	...	...	...
		Abscess ... ..	...	...	1	...	...	...	...	1
		Pelvic tumour ... ..	...	...	2	...	...	...	...	...
		Puerperium ... ..	...	...	...	...	...	...	...	...
		No obvious disease ...	4	...	1	...	1	...	...	...
		Admitted with mother	3	...	...	...	...	...	...	...
		Born in hospital ...	...	...	...	...	...	...	...	...
		Undiagnosed ... ..	...	...	...	...	6	...	...	...
	13									
	381		53	13	41	10	18	3	35	
Carried forward	2,105	... ..	224	20	288	26	186	15	212	



Miscellaneous Diseases admitted during 1902.

SOUTH-WESTERN HOSPITAL.		FOUNTAIN HOSPITAL.		GROVE HOSPITAL.		SOUTH-EASTERN HOSPITAL.		PARK HOSPITAL.		BROOK HOSPITAL.		SUMMARY.	
No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
141	14	90	2	227	20	252	18	269	13	162	17	2,011	158
36	7	...	...	40	12	52	9	11	3	41	9	287	68
...	...	...	...	2	...	1	1	...	...	...	...	3	1
...	...	...	...	...	...	...	...	...	...	1	1	1	1
2	...	...	...	...	...	...	...	...	...	...	...	2	...
1	...	...	...	...	...	1	...	...	...	...	...	2	...
...	...	...	...	...	...	1	...	...	...	...	...	1	...
...	...	...	...	...	...	1	...	...	...	1	...	3	...
...	...	...	...	2	...	...	...	1	...	...	...	3	...
...	...	...	...	1	1	...	...	...	...	...	...	2	2
...	...	...	...	2	1	1	1	...	...	...	...	3	2
...	...	...	...	...	...	1	...	...	...	...	...	1	...
...	...	...	...	...	...	...	...	...	...	1	...	2	...
1	1	...	...	...	...	...	...	1	...	2	1	9	5
...	...	...	...	...	...	...	...	...	...	...	...	1	1
...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	1	1	1	...	1	...	1	...	7	3
...	...	...	...	...	...	1	1	...	...	...	...	1	1
...	...	...	...	...	...	...	...	1	...	...	...	1	...
...	...	...	...	...	...	1	...	...	...	...	...	1	...
...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	...	...	...	...	...	2	2
...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	1	...	...	...	...	...	1	1
...	...	...	...	1	...	...	...	1	...	...	...	2	...
...	...	...	...	...	...	...	...	...	...	...	...	1	...
...	...	...	...	...	...	...	...	...	...	...	...	2	...
...	...	...	...	...	...	...	...	...	...	...	...	2	...
1	...	...	...	7	...	2	...	1	...	...	...	1	...
...	...	...	...	...	...	...	...	3	...	...	...	19	...
2	...	...	...	...	...	...	...	1	...	...	...	6	...
...	...	...	...	...	...	...	...	1	...	...	...	1	...
...	...	...	...	...	...	...	...	...	...	...	...	6	...
43	8	...	...	58	15	64	12	22	3	47	11	381	87
148	15	90	2	245	23	264	21	280	13	168	19	2,105	177

FEVER STATISTICS.—TABLE VIII. (continued)—Details

Disease as certified on admission.	Number of Cases.	Disease as diagnosed after admission.	EASTERN HOSPITAL.		NORTH-EASTERN HOSPITAL.		NORTH-WESTERN HOSPITAL.		WESTERN HOSPITAL.	
			No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
Brought forward	2,105	... ..	224	20	288	26	186	15	212	23
Typhus Fever ...	2	GENERAL DISEASES.								
		Variola ... ..	1	1	...	...	...	...	...	...
		<i>Digestive System.</i> Gastritis ... ..	...	...	...	...	...	...	...	...
	2	<i>Not Classified.</i> Admitted with mother	...	...	...	...	...	...	...	...
	4		1	1	...	...	...	...	...	...
GRAND TOTALS	2,109	... ..	225	21	288	26	186	15	212	

of *Miscellaneous Diseases* admitted during 1902.

SOUTH-WESTERN HOSPITAL.		FOUNTAIN HOSPITAL.		GROVE HOSPITAL.		SOUTH-EASTERN HOSPITAL.		PARK HOSPITAL.		BROOK HOSPITAL.		SUMMARY.	
No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.	No. of Cases.	No. of Deaths.
148	15	90	2	245	23	264	21	280	13	168	19	2,105	177
...	...	...	...	...	...	...	...	...	...	..	...	1	1
...	...	...	...	...	...	1	...	...	...	...	...	1	...
...	...	...	...	...	...	2	...	...	...	...	...	2	...
...	...	...	...	...	...	3	...	...	...	...	...	4	1
148	15	90	2	245	23	267	21	280	13	168	19	2,109	178

F.

REPORTS OF THE ACTING MEDICAL OFFICER OF  
THE RIVER AMBULANCE SERVICE AND OF THE  
MEDICAL SUPERINTENDENTS OF THE SMALLPOX  
HOSPITALS FOR THE YEAR 1902.

No. 1.

RIVER AMBULANCE SERVICE.

SOUTH WHARF,

ROTHERHITHE, S.E.,

10th January, 1903.

Appointed to be your medical officer in the early part of the year 1902, I beg to submit an annual report for that year.

**Statistics.** There were 7,896 admissions during the year at North and South Wharves. Of these cases 7,842 were certified as smallpox, and 54 were uncertified. Of the 7,842 certified cases, 7,235 proved to be smallpox, and 607 to be not smallpox. There were 36 deaths on the premises of the ambulance service, 31 from smallpox and 5 from other causes. 2 infants were born on the premises of the river service, both of whom died of smallpox, 1 at South Wharf and 1 at Long Reach Hospital.

The following table summarises the cases admitted dealt with at both wharves :—

DISEASE.	Died on premises of Ambulance Service.	Transferred to Smallpox Hospitals.	Transferred to a Fever Hospital.	Returned from Wharves.				TOTALS.
				On day of Admission or following day.	After detention in Shelters from			
					2 to 4 days.	5 to 7 days.	8 days and upwards.	
Chickenpox ... ..	...	2	...	175	23	3	...	203
Measles ... ..	...	...	...	32	15	1	...	48
Syphilis ... ..	...	...	...	21	6	2	1	30
Scarlet fever ... ..	...	...	4	...	...	...	...	4
German measles ... ..	...	...	...	6	...	1	...	7
Influenza ... ..	...	...	...	...	2	1	...	3
Typhoid fever ... ..	...	1	1	...	...	...	...	2
Pulmonary tuberculosis	...	...	...	...	2	...	...	2
Erysipelas ... ..	...	...	...	2	1	...	...	3
Meningitis ... ..	...	...	...	...	1	1	...	2
Pneumonia ... ..	...	...	...	...	1	1	1	3
Rheumatism ... ..	...	...	...	...	1	1	...	2
Febris unclassified	...	...	...	...	2	2	1	5
Bronchitis ... ..	...	...	...	...	2	...	...	2
Uræmia ... ..	1	...	...	...	...	...	...	1
Appendicitis ... ..	...	...	...	1	...	...	...	1
Pericarditis ... ..	1	...	...	...	...	...	...	1
Bright's disease	...	...	...	1	...	...	...	1
Pyæmia ... ..	...	...	...	1	...	...	...	1
Acute mania ... ..	...	...	...	...	1	...	...	1
Delirium tremens	...	...	...	...	1	...	...	1
Cerebral Tumour	...	...	...	1	...	...	...	1
Traumatic mastitis	...	...	...	1	...	...	...	1
Toxæmia ... ..	...	...	...	...	1	...	...	1
Purpura ... ..	...	...	...	1	1	...	...	2
Acne ... ..	...	...	...	24	12	5	1	42
Erythema Rheumaticum	...	...	...	8	5	...	...	13
Erythema Iris	...	...	...	...	2	...	...	2
Nettlerash ... ..	...	...	...	9	1	2	...	12
Eczema ... ..	...	...	...	24	4	2	1	31
Impetigo ... ..	...	...	...	3	1	...	...	4
Lichen ... ..	...	...	1	16	6	2	1	26
Herpes ... ..	...	...	...	3	1	...	...	4
Sycosis ... ..	...	...	...	...	1	...	...	1
Chloasma ... ..	...	...	...	1	...	...	...	1
Psoriasis ... ..	...	...	...	2	...	...	...	2
Drug rashes ... ..	...	...	...	2	...	1	...	3
Pemphigus ... ..	1	...	...	...	1	...	...	2
Lupus Erythematosus	...	...	...	1	...	...	...	1
Furunculosis ... ..	...	...	...	1	1	...	...	2
Dermatitis due to bites of vermin	...	...	...	6	1	...	...	7
Scabies ... ..	...	...	...	7	2	2	...	11
Whitlow ... ..	...	...	...	1	...	...	...	1
Vaccination rashes	...	...	...	1	...	2	...	3
Horsepox ... ..	...	...	...	...	...	1	...	1
Dermatitis unclassified	...	...	...	38	28	5	3	74
No ascertainable disease	...	...	...	18	12	7	...	36
<b>Total of non-smallpox cases</b> ... ..	<b>3</b>	<b>3</b>	<b>6</b>	<b>406</b>	<b>138</b>	<b>42</b>	<b>9</b>	<b>607</b>
Smallpox ... ..	29	§7,205	1†	...	...	...	...	7,235
<b>Total of cases certified as smallpox</b>	<b>32</b>	<b>7,208</b>	<b>7</b>	<b>406</b>	<b>138</b>	<b>42</b>	<b>9</b>	<b>7,842</b>
Infants in arms not certified	4*	27†	...	2	1	1	19	54
<b>Total admissions</b>	<b>36</b>	<b>7,235</b>	<b>7</b>	<b>408</b>	<b>139</b>	<b>43</b>	<b>28</b>	<b>7,896</b>

\* 2 died of smallpox, 2 died of inanition.

† 19 developed smallpox, 8 escaped smallpox. (See p. 237.)

‡ Retrferred to South Wharf, thence to Smallpox Hospital.

§ 5 of these cases were sent direct to Gore Farm Hospital.

**Uncertified cases.**

Among the total admissions, viz., 7,896, all but 1 of the uncertified cases were infants in arms of mothers suffering from smallpox, and themselves not suffering from any disease. Of these 53 infants, all who were vaccinated before the mother developed smallpox escaped the disease. These numbered 8. Of the remaining 45 cases, 22, or 49 per cent., escaped the disease, 21 took it, 2 died of inanition within 10 days of birth. These figures, though small, are instructive; for all of these infants had been brought into very close contact with infection. In the 45 cases quoted, vaccination had been performed, either at the time of, or at an interval after, their first exposure to smallpox, that is during the incubation period of that disease.

From an administrative point of view such infants are pure contacts, and are isolated as such at the expense of the Board. During the year 33 such cases were detained at the wharf, the average period of detention being 11 days. The separation of infant from mother, necessary for the health of both, formerly took place at the hospital; now it takes place at the wharf; logically it should be made at the patient's home, and the infant be dealt with by the local authority like any other contact.

**Non-smallpox cases.**

Of the 7,842 certified cases, 607 were found to be not smallpox, a percentage of 7.7 as compared with 13.3 per cent. in the year 1901, and 10 per cent. in the year 1893. This low percentage is in accord with experience of severe epidemics. But the tendency, noted last year, is maintained of sending cases to the wharf at an earlier stage than in previous years. For example, of 1,121 cases of smallpox admitted during January, 1902, 50 per cent. were admitted on the first or second day of the rash, and a few were admitted before the rash had appeared. In some cases this tendency is carried too far. On one occasion, 6 patients arrived together from the same house, 4 of whom had no rash on admission. It is fortunate that such an occurrence is not common. The sending of cases to the wharf before any rash has appeared is undesirable, and throws an undue strain on your accommodation. It is detrimental to the patients, many of whom develop no rash under observation and are returned. Among these are general diseases such as pneumonia and rheumatism. In addition, there were 36 cases in which no sign of any disease could be ascertained.

**Cases sent to hospitals.**

Of the 7,208 cases sent through to the smallpox hospitals, 2 were found there to be not suffering from smallpox, giving 0.027 per cent. of errors of diagnosis at the wharf, compared with 0.5 per cent. in the year 1901. \* \* \* \* \* Neither of them took smallpox.

**Work of staff.**

The great majority of the cases were admitted in the first 6 months of the year, during which the admission rate was very heavy. The maximum was attained in March, when 1,804 cases were admitted. For any measure of success in dealing with them I am indebted very greatly to the medical officers who assisted me; at South Wharf 2, and at one time 3, were found necessary. Their work, severe always, from time to time became incredibly great, and necessitated almost continuous duty through day and night. This happened

notably when river traffic was fog-bound, and the admissions accumulated at the wharf. On one occasion 120 cases of acute smallpox were thus gathered together within 36 hours and treated here till the fog lifted. North Wharf was opened for the reception of cases from April 14th to June 25th. 870 cases were admitted there and are included in the above figures. The officer appointed to be in charge, viz., Dr. A. F. Cameron, is one to whom special credit is due. He was required to act on his own responsibility at North Wharf and on other occasions, and his accuracy in diagnosis speaks for itself.

The female staff of the service was much increased to cope with the increase of work. The number employed in the medical department at any one time rose to its maximum in April, when, including the medical staff, it amounted to 58. Of these, 1 medical officer, 2 nurses, and 2 wardmaids were posted at North Wharf. The work of the nursing staff was very heavy and was carried out with great zeal and devotion. The health of the staff throughout has been satisfactory.

2 cases of smallpox occurred among persons employed at the wharf—both among the contractor's men engaged in putting up the various buildings enumerated below. Neither of these men had availed himself of the offer of revaccination made to them by the Managers.

**New buildings, &c.** Many valuable additions have been made to your premises at both wharves during the past year. At South Wharf the new receiving rooms have proved a great benefit to the patients. The same number of staff is thereby enabled to handle the cases with much greater dispatch than hitherto. \* \* \* \* \* The other additions are the nurses' bathing and changing block, the night nurses' block, isolation ward D, which accommodates 12 patients, and the medical officer's house. Within doors and without incandescent gas lights have been fitted. The fire hydrants, &c., have been amplified. The road and approach to the receiving rooms have been doubled in width, and a sloping foot-path, which has been found of great service, has been made near the steps leading to the wharf front. By means of these improvements it is possible now to deal with admissions as quickly as they arrive, and a number of cases greater than any occurring last winter could be handled effectively. At North Wharf 3 shelters were erected to hold 9 patients, and the house adjoining the wharf was brought into use for the first time, being occupied by the staff of the medical department.

**Influence of wharf on neighbourhood.** The medical officer of health for the borough of Bermondsey, in a report on smallpox in the borough from October, 1901, to October, 1902, discussed the influence of the wharf on its neighbourhood. He estimated that the percentage of cases arising in this area was twice as great as that in any other part of the borough, and held the wharf largely to blame for this. But the evidence in support of his theory was very slender, and obliged him to admit "It is not safe to draw conclusions from so few facts"; and a careful consideration of the same facts convinced you that they did not warrant him in bringing so grave a charge. The total number of cases occurring in the neighbourhood from October, 1901, to June, 1902, was 14, showing a proportion no greater than that in other parts of the borough. It is evident

how small an addition to this figure swells the percentage. From June, 1902, to October, 1902, 13 more cases occurred. During the same 12 months there were 297 cases in the borough, and in London about 10,000.

**Work of ambulance service.** It is opportune to recall the invaluable services rendered to this borough and London generally by your smallpox ambulance service during the epidemic. You were able rapidly to remove and to isolate all the cases which occurred. They were not simply shipped at the wharf *en route* for the hospitals. A careful examination was made of each case, and the necessary attention given to the patient. All who had smallpox were sent on by the next boat. But the wharf was the means of saving upwards of 800 uninfected persons from the risks attending admission to the smallpox hospitals.

Considering that this epidemic was the heaviest in the history of this institution, and that the infection from all parts of London was focussed here and in the neighbouring streets, I believe the Managers are to be congratulated upon the fact that smallpox did not spread either in the neighbourhood or among the gangs of men engaged on the extension buildings at the wharf.

**Disinfection** The whole question of disinfection received your close consideration throughout the epidemic, and you spared no efforts to make your equipment here as complete as possible. You considered various reports from me upon the subject when I took office, and at intervals since then, and early in the year you increased the bathing and changing accommodation for male and female staff to the fullest extent permitted by your space. You also erected a completely equipped steam disinfector.

It may be true that in an epidemic South Wharf constitutes the only collection of infection in London. But I see no way of obviating this until, as I submitted in a recent memorandum, motor ambulances become reliable enough to enable you to remove cases from their homes direct to the smallpox hospital.

(Signed) W. McC. WANKLYN,  
*Medical Officer.*

## No. 2.

### HOSPITAL SHIPS.

LONG REACH,

DARTFORD,

*March 17th, 1903.*

**Statistics.** On December 31st, 1901, there were 181 patients under treatment on the Hospital Ships. During the past year there were 7,360 patients who were admitted to the Hospital Ships or Long Reach Hospital, or who died of smallpox at South Wharf or on the Ambulance Steamers while being conveyed to those hospitals. Additionally, 7 children were born after the removal



of the mother. 1,235 have died at these hospitals or at South Wharf or on the Ambulance Steamers. 15 remained under treatment on December 31st, 1902.

The 7,367 cases, which came freshly under treatment during the year, are classified in the following table:—

	Cases Admitted to or through South or North Wharf.					Local Admissions at Long Reach.	TOTALS.		
	Transferred from South or North Wharf to Long Reach.	Died of Smallpox at South Wharf or on Ambulance Steamboat.	Visited sick relatives in hospital at Long Reach, and were detained as patients.	Born after removal of mother.					
				Born before arrival of mother at Long Reach.	Born at Long Reach.				
Suffering from small-pox before removal ...	7,198	29	3	...	...	**94	7,324	Total of small-pox cases, 7,348	
Uncertified infants.	Developed small-pox at South Wharf... ..	6	2	...	*1	..	...		9
	Developed small-pox after arrival at Long Reach ...	†13	...	...	‡1	‡1	...		15
	Escaped smallpox	8	...	...	...	§4	1	13	
Cases in which the diagnosis of smallpox remained in doubt ...	2	...	1	...	...	...	3	Total of cases not small-pox, 19	
Not smallpox (errors of diagnosis) ... ..	3	...	...	...	...	..	3		
TOTALS ... ..	7,230	31	4	7		95	7,367		

The 3 certified cases, where another diagnosis was made, were to be classified as follows:—

Varicella .. .. .	2
Enteric Fever .. .. .	1

None of these three patients contracted smallpox. It is satisfactory to record that so few errors of diagnosis escaped detection at the reception stations in London.

Of the 95 "local admissions," 92 cases came from Dartford, Erith, or neighbouring districts, and 2 from the metropolitan area. The other case was admitted from Grays in Essex.

\*\* 2 of these were admitted in the first instance to Gore Farm, and thence transferred to Long Reach.  
 \* Developed smallpox and died at South Wharf. † 1 developed smallpox at Gore Farm after transfer.  
 ‡ Died. § 2 lived; 2 were born prematurely and died.

The gross mortality among all patients admitted last year to these hospitals, (including the patients who died of smallpox at the Wharf), was 16·5 per cent., calculated by the Registrar-General's formula. The mortality from smallpox was also 16·5 per cent., calculated by the same formula. But as, at this date, all cases treated at the hospitals last year have been completed, I am able to calculate the exact mortality among the patients admitted last year. There were 7,348 patients admitted in 1902 who were treated for smallpox either at these hospitals or at the Wharves, and of these 1,204 died. The actual mortality from smallpox was therefore 16·3 per cent. among these patients.

But in addition to the above-mentioned cases of smallpox, 1 patient was admitted to and died of smallpox at the South-Western Fever Hospital, and 565 patients suffering from smallpox were admitted direct to Gore Farm, besides 2 patients afterwards transferred to Long Reach.

Taking account then of all these cases, that is to say of all the 7,916 patients who were treated for smallpox in institutions of the Managers during the year 1902, and of the 1,337 deaths which occurred among them, the mortality from smallpox was 16·8 per cent.

A certain number of patients died of intercurrent disorders. I give a list of these cases, showing the disease from which the patients died, the type of the attack of smallpox from which they suffered, and the observations made with regard to their vaccination. In this table cases are not included where death was due to an ordinary complication of smallpox, nor cases where death was due to the attack of smallpox itself, rather than to any other disease from which the patient may have suffered. Reference may be made to this table in studying the tables of vaccination statistics, in which all deaths are included, whether directly due to smallpox or not.

No.	Name	Age	Sex	Address	Occupation	State of Vaccination	State of Attack	Result
1	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...
7	...	...	...	...	...	...	...	...
8	...	...	...	...	...	...	...	...
9	...	...	...	...	...	...	...	...
10	...	...	...	...	...	...	...	...

Individuals of the following description were to be included in the list of cases where intercurrent disorders were observed:—

1. Cases where the patient died of any disease other than smallpox, or of any disease which was not a complication of smallpox, and where the death was due to the intercurrent disease.

2. Cases where the patient died of any disease other than smallpox, or of any disease which was not a complication of smallpox, and where the death was due to the intercurrent disease, and where the patient had been vaccinated.

3. Cases where the patient died of any disease other than smallpox, or of any disease which was not a complication of smallpox, and where the death was due to the intercurrent disease, and where the patient had not been vaccinated.

4. Cases where the patient died of any disease other than smallpox, or of any disease which was not a complication of smallpox, and where the death was due to the intercurrent disease, and where the patient had been vaccinated, and where the patient had also been treated for smallpox.

5. Cases where the patient died of any disease other than smallpox, or of any disease which was not a complication of smallpox, and where the death was due to the intercurrent disease, and where the patient had not been vaccinated, and where the patient had also been treated for smallpox.

6. Cases where the patient died of any disease other than smallpox, or of any disease which was not a complication of smallpox, and where the death was due to the intercurrent disease, and where the patient had been vaccinated, and where the patient had also been treated for smallpox, and where the patient had also been treated for any other disease.

7. Cases where the patient died of any disease other than smallpox, or of any disease which was not a complication of smallpox, and where the death was due to the intercurrent disease, and where the patient had not been vaccinated, and where the patient had also been treated for smallpox, and where the patient had also been treated for any other disease.

8. Cases where the patient died of any disease other than smallpox, or of any disease which was not a complication of smallpox, and where the death was due to the intercurrent disease, and where the patient had been vaccinated, and where the patient had also been treated for smallpox, and where the patient had also been treated for any other disease, and where the patient had also been treated for any other disease.

9. Cases where the patient died of any disease other than smallpox, or of any disease which was not a complication of smallpox, and where the death was due to the intercurrent disease, and where the patient had not been vaccinated, and where the patient had also been treated for smallpox, and where the patient had also been treated for any other disease, and where the patient had also been treated for any other disease.

10. Cases where the patient died of any disease other than smallpox, or of any disease which was not a complication of smallpox, and where the death was due to the intercurrent disease, and where the patient had been vaccinated, and where the patient had also been treated for smallpox, and where the patient had also been treated for any other disease, and where the patient had also been treated for any other disease.



Cases in which Death was due to "Intercurrent or Antecedent Disease," 1902.

No.	Initials.	Age.	Sex.	Date of Smallpox Eruption.	Type of Disease.	Intercurrent or Antecedent Disease.	Date of Death.	Statement as to Primary Vaccination.	No. of Scars.	Collective area of Scars.	Fraction Fovaeated.	Revaccination.	Remarks.	Case No.
14	E. W.	54	F	1902. 28 Jan.	Discrete ...	Tuberculosis ...	1902. 1 Feb.	Inf.	7	0.56	$\frac{1}{2}$	Not	...	927 H.S.
15	L. F.	54	F	" 29	Discrete ...	Chronic Nephritis ...	31 Jan.	Inf.	3	0.17	$\frac{1}{4}$	Not	...	1100 H.S.
16	A. G.	21	F	Probably 30 Jan.	Discrete ...	Meningitis ...	3 Feb.	Inf.	3	0.70	0	Not	...	1224 H.S.
17	E. C.	94	F	" 31	Discrete ...	Senile decay ...	19 Mar.	Inf.	0	...	...	Not	Died at Gore Farm Hospital	1225 H.S.
18	A. S.	28	F	1 Feb.	Discrete ...	Malignant disease of liver	11 April	Inf.	none visible, cured by re vaccination	...	...	25 Jan., 1902, success.	Died at Gore Farm Hospital	1336 H.S.
19	S. Y.	71	F	" 3	Discrete ...	Cellulitis...	19 "	Inf.	3	0.80	$\frac{1}{4}$	Not	Died at Gore Farm Hospital	1369 H.S.
20	E. D.	4 $\frac{1}{2}$	M	" 11	Discrete ...	Meningitis ...	16 Feb.	Not	...	...	...	...	...	1657 H.S.
21	K. N.	7	F	" 13	Discrete ...	Acute bronchitis ...	19 "	Not	...	...	...	...	Died at Gore Farm Hospital	1809 H.S.
22	H. W.	32	F	" 14	Discrete ...	Puerperal fever ...	9 Mar.	Inf.	3	<0.33	0	Not	Died at Gore Farm Hospital	1973 H.S.
23	J. E.	14	M	" 14	Discrete ...	Heart disease ...	15 Feb.	Inf.	1	0.08	0	Not	Died at Gore Farm Hospital	1782 H.S.
24	M. D.	35	F	" 17	Discrete ...	Erysipelas ...	8 Mar.	Inf.	4	1.17	$\frac{1}{2}$	Not	Died at Gore Farm Hospital	2003 L.R.
25	E. B.	41	F	Not known, admitted 18 Feb.	Discrete ...	Heart disease ...	18 Feb.	Inf.	2	0.27	$\frac{1}{4}$	Not	Died at South Wharf	1981 H.S.
26	W. M.	30	M	" 18	Discrete ...	Pneumonia ...	28 Mar.	Inf.	3	0.68	$\frac{3}{4}$	Not	Died at Gore Farm Hospital	2067 H.S.





At the beginning of the year all cases were first received on the Hospital Ships, the convalescent patients of course being transferred to the Gore Farm Hospital. From the end of January and onwards until the summer, in order as far as possible to relieve the pressure on the accommodation for acute cases, local extra-metropolitan cases were admitted to the Gore Farm Hospital, and were not received at Long Reach. The ships were used for patients up to August 13th, when the hospital was closed. The Long Reach Hospital was opened on the 27th February, and since the ships were closed in August, all smallpox patients have been received there. The two hospitals were conveniently administered under the same management.

The total number of patients admitted to the ships during the year was 4,911. The total number treated at the Long Reach Hospital was 2,424.

The largest number of patients admitted in one day on to the ships was 96, on the 29th January. The largest number admitted in one day to the two hospitals (Hospital Ships and Long Reach Hospital) jointly, was 150, on March 7th. But on the latter occasion navigation on the river had been obstructed by fog, and there was an accumulation of cases at South Wharf. This illustrates one of the chief disadvantages of the method adopted by the Board of removing patients by water, admirable as the system is in many other respects. The seasonal incidence of smallpox is such that, as a rule, the time when serious fogs may be anticipated in London, is passed before the full stress of an epidemic is felt. But the outbreak of last year developed earlier than usual; during the foggy months large numbers of patients were being received, and it is fortunate, under the circumstances, that even more serious difficulties from this source were not experienced.

The opening of the year 1902 found smallpox firmly established in London, and during the month of January the disease levied a heavy toll on each of the Metropolitan Unions. But while the incidence was still considerable in St. Pancras, Holborn, and Bloomsbury, the districts which had furnished the earliest and by far the largest number of cases in 1901, the new year was marked by a steady and increasing stream of cases from the East End. As in previous epidemics, the forerunners were mostly patients of the poorest class, vagrant folk of no fixed abode, sleeping, when they were able to boast a bed, now in one common lodging-house, now in another, some of them drawn from Salvation Army shelters, and not a few from the big workhouses, especially those of Whitechapel and Mile End. Infection was often impossible to trace and observation of contacts doubtless equally futile. It is not surprising therefore that in these dense and mobile populations, ill protected by vaccination, and careless of sanitary precaution, the disease, in spite of the efforts of the health authorities, spread rapidly. It is interesting, in connection with the question of vaccinal protection, to note that of the patients admitted from the Eastern districts in the course of the year, 28·5 per cent. were unvaccinated, as compared with 13 per cent. in the Western district, or 21·4 per cent. in the rest of the Metropolis. From Whitechapel came 76 cases in January and 124 in March. Poplar supplied 67 patients in January, and in March the admissions from this quarter reached 146, the largest number in one month from any one union. Poplar headed the list also with 587 cases of total admissions for the year, and the seven divisions (including Poplar) of the Eastern district

supplied very nearly 60 per cent. of all the cases admitted from the 31 unions of the metropolis.

Thus, while the epidemic reached its climax in March, with a total for the month of nearly 2,000 admissions to the hospitals of the Board, or a daily average of upwards of 62 patients, the increase at that time came chiefly from the East End, and already the disease was giving signs of abatement in St. Pancras, Holborn, Bloomsbury, and most of the other areas. A reference to the appended chart, which shows the admissions from the metropolis week by week throughout the most important period of the epidemic, will make evident the strong though irregular increase of the disease in the early weeks of the year, mainly referable, as I have indicated, to the East End invasion. With the passage of March the epidemic began to decline, though until the end of May the admissions were still considerable, and averaged 36 daily throughout the month. But as summer advanced the improvement became more rapid, and in July only 177 patients in all were received. The advent of autumn and winter offered no check to the fall in numbers, and in December the admissions hardly exceeded 1 patient weekly.

The chart takes account of metropolitan cases only. But coincidentally there were outbreaks of smallpox in several extra-metropolitan districts. There was a serious visitation in Dartford and Erith, and patients from these districts were admitted at first to the hospitals at Long Reach, and later on to the Gore Farm Hospital. There were 102 such cases admitted to the Board's hospitals in January, and as many as 215 in March. After March the admissions from Dartford and Erith fell rapidly, there being but 93 in April, 20 in June, and 7 only in July and onwards to the end of the year.

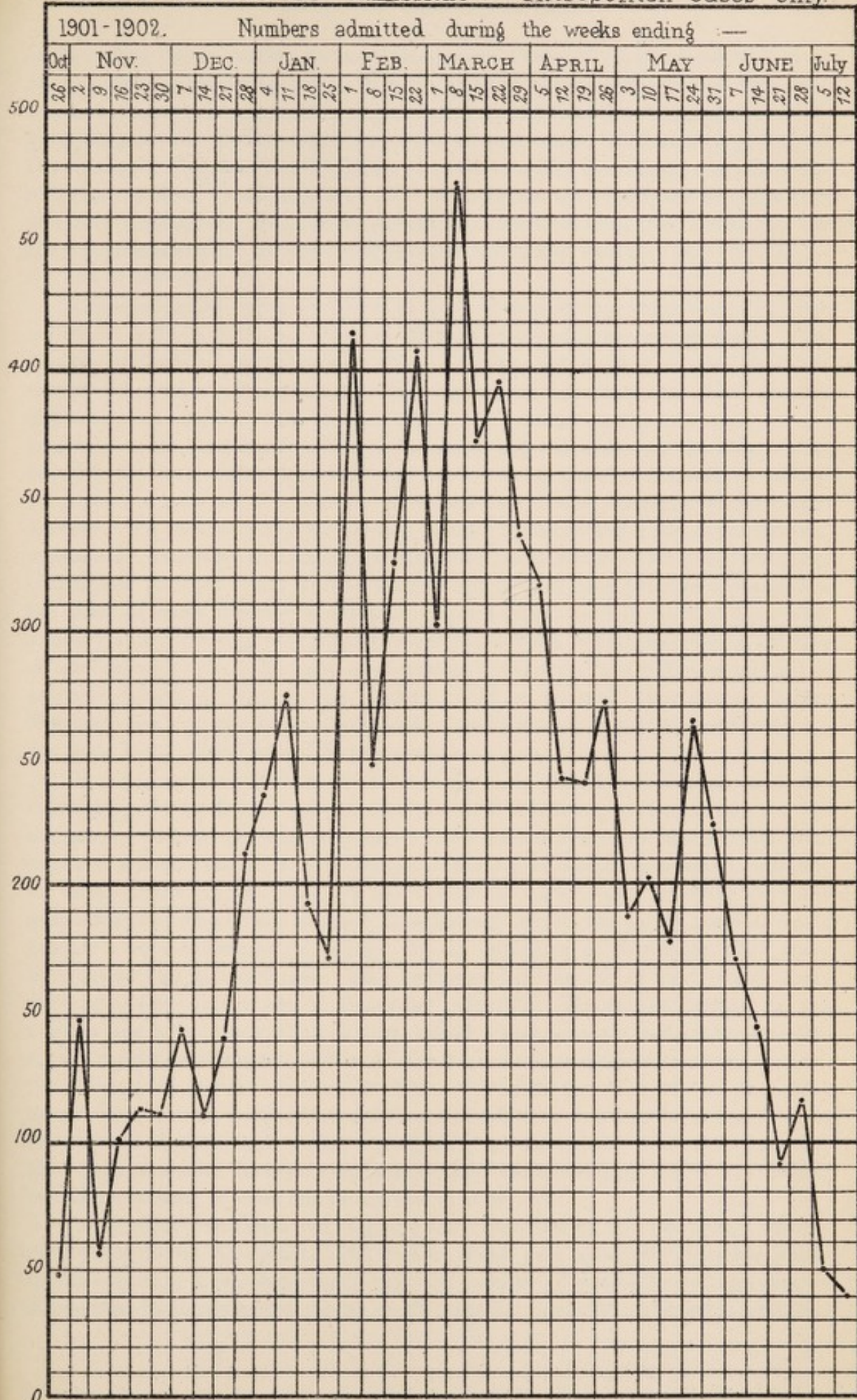
In April a serious outbreak of the disease in West Ham somewhat overstrained the local facilities for isolation, and the Board agreed to admit to their own hospitals surplus cases from this extra-metropolitan district. The first case from West Ham was admitted on April 15th; and in the remaining half of the month 142 of these cases were received. There were 104 West Ham cases in May and 2 only in June. After this date no further patients were received from this part of London.

**Hospital accommodation.** During the course of this epidemic the question of providing sufficient beds for the treatment of all cases has been a source of great anxiety. At the beginning of the epidemic the total accommodation for smallpox at the disposal of the Board consisted of 250 beds for acute cases at the Hospital Ships, and 1,000 or upwards for convalescents at Gore Farm.

When the ships were installed at Long Reach in 1884, they contained 400 beds for patients. No doubt the wards were then too crowded, and the capacity of the hospital was consequently reduced from time to time, until at the beginning of the epidemic it stood at the figure first mentioned. It was very obvious that if the epidemic should attain such proportions as to fill both the ships and Gore Farm with patients, the 250 beds on the ships would be quite inadequate to accommodate that proportion of the patients who would be acutely ill. For that reason in the autumn of 1901 the Board decided to erect on their land at Long Reach a temporary hospital for 300 patients, a number of beds which together with the 250



## CHART of SMALLPOX Admissions Metropolitan cases only.





on the ships would suffice to hold all the acute cases if all three hospitals were filled. This temporary hospital was built, and was opened at the end of February, when it proved of the greatest service. But in the meantime the accommodation question generally, and especially in respect of acute cases, had become very urgent. On December 31st, 1901, there were 714 patients under treatment at the Hospital Ships and at Gore Farm Hospital. For that number, the proportion of acute beds was barely sufficient. But the total number under treatment steadily increased as the new year advanced, reaching 1,000 before the end of January, and 1,300 before the end of February.

Considering the very severe type of cases with which the ships were filled last winter, it must be admitted that at 250 the accommodation was strained. And though by force of circumstances for a few days in January of last year, the number of patients lying on the ships somewhat exceeded that total, it was imperative to make a rule of restricting the number under treatment in the hospital, within that limit. The only alternative to overcrowding the ships was to transfer to Gore Farm not only the convalescent patients but also a certain proportion of patients who were too ill to bear the journey except in the recumbent position. To this end the ambulance station at Gore Farm was expanded, and successfully overcame the difficulties attending the transfer of such large numbers of helpless patients. But as the weeks went by and more patients accumulated, the class of cases transferred inevitably increased in severity, until at the end of January and beginning of February, when there was a sudden increase in the rate of admission, it was only with the greatest difficulty that a sufficient number of patients capable of bearing the journey could be selected. Fortunately during February the rate of admission diminished, and before it again increased in March the Long Reach Hospital had become available.

But besides the problem of distributing their beds between acute and convalescent patients, the Board was confronted with a difficulty even more serious. In the autumn of 1901 the question forced itself on the attention, whether the total smallpox accommodation at the disposal of the Board would be sufficient to isolate all cases which might occur in the following spring, and whether even the additional accommodation afforded by the Long Reach temporary hospital would provide a sufficient margin of safety. At the beginning of November, 1901, there were rather less than 300 cases under treatment; at the end of that month there were over 400; at the end of December over 700. This rate of increase in the autumn was full of foreboding for the spring. For the rule is, for the disease to spread rapidly in the early months of the year, and to attain its maximum sometime during the months of April or May. Towards the close of the year 1901 therefore, it seemed unlikely that the accommodation, existing or prospective, at the disposal of the Board would be sufficient for the needs of the service. The Board had to choose between overbuilding and underbuilding, and it was difficult to make a forecast of what the future had in store.

With great reluctance and realising the difficulties of the question, I advised the Managers in November, 1901 (when there were about 400 patients under treatment), that it was improbable that the number of patients needing isolation at one time in the following spring would exceed a figure lying between 2,000 and

2,500. Such a forecast could of course be little more than a guess. But such as it was, it was avowedly made on the assumption that the percentage mortality, which was very high when I wrote, would fall in the spring to about 10 per cent. It did not fall to that extent, but remained as high as 16 to 17 per cent. A high death-rate has the effect of reducing the average period of treatment of cases, and therefore of diminishing the number requiring treatment at one time; and a maximum lying between 2,000 and 2,500, on the assumption of a 10 per cent. mortality, would be roughly equivalent to a maximum lying between 1,800 and 2,250, with a mortality of 16 to 17 per cent.

I allude to this matter now, because it seems to me that the question is of some permanent interest. The mortality in different epidemics varies very greatly. But taking the actual mortality of last spring, and modifying the rough forecast accordingly, as I have done, the paradox may be maintained that those figures were a closer approximation to the number of beds really needed for the epidemic, than would be now arrived at by taking the highest number of patients who were in fact under treatment at one time. The fact is, if there had been more beds to fill, the patients would have been there to fill them.

The largest number of patients under treatment at one time (in March) was something over 1,600. But that figure was determined very largely by the fact that there were no more beds then available. In determining when a patient shall be discharged from hospital, medical officers are guided by two considerations. In the first place they have to decide when a patient ceases to be infectious. In the second place they must decide when a patient is cured of his disorder. The terms are not synonymous. Smallpox patients for instance are very liable to certain complications—such as affections of the eye, boils, abscesses, &c.—which are not necessarily infectious, but which are a part of the disease and retard recovery. In the natural order of things patients are detained in hospital until they are recovered of those affections. But in the stress of the last epidemic, when beds were to seek, such considerations went to the wall. The least of two evils was chosen, and the recovered, but, it was hoped, uninfected patients were discharged, to avoid the necessity of leaving acutely infectious patients unremoved from home. There are limits to which such a practice can be carried, and I believe those limits were actually reached.

It cannot be decided precisely how many beds were saved by those means last spring. I put the question to Dr. F. Thomson, the medical superintendent of the Gore Farm Hospital, and he expressed the opinion that if there had been 200 more beds available they would have been occupied. That is to say, he thinks that the number of patients under treatment would have exceeded 1,800 instead of only 1,600. Taking account of the actual number (close on 8,000) of patients treated during the year, the percentage mortality, and the relation which in previous years has obtained between those factors and the highest number under treatment, I am myself inclined to think that Dr. Thomson's estimate was a low one. At all events, I think it may be safely said that the maximum would have been somewhere between 1,800 and 2,000—that is, that it would have fallen within the theoretical limits which I mentioned further back.

It may be supposed, one hopes, that the epidemic just experienced has been on

as large a scale as anything which the future has in store. It may therefore be assumed that the accommodation for smallpox necessary to provide for all emergencies should amount to 2,000 beds, or somewhat more than that if account be taken of the possibility of a similar epidemic with a lower mortality. The Board, however, at the close of the year 1901, decided that they would increase their smallpox accommodation to a figure representing the highest estimate suggested by the Royal Commission on smallpox of 1880, after allowing for the increase in population which has taken place since that date. By deciding to build a large temporary hospital for 800 acute cases (the Orchard) near the site of the Joyce Green Hospital, and a temporary hospital for 600 beds at Gore Farm, they contemplated raising their smallpox accommodation to about 3,200 beds. Indeed, taking into account certain very temporary accommodation which was erected or converted at Gore Farm, the total would have considerably exceeded that figure.

At the time when this decision was arrived at, namely the end of December, 1901, or the beginning of January, 1902, it was perhaps too much to hope that the major part of this additional accommodation would be available before the epidemic culminated in the following spring. And neither of the new hospitals has in fact been used. But we are now, at any rate, abundantly prepared for the future. It has been decided that the ships are to be abandoned, and the Long Reach Hospital, owing to its very temporary character, cannot be counted on for extended use. On the other hand, the Joyce Green permanent hospital will be completed shortly and will provide about 900 beds, making, with the 800 beds at the Orchard, a total of 1,700 for acute cases. If under exceptional circumstances that total is exceeded, it can be supplemented to any extent by making use of a part of the accommodation available at Gore Farm. But in view of the ample margin of beds existing at the acute hospitals at Joyce Green, it will be obviously safe and proper to divert the Gore Farm hospitals to other uses until another great epidemic is upon us.

The isolation of smallpox is costly and must remain so. Years, when large numbers of cases have to be provided for, are followed by years when the disease is in abeyance. The accommodation must therefore be largely in excess of what would be required for the yearly average. Nevertheless, it is easy to form a wrong impression that this average is insignificant. It may therefore be worth while to point out, that for the last decade the yearly average of cases treated has been about 1,400, and for the preceding decade about the same.

**Staff.** The difficulty of securing and maintaining an adequate and satisfactory staff during the epidemic was naturally a source of some trouble. It was very fortunate that it was possible to obtain in this respect some assistance from the Board's fever hospitals. Every effort was made to avoid filling gaps with undesirable persons, with the result that, as far as the nursing and female staff generally were concerned, a high standard of excellence was maintained. I am sure that the care which was taken to this end, was amply repaid by the immunity to adverse criticism which the administration enjoyed.

Unfortunately the transfer of a considerable number of persons from the fever hospitals had another consequence. Throughout the epidemic, while that practice was maintained, cases of scarlet fever occurred from time to time in these hospitals.

The cases arose chiefly among the patients, but some members of staff also were victims. Eight members of the staff developed the disease, and 12 patients either before or after transfer to Gore Farm. By the prompt removal to other institutions of the Board of all cases as they occurred, the disease was fortunately prevented from assuming an epidemic form among the patients. But the fact that it was spread only to a very small extent from case to case, and that the cases appeared to arise independently and at intervals, seemed to indicate that they were due to repeated introductions of the disease into the hospitals. The conclusion was irresistible that the cause was to be traced in the repeated importations of staff from the fever hospitals. Six cases of diphtheria occurred, five of these being in the cases of patients. In the light of these facts, it is interesting to observe, that although many members of staff were from time to time returned from the smallpox to the fever hospitals, not a single case of smallpox at the fever hospitals arose from this cause.

More fortunate in another respect, the staff at these hospitals enjoyed an almost complete immunity from smallpox. Only one case of smallpox occurred among the staff, the victim being a nurse. The circumstances were peculiar. The nurse came from one of the Board's fever hospitals, and she was stated, about five months before her transfer, to have been successfully revaccinated. The difficulty of judging when a person is sufficiently protected against smallpox by vaccination is sometimes so considerable that we make it a rule never to rely on a certificate of successful revaccination. Even when the certificate is given by a medical officer at another hospital of the Board, it is the practice to judge each case on its merits on the arrival of the person at this hospital, and if necessary, to repeat the vaccination here. In the case under discussion, the arm on examination presented four pigmented marks, showing evidence of recent scarification, but not necessarily of successful revaccination. In the ordinary course of events the revaccination would for that reason have been repeated. But it happened unfortunately that these scarifications had been performed on the site of old vaccination scars, with the consequence that there was presented the fallacious appearance of recent scars of successful revaccination. The operation therefore was not repeated, and a very mild attack of smallpox was developed. With regard to the question, whether or not the revaccination performed five months before was really successful, I have no direct evidence. All my own experience tells against the former view. The medical officer who vaccinated her at the other hospital was satisfied at the time. The nurse's own description of the resulting lesions was such as to lead me to suppose that the reaction was at least abnormal. And the fact may be taken into account that the lymph used was of a brand which was known to have been giving unsatisfactory results at that time. At all events the case does not vitiate the conclusion that, barring accidents, it is possible to treat smallpox with impunity to the staff of the hospital.

No temporary workmen contracted smallpox, except those employed by the builders of the Long Reach Hospital. It is notorious that many of the latter suffered. But most of them were working outside the bounds of the then existing hospital, and it was not found practicable to enforce regulations for their vaccination, until the work was nearly completed. It was remarkable that so soon as such regulations were enforced, cases of smallpox ceased to occur among the men. These men, employed

by the builders, are not included in the usual return of staff which is here appended.

<i>Staff employed at the Hospital.</i>				<i>Staff newly employed.</i>			
Year.	Class.	Number employed.	Contracted Smallpox.	Year.	Class.	Number newly employed.	Contracted Smallpox.
1902	I.	293	1	1902	I.	227	1
	II.	257	...		II.	172	...
	III.	147	...		III.	79	...
	IV.	404	...		IV.	350	...
Total	...	1,101	1	Total	...	828	1

(Signed) T. F. RICKETTS,  
*Medical Superintendent.*

### No. 3.

#### GORE FARM HOSPITALS.

DARENTH, NEAR DARTFORD, KENT,

*March 9th, 1903.*

**Statistics.** During the year 1902 there were 6,853 patients under treatment in the hospital. Of these, 6,703 were discharged recovered, 7 were transferred to other hospitals of the Board, and 143 died.

There were 578 patients admitted from the local districts. Of these, 565 were cases of smallpox, 4 were babies admitted with their mothers, and 9 were either cases admitted for observation or cases too ill to be returned to their homes.

There were 5,731 patients admitted from the Hospital Ships and Long Reach Hospital. Of these, 5,721 were cases of smallpox, 9 were babies admitted with their mothers, and 1 was a case of chickenpox.

There were 6 births in the hospital.

The greatest number of patients under treatment on any one day was 1,261 on the 11th of March. The greatest number of patients admitted on any one day was 97 on the 1st of February; and the greatest number discharged on any one day was 71 on the 12th of March.

**Staff.** During the year 645 staff were employed, with one exception all these were revaccinated. The exception was an assistant nurse: she entered on duty on the 22nd of March, contracted, and fell ill with smallpox on the 2nd of April. This case is of peculiar interest, inasmuch as the reason why I did not revaccinate her was because her skin showed pitting indistinguishable from that which is caused by smallpox, and she informed me that she had suffered from smallpox in December, 1901, being taken ill on the 27th or 28th of that month. I communicated with the medical man who attended her during her illness in December, 1901, and he assured me that the illness from which she suffered was

smallpox, and that the attack was a typical one. I inquired from the nurse herself the symptoms, &c., of the illness in question, and her description corresponded with the symptoms, &c., of smallpox. The attack in April was undoubtedly smallpox, and from the evidence I am led to believe that the illness in December, 1901, was also smallpox.

**Works.** At the upper hospital additional staff accommodation has been completed during the year for assistant medical officers, nurses, and domestic staff; and isolation accommodation has been provided to the extent of 40 beds in six wards—two wards being for 12 patients each, two for 6, and two for 2.

The old lower hospital was greatly increased in size during the year, the accommodation in it now being for 848 patients, including isolation accommodation.

The total smallpox accommodation of the two hospitals is 1888, and taken as one hospital is, in so far as I am aware, the largest in the world.

#### STAFF RETURNS.

	Males.	Females.
Staff remaining on January 1st, 1902 .. ..	84	208
„ joined during 1902 .. ..	137	216
„ left „ „ .. ..	177	389

(Signed) **FREDERIC THOMSON,**  
*Medical Superintendent.*





REPORT OF THE COMMISSIONER OF THE GENERAL LAND OFFICE

No.	Name of the Land	Area in Acres	Value		Remarks
			1880	1881	
1	...	...	...	...	...
2	...	...	...	...	...
3	...	...	...	...	...
4	...	...	...	...	...
5	...	...	...	...	...
6	...	...	...	...	...
7	...	...	...	...	...
8	...	...	...	...	...
9	...	...	...	...	...
10	...	...	...	...	...
11	...	...	...	...	...
12	...	...	...	...	...
13	...	...	...	...	...
14	...	...	...	...	...
15	...	...	...	...	...
16	...	...	...	...	...
17	...	...	...	...	...
18	...	...	...	...	...
19	...	...	...	...	...
20	...	...	...	...	...
21	...	...	...	...	...
22	...	...	...	...	...
23	...	...	...	...	...
24	...	...	...	...	...
25	...	...	...	...	...
26	...	...	...	...	...
27	...	...	...	...	...
28	...	...	...	...	...
29	...	...	...	...	...
30	...	...	...	...	...
31	...	...	...	...	...
32	...	...	...	...	...
33	...	...	...	...	...
34	...	...	...	...	...
35	...	...	...	...	...
36	...	...	...	...	...
37	...	...	...	...	...
38	...	...	...	...	...
39	...	...	...	...	...
40	...	...	...	...	...
41	...	...	...	...	...
42	...	...	...	...	...
43	...	...	...	...	...
44	...	...	...	...	...
45	...	...	...	...	...
46	...	...	...	...	...
47	...	...	...	...	...
48	...	...	...	...	...
49	...	...	...	...	...
50	...	...	...	...	...
51	...	...	...	...	...
52	...	...	...	...	...
53	...	...	...	...	...
54	...	...	...	...	...
55	...	...	...	...	...
56	...	...	...	...	...
57	...	...	...	...	...
58	...	...	...	...	...
59	...	...	...	...	...
60	...	...	...	...	...
61	...	...	...	...	...
62	...	...	...	...	...
63	...	...	...	...	...
64	...	...	...	...	...
65	...	...	...	...	...
66	...	...	...	...	...
67	...	...	...	...	...
68	...	...	...	...	...
69	...	...	...	...	...
70	...	...	...	...	...
71	...	...	...	...	...
72	...	...	...	...	...
73	...	...	...	...	...
74	...	...	...	...	...
75	...	...	...	...	...
76	...	...	...	...	...
77	...	...	...	...	...
78	...	...	...	...	...
79	...	...	...	...	...
80	...	...	...	...	...
81	...	...	...	...	...
82	...	...	...	...	...
83	...	...	...	...	...
84	...	...	...	...	...
85	...	...	...	...	...
86	...	...	...	...	...
87	...	...	...	...	...
88	...	...	...	...	...
89	...	...	...	...	...
90	...	...	...	...	...
91	...	...	...	...	...
92	...	...	...	...	...
93	...	...	...	...	...
94	...	...	...	...	...
95	...	...	...	...	...
96	...	...	...	...	...
97	...	...	...	...	...
98	...	...	...	...	...
99	...	...	...	...	...
100	...	...	...	...	...



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1880

SMALLPOX STATISTICS, 1902.

SMALLPOX STATISTICS.—TABLE III.—Analysis of cases placed in the "DOUBTFUL" class in Table II., showing the reasons for considering the evidence as to their vaccination inconclusive.

AGES.	CLASS I.—Cases stated to have been successfully vaccinated in which cicatrix was absent.		CLASS II.—Cases in which the absence of cicatrices could not be asserted on account of the abundance of the eruption.						CLASS III.—Cases in which observation of cicatrices was not made or was impossible from causes other than the abundance of the eruption.						CLASS IV.—Cases in which it was doubtful whether the cicatrices were the result of vaccination.						All Classes.		
			Stated to have been successfully vaccinated.		No statement or statement uncertain.		Total.		Stated to have been successfully vaccinated.		No statement or statement uncertain.		Total.		Stated to have been successfully vaccinated.		No statement or statement uncertain.		Total.				
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	
Under 1 year...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
From 1 to 2 years...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
" 2 " 3 "	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
" 3 " 4 "	2	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	3	...	
" 4 " 5 "	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	
" 5 " 6 "	3	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	4	...	
" 6 " 7 "	2	...	1	1	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	3	1	
" 7 " 8 "	6	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	2	
" 8 " 9 "	6	1	1	...	...	...	1	...	1	...	...	...	1	...	...	...	...	...	...	...	8	1	
" 9 " 10 "	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	
" 10 " 11 "	5	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	1	
" 11 " 12 "	6	1	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	7	1	
" 12 " 13 "	5	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	1	
" 13 " 14 "	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	
" 14 " 15 "	9	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	1	
" 15 " 20 "	31	5	1	1	1	1	2	2	3	2	...	...	3	2	...	...	...	...	...	...	36	9	
" 20 " 25 "	28	7	5	4	...	...	5	4	2	1	...	...	2	1	2	...	...	...	...	2	...	37	12
" 25 " 30 "	27	10	10	7	...	...	10	7	3	3	...	...	3	3	2	...	...	...	...	2	...	42	20
" 30 " 35 "	22	9	7	3	1	1	8	4	2	...	...	...	2	...	2	...	...	...	...	2	...	34	13
" 35 " 40 "	17	8	5	2	...	...	5	2	1	1	1	...	2	1	...	...	...	...	...	...	...	24	11
" 40 " 50 "	28	11	8	7	1	1	9	8	1	...	...	...	1	...	1	...	...	...	...	1	...	39	19
" 50 " 60 "	31	12	6	5	...	...	6	5	4	2	...	...	4	2	2	...	1	...	3	...	44	19	
" 60 " 70 "	17	4	1	1	...	...	1	1	2	...	...	...	2	...	2	1	...	...	2	1	...	22	6
" 70 " 80 "	10	5	...	...	...	...	...	...	2	1	...	...	2	1	...	...	...	...	...	...	...	12	6
" 80 years and upwards...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
TOTAL ...	261	80	46	31	3	3	49	34	23	10	1	...	24	10	12	1	1	...	13	1	347	125	

TABLE I  
 SUMMARY OF THE RESULTS OF THE INVESTIGATION

Year	Month	Number of cases		Number of deaths		Total	Rate per 1000
		Male	Female	Male	Female		
1910	Jan	1	0	0	0	1	0.1
1910	Feb	2	1	0	0	3	0.3
1910	Mar	3	2	0	0	5	0.5
1910	Apr	4	3	0	0	7	0.7
1910	May	5	4	0	0	9	0.9
1910	Jun	6	5	0	0	11	1.1
1910	Jul	7	6	0	0	13	1.3
1910	Aug	8	7	0	0	15	1.5
1910	Sep	9	8	0	0	17	1.7
1910	Oct	10	9	0	0	19	1.9
1910	Nov	11	10	0	0	21	2.1
1910	Dec	12	11	0	0	23	2.3
1911	Jan	13	12	0	0	25	2.5
1911	Feb	14	13	0	0	27	2.7
1911	Mar	15	14	0	0	29	2.9
1911	Apr	16	15	0	0	31	3.1
1911	May	17	16	0	0	33	3.3
1911	Jun	18	17	0	0	35	3.5
1911	Jul	19	18	0	0	37	3.7
1911	Aug	20	19	0	0	39	3.9
1911	Sep	21	20	0	0	41	4.1
1911	Oct	22	21	0	0	43	4.3
1911	Nov	23	22	0	0	45	4.5
1911	Dec	24	23	0	0	47	4.7
1912	Jan	25	24	0	0	49	4.9
1912	Feb	26	25	0	0	51	5.1
1912	Mar	27	26	0	0	53	5.3
1912	Apr	28	27	0	0	55	5.5
1912	May	29	28	0	0	57	5.7
1912	Jun	30	29	0	0	59	5.9
1912	Jul	31	30	0	0	61	6.1
1912	Aug	32	31	0	0	63	6.3
1912	Sep	33	32	0	0	65	6.5
1912	Oct	34	33	0	0	67	6.7
1912	Nov	35	34	0	0	69	6.9
1912	Dec	36	35	0	0	71	7.1
1913	Jan	37	36	0	0	73	7.3
1913	Feb	38	37	0	0	75	7.5
1913	Mar	39	38	0	0	77	7.7
1913	Apr	40	39	0	0	79	7.9
1913	May	41	40	0	0	81	8.1
1913	Jun	42	41	0	0	83	8.3
1913	Jul	43	42	0	0	85	8.5
1913	Aug	44	43	0	0	87	8.7
1913	Sep	45	44	0	0	89	8.9
1913	Oct	46	45	0	0	91	9.1
1913	Nov	47	46	0	0	93	9.3
1913	Dec	48	47	0	0	95	9.5
1914	Jan	49	48	0	0	97	9.7
1914	Feb	50	49	0	0	99	9.9
1914	Mar	51	50	0	0	101	10.1
1914	Apr	52	51	0	0	103	10.3
1914	May	53	52	0	0	105	10.5
1914	Jun	54	53	0	0	107	10.7
1914	Jul	55	54	0	0	109	10.9
1914	Aug	56	55	0	0	111	11.1
1914	Sep	57	56	0	0	113	11.3
1914	Oct	58	57	0	0	115	11.5
1914	Nov	59	58	0	0	117	11.7
1914	Dec	60	59	0	0	119	11.9
1915	Jan	61	60	0	0	121	12.1
1915	Feb	62	61	0	0	123	12.3
1915	Mar	63	62	0	0	125	12.5
1915	Apr	64	63	0	0	127	12.7
1915	May	65	64	0	0	129	12.9
1915	Jun	66	65	0	0	131	13.1
1915	Jul	67	66	0	0	133	13.3
1915	Aug	68	67	0	0	135	13.5
1915	Sep	69	68	0	0	137	13.7
1915	Oct	70	69	0	0	139	13.9
1915	Nov	71	70	0	0	141	14.1
1915	Dec	72	71	0	0	143	14.3
1916	Jan	73	72	0	0	145	14.5
1916	Feb	74	73	0	0	147	14.7
1916	Mar	75	74	0	0	149	14.9
1916	Apr	76	75	0	0	151	15.1
1916	May	77	76	0	0	153	15.3
1916	Jun	78	77	0	0	155	15.5
1916	Jul	79	78	0	0	157	15.7
1916	Aug	80	79	0	0	159	15.9
1916	Sep	81	80	0	0	161	16.1
1916	Oct	82	81	0	0	163	16.3
1916	Nov	83	82	0	0	165	16.5
1916	Dec	84	83	0	0	167	16.7
1917	Jan	85	84	0	0	169	16.9
1917	Feb	86	85	0	0	171	17.1
1917	Mar	87	86	0	0	173	17.3
1917	Apr	88	87	0	0	175	17.5
1917	May	89	88	0	0	177	17.7
1917	Jun	90	89	0	0	179	17.9
1917	Jul	91	90	0	0	181	18.1
1917	Aug	92	91	0	0	183	18.3
1917	Sep	93	92	0	0	185	18.5
1917	Oct	94	93	0	0	187	18.7
1917	Nov	95	94	0	0	189	18.9
1917	Dec	96	95	0	0	191	19.1
1918	Jan	97	96	0	0	193	19.3
1918	Feb	98	97	0	0	195	19.5
1918	Mar	99	98	0	0	197	19.7
1918	Apr	100	99	0	0	199	19.9
1918	May	101	100	0	0	201	20.1
1918	Jun	102	101	0	0	203	20.3
1918	Jul	103	102	0	0	205	20.5
1918	Aug	104	103	0	0	207	20.7
1918	Sep	105	104	0	0	209	20.9
1918	Oct	106	105	0	0	211	21.1
1918	Nov	107	106	0	0	213	21.3
1918	Dec	108	107	0	0	215	21.5
1919	Jan	109	108	0	0	217	21.7
1919	Feb	110	109	0	0	219	21.9
1919	Mar	111	110	0	0	221	22.1
1919	Apr	112	111	0	0	223	22.3
1919	May	113	112	0	0	225	22.5
1919	Jun	114	113	0	0	227	22.7
1919	Jul	115	114	0	0	229	22.9
1919	Aug	116	115	0	0	231	23.1
1919	Sep	117	116	0	0	233	23.3
1919	Oct	118	117	0	0	235	23.5
1919	Nov	119	118	0	0	237	23.7
1919	Dec	120	119	0	0	239	23.9
1920	Jan	121	120	0	0	241	24.1
1920	Feb	122	121	0	0	243	24.3
1920	Mar	123	122	0	0	245	24.5
1920	Apr	124	123	0	0	247	24.7
1920	May	125	124	0	0	249	24.9
1920	Jun	126	125	0	0	251	25.1
1920	Jul	127	126	0	0	253	25.3
1920	Aug	128	127	0	0	255	25.5
1920	Sep	129	128	0	0	257	25.7
1920	Oct	130	129	0	0	259	25.9
1920	Nov	131	130	0	0	261	26.1
1920	Dec	132	131	0	0	263	26.3
1921	Jan	133	132	0	0	265	26.5
1921	Feb	134	133	0	0	267	26.7
1921	Mar	135	134	0	0	269	26.9
1921	Apr	136	135	0	0	271	27.1
1921	May	137	136	0	0	273	27.3
1921	Jun	138	137	0	0	275	27.5
1921	Jul	139	138	0	0	277	27.7
1921	Aug	140	139	0	0	279	27.9
1921	Sep	141	140	0	0	281	28.1
1921	Oct	142	141	0	0	283	28.3
1921	Nov	143	142	0	0	285	28.5
1921	Dec	144	143	0	0	287	28.7
1922	Jan	145	144	0	0	289	28.9
1922	Feb	146	145	0	0	291	29.1
1922	Mar	147	146	0	0	293	29.3
1922	Apr	148	147	0	0	295	29.5
1922	May	149	148	0	0	297	29.7
1922	Jun	150	149	0	0	299	29.9
1922	Jul	151	150	0	0	301	30.1
1922	Aug	152	151	0	0	303	30.3
1922	Sep	153	152	0	0	305	30.5
1922	Oct	154	153	0	0	307	30.7
1922	Nov	155	154	0	0	309	30.9
1922	Dec	156	155	0	0	311	31.1
1923	Jan	157	156	0	0	313	31.3
1923	Feb	158	157	0	0	315	31.5
1923	Mar	159	158	0	0	317	31.7
1923	Apr	160	159	0	0	319	31.9
1923	May	161	160	0	0	321	32.1
1923	Jun	162	161	0	0	323	32.3
1923	Jul	163	162	0	0	325	32.5
1923	Aug	164	163	0	0	327	32.7
1923	Sep	165	164	0	0	329	32.9
1923	Oct	166	165	0	0	331	33.1
1923	Nov	167	166	0	0	333	33.3
1923	Dec	168	167	0	0	335	33.5
1924	Jan	169	168	0	0	337	33.7
1924	Feb	170	169	0	0	339	33.9
1924	Mar	171	170	0	0	341	34.1
1924	Apr	172	171	0	0	343	34.3
1924	May	173	172	0	0	345	34.5
1924	Jun	174	173	0	0	347	34.7
1924	Jul	175	174	0	0	349	34.9
1924	Aug	176	175	0	0	351	35.1
1924	Sep	177	176	0	0	353	35.3
1924	Oct	178	177	0	0	355	35.5
1924	Nov	179	178	0	0	357	35.7
1924	Dec	180	179	0	0	359	35.9
1925	Jan	181	180	0	0	361	36.1
1925	Feb	182	181	0	0	363	36.3
1925	Mar	183	182	0	0	365	36.5
1925	Apr	184	183	0	0	367	36.7
1925	May	185	184	0	0	369	36.9
1925	Jun	186	185	0	0	371	37.1
1925	Jul	187	186	0	0	373	37.3
1925	Aug	188	187	0	0	375	37.5
1925	Sep	189	188	0	0	377	37.7
1925	Oct	190	189	0	0	379	37.9
1925	Nov	191	190	0	0	381	38.1
1925	Dec	192	191	0	0	383	38.3
1926							

SMALLPOX STATISTICS.—TABLE IV.—Analysis of Cases included in Table II, which had been successfully Vaccinated or Re-vaccinated after having been infected by Smallpox.

AGES.	CLASS I.—Cases in which vaccination was stated to have been performed from the 11th to 15th day before the day on which the rash appeared.						CLASS II.—Cases in which vaccination was stated to have been performed from the 8th to 10th day before the day on which the rash appeared.						CLASS III.—Cases in which vaccination was stated to have been performed from the 5th to 7th day before the day on which the rash appeared.						CLASS IV.—Cases in which vaccination was stated to have been performed on the 4th day before the day on which the rash appeared, or later.						CLASS V.—Cases in which the day of the incubation period on which vaccination was performed could not be ascertained.						TOTAL.										
	Previously vaccinated and showing cicatrices.		Evidence as to previous vaccination inconclusive.		Evidence of previous vaccination absent.		Previously vaccinated and showing cicatrices.		Evidence as to previous vaccination inconclusive.		Evidence of previous vaccination absent.		Previously vaccinated and showing cicatrices.		Evidence as to previous vaccination inconclusive.		Evidence of previous vaccination absent.		Previously vaccinated and showing cicatrices.		Evidence as to previous vaccination inconclusive.		Evidence of previous vaccination absent.		Admitted.	Died.															
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.																			
	Diets.	Confident or Hemorrhagic.	Diets.	Confident or Hemorrhagic.	Diets.	Confident or Hemorrhagic.	Diets.	Confident or Hemorrhagic.	Diets.	Confident or Hemorrhagic.	Diets.	Confident or Hemorrhagic.	Diets.	Confident or Hemorrhagic.	Diets.	Confident or Hemorrhagic.	Diets.	Confident or Hemorrhagic.	Diets.	Confident or Hemorrhagic.	Diets.	Confident or Hemorrhagic.	Diets.	Confident or Hemorrhagic.																	
Under 1 year ...	...	...	5	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	63	38														
From 1 to 2 years	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	29	6														
2 3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	15	3														
3 4	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	29	6														
4 5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	22	5														
5 6	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	24	...														
6 7	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	26	1														
7 8	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	24	1														
8 9	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	20	2														
9 10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	19	1														
10 11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14	1														
11 12	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17	1														
12 13	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16	3														
13 14	...	...	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	15	1														
14 15	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	1														
15 16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	75	4														
16 17	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	72	2														
18 19	...	...	1	1	1	10	1	1	13	2	25	...	...	...	...	...	...	...	...	...	...	...	...	...	...	81	7														
20 21	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	57	5													
22 23	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	45	4													
24 25	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	54	9													
26 27	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	...													
28 29	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
30 31	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
32 33	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
34 35	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
36 37	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
38 39	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
40 41	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
42 43	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
44 45	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
46 47	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
48 49	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
50 51	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
52 53	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
54 55	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
56 57	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
58 59	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
60 61	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
62 63	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
64 65	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
66 67	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
68 69	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
70 71	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
72 73	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
74 75	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
76 77	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
78 79	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
80 81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
82 83	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
84 85	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
86 87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
88 89	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
90 91	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
92 93	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
94 95	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
96 97	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
98 99	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...													
TOTAL	14	2	17	4	5	90	6	3	13	1	122	21	20	117	15	12	7	1	2	53	31	31	52	14	7	5	3	1	50	18	18	3	1	1	...	...	5	1	2	736	103

Note.—This table follows the form used by the medical superintendents of the Hospital Ships in his report for the year 1905, but which has not been continued in subsequent reports.





SMALLPOX STATISTICS.—TABLE V.—List of Cases stated to have previously suffered from Smallpox, and included in Table II.

Consecutive Numbers.	Patients' Age.	PREVIOUS VACCINATION.			PREVIOUS SMALLPOX.			Type of Disease.	Result.	Reference Number in Case Register.
		A.		B.	C.	Whether Scars present, affording presumptive evidence of previous Smallpox.	Period stated to have elapsed since previous attack of Smallpox.			
		Vaccination Cicatrix or Cicatrices present.	Area.	Evidence as to Vaccination inconclusive.						
1	91	...	...	...	Absent	Yes	90 years	Confluent	D	1,404
2	69	...	...	Inconclusive	...	Yes	65 "	Hæmorrhagic	D	4,011
3	61	2	.91	...	...	Yes	53 "	Discrete	R	3,428
4	57	2	.32	...	Absent	Yes	53 "	Discrete	R	3,252
5	65	...	...	...	...	Yes	41 "	Discrete	R	4,589
6	46	...	...	...	Absent	Yes	40 "	Discrete	R	346
7	47	2	.67	...	...	Yes	36 "	Discrete	R	3,718
8	36	...	...	...	Absent	Yes	36 "	Discrete	R	1,172
9	32	...	...	...	Absent	Yes	31 "	Discrete	R	6,612
10	30	...	...	...	Absent	Yes	30 "	Discrete	R	463
11	23	...	...	Inconclusive	...	Yes	21 "	Discrete	R	3,907
12	35	...	...	...	Absent	No opinion possible	33 "	Confluent	D	1,567
13	71	2	.33	...	...	No	65 "	Discrete	D	1,247
14	64	1	.28	...	...	No	60 "	Discrete	R	5,066
15	58	...	...	...	Absent	No	49 "	Confluent	D	7,062
16	58	4	.78	...	...	No	46 "	Discrete	R	5,304
17	46	1	1.70	...	...	No	40 "	Discrete	R	3,028
18	48	3	.67	...	...	No	31 "	Discrete	R	3,210
19	34	5	.50	...	...	No	29 "	Discrete	R	685
20	33	5	.77	...	...	No	24 "	Discrete	R	6,659

SMALLPOX STATISTICS.—TABLE VI.—List of Cases† stated to have been successfully revaccinated which have been included in Table II.

N.B.—No cases where the revaccination was performed after infection by smallpox are here included.

Consecutive Number.	Patients' Age.	Vaccination Cicatrix or Cicatrices present.		Whether their appearance affords presumptive evidence of Revaccination.	Vaccination Cicatrix absent.*	Period stated to have elapsed since last successful Revaccination.	Type of Disease.	Result.	Remarks.	Reference Number in Case Register.
		Number	Area in square inch.							
1	69	3	.87	Yes	...	51 years	Discrete	R	...	3,199
2	61	5	.50	Yes	...	50 "	Discrete	R	...	470
3	68	4	1.14	Yes	...	48 "	Discrete	R	...	7,213
4	49	4	.99	Yes	...	44 "	Discrete	R	...	612
5	51	5	.68	Yes	...	42 "	Discrete	R	...	5,725
6	48	8	1.15	Yes	...	42 "	Discrete	R	...	902
7	47	5	.65	Yes	...	40 "	Discrete	R	...	6,195
8	56	4	.58	Yes	...	40 "	Discrete	R	...	5,713
9	46	4	.65	Yes	...	39 "	Discrete	R	...	3,696
10	49	3	1.21	Yes	...	37 "	Discrete	R	...	7,273
11	52	6	1.44	Yes	...	37 "	Hæmorrhagic	D	...	2,508
12	49	4	vague	Yes	...	37 "	Discrete	R	...	3,102
13	55	4	.29	Yes	...	36 "	Discrete	R	...	3,804
14	66	5	.50	Yes	...	36 "	Hæmorrhagic	D	...	3,918
15	41	5	1.05	Yes	...	35 "	Discrete	R	...	488
16	49	5	1.99	Yes	...	35 "	Discrete	R	...	1,015
17	52	8	1.03	Yes	...	34 "	Discrete	R	Stated to have been revaccinated successfully also 39 years ago.	582
18	45	6	.58	Yes	...	33 "	Discrete	R	Stated to have been revaccinated successfully also 38 years ago, and to have been revaccinated unsuccessfully 7 years ago.	3,867
19	49	6	1.16	Yes	...	32 "	Discrete	R	...	6,127
20	43	5	2.18	Yes	...	32 "	Discrete	R	...	5,679
21	46	4	.74	Yes	...	32 "	Discrete	R	Stated also to have been revaccinated unsuccessfully 2 years ago.	5,525

\* In this column are included cases stated to have been both vaccinated and revaccinated but bearing no visible evidence of either operation. Any case stated to have been both vaccinated and revaccinated in which the nature of the eruption or other cause might have prevented the observation of the marks, if any existed, would be included in this column, and the circumstances noted in the remarks column.

† These cases of reputed vaccination are those only which occurred among the 7,316 patients who were treated for smallpox at the Hospital Ships or the Long Reach Hospital.

SMALLPOX STATISTICS.—TABLE VI. (continued).

Consecutive Number.	Patient's Age.	Vaccination Cicatrix or Cicatrices present.			Vaccination Cicatrix absent.*	Period stated to have elapsed since last successful Revaccination.	Type of Disease.	Result.	Remarks.	Reference Number in Case Register.
		Number	Area in square inch.	Whether their appearance affords presumptive evidence of Revaccination.						
22	46	6	1.01	Yes	...	31 years	Discrete	R	...	3,885
23	44	4	.39	Yes	...	31 "	Discrete	R	...	3,251
24	37	6	.72	Yes	...	30 "	Discrete	R	...	2,393
25	42	5	.39	Yes	...	30 "	Discrete	R	...	7,053
26	54	6	.99	Yes	...	30 "	Discrete	R	Stated to have been revaccinated successfully also 35 years ago.	5,645
27	47	2	1.16	Yes	...	30 "	Discrete	R	...	5,605
28	41	3	.49	Yes	...	30 "	Discrete	R	...	6,463
29	50	5	1.13	Yes	...	30 "	Discrete	R	...	6,393
30	43	8	1.09	Yes	...	30 "	Discrete	R	...	4,308
31	55	8	1.81	Yes	...	30 "	Discrete	R	...	756
32	44	9	1.84	Yes	...	30 "	Discrete	R	...	1,352
33	43	8	1.40	Yes	...	29 "	Discrete	R	...	7,330
34	44	5	.73	Yes	...	29 "	Discrete	R	...	50
35	42	5	.37	Yes	...	27 "	Discrete	R	Stated to have been revaccinated successfully also 33 years ago.	6,424
36	44	4	.91	Yes	...	26 "	Discrete	R	...	7,297
37	47	2	.37	Yes	...	26 "	Discrete	R	...	6,564
38	36	5	.80	Yes	...	26 "	Discrete	R	...	4,384
39	34	6	.72	Yes	...	26 "	Discrete	R	...	710
40	36	4	.43	Yes	...	26 "	Discrete	R	...	3,877
41	38	4	1.01	Yes	...	25 "	Discrete	R	...	856
42	42	5	> 1.00	Yes	...	25 "	Discrete	R	...	584
43	43	7	2.27	Yes	...	25 "	Discrete	R	...	2,835
44	41	11	2.35	Yes	...	24 "	Discrete	R	...	6,781
45	38	2	1.10	Yes	...	24 "	Confluent	D	...	6,860
46	42	5	.65	Yes	...	24 "	Discrete	R	...	315
47	40	5	.79	Yes	...	23 "	Discrete	R	...	5,001
48	42	6	.76	Yes	...	23 "	Discrete	R	...	2,397

\* In this column are included cases stated to have been both vaccinated and revaccinated, but bearing no visible evidence of either operation. Any case stated to have been both vaccinated and revaccinated in which the nature of the eruption or other cause might have prevented the observation of the marks, if any existed, would be included in this column, and the circumstances noted in the remarks column.

SMALLPOX STATISTICS.—TABLE VI. (continued).

Consecutive Number.	Patient's Age.	Vaccination Cicatrix or Cicatrices present.		Whether their appearance affords presumptive evidence of Revaccination.	Vaccination Cicatrix absent.*	Period stated to have elapsed since last successful Revaccination.	Type of Disease.	Result.	Remarks.	Reference Number in Case Register.
		Number	Area in square inch.							
49	28	7	1.25	Yes	..	22 years	Discrete	R	...	5,660
50	42	5	1.03	Yes	..	22 "	Discrete	R	...	1,255
51	31	6	2.51	Yes	..	21 "	Confluent	R	...	7,315
52	46	2	.85	Yes	..	21 "	Discrete	R	...	4,565
53	42	4	.23	Yes	..	20 "	Discrete	R	Stated to have been revaccinated successfully also 28 years ago.	6,576
54	36	5	.98	Yes	..	20 "	Discrete	R	...	6,119
55	42	5	.76	Yes	..	20 "	Discrete	R	...	5,649
56	46	5	1.36	Yes	..	20 "	Discrete	R	...	4,579
57	36	7	1.53	Yes	..	20 "	Discrete	R	...	5,080
58	42	5	1.52	Yes	..	20 "	Discrete	R	...	422
59	44	6	.72	Yes	..	20 "	Discrete	R	...	896
60	40	6	.77	Yes	..	20 "	Discrete	R	...	1,005
61	38	2	.46	Yes	..	19 "	Discrete	R	...	1,971
62	32	7	3.03	Yes	..	18 "	Discrete	R	...	3,739
63	32	3	.93	Yes	..	17 "	Discrete	R	Stated also to have been revaccinated unsuccessfully 18 months ago and again 6 months ago.	5,564
64	32	3	.33	Yes	..	17 "	Discrete	R	Stated also to have been revaccinated unsuccessfully 3½ years ago.	6,161
65	50	5	.62	Yes	..	17 "	Discrete	R	Stated to have been revaccinated successfully also 24 years ago; there is evidence of one successful revaccination only.	5,625
66	39	6	.84	Yes	..	17 "	Discrete	R	...	4,674
67	28	2	.55	Yes	..	16 "	Discrete	R	...	5,986
68	34	5	1.10	Yes	..	16 "	Discrete	R	...	1,877
69	42	6	.60	Yes	..	16 "	Discrete	R	Stated to have been revaccinated successfully also 32 years ago.	3,184
70	49	3	1.39	Yes	..	15 "	Discrete	R	Stated also to have been unsuccessfully revaccinated 5 years ago.	3,172
71	29	3	vague	Yes	..	15 "	Discrete	R	...	4,327

\* In this column are included cases stated to have been both vaccinated and revaccinated, but bearing no visible evidence of either operation. Any case stated to have been both vaccinated and revaccinated in which the nature of the eruption or other cause might have prevented the observation of the eruption, if any existed, would be included in this column, and the circumstances noted in the remarks column.

SMALLPOX STATISTICS.—TABLE VI. (continued).

Consecutive Number.	Patient's Age.	Vaccination Cicatrix or Cicatrices present.			Vaccination Cicatrix absent.*	Period stated to have elapsed since last successful Revaccination.	Type of Disease.	Result.	Remarks.	Reference Number in Case Register.
		Number	Area in square inch.	Whether their appearance affords presumptive evidence of Revaccination.						
72	49	8	1.31	Yes	15 years	Discrete	R	...	7,178	
73	34	3	.97	Yes	15 "	Confluent	R	...	5,469	
74	52	6	.72	Yes	15 "	Discrete	R	...	326	
75	45	4	1.16	Yes	14 "	Discrete	R	...	4,341	
76	31	6	2.79	Yes	14 "	Discrete	R	...	1,261	
77	24	2	.50	Yes	14 "	Discrete	R	...	2,572	
78	27	2	1.09	Yes	14 "	Discrete	R	...	3,218	
79	27	2	.68	Yes	13 "	Discrete	R	...	5,436	
80	30	4	.84	Yes	13 "	Discrete	R	...	4,994	
81	73	6	.82	Yes	12 "	Discrete	R	...	474	
82	59	5	.98	Yes	12 "	Discrete	R	...	2,019	
83	54	4	.34	Yes	10 "	Discrete	R	...	1,600	
84	26	4	.72	Yes	10 "	Discrete	R	...	5,024	
85	32	7	1.50	Yes	10 "	Discrete	R	...	4,920	
86	23	5	.50	Yes	10 "	Discrete	R	...	1,119	
87	42	3	.56	Yes	8 "	Discrete	R	...	5,611	
88	20	5	2.07	Yes	5 "	Discrete	R	...	5,741	
89	33	4	1.83	Yes	5 "	Discrete	R	...	502	
90	13	5	1.85	Yes	4 "	Discrete	R	...	3,301	
91	53	2	.07	Yes	3 "	Discrete	R	...	2,397	
92	13	6	1.51	Yes	2 "	Discrete	R	...	3,531	
93	43	7	.69	Yes	Uncertain	Discrete	R	...	242	
94	52	5	.61	Uncertain†	45 years	Discrete	R	...	1,991	
95	57	4	.44	Uncertain†	42 "	Discrete	R	...	995	

\* In this column are included cases stated to have been both vaccinated and revaccinated but bearing no visible evidence of either operation. Any case stated to have been both vaccinated and revaccinated in which the nature of the eruption or other cause might have prevented the observation of the marks, if any existed, would be included in this column, and the circumstances noted in the remarks column.

† Evidence of revaccination uncertain, but capable of interpretation in the affirmative.

SMALLPOX STATISTICS.—TABLE VI. (continued).

Consecutive Number.	Patient's Age.	Vaccination Cicatrix or Cicatrices present.		Whether their appearance affords presumptive evidence of Revaccination.	Vaccination Cicatrix absent.*	Period stated to have elapsed since last successful Revaccination.	Type of Disease.	Result.	Remarks.	Reference Number in Case Register.
		Number	Area in square inch.							
96	56	4	.56	Uncertain†	...	40 years	Discrete	R	...	6,888
97	61	4	.85	Uncertain†	...	40 "	Discrete	R	...	344
98	61	3	>	Uncertain†	...	40 "	Discrete	R	...	1,232
99	50	4	.81	Uncertain†	...	40 "	Discrete	R	...	1,287
100	43	3	.54	Uncertain†	...	40 "	Discrete	R	...	3,098
101	59	3	.84	Uncertain†	...	37 "	Discrete	R	...	1,997
102	42	6	1.22	Uncertain†	...	37 "	Discrete	R	...	4,306
103	51	2	.75	Uncertain†	...	37 "	Discrete	R	...	1,993
104	51	4	.57	Uncertain†	...	36 "	Confluent	D	...	119
105	50	5	.43	Uncertain†	...	36 "	Hæmorrhagic	D	...	1,293
106	35	4	1.03	Uncertain†	...	31 "	Discrete	R	...	4,655
107	43	7	1.57	Uncertain†	...	31 "	Discrete	R	...	2,281
108	42	2	.10	Uncertain†	...	30 "	Discrete	R	...	734
109	47	3	1.12	Uncertain†	...	30 "	Discrete	R	...	1,664
110	46	4	.88	Uncertain†	...	30 "	Discrete	R	...	2,034
111	37	5	.53	Uncertain†	...	30 "	Discrete	R	...	93
112	44	5	.36	Uncertain†	...	30 "	Confluent	R	...	3,467
113	51	vague	<	Uncertain†	...	30 "	Discrete	R	...	4,381
114	41	5	.49	Uncertain†	...	29 "	Discrete	R	The scars were too vaguely marked to be counted.	3,141
115	37	3	.88	Uncertain†	...	28 "	Discrete	R	...	3,760
116	43	7	1.49	Uncertain†	...	27 "	Discrete	R	...	5,682
117	40	3	2.39	Uncertain†	...	26 "	Discrete	R	...	271
118	45	3	.59	Uncertain†	...	25 "	Discrete	R	Stated also to have been revaccinated unsuccessfully 16 years ago.	1,637
119	46	5	1.03	Uncertain†	...	25 "	Confluent	D	...	6,607
120	33	2	.14	Uncertain†	...	23 "	Confluent	D	...	1,345
121	43	4	.81	Uncertain†	...	22 "	Discrete	R	...	5,106
122	35	5	1.17	Uncertain†	...	21 "	Discrete	R	...	1,484
123	36	3	.26	Uncertain†	...	21 "	Discrete	R	...	1,695

\* In this column are included cases stated to have been both vaccinated and revaccinated but bearing no visible evidence of either operation. Any case stated to have been both vaccinated and revaccinated in which the nature of the eruption or other cause might have prevented the observation of the marks, if any existed, would be included in this column, and the circumstances noted in the remarks column.

† Evidence of revaccination uncertain, but capable of interpretation in the affirmative.

SMALLPOX STATISTICS.—TABLE VI. (continued).

Consecutive Number.	Patient's Age.	Vaccination Cicatrix or Cicatrices present.			Vaccination Cicatrix absent.*	Period stated to have elapsed since last successful Revaccination.	Type of Disease.	Result.	Remarks.	Reference Number in Case Register.
		Number	Area in square inch.	Whether their appearance affords presumptive evidence of Revaccination.						
124	52	4	.40	Uncertain†	...	20 years	Discrete	R	58	
125	42	5	.84	Uncertain†	...	20 "	Confluent	R	8,823	
126	40	2	.20	Uncertain†	...	19 "	Discrete	R	4,550	
127	58	2	.33	Uncertain†	...	18 "	Confluent	R	1,781	
128	33	5	1.53	Uncertain†	...	15 "	Discrete	R	6,777	
129	48	5	1.26	Uncertain†	...	15 "	Confluent	D	6,608	
130	46	vague	.50	Uncertain†	...	15 "	Discrete	R	4,971	
131	46	2	.51	Uncertain†	...	15 "	Discrete	R	2,445	
132	55	5	.85	Uncertain†	...	14 "	Confluent	R	1,901	
133	27	6	1.50	Uncertain†	...	14 "	Discrete	R	576	
134	72	4	.50	Uncertain†	...	12 "	Discrete	R	1,177	
135	34	...	>	Uncertain†	...	12 "	Discrete	R	1,550	
136	28	5	1.00	Uncertain†	...	8 "	Discrete	R	297	
137	56	3	.25	Uncertain†	...	8 "	Discrete	R	2,226	
138	38	4	.45	Uncertain†	...	7 "	Discrete	R	2,018	
139	38	7	2.63	Uncertain†	...	5 "	Discrete	R	4,349	
140	27	3	1.04	Uncertain†	...	4 "	Discrete	R	6,290	
141	85	1	.49	No ...	...	79 "	Discrete	R	5,376	
142	59	3	.28	No ...	...	50 "	Discrete	R	4,993	
143	60	4	.76	No ...	...	46 "	Discrete	R	2,518	
144	62	4	1.03	No ...	...	43 "	Discrete	R	596	
145	62	3	.79	No ...	...	42 "	Confluent	D	7,272	
146	61	1	.36	No ...	...	40 "	Discrete	R	4,351	
147	57	2	.27	No ...	...	37 "	Discrete	R	3,621	
148	50	2	.29	No ...	...	37 "	Discrete	R	1,463	
149	46	1	.23	No ...	...	36 "	Discrete	R	4,418	

\* In this column are included cases stated to have been both vaccinated and revaccinated but bearing no visible evidence of either operation. Any case stated to have been both vaccinated and revaccinated in which the nature of the eruption or other cause might have prevented the observation of the marks, if any existed, would be included in this column, and the circumstances noted in the remarks column.

† Evidence of revaccination uncertain, but capable of interpretation in the affirmative.

SMALLPOX STATISTICS.—TABLE VI. (continued).

Consecutive Number.	Patient's Age.	Vaccination Cicatrix or Cicatrices present.			Vaccination Cicatrix absent.*	Period stated to have elapsed since last successful Revaccination.	Type of Disease.	Result.	Remarks.	Reference Number in Case Register.
		Number	Area in square inch.	Whether their appearance affords presumptive evidence of Revaccination.						
150	52	4	.57	No...	...	35 years	Confluent	D	...	4,083
151	50	2	.84	No...	...	35 "	Discrete	R	...	5,242
152	44	1	.28	No...	...	35 "	Discrete	R	...	188
153	41	3	.16	No...	...	35 "	Discrete	R	Patient stated that after her revaccination she had a bad arm and required a sling; there is, therefore, presumptive evidence that the revaccination was successful, although there is no scar evidence.	3,490
154	48	4	.79	No...	...	34 "	Discrete	R	...	6,331
155	44	3	1.95	No...	...	34 "	Confluent	R	...	26
156	47	3	<.33	No...	...	33 "	Discrete	R	...	1,464
157	42	3	.63	No...	...	32 "	Discrete	R	...	5,848
158	48	3	.67	No...	...	31 "	Discrete	R	...	3,210
159	38	1	.38	No...	...	31 "	Discrete	R	...	3,132
160	53	2	Vague	No...	...	31 "	Discrete	R	Possibly more scars than two may have been present, but, if so, they were concealed by the eruption.	2,839
161	77	1	.09	No...	...	30 "	Discrete	R	...	6,179
162	37	3	.25	No...	...	30 "	Discrete	R	...	6,872
163	56	...	...	No...	Absent	30 "	Discrete	D	...	3,799
164	46	2	.55	No...	...	30 "	Discrete	R	...	4,022
165	39	5	.61	No...	...	30 "	Discrete	R	...	272
166	44	3	.44	No...	...	30 "	Discrete	R	...	3,179
167	65	...	...	No...	Absent	30 "	Discrete	R	...	1,706
168	34	2	.22	No...	...	29 "	Confluent	D	...	2,986
169	39	3	.55	No...	...	29 "	Discrete	R	...	1,797
170	50	2	.27	No...	...	29 "	Discrete	R	...	448
171	38	3	1.42	No...	...	28 "	Confluent	R	...	6,533
172	31	3	.80	No...	...	28 "	Discrete	R	...	3,249
173	39	2	.35	No...	...	28 "	Hæmorrhagic	D	...	604
174	42	...	...	No...	Absent	28 "	Discrete	R	Scars due to vaccination, if any existed—could not be distinguished from those of a different nature.	553

\* In this column are included cases stated to have been both vaccinated and revaccinated but bearing no visible evidence of either operation. Any case stated to have been both vaccinated and revaccinated in which the nature of the eruption or other cause might have prevented the observation of the marks, if any existed, would be included in this column, and the circumstances noted in the remarks column.



SMALLPOX STATISTICS.—TABLE VI. (continued)

Consecutive Number.	Patient's Age.	Vaccination Cicatrix or Cicatrices present.		Whether their appearance affords presumptive evidence of Revaccination.	Vaccination Cicatrix absent.*	Period stated to have elapsed since last successful Revaccination.	Type of Disease.	Result.	Remarks.	Reference Number in Case Register.
		Number	Area in square inch.							
175	44	2	.58	No	...	28 years	Discrete	R	...	400
176	40	4	.36	No	...	27 "	Discrete	R	...	5,482
177	38	4	.50	No	...	26 "	Discrete	R	...	3,481
178	46	3	.42	No	...	25 "	Confluent	D	...	6,405
179	35	2	.29	No	...	25 "	Discrete	R	...	6,377
180	43	1	.13	No	...	25 "	Discrete	R	...	5,881
181	52	3	>.50	No	...	25 "	Discrete	R	Stated to have been revaccinated also 32 years ago. Patient was doubtful if either revaccination was successful.	1,472
182	38	2	.60	No	...	24 "	Discrete	R	...	1,333
183	50	...	...	No	Absent	24 "	Confluent	D	Scars possibly present, but concealed by eruption.	6,847
184	33	3	.60	No	...	24 "	Discrete	R	...	1,009
185	43	3	.51	No	...	23 "	Discrete	R	The three scars present were stated by patient to be those of revaccination, in which case there would be doubt as to the success of the primary vaccination.	4,407
186	44	3	.31	No	...	22 "	Discrete	R	...	5,973
187	32	2	>.50	No	...	22 "	Discrete	D	Possibly more scars than two may have been present, but, if so, they were concealed by the eruption.	3,322
188	42	4	.36	No	...	22 "	Discrete	R	...	1,357
189	40	...	...	No	Absent	22 "	Confluent	D	...	916
190	28	4	1.27	No	...	22 "	Confluent	R	...	781
191	32	4	.54	No	...	22 "	Hæmorrhagic	D	...	895
192	32	1	.39	No	...	22 "	Discrete	R	Stated also to have been revaccinated unsuccessfully 5 years ago.	1,396
193	29	4	.47	No	...	21 "	Discrete	R	...	5,782
194	29	4	2.36	No	...	21 "	Discrete	R	...	2,412
195	41	...	...	No	Absent	20 "	Discrete	R	...	4,501
196	38	3	<.33	No	...	20 "	Discrete	R	...	4,657
197	39	3	.30	No	...	20 "	Discrete	R	The three scars present were stated by the patient to be those of revaccination, in which case there would be doubt as to the success of the primary vaccination.	3,837

\* In this column are included cases stated to have been both vaccinated and revaccinated but bearing no visible evidence of either operation. Any case stated to have been both vaccinated and revaccinated in which the nature of the eruption or other cause might have prevented the observation of the marks, if any existed, would be included in this column, and the circumstances noted in the remarks column.

SMALLPOX STATISTICS.—TABLE VI. (continued).

Consecutive Number.	Patient's Age.	Vaccination Cicatrix or Cicatrices present.		Whether their appearance affords presumptive evidence of Revaccination.	Vaccination Cicatrix absent.*	Period stated to have elapsed since last successful Revaccination.	Type of Disease.	Result.	Remarks.	Reference Number in Case Register.
		Number	Area in square inch.							
198	38	2	.46	No	...	20 years	Confluent	D	...	6,239
199	64	...	...	No	Absent	20 "	Discrete	R	Vaccination scars, if present, cannot be distinguished from those of other origin. Stated also to have been revaccinated unsuccessfully 28 years ago.	4,599
200	31	3	.47	No	...	20 "	Discrete	R	...	4,365
201	43	3	.65	No	...	20 "	Discrete	D	...	6,727
202	38	2	.20	No	...	20 "	Discrete	R	Patient stated that the scars present were those of revaccination, in which case there would be doubt as to the success of the primary vaccination.	6,401
203	46	2	.77	No	...	20 "	Discrete	R	...	32
204	56	3	.54	No	...	20 "	Discrete	R	Patient was doubtful if the revaccination was successful.	2,341
205	54	4	1.03	No	...	20 "	Discrete	R	...	648
206	45	3	.61	No	...	20 "	Confluent	D	No statement made as to success of revaccination or otherwise.	1,823
207	54	5	1.64	No	...	20 "	Confluent	R	...	395
208	39	3	.89	No	...	20 "	Discrete	R	Stated to have been revaccinated successfully, also 29 years ago.	357
209	53	...	...	No	Absent	20 "	Confluent	D	Scars possibly present, but concealed by eruption.	23
210	33	3	.52	No	...	19 "	Discrete	R	...	5,297
211	22	4	1.19	No	...	19 "	Discrete	R	...	5,552
212	42	3	.68	No	...	18 "	Discrete	R	...	5,516
213	26	...	...	No	Absent	18 "	Discrete	R	...	3,558
214	48	1	.15	No	...	18 "	Discrete	R	...	2,348
215	46	2	.92	No	...	18 "	Discrete	R	...	1,468
216	28	4	1.93	No	...	18 "	Discrete	R	...	1,270
217	37	1	.28	No	...	18 "	Discrete	R	...	669
218	38	1	.32	No	...	18 "	Confluent	R	...	570
219	36	3	.95	No	...	16 "	Discrete	R	...	4,161
220	28	3	.80	No	...	16 "	Discrete	R	...	1,084

\* In this column are included cases stated to have been both vaccinated and revaccinated but bearing no visible evidence of either operation. Any case stated to have been both vaccinated and revaccinated in which the nature of the eruption or other cause might have prevented the observation of the marks, if any existed, would be included in this column, and the circumstances noted in the remarks column.

SMALLPOX STATISTICS.—TABLE VI. (continued).

Consecutive Number.	Patient's Age.	Vaccination Cicatrix or Cicatrices present.			Vaccination Cicatrix absent.*	Period stated to have elapsed since last successful Revaccination.	Type of Disease.	Result.	Remarks.	Reference Number in Case Register.
		Number	Area in square inch.	Whether their appearance affords presumptive evidence of Revaccination.						
221	37	2	.28	No...	...	Discrete	R	...	310	
222	34	3	1.61	No...	...	Discrete	R	...	4,987	
223	30	4	2.66	No...	...	Discrete	R	The four scars present were stated by patient to be those of revaccination, in which case there would be doubt as to the success of the primary vaccination.	2,718	
224	36	2	1.23	No...	...	Discrete	R	...	1,903	
225	63	2	.34	No...	...	Discrete	R	Patient was doubtful if the revaccination was successful.	7,302	
226	21	3	1.42	No...	...	Discrete	R	...	3,848	
227	29	2	.74	No...	...	Confluent	R	...	5,238	
228	42	1	.27	No...	...	Discrete	R	Stated to have been revaccinated successfully also 23 years ago.	319	
229	41	4	.77	No...	...	Confluent	R	...	424	
230	24	4	1.10	No...	...	Discrete	R	...	270	
231	34	4	.54	No...	...	Discrete	R	The four scars present were stated by the patient to be those of a vaccination or revaccination in the German army. He was doubtful if he had been vaccinated previously.	1,774	
232	32	4	.93	No...	...	Discrete	R	...	3,689	
233	31	4	1.60	No...	...	Discrete	R	...	7,072	
234	40	3	.67	No...	...	Discrete	R	Stated to have been revaccinated successfully, also 14 years ago.	1,886	
235	29	4	1.64	No...	...	Discrete	R	...	2,091	
236	42	3	1.89	No...	...	Discrete	R	...	6,040	
237	46	2	.43	No...	...	Discrete	R	...	3,534	
238	21	5	1.35	No...	...	Discrete	R	...	2,676	
239	65	...	...	No...	Absent...	Discrete	R	...	691	
240	66	2	.09	No...	...	Discrete	R	Stated to have been revaccinated successfully also 32 years ago.	1,908	

\* In this column are included cases stated to have been both vaccinated and revaccinated but bearing no visible evidence of either operation. Any case stated to have been both vaccinated and revaccinated in which the nature of the eruption or other cause might have prevented the observation of the marks, if any existed, would be included in this column, and the circumstances noted in the remarks column.

SMALLPOX STATISTICS.—TABLE VI. (continued).

Consecutive Number.	Patient's Age.	Vaccination Cicatrix or Cicatrices present.			Whether their appearance affords presumptive evidence of Revaccination.	Vaccination Cicatrix absent.*	Period stated to have elapsed since last successful Revaccination.	Type of Disease.	Result.	Remarks.	Reference Number in Case Register.
		Number	Area in square inch.								
241	31	4	1.52	No...	No...	...	11 years	Discrete	R	...	339
242	39	3	1.19	No...	No...	...	11 "	Confluent	D	...	171
243	47	...	...	No...	Absent	...	10 "	Discrete	R	...	5,168
244	73	...	...	No...	Absent	...	10 "	Discrete	R	...	6,885
245	48	1	1.21	No...	...	...	10 "	Discrete	R	...	6,534
246	23	1	.47	No...	...	...	10 "	Discrete	R	Patient was very uncertain as to the success of his revaccination.	4,041
247	41	2	1.11	No...	...	...	10 "	Discrete	R	...	2,899
248	55	2	.23	No...	...	...	10 "	Discrete	R	The revaccination stated to have been slightly successful in one place.	5,316
249	58	3	.87	No...	...	...	10 "	Confluent	D	Patient stated the revaccination "did not take well."	2,143
250	36	2	.30	No...	...	...	10 "	Discrete	R	...	1,850
251	29	3	.51	No...	...	...	10 "	Discrete	R	...	882
252	25	2	.32	No...	...	...	10 "	Confluent	R	...	420
253	48	1	.33	No...	...	...	9 "	Confluent	R	...	1,342
254	28	1	.50	No...	...	...	8 "	Discrete	R	...	6,330
255	42	4	.69	No...	...	...	8 "	Discrete	R	...	3,174
256	34	...	...	No...	Absent	...	8 "	Confluent	R	Scars due to vaccination, if any existed, could not be distinguished from those of a different nature; patient was doubtful if the revaccination was successful.	2,207
257	32	3	1.42	No...	...	...	8 "	Confluent	D	...	1,229
258	44	1	.33	No...	...	...	7 "	Discrete	R	Stated to have been revaccinated also 12 years ago; patient was doubtful if the revaccinations were successful.	5,241
259	41	4	.70	No...	...	...	7 "	Discrete	R	...	5,480
260	37	4	.44	No...	...	...	7 "	Discrete	R	...	917
261	35	...	...	No...	Absent	...	6 "	Discrete	R	...	4,321
262	44	3	.93	No...	...	...	6 "	Discrete	R	Patient was doubtful if the revaccination was successful.	98

\* In this column are included cases stated to have been both vaccinated and revaccinated, but bearing no visible evidence of either operation. Any case stated to have been both vaccinated and revaccinated in which the nature of the eruption or other cause might have prevented the observation of the marks, if any existed, would be included in this column, and the circumstances noted in the remarks column.

SMALLPOX STATISTICS.—TABLE VI. (continued).

Consecutive Number.	Patient's Age.	Vaccination Cicatrix or Cicatrices present.		Whether their appearance affords presumptive evidence of Revaccination.	Vaccination Cicatrix absent.*	Period stated to have elapsed since last successful Revaccination.	Type of Disease.	Result.	Remarks.	Reference Number in Case Register.
		Number	Area in square inch.							
263	11	4	.70	No...	...	5 years	Discrete	R	...	6,694
264	24	4	.74	No...	..	5 "	Discrete	R	... Patient was doubtful if the revaccination was successful.	4,422
265	22	5	2.24	No...	...	5 "	Discrete	R	...	591
266	31	2	1.20	No...	...	4 "	Discrete	R	The two scars present were stated by the patient to be those of revaccination, in which case there would be doubt as to the success of the primary vaccination.	4,934
267	24	4	1.14	No...	...	3 "	Discrete	R	...	717
268	48	2	.48	No...	...	3 "	Confluent	D	...	313
269	22	4	.75	No...	...	2½ "	Hæmorrhagic	D	... Stated also to have been revaccinated unsuccessfully 5½ years ago.	892
270	45	...	...	No...	Absent...	2 "	Discrete	R	...	93
271	21	3	.41	No...	...	2 "	Discrete	R	... Revaccination stated to have been only slightly successful.	7,205
272	42	1	.19	No...	...	2 "	Discrete	R	...	2,453
273	34	2	>.33	No...	...	5 months	Discrete	R	... Patient stated that he did not think his revaccination took.	4,099
274	56	2	.95	No...	...	4 "	Discrete	R	Two small pigmented spots left by scarifications of recent vaccination. No recent scars. Stated to have been revaccinated successfully also 31 years ago.	463
275	27	4	1.10	No...	...	5 weeks	Discrete	R	Revaccination stated to have been successful. Areas of scarifications were pigmented only, and showed no evidence of successful reaction.	1,377
276	30	3	.80	No...	...	Uncertain...	Discrete	R	...	2,940

\* In this column are included cases stated to have been both vaccinated and revaccinated but bearing no visible evidence of either operation. Any case stated to have been both vaccinated and revaccinated in which the nature of the eruption or other cause might have prevented the observation of the marks, if any existed, would be included in this column, and the circumstances noted in the remarks column.

SMALLPOX STATISTICS.—TABLE VI. (continued).  
*In the following cases the revaccination was stated to have been unsuccessful.*

Consecutive Number.	Patient's Age.	Vaccination Cicatrix or Cicatrices present.			Vaccination Cicatrix absent.*	Period stated to have elapsed since last Revaccination.	Type of Disease.	Result.	Remarks.	Reference Number in Case Register.
		Number	Area in square inch.	Whether their appearance affords presumptive evidence of Revaccination.						
1	65	...	...	No...	Absent	55 years unsucc. ...	Discrete	R	...	3,373
2	56	1	.14	No...	...	40 "	Discrete	R	...	2,551
3	49	2	.51	No...	...	38 "	Discrete	R	...	1,040
4	63	3	.23	No...	...	35 "	Discrete	R	...	328
5	39	2	vague	No...	...	32 "	Confluent	D	...	3,919
6	49	4	1.42	No...	...	31 "	Hæmorrhagic	D	...	203
7	50	2	.41	No...	...	30 "	Discrete	R	...	7,253
8	43	4	.76	No...	...	30 "	Confluent	R	...	778
9	46	1	.23	No...	...	30 "	Confluent	D	...	104
10	47	2	.55	No...	...	28 "	Discrete	R	...	5,221
11	38	3	1.09	No...	...	28 "	Discrete	R	...	1,263
12	51	3	.95	No...	...	26 "	Discrete	R	...	4,854
13	35	2	.59	No...	...	22 "	Discrete	R	...	1,703
14	39	3	1.15	No...	...	20 "	Discrete	R	...	5,919
15	42	2	.25	No...	...	20 "	Discrete	R	...	5,987
16	46	2	1.25	No...	...	20 "	Discrete	R	...	2,403
17	46	...	...	No...	Absent	20 "	Confluent	D	Both primary vaccination and revaccination stated to have been unsuccessful.	1,522
18	65	1	.17	No...	...	20 "	Discrete	R	...	1,089
19	37	2	.51	No...	...	20 "	Discrete	R	...	1,691
20	38	3	.90	No...	...	19 "	Discrete	R	...	364
21	36	2	.55	No...	...	18 "	Discrete	R	...	5,941
22	21	1	.16	No...	...	17 "	Discrete	R	...	3,552
23	39	2	.86	No...	...	17 "	Discrete	R	...	1,822
24	33	3	.62	No...	...	16 "	Discrete	R	...	3,290
25	56	2	.63	No...	...	16 "	Discrete	R	...	1,398

\* In this column are included cases stated to have been both vaccinated and revaccinated but bearing no visible evidence of either operation. Any case stated to have been both vaccinated and revaccinated in which the nature of the eruption or other cause might have prevented the observation of the marks, if any existed, would be included in this column, and the circumstances noted in the remarks column.

SMALLPOX STATISTICS.—TABLE VI. (continued).

Consecutive Number.	Patient's Age.	Vaccination Cicatrix or Cicatrices present.			Vaccination Cicatrix absent.*	Period stated to have elapsed since last Revaccination.	Type of Disease.	Result.	Remarks.	Reference Number in Case Register.
		Number	Area in square inch.	Whether their appearance affords presumptive evidence of Revaccination.						
26	29	4	1.91	No...	...	16 years unsucc. ...	Discrete	R	...	135
27	49	3	.58	No...	...	15 "	Hæmorrhagic	D	...	5,456
28	35	2	.34	No...	...	15 "	Discrete	R	Stated to have been revaccinated unsuccessfully also 17 years ago.	4,327
29	40	3	.49	No...	...	15 "	Hæmorrhagic	D	...	314
30	35	3	.58	No...	...	15 "	Discrete	R	...	2,148
31	40	1	.46	No...	...	15 "	Discrete	R	...	1,497
32	31	4	1.16	No...	...	14 "	Discrete	R	Stated to have been revaccinated unsuccessfully also 16 years ago.	4,364
33	41	4	.69	No...	...	14 "	Discrete	D	...	674
34	33	3	.79	No...	...	13 "	Discrete	R	Stated to have been revaccinated unsuccessfully also 14 years ago.	5,295
35	34	3	1.14	No...	...	13 "	Discrete	R	...	6,595
36	43	...	...	No...	...	12 "	Confluent	R	Scars of vaccination present, but measurements impossible owing to the abundance of the smallpox eruption.	7,228
37	41	3	.52	No...	...	12 "	Discrete	R	...	239
38	21	4	1.18	No...	...	11 "	Discrete	R	...	6,655
39	63	4	> 2.00	No...	...	11 "	Discrete	R	...	1,020
40	50	3	.39	No...	...	10 "	Hæmorrhagic	D	...	5,916
41	55	1	.30	No...	...	10 "	Confluent	D	...	6,008
42	35	4	2.71	No...	...	10 "	Confluent	D	...	4,355
43	39	2	.41	No...	...	10 "	Confluent	D	...	7,301
44	51	3	.58	No...	...	10 "	Discrete	R	...	7,351
45	41	1	.21	No...	...	10 "	Confluent	R	...	3,034
46	57	2	.41	No...	...	10 "	Discrete	R	...	3,884
47	38	2	.55	No...	...	10 "	Confluent	D	...	2,186
48	48	4	.83	No...	...	10 "	Discrete	R	...	1,724
49	34	3	.84	No...	...	10 "	Discrete	R	...	749
50	23	2	.72	No...	...	9 "	Discrete	R	...	6,816

\* In this column are included cases stated to have been both vaccinated and revaccinated but bearing no visible evidence of either operation. Any case stated to have been both vaccinated and revaccinated in which the nature of the eruption or other cause might have prevented the observation of the marks, if any existed, would be included in this column, and the circumstances noted in the remarks column.

SMALLPOX STATISTICS.—TABLE VI. (continued).

Consecutive Number.	Patient's Age.	Vaccination Cicatrix or Cicatrices present.			Vaccination Cicatrix absent.*	Period stated to have elapsed since last Revaccination.	Type of Disease.	Result.	Remarks.	Reference Number in Case Register
		Number	Area in square inch.	Whether their appearance affords presumptive evidence of Revaccination.						
51	26	4	1.78	No...	...	Discrete	R	...	6,663	
52	23	2	.43	No...	9 years unsucc.	Discrete	R	...	2,625	
53	32	4	.79	No...	9 "	Discrete	R	...	6,822	
54	38	3	1.67	No...	8 "	Discrete	R	...	7,358	
55	30	4	1.88	No...	8 "	Discrete	R	...	2,071	
56	30	4	.79	No...	6 "	Discrete	R	...	5,519	
57	61	1	.18	No...	6 "	Hæmorrhagic	D	...	6,068	
58	34	4	.60	No...	6 "	Discrete	R	...	3,924	
59	21	2	.85	No...	6 "	Discrete	R	...	3,212	
60	39	2	.31	No...	6 "	Discrete	R	...	2,727	
61	20	2	1.74	No...	6 "	Discrete	R	...	1,746	
62	27	4	1.63	No...	6 "	Confluent	R	...	1,604	
63	34	1	.42	No...	5 "	Discrete	R	...	3,631	
64	19	...	...	No...	5 "	Discrete	R	...	2,920	
65	62	...	...	No...	4 "	Confluent	D	...	603	
66	22	4	1.60	No...	3 "	Discrete	R	...	2,436	
67	25	3	.90	No...	3 "	Discrete	R	...	1,276	
68	21	3	1.88	No...	2 "	Discrete	R	...	5,750	
69	54	2	<.50	No...	2 "	Discrete	R	...	7,163	
70	40	2	.37	No...	2 "	Discrete	R	...	7,353	
71	39	3	1.79	No...	2 "	Discrete	R	...	7,356	
72	20	3	.79	No...	2 "	Discrete	R	...	4,782	
73	20	5	1.37	No...	2 "	Discrete	R	...	1,869	
74	75	...	...	No...	2 "	Discrete	R	...	1,302	
75	24	4	1.54	No...	19 months	Confluent	R	...	3,026	
76	21	4	1.02	No...	16 "	Discrete	R	...	816	
77	13	4	1.69	No...	6 "	Discrete	R	...	6,983	
78	24	4	1.33	No...	6 "	Discrete	R	...	4,553	

Scars of vaccination present, but measurements impossible owing to the abundance of the smallpox eruption.

Three pigmented areas left by scarifications of recent vaccination.

\* In this column are included cases stated to have been both vaccinated and revaccinated but bearing no visible evidence of either operation. Any case stated to have been both vaccinated and revaccinated in which the nature of the eruption or other cause might have prevented the observation of the marks, if any existed, would be included in this column, and the circumstances noted in the remarks column.



SMALLPOX STATISTICS.—TABLE VI. (continued).

Consecutive Number.	Patient's Age.	Vaccination Cicatrix or Cicatrices present.			Vaccination Cicatrix absent.*	Period stated to have elapsed since last Revaccination.	Type of Disease.	Result.	Remarks.	Reference Number in Case Register.
		Number	Area in square inch.	Whether their appearance affords presumptive evidence of Revaccination.						
79	49	2	.32	No...	...	Discrete	R	...	4,852	
80	28	4	1.67	No...	...	Discrete	R	...	3,842	
81	30	2	.94	No...	...	Discrete	R	...	1,329	
82	25	4	.94	No...	...	Discrete	R	...	30	
83	23	2	.85	No...	...	Discrete	R	...	1,371	
84	15	2	.44	No...	...	Discrete	R	...	6,344	
85	64	7	1.10	No...	...	Discrete	R	Stated to have been revaccinated three times un- successfully, dates uncertain.	4,870	
86	44	2	.44	No...	...	Discrete	R	Stated to have been revaccinated twice, each time unsuccessfully.	2,038	

\* In this column are included cases stated to have been both vaccinated and revaccinated but bearing no visible evidence of either operation. Any case stated to have been both vaccinated and revaccinated in which the nature of the eruption or other cause might have prevented the observation of the marks, if any existed, would be included in this column, and the circumstances noted in the remarks column.

## APPENDIX II.—IMBECILITY.

## A.

REPORTS OF THE MEDICAL SUPERINTENDENTS OF  
THE IMBECILE ASYLUMS FOR THE YEAR 1902.

(For Statistical Tables, see pp. 288-316.)

## No. 1.

## LEAVESDEN ASYLUM.

KING'S LANGLEY, HERTS,

1st January, 1903.

## Statistics.

	Males.	Females.	Total.
On January 1st, 1902, the asylum contained ... ..	811	956	1,767
Admitted during the year ... ..	85	91	176
Total number under treatment during the year ... ..	896	1,047	1,943
Died during the year ... ..	60	74	134
Discharged during the year ... ..	24	18	42
Remaining in the asylum on December 31st, 1902 ... ..	812	955	1,767

**Admissions.** The feeble state of the admissions is well seen in the following table:—

	Males.	Females.	Total.
1. In good bodily health and condition ..	—	1	1
2. In average bodily health and condition	5	2	7
3. In indifferent bodily health and condition	8	19	27
4. In weak bodily health and poor condition	61	56	117
5. In very weak bodily health and exhausted condition .. .. .	11	13	24
	85	91	176

Nos. 4 and 5 include all patients suffering from physical disease, including epileptics.

Out of 176 admissions 59 were brought from other asylums:—

Name of Asylum.	Males.	Females.	Total.
Claybury .. .. .	6	28	34
Colney Hatch .. .. .	6	8	14
Cane Hill .. .. .	—	1	1
Hanwell .. .. .	2	3	5
Darenth .. .. .	5	—	5
	<u>19</u>	<u>40</u>	<u>59</u>

There were two re-admissions. Elizabeth M., aged 55, chargeable to St. Pancras, was re-admitted 10th April, 1902. She was previously admitted on 10th June, 1891, and discharged on 12th June, 1901, at the request of the guardians to the care of relatives. Alice A., aged 22, chargeable to Westminster, was re-admitted 21st June, 1902. She was previously admitted on 12th December, 1889, and discharged on 12th December, 1895, at the request of the guardians to the care of friends.

**Discharges.** The following is the table of discharges:—

	Males.	Females.	Total.
Recovered .. .. .	2	1	3
Relieved .. .. .	2	—	2
Not improved .. .. .	20	17	37
	<u>24</u>	<u>18</u>	<u>42</u>

Of these, 25 were sent to other asylums as suicidal or dangerous to others:—

Name of Asylum.	Males.	Females.	Total.
Banstead .. .. .	1	—	1
Claybury .. .. .	3	6	9
Colney Hatch .. .. .	2	6	8
Hanwell .. .. .	2	1	3
Stone (City Asylum) .. .. .	2	2	4
	<u>10</u>	<u>15</u>	<u>25</u>

**Deaths.** The deaths numbered 134—60 males and 74 females—this being 30 less than in 1901, and 176 less than in 1900. But for an epidemic of pneumonia in February it is probable that the deaths would have been the lowest on record in the history of the institution. Only in the years 1878, 1880, 1884, and 1886 have the deaths been fewer, and in 1881 the deaths stood at exactly the same figure.

The percentage of deaths on the average number resident was in 1902 as follows:—

Males.	Females.	Total.
7·3	7·7	7·5

There were 126 *post-mortem* examinations—57 males and 69 females—this representing over 94 per cent. of the deaths.

Bedsore were found in 7 male and 7 female bodies after death. Every body was systematically examined after death for bedsore, and any break in the continuity of the skin over an area of the body liable to pressure by lying or sitting was counted a bedsore. Most of them were extremely trifling, and as one of the patients admitted with a bedsore died in the asylum, this added one to the list of bedsore.

The greatest cause of death at Leavesden Asylum in 1902 and for many years previously was tuberculosis. The following table gives a list of those deaths during 1902 where tuberculosis played a principal or secondary part:—

	Males.	Females.	Total.
Pulmonary tuberculosis .. .. .	8	10	18
Tubercular peritonitis .. .. .	—	2	2
General tuberculosis .. .. .	1	2	3
Tubercular disease of bone .. .. .	1	2	3
Chronic meningitis and pulmonary tuberculosis ..	1	—	1
Cerebral softening and pulmonary tuberculosis ..	4	—	4
Epilepsy and pulmonary tuberculosis .. .	1	—	1
General paralysis of the insane, acute enteritis, and pulmonary tuberculosis .. .. .	1	—	1
General paralysis of the insane and pulmonary tuberculosis .. .. .	—	3	3
General paralysis of the insane and general tuberculosis .. .. .	—	1	1
Valvular disease of heart and tubercular abscess ..	—	1	1
Cancer of bowel and tubercular empyema .. ..	1	—	1
Cancer of face and pulmonary tuberculosis .. ..	—	1	1
Acute enteritis and pulmonary tuberculosis .. ..	1	—	1
Enteric fever, pneumonia, and pulmonary tuberculosis	1	—	1
	<u>20</u>	<u>22</u>	<u>42</u>

It is unsatisfactory to find that out of 134 deaths, in 42, or 31·3 per cent., tuberculosis was the primary or secondary cause of death. Although the number of tubercular patients under treatment has not as yet diminished, yet the following table will prove that the tubercular deaths are decidedly lessened:—

	Males.	Females.	Total.
Deaths due to tuberculosis in 1900 ..	50	55	105
“ “ “ 1901 ..	38	29	67
“ “ “ 1902 ..	20	22	42

The deaths from pneumonia must be specially referred to as there was an epidemic of this disease in February, an interesting account of which is about to be published by Dr. Sinigar, who was senior assistant medical officer of the asylum at the time. Of the 27 deaths due to pneumonia which occurred during the year, 19 were in the month of February. The patients and staff were first attacked with what appeared to be influenza-like colds, and none of those first attacked were seriously ill, but nearly all those last attacked developed pneumonia of a most serious and generally rapidly fatal kind. The epidemic subsided suddenly. Microscopic examinations of the secretions of those affected showed swarms of a

germ called *pneumo-coccus*. How the germ got entrance to the asylum, and why at first it was more or less harmless and afterwards became very virulent, is not known, but it can be surmised that if Leavesden Asylum has been subject to pneumo-coccal epidemics (there has been a considerable death rate from pneumonia for some years past) the lungs of the patients must have been left in a peculiarly "open" state to receive and grow the tubercle bacillus which causes tuberculosis.

Among the other chief causes of death during 1902 were general paralysis of the insane (11), cerebral softening (11), valvular disease of the heart (9), chronic nephritis (8), epilepsy (8), and cancer (8).

There was one non-fatal case of erysipelas, one non-fatal case of scarlet fever, three fatal cases of acute enteritis (of a similar character to that caused in 1899 by the pollution of the water supply), one fatal and one non-fatal case of dysentery (ulcerative colitis), and one fatal and two non-fatal cases of enteric fever during the year.

**Accidents,  
inquests,  
and sudden  
deaths.**

There were six serious accidents during the year involving fractures of bone, one patient in a suicidal attempt cut his throat, but without fatal result, and another patient accidentally sustained a serious wound of the leg.

On 21st July, the coroner held an inquest, after a *post-mortem* examination, on the body of Owen McHugh, aged 77, when the jury returned the following verdict:—"That the said Owen McHugh died at Leavesden Asylum on the 18th July, 1902, from natural causes (bronchitis)."

There were five cases of unexpected or unusual death in which the coroner, after satisfying himself as to the facts, did not deem an inquest necessary.

\* \* \* \*

**Improve-  
ments and  
additions.**

Among the works executed during the year there may be mentioned the alterations, improvements, and additions to the laundry, the relaying of defective drains, the laying of new drains under the scheme sanctioned by the committee, the completion of the re-painting, re-decorating, and cleaning of the whole of the asylum (which has taken about four years to complete), the great improvements to the airing courts, the relaying of the farm stading drains, the enlargement of the houses of the foreman of works, the senior head attendant, and the gravedigger, the conversion of the convalescent home into two cottages, one for the engineer and the other for one of the head attendants, the provision of a boot room and the erection of an excellent upholsterer's shop, containing a disinfecter for mattresses and infected clothing, as well as numerous other alterations and improvements which need not be specified.

The work now in progress consists of the erection of a water steriliser and softener, the provision of two recreation rooms for male attendants, the making of a new airing court for No. 15 block, the cleaning and painting of all the workshops, and the erection of an isolation hospital.

Among the works about to be started may be included the nurses' home, twenty-two cottages for married attendants, additional sanitary annexes to most of the blocks, enlargement of the farm bailiff's house, the provision of bicycle sheds, and the provision of new water closets for the laundry.

**Staff.** \* \* \* \* In June, the Rev. J. R. B. Watson was compelled, owing to ill health, to give up his appointment and take a pension after thirty-and-a-quarter years of service. \* \* \* \* The Rev. Father Regan, the Roman Catholic religious instructor, died rather suddenly in April \* \* \*

\* \* \* \* \*

The training of the nurses and attendants by means of lectures and demonstrations is continued. During the year three of the staff obtained the Nursing Certificate of the Medico-Psychological Association, whilst a large number presented themselves at an examination for the certificates of the St. John Ambulance Association, the results of which are not yet to hand.

A male attendant contracted scarlet fever but made a good recovery in the Watford fever hospital. One attendant contracted pulmonary tuberculosis during the year, this being the fourth male official so affected in about 18 months.

**General remarks.**

\* \* \* \* \*

The number of patients working on December 31st was as follows:—

Males.	Females.	Total.
383	360	743

Every endeavour is made to encourage as many of the patients as possible to be at work, but it is difficult to push this very far owing to the weak and helpless state of so many of the patients.

The well water, which is known to become periodically polluted, has been a constant source of anxiety during the year, and indeed ever since it was proved to be the cause of the epidemic of enteric fever, enteritis, and pneumonia in 1899; diseases still causing deaths in the asylum. The steriliser and softener ordered by the committee to meet this difficulty is still not in a condition to be brought into use, but it is hoped that the contractors will soon make it effective. The Rickmansworth Company's water is supplied for drinking purposes, but the well water is used for all other purposes, and in spite of strict orders given by the sub-committee and the chief officers the polluted water is occasionally drunk.

In the beginning of the year all the patients and staff were vaccinated or revaccinated where this course was considered necessary. It is now a condition of service that all members of the staff shall be satisfactorily vaccinated or revaccinated and every new patient is vaccinated or revaccinated as a matter of routine on arrival. \* \* \*

In consequence of the large amount of clothing being destroyed by patients, a list was prepared at the end of the year of those patients who destroy clothing, smash windows and crockery, break furniture, throw about food, and otherwise exhibit destructive tendencies. Such patients cannot be considered dangerous to themselves or others and therefore must be retained, but they require a great deal of supervision and it would certainly be wrong treatment to put such patients into canvas dresses, or use other means of restraint. Of the 31 most destructive patients, 18 came from Darenth Asylum, four from Claybury Asylum, two from Colney Hatch Asylum, one from Bethnal House Asylum, and only six were admitted direct from the parishes.

There was no necessity during 1902 to use seclusion, mechanical restraint, or strong dresses in the treatment of the patients.

During the year eight surgical operations were performed under anæsthetics by the medical staff.

All the patients sleep under continuous night supervision. The table below gives some information as to the satisfactory way in which the night nursing is performed:—

	Males.	Females.
Average number of faulty patients } per night during the year .. }	12·47	29·38
Average number of dirty articles } per night during the year .. }	42·56	73·34
Total number of soiled and wet } mattresses during the year (day } and night) .. .. . }	8	14

\* \* \* \*

(Signed) FRANK ASHBY ELKINS, M.D.,  
*Medical Superintendent.*

## No. 2.

### CATERHAM ASYLUM.

CATERHAM, SURREY,

20th January, 1903.

**Statistics.** The numerical changes which have occurred during the last 12 months are shown by the following table:—

	Males.	Females.	Total.
In the asylum on 1st January, 1902 ... ..	886	1,044	1,930
Admitted during the year ... ..	68	59	127
Total under care during the year ... ..	954	1,103	2,057
Discharged during the year ... ..	9	8	17
Died during the year ... ..	63	48	111
Remaining in the asylum on 31st December, 1902 ... ..	882	1,047	1,929

**Admissions.** I am unable to record any material improvement in the condition of the cases admitted, and the following statement points to the great difficulty experienced in selecting from among those admitted patients fitted for industrial employment, and it is an indication of the remote prospect there is of improvement. 9 men and 15 women exceeded 70 years of age, and I may state that the average age of 9 patients (3 men and 6 women) received on 1 day was

more than 75 years. 11 men and 31 women were transferred from county asylums, 11 men and 17 women were the subjects of epilepsy, and 4 men and 1 woman of general paralysis of the insane.

**Discharges.** Seventeen patients were discharged during the year, of whom 2 men left the asylum as recovered, 2 men and 2 women as improved to care of friends, and 5 men and 6 women, having become dangerous to themselves or others, were certified and transferred to the county asylum at Cane Hill. \* \* \*

**Deaths.** The deaths numbered 111 (63 men and 48 women), and are only 2 in excess of last year, when the mortality was the lowest for any year since the opening of the asylum. The percentages, calculated on the average number resident, are 7.1 for the men and 4.6 for the women, and in 99 cases, or a little over 89 per cent., the cause of death was verified by *post-mortem* examination. Pulmonary consumption was accountable for the death of 6 men and 7 women, general paralysis 4 men and 1 woman, while in 19 men and 24 women the cause is attributed to senile decay. In 2 cases of sudden death the coroner for the district held inquests, when the jury returned verdicts of "death from misadventure."

**Casualties.** There have been only 3 casualties during the last 12 months. 1 man dislocated his shoulder, and 2 elderly women sustained fractures of the thigh bone, the result of accidentally falling in the wards.

**Restraint and seclusion.** In no case has it been necessary to resort to mechanical restraint, and only 1 man and 5 women required to be secluded; 2 of the latter had to be certified and transferred to Cane Hill Asylum as dangerous.

**Escapes.** Two men who made their escape managed to get to London, and 1 was only retaken shortly before the expiration of the statutory period. A lad also, who had been generally well conducted, got away while employed in the male corridor, and in spite of every endeavour could not be traced and has not since been heard of.

\* \* \* \*

**Employment.** The employment of the patients continues to receive constant attention. On completion of the structural alterations at the laundry, I selected 20 female patients of a younger and better class for work in that department, and during the summer I hope to be able to add to the number of men at present usefully employed on the grounds.

**Additions and improvements.** During the year several of the day rooms and dormitories, as well as the general stores and laundry, have been renovated and repainted, and the floors throughout the asylum are in process of being stained and polished.

The reconstructions and additions at the laundry were completed about the end of June. \* \* \*

With a view to better ventilation during the summer, lattice work gates with spring catch locks have been fixed on the inside of the fire escape doors leading from the day rooms into the airing courts.



The isolation hospital has been put into telephonic communication with the main building.

Two new steam jacketed coppers have been provided for use in the general kitchen.

**General  
remarks.**

The sanitary condition of the asylum during the past 12 months has been satisfactory. At the beginning of the year, owing to the prevalence of smallpox in the metropolis, it was considered advisable, as a precautionary measure, to take all new cases on admission direct to the isolation hospital, and I am pleased to be able to report that there has been no sign of epidemic or infectious disease among the patients.

\* \* \* \*

In accordance with the new regulations I organised, and the fireman (under the immediate direction of the foreman of the works) commenced in April drilling and instructing, the fire brigade. I am pleased to be able to report favourably on the change, and on the promptness displayed by the members in getting to work in response to surprise calls on several occasions.

At the end of January there was an outbreak of swine fever, and, after inspection on behalf of the Board of Agriculture, the home farm was declared an infected area and all the pigs were at once slaughtered. It was hoped that owing to the isolated situation of the distant piggeries several store pigs which had been kept there and had not been in contact with the others might be saved, but in spite of all precautions they became infected and had to be killed.

**Training  
and  
instruction.**

The lectures and demonstrations given by the assistant medical officers and myself have been well attended, and at the last examination 38 male attendants and 47 nurses were awarded certificates in "first aid" or nursing by the St. John Ambulance Association.

\* \* \* \*

(Signed) P. E. CAMPBELL, M.B.,

*Medical Superintendent.*

## No. 3.

## DARENTH ASYLUM.

DARENTH,

DARTFORD, KENT.

**Statistics.** The following is a brief summary of the statistics :—

	Males.	Females.	Total.
On January 1st, 1902, the asylum contained ... ..	1,072	913	1,985
Admitted during the year... ..	108	62	170
Total number under treatment during the year ... ..	1,180	975	2,155
Discharged during the year ... ..	78	14	92
Died during the year... ..	32	42	74
Remaining in the asylum on December 31st, 1902 ... ..	1,070	919	1,989

**Admissions.** The total number of patients admitted was 170, almost the same as last year, of these 108 were males and 62 females; 93 males and 31 females were admitted to the children's department, and 15 males and 31 females to the adult department. Of those admitted to the latter department, 2 males and 4 females were over 70 years of age, and 4 males and 6 females were epileptics. Taking the adult admissions as a whole, there was a slight improvement in the class of case admitted as compared with the previous year, especially amongst the females, and one or two of the patients have been able to help in the work of the institution. All forms of insanity have figured in the admissions, but imbeciles and senile dements formed by far the largest proportion; 2 of the male patients were suffering from general paralysis. Of the 124 cases admitted to the children's department, 121 were cases of congenital insanity and 3, *i.e.*, 2 males and 1 female, were cases of juvenile general paralysis. The percentage of epileptics was very high, *i.e.*, 45 for the males and 53 for the females. As I pointed out in my report last year, the prognosis in epileptics is bad, the death rate amongst them is high, and those who survive are certain sooner or later to have dementia grafted on to their already existing amentia, and this often supervenes at an early age, hence, if even for a time they improve, their useful existence is, as a rule, of comparatively short duration. Of the total number admitted to this department, 49 males and 17 females appear to be capable of receiving some instruction, in 34 males and 8 females the prognosis is bad, whilst 8 males and 4 females are helpless cripples.

The following table arranged as last year shows the admissions to the children's department classified according to the particular type of congenital insanity :—

	Males.	Females.	Total.
Imbecility or idiocy ... ..	37	12	49
"    "    "    with epilepsy ... ..	42	16	58
Microcephalic ... ..	1	1	2
"    with epilepsy ... ..	4	...	4
Hydrocephalic ... ..	2	...	2
"    with epilepsy ... ..	3	...	3
Mongolian ... ..	3	...	3
Cretin ... ..	...	...	...
Juvenile general paralysis ... ..	1	2	3
	93	31	124

**Discharges.** During the year 78 males and 14 females were discharged, a total of 92. Of these, 64 males and 10 females were transferred from the children's department to Rochester House, all more or less improved, and 5 males from the adult department were sent to Leavesden; 6 males and 2 females were discharged to the parish, of whom 1 female from the adult, who suffered from melancholia, was recovered and 5 males were much improved, whilst 1 male and 1 female were improved. 3 males and 2 females were sent to the county asylums as dangerous to themselves or others.

**Deaths.** The deaths numbered 74, *i.e.*, 32 males and 42 females, rather more than last year, but the percentage of 3·7 on the average number resident is a very low one. Tuberculosis caused 9 deaths last year, against 10 the year before. It is impossible at present to isolate patients suffering from tuberculosis, and the very small number of deaths from this disease is eloquent testimony to the general healthiness of the institution. 6 deaths were due to general paralysis, and of these 3 were children, all males. During the last 4 years there have been 15 deaths from juvenile general paralysis, of whom 8 were males and 7 females; these figures confirm the opinion of Dr. Mott that in this juvenile form of the disease the sexes are affected equally. Epilepsy caused 5 deaths. The other causes of death call for no special comment. *Post-mortem* examinations were made on 62 patients, or in 84 per cent. of all deaths.

It is interesting to note that the average age at death of those patients who suffered from imbecility or idiocy was 22·35 years.

**Restraint and seclusion.** One patient was put in a wet pack for 1 hour for hyperpyrexia. Seclusion has not been employed.

**Causation.** Every effort has been made to obtain a reliable history of the patients who have been received and whenever possible the friends have been seen and interviewed, but in many cases the histories could not be obtained. It is

much to be regretted that the present form of admission order gives practically no information about the patient, and need not even state if he or she is an epileptic or not. Following the plan adopted last year, I shall take the children first and deal with the hereditary causes in a similar manner. The subjoined table shows for the different forms of congenital insanity the number of times each cause was present in the 106 cases where a history could be obtained.

	History of Insanity.			History of Phthisis.			History of Syphilis.			History of Alcohol.			Abnormal Labour.			History of Trauma to Patient.		
	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.
Imbecility or idiocy ...	8	1	9	2	1	3	...	...	...	1	1	2	5	2	7	1	1	2
„ with epilepsy	15	5	20	4	3	7	3	...	3	4	...	4	5	2	7	1	2	3
Microcephaly .. ...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...
„ with epilepsy	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...
Hydrocephaly ... ..	2	...	2	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...
„ with epilepsy	1	...	1	...	...	...	...	...	...	1	...	1	1	...	1	...	...	...
Mongolian ... ..	1	...	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Juvenile general paralysis	...	...	...	...	...	...	1	...	1	1	...	1	...	...	...	...	...	...
	27	6	33	7	4	11	4	...	4	9	1	10	12	4	16	2	3	5

Three of the male patients were illegitimate, and in 3 cases the parents were cousins.

An examination of the above table will show that there was a family history of insanity in 30·1 per cent., of phthisis in 10·3 per cent., of syphilis in 3·7 per cent., of alcohol in 9·4 per cent., of abnormal labour in 15 per cent., and of trauma to the patient in 4·7 per cent. Comparing this table with that given last year, hereditary insanity remains almost the same, 30·1 per cent. against 30·8 per cent., but it is interesting to notice that a very large proportion of those patients who came from an insane stock are epileptics, and the same thing was noticeable last year. Phthisis shows a further drop of 3 per cent., and syphilis is also rather less, but alcohol has somewhat increased. There is a marked fall in the number of cases attributed to abnormal labour, the percentage being only 15 per cent. this year against 30 per cent. last year. Trauma to the patient is also much less. Of all the above hereditary cases I am strongly convinced that insanity in the parents or near relatives and alcohol are by far the most important, and so long as people with a bad neurotic history continue to marry as at present, so long will imbeciles and idiots be produced.

Amongst the adults senility and heredity were the most important causes, but alcohol figured as a prominent cause amongst the females.

**Accidents.** No serious accidents have occurred during the year. There have been a few cases of fracture, but all have terminated favourably. With so many helpless, feeble, and epileptic patients, accidents of this nature are impossible to avoid.

**Epidemics.** During the year 3 cases of scarlet fever occurred, 2 of the patients being members of the staff; all have terminated favourably. Several cases of German measles and chickenpox have occurred in the children's department, and cases of ringworm and ophthalmia continue to keep the present isolation block constantly in use. I regret to say that several cases of dysentery have occurred on the male side of the adult department, and with the present inadequate means of isolation it is most difficult to prevent this disease from spreading. At the present time 2 male patients are suffering from this condition. Remembering the great liability there is for this disease to relapse, even after many weeks of seeming convalescence, it is most important that patients who have once suffered from dysentery should, as far as possible, be kept apart from healthy persons.

**Industries.** The following table shows the amount of work done in the shops and needlerooms, together with the number of patients employed and the average number of hours worked daily. "A." signifies adult and "C." children. It should be stated, however, that almost all the children are over 16 years of age.

Department ... ..	Number of Patients Employed.		Average time Employed daily.		Number of Staff.		Articles Made.		Articles Repaired.	
	A.	C.	A.	C.	A.	C.	A.	C.	A.	C.
Upholsterer's shop ...	18	...	hours. 4·20	...	1	...	176	...	10,367	...
Tailor's ,, ...	17	16	4·7	3·24	1	1	527	489	8,277	9,570
Shoemaker's ,, ...	13	23	4·24	3	1	1	105	152	3,019	3,052
Needleroom .. ...	...	12†	...	5·75	...	9	...	18,844	...	1,228
Mending room ... ..	*16	...	6	...	3	..	...	...	33,775	...

In addition to the above patients employed in the shops and needlerooms, 47 female patients work in the two laundries, and 41 male patients at the farm and in the grounds. A very large amount of work has been done in the bakehouse during the past year, as, besides supplying the institution itself, all the bread required at Gore Farm Hospital, Long Reach Hospital, and the Smallpox Ships was baked here, also the aerated waters required by the hospitals were manufactured here.

The schoolmistress sends me the following report of the school work:—

*Statistics.*—There were 382 names on the school registers on December 31st. "Of this number, 220 were boys and 162 girls. 133 children have been admitted into school during the year, 71 transferred to Rochester House, 3 boys discharged to friends, 21 removed to wards, and 2 boys have died.

*History.*—School work has, on the whole, been subject to few interruptions during the past year; the principal event was the annual inspection by the Board's Managers, which was a great success, the children showing a marked advance in work and drilling as compared with the preceding year.

*General progress.*—Has been steady during the year. Each year's work in industries and occupations shows clearly that we are travelling on the only road

\* 6 of these patients only attend in the afternoon and are employed in ward work, &c., in the morning.

† 8 of these patients belong to the adult and only 4 are from the children's department.

“ which leads to success in the future. The children daily demonstrate this fact by  
 “ their tractability, patience, and interest in the work taught, and the small amount  
 “ of mental work they are able to take in addition to the manual is a pleasure  
 “ instead of painful toil with little result, as was the case in former days.

“ *New work.*—During the year wood chopping and bundling, peg making,  
 “ hand fretwork, and fibre mat making have been introduced with great success.  
 “ Three new occupations in the fancy department also are self-supporting. All the  
 “ various occupations are on a commercial footing and bring in profits, which will  
 “ increase as the work becomes skilful and expert.

“ *Summary.*—The total number of articles made during the past year is  
 “ 15,808. Of this number 7,570 were for the benefit and use of the institution  
 “ itself. Attached is a detailed report of the year's work and the value of work  
 “ done, also the amounts realised by the sales of work.”

*School Industries and Occupations, 1902.*

No.	Industry.	Articles.	Amount Realised.
			£ s. d.
1	Paper flower work ... ..	4,207	17 11 0
2	Knitting ... ..	454	15 17 7
3	Paper work ... ..	1,514	11 4 6
4	Cane basket work ... ..	311	10 8 10
5	Macramé work ... ..	103	9 15 11
6	Rug work ... ..	27	9 6 7
7	Calico animals ... ..	389	6 9 0
8	Fancy sewing ... ..	79	6 7 4
9	Crochet work ... ..	166	2 8 0
10	Crépe paper work ... ..	88	1 12 2
11	Fancy pincushions ... ..	72	0 18 0
12	Gipsy peg making ... ..	744	0 7 9
13	Hand fret work ... ..	5	0 7 0
14	Fibre mat making ... ..	2	0 11 0
15	Osier basket work ... ..	77	10 6 6
	Total ... ..	8,238	103 11 2

*Work for Institution.*

No.	Industry.	Articles.	Valuation.
			£ s. d.
1	Cane chair seating ... ..	39	2 5 6
2	Cane basket work ... ..	12	1 1 0
3	Osier basket work ... ..	150	20 4 6
4	Wood chopping and bundling	5,100	11 9 6
	Total ... ..	5,301	45 0 6

*Clothing made for Institution.*

Articles, 836 ; Fibre mats, 26.

**IRONING**, 1,407.

The chaplain sends me the following report :—

“ My ministrations have been carried out as in former years. Though it is difficult to estimate results, I find, during my visits to the wards, evidence of appreciation on the part of the patients for what is done for them. The more frequent use in the last few years of the chapel for the adult services has been an improvement. The patients manifest a sense of pleasure in being brought there, and it has impressed on them a greater reverence and devotion during the services. Their attention and order at the services is remarkable. In this respect both the adults and children are exceptional. The choir has greatly improved, and has shown enthusiasm in endeavouring to make the musical portion of the services bright and attractive. For the kind co-operation of the different officers and members of the staff in assisting me in my work I desire to express my sincere thanks.”

\* \* \* \*

**Instruction  
for nurses  
and  
attendants.**

I am pleased to report that the nurses and attendants continue to take great interest in the instruction provided for them, and large numbers have attended the lectures given by the medical officers and myself. During the year 12 nurses and 14 attendants have obtained the first aid certificate of St. John Ambulance Association, and 10 nurses and 10 attendants the sick nursing certificate, whilst 5 nurses have been successful at the Medico-Psychological examination. This last examination is most thorough, and no candidate may enter until he or she has been trained for 2 years, and has attended at least 2 courses of lectures. I am pleased to record that both the mental and sick nursing continues to be carried out most satisfactorily, and the Lunacy Commissioners again expressed their approval of the care and attention bestowed on the patients.

**Building  
and  
improvements.**

The following is a list of the more important improvements carried out during the past year :—

- (1.) Provision of new w.c.s and washing accommodation in the 10 pavilions (completed).
- (2.) Painting and redecoration of No. 24 block.
- (3.) Remaking of all the principal roads of the asylum.
- (4.) Painting of the farm buildings and implements.
- (5.) Repair and redecoration of the airing court shelters.
- (6.) Repair of the gas works roof.
- (7.) Provision of iron bands to a number of chimneys in the adult department.

In addition to the above work, which calls for no special comment, a number of minor improvements have been effected, so that a considerable amount of work has been done.

All the earlier part of the year it was necessary to employ extra carpenters in order to keep Gore Farm and the hospitals supplied with coffins, and the number made was very large, upwards of 1,500.

A considerable amount of work has been done on the pavilion paths by the male attendants and patients, and good gravel paths now exist in most of the pavilion courts where the patients can take exercise. The sub-committee have approved of some of these paths being tarred, and I hope at no distant date the system will be extended to all the paths, and so enable the patients to get exercise in bad weather. The trees and shrubs planted during the last two years are doing well, and should shortly provide shelter for the patients.

\*                    \*                    \*                    \*

(Signed)    F. R. P. TAYLOR, M.D., B.S. (LOND.),  
*Medical Superintendent.*

### No. 4.

#### ROCHESTER HOUSE ASYLUM.

EALING,

*January, 1903.*

The following brief summary of statistics (which will be submitted in detail by Dr. Dixon) will give an idea of the changes which have occurred in this establishment during 1902:—

	Males.	Females.	Total.
Resident 1st January, 1902 ... ..	40	54	94
Admitted during year—			
Transfers from Darenth ... ..	64	10	74
Re-admission from fever hospital .. ..	1	—	1
Discharged during year—			
Re-transferred to Darenth ... ..	8	4	12
Sent temporarily to hospitals ... ..	2	—	2
Died during year ... ..	1	—	1
Remaining 31st December, 1902 ... ..	94	60	154

The total number under care and treatment during the year has been 169 (105 males and 64 females), and the average daily number resident has been 141.

**Admissions.** During the first four months of the year, 51 boys were transferred from Darenth (1 in place of a re-transferred patient), in order to complete the complement of the new building, at that time calculated at 90. Subsequently the Local Government Board certified this building as capable of accommodating 96, and in July 6 additional boys were received from Darenth. During the year, 8 other boys have been admitted to fill vacancies created by the re-transfer to Darenth of male cases found unsuitable for Rochester House. 6 additional girls



were received in the early part of the year to complete the number of 60 in the old building, and 4 others were subsequently admitted to take the place of a similar number re-transferred to Darenth on account of unsuitability for Rochester House.

**Discharges.** It was found advisable to recommend the re-transfer to Darenth of 3 boys on account of chronic and serious physical ailments, for the nursing of which there is no proper accommodation at Rochester House, and of 3 others whose mental condition proved to be too low to benefit by instruction there. It was needful also to send back 1 boy whose age and development rendered him unsuitable to remain under female care, and another who proved to be the subject of moral imbecility, and consequently unmanageable at Rochester House. Of the 4 girls re-transferred, 3 were discharged on account of their mental excitability rendering them a disturbing—not to say demoralising—element in a small community, and 1 on account of insufficient educability. With regard to the boys temporarily discharged for hospital treatment, it may be well to explain that one was a case of scarlatina, removed for isolation to the Board's Western Hospital, and the other a case in which there was reason to think a serious surgical operation would be necessary.

**Deaths.** One death only has occurred since the opening of Rochester House, and that in the last week of 1902. This will be further referred to later.

**Selection of cases.** The original list of cases selected for Rochester House in the summer of 1901 became exhausted after the admission of the additional patients in the early part of 1902, and on three occasions during the year examinations of the more recently admitted cases at Darenth have been made by me with a view of filling subsequent vacancies. As heretofore, I have received most valuable assistance in this work from Dr. Taylor and from Dr. Beresford.

\* \* \*

**Arrangements for training.** During the year a considerable development has taken place in the arrangements for industrial training at Rochester House. In addition to the instruction in tailoring mentioned in my last report, basket-making and shoe-making have been introduced as handicrafts for the boys, and very creditable work is produced in all three departments, in which about 20 are employed. I am glad to be able to state that outdoor employment is now organised on a more extensive scale than previously, 8 boys work with the gardener-attendant, who takes much interest in the training of his pupils. One boy usefully assists the handyman; and 9 help in household work. Of the girls, 4 are engaged in laundry work, 3 work in the kitchen, 15 are employed in household work, and 15 in the sewing room. Others, of course, are taught the use of the needle in school, but as details will be given in the report of the head schoolmistress and matron, I need not enlarge on these matters.

With regard to school arrangements, it is necessary to point out that these have been during the greater part of the year of a provisional character, but that quite recently two resident teachers have been appointed who will have some duties of supervision over the children out of school in addition to class teaching. Much credit is due to the nurses who, under the direction of the head schoolmistress

and matron, have taken part in the elementary instruction of the children, three or four classes so conducted having supplemented the class in charge of the former teacher. Having regard to the number of young children at Rochester House, school-work will necessarily form an important element in the training, though industrial usefulness is the goal to which all studies should be directed.

**Recreation, &c.** The necessity for recreation has not been overlooked. Out-door games were organised in the summer in the beautiful grounds of Rochester House, and it was gratifying to witness the heartiness with which the children entered into them. In the winter, in addition to social evenings for games, music, and dancing, there have been several special entertainments and the usual Christmas festivities.

**Sanitary condition.** The general health of the establishment has been remarkably good, considering the constitutional defects of many of the inmates. There have been only three cases of infectious disease, one of scarlatina (which did not spread owing to the removal of the patient to the Western Hospital), and two consecutive cases of chickenpox. Dr. Halstead Dixon, the visiting medical attendant, had under care at the end of the year two anxious cases, one of which died from collapse after being relieved of the more urgent symptoms of intestinal obstruction, and the other, presenting symptoms which appeared to call for active surgical interference, was removed to St. Mary's Hospital. \* \* \*

\* \* \* \* \*

(Signed) G. E. SHUTTLEWORTH, M.D., &c.,  
*Medical Expert, Rochester House.*

### No. 4a.

## ANNUAL REPORT OF THE HEAD SCHOOLMISTRESS AND MATRON OF ROCHESTER HOUSE.

EALING,

January, 1903.

**Statistics.** The following table is a list of the admissions, discharges, and deaths during that time :—

	Males.	Females.	Total.
In the institution January 1st, 1902 ... ..	40	54	94
Admissions during the year ... ..	64	10	74
Re-admission during the year ... ..	1	...	1
Discharged during the year ... ..	10	4	14
Deaths during the year ... ..	1	...	1
Remaining in the institution December 31st, 1902	94	60	154

**Admissions and discharges.** During the last year 74 patients were admitted, which brought my number to 156, *i.e.*, 96 boys and 60 girls—the maximum allowed me. The admissions included some rather delicate children, but the majority of these have improved in health, whilst in one or two cases, when found to have organic mischief or physical weakness, they were returned to Darenth along with several who proved to be unsuitable for treatment at Rochester House.

**Sickness and death.** With the visitation of the patients' friends our troubles commenced, two cases of chickenpox and two of ringworm occurring soon after the first visit. Fortunately, the diseases were checked at these low numbers, and afterwards, to prevent further infection being brought into the institution, children under 16 years of age were prohibited from coming. We had also one case of scarlet fever, but as the Clerk of the Board kindly arranged for his expeditious removal to the Western Hospital, I am thankful to say we had no more. Another boy on the 31st of December was taken to St. Mary's Hospital suffering from tubercular peritonitis. It is expected he will have to undergo a serious operation, which cannot conveniently be done at Rochester House.

I am sorry to say we had one death on the 28th December from obstruction of the bowels. Most of these patients have enfeebled constitutions, so that when attacked by a serious disease they have not the strength of ordinary children to fight against it. I am glad there has been no serious accident during the year.

**Occupation of patients.** In May we opened our laundry, one industrial trainer and one laundry-maid being engaged to do the work and train four patient girls, whom I sent to assist them. The work is very satisfactory and is done by hand, all the patients' laundry being washed at home, with the exception of the boys' collars and girls' dresses, which are sent with the staff clothing to Ealing Steam Laundry.

**Kitchen.** There are three patients who help in the kitchen. The cook has also a class of eight girls who are now able to cook dainty dishes, which the nurses are pleased to partake of afterwards.

**Basket shop.** In May the basket-maker commenced work with five boys, working eight hours per week. One boy had previously learnt basket-making at Darenth, but the other four patients were raw material. The instructor has persevered amazingly with them, and they are all now able to make baskets. At present they are working on linen baskets.

**Shoe shop.** In May also the shoe shop was opened. In this class I put six boys who had never had an awl in their fingers before, and at first were the despair of the local man engaged to teach them the trade. He declared that one boy, who could not speak, would "never be any good." I am glad to say he has been agreeably surprised, for this boy is now the best in the shop. He loves his work, and has scarcely patience to wait for a fresh supply to be given him. All these boys can close uppers, and three of the boys are now ready to be put on the bench.

**Tailors' shop.** In this department, under the sempstress, seven boys are employed. They have made 40 pairs of knickerbockers and seven suits, besides helping with other work. They also do all the boys' repairs, and several are able to cut out a right-sized patch and put it on the garment themselves.

**Needlework and housework.** In the needleroom 15 girls are at work; and 15 girls and 9 boys are engaged in housework. When first the new building was opened six girls were sent over daily to make beds, &c., in the boys' dormitories. We can now dispense with their help, for the boys have been taught to do the work themselves. The same patient-girl to whom I referred in my report for 1901, is still a capital messroom-maid. As I have now two resident teachers, another girl waits upon them, and does the work of the suite of rooms which they occupy. I could not engage a house-parlourmaid to do the work any better. In a quiet, gentle way she attends to all their wants, and does not require any more supervision than an ordinary servant would. She was a good working girl when transferred from Darenth, but very shy. She has picked up her new duties well, and the change of occupation seems to have brought her out. Such patients can well take the place of servants in an institution, and lead a happy life, for after work is done they are able to join in the recreations provided for the others.

**Gardening.** The gardener has eight boys, and two are of great assistance. They all help generally with whatever work has to be done.

**Handyman's help.** One boy is still of great use to the handyman, and on certain occasions he helps the housemaid to wait at table.

**School.** 35 girls and 60 boys attend school all day. This number is divided into five classes, who are now taught by two resident teachers and three nurse-teachers. Some of the working boys and girls go to school for two hours each day, and others one afternoon during the week, according to their requirements.

**Religious services.** Services are still held in the girls' day-room twice a week by Dr. Oliver, vicar of Ealing. He says "the children are very attentive and so well behaved. They answer the questions most intelligently. The singing of the hymns is much improved." The children also have Scripture lessons and Sunday school.

**Recreation.** If fine, on Wednesday and Saturday afternoons the children go for walks in the neighbourhood. During the winter, concerts and dances are given weekly, and two theatrical entertainments have been much enjoyed by the patients. \* \* \*

**Improvement.** The above industries will show how the elder children have improved. The younger ones have been taught to help themselves, for they can now all dress without assistance, with the exception of twelve boys and three girls. This success is only achieved by the right kind of individual. To be treated with patient kindness, perseverance, and tact is as necessary to the life of an imbecile as the air he breathes, and only people having these characteristics should be engaged in the training of this class of children. \* \* \*

**After care.** All these children are mentally or morally deficient, and on account of this weakness are entitled to, and ought to have, a certain amount of supervision all their lives. The great improvement obtained in some of these cases leads outsiders to say that they "see nothing wrong with them," and "why should they not be out in the world?" The truth is they are never fit to mix in ordinary life. They will never be normal children, and therefore cannot be held entirely responsible for their own actions. If parents realised this the treatment of imbecile children would be better understood, and they would be less anxious to undertake the responsibility of having charge of them.

**Work.** Many alterations have been made on the estate. Lavatories and playgrounds have been improved. A drying-room has been added to the laundry and fitted up with stove and drying-horses. An isolation room has been made to answer the purpose of isolating an infectious case temporarily.

**Staff.** The health of the staff has on the whole been very good, and I am pleased with the result of their work during the last twelve months.

(Signed) M. HARGREAVES,  
*Head Schoolmistress and Matron.*

B.—ASYLUM STATISTICS.—TABLE I.—Admissions, Re-admissions,

	LEAVESDEN ASYLUM.						CATERHAM ASYLUM.					
	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.
In the asylums, 1st January, 1902 ...	...	...	...	811	956	*1,767	...	...	...	886	1,044	1,930
Cases admitted—												
First admissions ...	80	89	169	...	...	...	66	58	124	...	...	...
Not first admissions ...	...	2	2	...	...	...	1	...	1	...	...	...
From other asylums of the Board ...	5	...	5	...	...	...	1	1	2	...	...	...
Total cases admitted during the year	...	...	...	85	91	176	...	...	...	68	59	127
Total cases under care during the year	...	...	...	896	1,047	1,943	...	...	...	954	1,103	2,057
Cases discharged—												
Recovered ...	2	1	3	...	...	...	2	...	2	...	...	...
Relieved ...	2	...	2	...	...	...	2	2	4	...	...	...
Not improved ...	18	16	34	...	...	...	5	6	11	...	...	...
To other asylums of the Board ...	2	1	3	...	...	...	...	...	...	...	...	...
Died ...	60	74	134	...	...	...	63	48	111	...	...	...
Total cases discharged and died during the year	...	...	...	84	92	176	...	...	...	72	56	128
Remaining in the asylums, 31st Dec., 1902	...	...	...	812	955	1,767	...	...	...	882	1,047	1,929
Average number resident during the year	...	...	...	815	953	1,768	...	...	...	885	1,045	1,930
Persons* under care during the year†	...	...	...	896	1,047	1,943	...	...	...	954	1,103	2,057
Persons admitted	...	...	...	85	91	176	...	...	...	68	59	127
Persons recovered	...	...	...	2	1	3	...	...	...	2	...	2
Transferred from other asylums not under the Board‡	...	...	...	14	40	54	...	...	...	11	30	41
Transferred to other asylums not under the Board§	...	...	...	10	15	25	...	...	...	4	6	10

\* Persons, i.e., separate persons in contradistinction to "cases," which may include the same individual more than once.

† Total cases, minus re-admissions of patients discharged during the current year.

TABLE II.—Admissions, Re-admissions, Discharges, and Deaths

[N.B.—The following are the dates of the opening of the several Asylums:—CATERHAM, Sept. 29th,

	LEAVESDEN ASYLUM.						CATERHAM ASYLUM.					
	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.
Persons admitted during the period of 32 years and 94 days ...	4,453	4,293	8,746	...	...	...	4,365	3,991	8,356	...	...	...
Re-admissions ...	56	25	81	...	...	...	39	34	73	...	...	...
Admissions from other asylums of the Board ...	245	312	557	...	...	...	130	206	336	...	...	...
Total cases admitted	...	...	...	4,754	4,630	9,384	...	...	...	4,534	4,231	8,765
Discharged cases—												
Not insane ...	13	8	21	...	...	...	6	2	8	...	...	...
Recovered ...	258	135	393	...	...	...	263	192	455	...	...	...
*Relieved ...	253	171	424	...	...	...	285	172	457	...	...	...
Not improved ...	372	349	721	...	...	...	232	206	438	...	...	...
To other asylums of the Board ...	51	36	87	...	...	...	88	49	137	...	...	...
Died ...	2,995	2,976	5,971	...	...	...	2,778	2,563	5,341	...	...	...
Total cases discharged and died since opening of the asylum	...	...	...	3,942	3,675	7,617	...	...	...	3,652	3,184	6,836
Remaining 31st December, 1902	...	...	...	812	955	1,767	...	...	...	882	1,047	1,929
Average number resident during the 32 years and 94 days ...	...	...	...	837	1,045	1,882	...	...	...	855	1,059	1,914
† Transferred from other asylums not under the Board ...	...	...	...	...	...	...	...	...	...	277	372	§649
‡ Transferred to other asylums not under the Board ...	...	...	...	...	...	...	...	...	...	223	206	429

\* These include a few escapes which have occurred since the opening of the asylum.

N.B.—From April 16th, 1873, to November, 1876, the North-Western Hospital (Hampstead) was used as an asylum for from the other asylums of the Board; 222 patients (91 males and 131 females) died, and the remainder were discharged

Discharges, and Deaths during the Year ended 31st December, 1902.

DARENTH ASYLUM.						ROCHESTER HOUSE ASYLUM.						SUMMARY.					
M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.
...	...	...	1,072	913	1,985	...	...	...	40	54	94	...	...	...	2,809	2,967	5,776
99	58	157	...	...	...	...	...	...	...	...	...	245	205	450	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	1	2	3	...	...	...
9	4	13	...	...	...	64	10	74	...	...	...	79	15	94	...	...	...
...	...	...	108	62	170	...	...	...	64	10	74	...	...	...	325	222	547
...	...	...	1,180	975	2,155	...	...	...	104	64	168	...	...	...	3,134	3,189	6,323
...	1	1	...	...	...	...	...	...	...	...	...	4	2	6	...	...	...
6	1	7	...	...	...	...	...	...	...	...	...	10	3	13	...	...	...
3	2	5	...	...	...	...	...	...	...	...	...	26	24	50	...	...	...
69	10	79	...	...	...	10	4	14	...	...	...	81	15	96	...	...	...
32	42	74	...	...	...	1	...	1	...	...	...	156	164	320	...	...	...
...	...	...	110	56	166	...	...	...	11	4	15	...	...	...	277	208	485
...	...	...	1,070	919	1,989	...	...	...	93	60	153	...	...	...	2,857	2,981	5,838
...	...	...	1,070	916	1,986	...	...	...	83	58	141	...	...	...	2,853	2,972	5,825
...	...	...	1,171	971	2,142	...	...	...	104	64	168	...	...	...	3,125	3,185	6,310
...	...	...	99	58	157	...	...	...	64	10	74	...	...	...	316	218	534
...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	4	2	6
...	...	...	3	5	8	...	...	...	...	...	...	...	...	...	28	75	103
...	...	...	3	2	5	...	...	...	...	...	...	...	...	...	17	23	40

† Included in first admissions.  
 ‡ Included with not improved cases.

from the Opening of the Asylums to the 31st December, 1902.

[1870; LEAVESDEN, Oct. 9th, 1870; DARENTH, May 4th, 1880; and ROCHESTER HOUSE, Aug. 1st, 1901.]

DARENTH ASYLUM.						ROCHESTER HOUSE ASYLUM.						SUMMARY.					
M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.
854	2,686	5,540	...	...	...	...	...	...	...	...	...	11,672	10,970	22,642	...	...	...
64	55	119	...	...	...	...	...	...	...	...	...	159	114	273	...	...	...
759	700	1,459	...	...	...	106	64	170	...	...	...	1,240	1,282	2,522	...	...	...
...	...	...	3,677	3,441	7,118	...	...	...	106	64	170	...	...	...	13,071	12,366	25,437
8	14	22	...	...	...	...	...	...	...	...	...	27	24	51	...	...	...
83	80	163	...	...	...	...	...	...	...	...	...	604	407	1,011	...	...	...
299	248	547	...	...	...	...	...	...	...	...	...	837	591	1,428	...	...	...
283	224	507	...	...	...	...	...	...	...	...	...	887	779	1,666	...	...	...
802	721	1,523	...	...	...	12	4	16	...	...	...	953	810	1,763	...	...	...
132	1,235	2,367	...	...	...	1	...	1	...	...	...	6,906	6,774	13,680	...	...	...
...	...	...	2,607	2,522	5,129	...	...	...	13	4	17	...	...	...	10,214	9,385	19,599
...	...	...	1,070	919	1,989	...	...	...	93	60	153	...	...	...	2,857	2,981	5,838
...	...	...	1,071	916	1,987	...	...	...	63	48	111	...	...	...	2,826	3,068	5,894
...	...	...	60	283	343	...	...	...	...	...	...	...	...	...	337	655	992
...	...	...	5	13	18	...	...	...	...	...	...	...	...	...	228	219	447

† Included in the admissions. ‡ Included with the not improved cases. § Information prior to 1890 not obtainable.  
 Imbeciles, and during that period 1,201 patients were admitted direct from the several parishes and unions, as well as some or transferred to the asylums at Leavesden and Caterham.

TABLE 1A.—Showing (1) the previous attacks among persons admitted during 1902.

(1) Number of previous attacks.	LEAVESDEN ASYLUM.			CATERHAM ASYLUM.		
	PERSONS.			PERSONS.		
	Males.	Females.	Total.	Males.	Females.	Total.
Have had 1 attack ... ..	4	4	8	...	4	4
„ „ 2 attacks ... ..	...	2	2	3	2	5
„ „ 3 „ ... ..	...	...	...	...	...	...
„ „ 4 „ ... ..	...	...	...	...	...	...
„ „ 5 „ ... ..	...	...	...	...	...	...
„ „ 6 „ ... ..	...	1	1	...	...	...

(2) Number of times patients recovered.	In this Asylum.			In any Asylum.			In this Asylum.			In any Asylum.		
	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.
	Once ... ..	2	1	3	...	...	...	} Insufficient data obtainable, hence impossible to give reliable figures.				
Twice ... ..	...	...	...	...	...	...						
3 times ... ..	...	...	...	...	...	...						
4 „ ... ..	...	...	...	...	...	...						
5 „ ... ..	...	...	...	...	...	...						
6 „ ... ..	...	...	...	...	...	...						

TABLE 1IA. — Admissions and recoveries of persons\* from the opening

	Males.	Females.	Total.	Males.	Females.	Total.
Persons* admitted during 32 years and 94 days	4,698	4,605	9,303	4,495	4,197	8,692
Persons discharged during the same period ...	258	135	393	263	192	455
Of whom were re-admitted relapsed†... ..	} Insufficient data obtainable, hence impossible to give reliable figures.	} Insufficient data obtainable, hence impossible to give reliable figures.	} Insufficient data obtainable, hence impossible to give reliable figures.	} Insufficient data obtainable, hence impossible to give reliable figures.	} Insufficient data obtainable, hence impossible to give reliable figures.	} Insufficient data obtainable, hence impossible to give reliable figures.
Recovered persons who have not relapsed ...						
Relapsed persons discharged recovered ‡ ...						
Not recovered persons§ ... ..						

\* Persons, i.e., separate persons in contradistinction to cases, which may include the same individual.

† i.e., after last re-admission, if relapsed more than once.

§ i.e., recovered.



and (2) the number of times they had previously recovered in this or any asylum.

DARENTH ASYLUM.			ROCHESTER HOUSE ASYLUM.			SUMMARY.											
PERSONS.			PERSONS.			PERSONS.											
Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.									
Insufficient data obtainable, hence impossible to give reliable figures.			Imbeciles.			4	8	12									
						3	4	7									
						...	...	...									
						...	...	...									
						...	1	1									
In this Asylum.		In any Asylum		In this Asylum.		In any Asylum.		In Board's Asylums.			In any Asylum.						
I.	F.	TL.	M.	F.	TL.	M.	F.	TL.	M.	F.	TL.	M.	F.	TL.			
Insufficient data obtainable, hence impossible to give reliable figures.						Imbeciles.						2	1	3	...	...	...
												...	...	...	...	...	...
												...	...	...	...	...	...
												...	...	...	...	...	...
												...	...	...	...	...	...

of the asylums to the 31st December, 1902 (32 years and 94 days).

Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Insufficient data obtainable, hence impossible to give reliable figures			Imbeciles.			9,193	8,802	17,995
						521	327	848
						...	...	...

... than once.  
 ... ons, sane at the present time so far as the asylum statistics show.

TABLE III.—Admissions, Discharges, and Deaths, with the Mean Annual Mortality and

YEAR.	ADMITTED.									DISCHARGED.											
	From Parishes and Unions.*			From other Asylums of Board.			Total.			Recovered.			Relieved.			Not Improved.†			To other Asylums of Board.		
	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.
<b>LEAVESDEN ASYLUM.</b>																					
1893 ...	160	95	255	...	...	...	160	95	255	13	5	18	10	...	10	10	7	17	...	...	...
1894 ...	154	112	266	...	...	...	154	112	266	12	4	16	9	4	13	19	7	26	...	...	...
1895 ...	126	127	253	...	...	...	126	127	253	6	1	7	4	4	8	10	7	17	1	1	...
1896 ...	139	102	241	...	...	...	139	102	241	8	...	8	5	3	8	21	9	30	1	...	...
1897 ...	145	103	248	...	...	...	145	103	248	13	...	13	8	6	14	18	10	28	...	...	...
1898 ...	119	135	254	...	...	...	119	135	254	18	9	27	5	6	11	19	18	37	...	...	...
1899 ...	184	135	319	12	11	23	196	146	342	9	4	13	25	5	30	29	19	48†	...	...	...
1900 ...	32	29	61	46	69	115	78	98	176	2	3	5	5	2	7	16	16	32	2	...	...
1901 ...	81	65	146	...	...	...	81	65	146	...	...	...	...	...	...	8	11	19	...	1	...
1902 ...	80	91	171	5	...	5	85	91	176	2	1	3	2	...	2	18	16	34	2	1	...
<b>CATERHAM ASYLUM.</b>																					
1893 ...	86	76	162	...	...	...	86	76	162	2	2	4	4	5	9	11	10	21	...	...	...
1894 ...	102	113	215	...	...	...	102	113	215	6	4	10	4	3	7	6	5	11	...	...	...
1895 ...	85	76	161	...	...	...	85	76	161	7	1	8	5	1	6	13	3	16	...	...	...
1896 ...	84	59	143	1	...	1	85	59	144	6	3	9	3	5	8	11	7	18	...	...	...
1897 ...	84	58	142	...	...	...	84	58	142	1	4	5	5	...	5	8	5	13	...	...	...
1898 ...	80	120	200	...	...	...	80	120	200	6	3	9	2	4	6	5	8	13	...	...	...
1899 ...	76	68	144	...	...	...	76	68	144	3	4	7	3	1	4	10	8	18	...	...	...
1900 ...	41	51	92	...	...	...	41	51	92	8	4	12	4	1	5	7	6	13	...	1	...
1901 ...	54	64	118	...	1	1	54	65	119	2	1	3	1	2	3	2	3	5	1	...	...
1902 ...	67	58	125	1	1	2	68	59	127	2	...	2	2	2	4	5	6	11	...	...	...
<b>DARENTH ASYLUM.</b>																					
1893 ...	88	95	183	45	44	89	133	139	272	4	9	13	6	13	19	20	9	29	45	44	...
1894 ...	75	117	192	40	13	53	115	130	245	2	3	5	3	2	5	11	3	14	38	13	...
1895 ...	96	76	172	26	46	72	122	122	244	10	3	13	10	6	16	7	21	28	25	45	...
1896 ...	83	57	140	27	29	56	110	86	196	5	9	14	22	14	36	11	8	19	27	29	...
1897 ...	76	56	132	24	33	57	100	89	189	1	5	6	20	13	33	8	5	13	24	33	...
1898 ...	61	34	95	19	25	44	80	59	139	...	...	...	8	3	11	17	8	25	19	25	...
1899 ...	38	25	63	14	10	24	52	35	87	...	...	...	3	2	5	4	6	10	26	21	...
1900 ...	102	129	231	2	1	3	104	130	234	...	1	1	5	3	8	1	5	6	46	69	...
1901 ...	83	90	173	2	...	2	85	90	175	3	...	3	...	1	1	5	7	12	41	54	...
1902 ...	99	58	157	9	4	13	108	62	170	...	1	1	6	1	7	3	2	5	69	10	...
<b>ROCHESTER HOUSE ASYLUM.</b>																					
1901 ...	...	...	...	41	54	95	41	54	95	...	...	...	...	...	...	...	...	...	1	...	...
1902 ...	...	...	...	64	10	74	64	10	74	...	...	...	...	...	...	...	...	...	10	4	...
<b>SUMMARY.</b>																					
1893 ...	334	266	600	45	44	89	379	310	689	19	16	35	20	18	38	41	26	67	45	44	...
1894 ...	331	342	673	40	13	53	371	355	726	20	11	31	16	9	25	36	15	51	38	13	...
1895 ...	307	279	586	26	46	72	333	325	658	23	5	28	19	11	30	30	31	61	26	46	...
1896 ...	306	218	524	28	29	57	334	247	581	19	12	31	30	22	52	43	24	67	28	29	...
1897 ...	305	217	522	24	33	57	329	250	579	15	9	24	33	19	52	34	20	54	24	33	...
1898 ...	260	289	549	19	25	44	279	314	593	24	12	36	15	13	28	41	34	75	19	25	...
1899 ...	298	228	526	26	21	47	324	249	573	12	8	20	31	8	39	43	33	76†	26	21	...
1900 ...	175	209	384	48	70	118	223	279	502	10	8	18	14	6	20	24	27	51	48	70	...
1901 ...	218	219	437	43	55	98	261	274	535	5	1	6	1	3	4	15	21	36	43	55	...
1902 ...	246	207	453	79	15	94	325	222	547	4	2	6	10	3	13	26	24	50	81	15	...

\* Including transfers from asylums not under Board.

† Including transfers to asylums not under Board.

‡ Includes 3 males, 1 female, not insane.

Proportion of Recoveries per cent. on the Admissions for the year 1893, and each subsequent year.

DIED.			Remaining December 31st in each year.			Average Numbers Resident.			Percentage of Recoveries on Admissions.			Percentage of Deaths on Average Numbers Resident.		
M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.
117	85	202	899	1,096	1,995	894	1,097	1,991	8.1	5.3	7.0	13.1	7.7	10.1
118	97	215	895	1,096	1,991	894	1,095	1,989	7.7	3.5	6.0	13.0	8.9	10.1
103	116	219	897	1,094	1,991	895	1,096	1,991	4.7	0.8	2.8	11.5	10.5	11.0
107	88	195	894	1,096	1,990	893	1,097	1,990	5.8	0.0	3.3	12.0	8.0	9.8
100	84	184	900	1,099	1,999	895	1,095	1,990	8.9	0.0	5.2	11.1	7.6	9.2
92	102	194	885	1,099	1,984	889	1,097	1,986	15.1	6.6	10.6	10.3	9.3	9.8
121	129	250	897	1,088	1,985	869	1,083	1,952	4.6	2.7	3.8	13.9	11.9	12.8
137	173	310	813	992	1,805	863	1,042	1,905	2.5	3.1	2.8	15.8	16.6	16.2
75	89	164	811	956	1,767	813	959	1,772	0.0	0.0	0.0	9.2	9.2	9.2
60	74	134	812	955	1,767	815	953	1,768	2.3	1.1	1.1	7.3	7.7	7.5
72	66	138	938	1,064	2,002	940	1,070	2,010	2.3	2.6	2.4	7.6	6.1	6.8
94	91	185	930	1,074	2,004	931	1,071	2,002	5.8	3.5	4.6	10.0	8.5	9.2
57	73	130	933	1,072	2,005	932	1,070	2,002	8.2	1.3	4.9	6.1	6.8	6.4
73	43	116	925	1,073	1,998	929	1,074	2,003	7.1	5.0	6.2	7.8	4.0	5.7
66	72	138	929	1,050	1,979	931	1,063	1,994	1.2	6.9	3.5	7.0	6.8	6.9
67	83	150	929	1,072	2,001	931	1,056	1,987	7.5	2.5	4.5	7.1	7.8	7.5
58	53	111	931	1,074	2,005	932	1,070	2,002	3.9	5.8	4.8	6.2	4.9	5.5
58	76	134	895	1,037	1,932	919	1,061	1,980	19.5	7.8	13.7	6.3	7.2	6.8
57	52	109	886	1,044	1,930	886	1,044	1,930	3.7	1.6	2.7	6.4	5.0	5.7
63	48	111	882	1,047	1,929	885	1,045	1,930	3.0	...	1.6	7.1	4.6	5.7
68	90	158	1,034	932	1,966	1,038	929	1,967	4.54	9.72	7.13	13.00	18.10	15.55
53	74	127	1,042	967	2,009	1,037	934	1,971	1.20	6.00	3.60	10.50	15.05	12.77
35	56	91	1,077	958	2,035	1,056	955	2,011	10.52	5.26	7.89	7.00	10.73	8.86
41	47	88	1,081	937	2,018	1,077	943	2,020	6.02	15.78	10.90	7.57	9.31	8.44
43	34	77	1,085	936	2,021	1,065	934	1,999	1.31	5.31	3.31	8.09	7.11	7.60
43	31	74	1,078	928	2,006	1,133	934	2,067	...	...	...	8.87	7.11	7.99
35	35	70	1,062	899	1,961	1,073	916	1,989	...	...	...	6.90	7.70	7.30
40	35	75	1,074	916	1,990	1,054	892	1,946	...	5.23	0.23	3.79	3.92	3.85
38	31	69	1,072	913	1,985	1,070	916	1,986	3.52	...	1.71	3.55	3.39	3.47
32	42	74	1,070	919	1,989	1,070	916	1,986	...	1.61	0.58	2.99	4.58	3.72
...	...	...	40	54	94	...	...	...	...	...	...	...	...	...
1	...	1	94	60	154	83	58	141	...	...	...	...	...	...
257	241	498	2,871	3,092	5,963	2,872	3,096	5,968	5.69	6.02	5.83	8.95	7.81	8.34
265	262	527	2,867	3,137	6,004	2,862	3,100	5,962	6.04	3.22	4.61	9.26	8.45	8.84
195	245	440	2,907	3,124	6,031	2,883	3,121	6,004	7.49	1.79	4.78	6.76	7.85	7.33
221	178	399	2,900	3,106	6,006	2,899	3,114	6,013	6.21	5.50	5.92	7.62	5.71	6.63
209	190	399	2,914	3,085	5,999	2,891	3,092	5,983	4.92	4.15	4.60	7.23	6.14	6.68
202	216	418	2,892	3,099	5,991	2,953	3,087	6,040	9.23	4.15	6.56	6.84	6.99	6.92
214	217	431	2,890	3,061	5,951	2,874	3,069	5,943	4.03	3.51	3.80	7.44	7.07	7.25
235	284	519	2,782	2,945	5,727	2,836	2,995	5,831	5.71	3.83	4.69	8.25	9.48	8.90
70	172	342	2,809	2,967	5,776	2,769	2,919	5,688	2.29	0.46	1.37	6.14	5.86	6.01
56	164	320	2,857	2,981	5,838	2,853	2,972	5,825	1.63	0.97	1.32	5.47	5.52	5.49

TABLE IV.—History of the Annual Admissions since the opening of the Asylums, with the (Table VIII. in

YEAR.	ADMITTED.						OF EACH YEAR'S ADMISSIONS, DISCHARGED AND DIED IN 1902.															
	New Cases.		Re-lapsed Cases.		From other Asylums of the Board.		TOTAL.			Re-covered.		Relieved.		* Not Improved.		To other Asylums of the Board.		DIED.				
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Grand Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	
<b>LEAVESDEN ASYLUM.</b>																						
1870 part of ...	468	556	...	...	...	...	468	556	1,024	...	...	...	...	...	...	...	...	...	4	4		
1871 ...	529	545	...	...	...	...	529	545	1,065	...	...	...	...	...	...	...	...	...	1	2		
1872 ...	163	256	...	...	...	...	163	256	419	...	...	...	...	...	...	...	...	...	...	...	...	
1873 ...	141	165	...	...	41	30	182	195	377	...	...	...	...	...	...	...	...	...	1	1		
1874 ...	115	149	1	...	1	13	117	162	279	...	...	...	...	...	...	...	...	...	...	1		
1875 ...	111	108	1	1	...	...	112	109	221	...	...	...	...	...	...	...	...	...	...	...	...	
1876 ...	158	79	...	...	126	184	284	263	547	...	...	...	...	...	...	...	...	...	2	3		
1877 ...	95	...	...	...	1	4	96	4	100	...	...	...	...	...	...	...	...	...	...	...	...	
1878 ...	69	1	1	...	13	...	83	1	84	...	...	...	...	...	...	...	...	...	1	...		
1879 ...	80	89	...	...	...	...	80	89	169	...	...	...	...	...	...	...	...	...	1	...		
1880 ...	92	75	...	...	...	...	92	75	167	...	...	...	1	1	2	...	...	...	...	...	...	
1881 ...	85	71	4	1	...	...	89	72	161	...	...	...	...	...	...	...	...	...	...	...	...	
1882 ...	82	85	3	2	...	...	85	87	172	...	...	...	...	...	...	...	...	...	...	...	...	
1883 ...	75	106	5	1	...	...	80	107	187	...	...	...	...	...	...	...	...	...	...	...	...	
1884 ...	56	96	2	...	...	...	58	96	154	...	...	...	1	1	...	...	...	...	...	1		
1885 ...	71	97	2	2	...	...	73	97	170	...	...	...	...	...	1	1	...	...	1	...		
1886 ...	62	83	3	3	...	...	65	86	151	...	...	...	...	...	...	...	...	...	...	...	...	
1887 ...	80	92	2	2	...	...	82	92	174	...	...	...	...	...	...	...	...	...	...	1		
1888 ...	71	83	2	2	...	...	73	83	156	...	...	...	...	...	...	...	...	...	...	...	...	
1889 ...	140	121	2	1	...	...	142	122	264	...	...	...	...	...	...	...	...	...	...	...	...	
1890 ...	162	155	1	2	...	...	163	157	320	...	...	...	1	1	...	...	...	...	1	4		
1891 ...	176	148	3	2	...	...	179	150	329	...	...	...	1	1	...	...	...	...	...	...	...	
1892 ...	181	149	4	2	...	1	185	152	337	...	...	...	...	...	...	...	...	...	1	2		
1893 ...	156	95	4	...	...	...	160	95	255	...	...	...	1	1	...	...	...	...	1	...		
1894 ...	148	112	6	...	...	...	154	112	266	...	...	...	1	1	...	...	...	...	2	3		
1895 ...	125	125	1	2	...	...	126	127	253	1	1	...	1	1	...	...	...	...	...	...	...	
1896 ...	136	100	3	2	...	...	139	102	241	...	...	...	2	2	...	...	...	...	...	...	...	
1897 ...	143	102	2	1	...	...	145	103	248	...	...	...	2	1	3	...	...	...	...	...	...	
1898 ...	118	134	1	1	...	...	119	135	254	...	...	...	2	2	4	...	...	...	...	4		
1899 ...	182	134	2	1	12	11	196	146	342	...	...	1	1	2	2	1	1	1	1	7	10	
1900 ...	32	28	...	1	46	69	78	98	176	...	...	...	2	2	4	11	1	1	3	7		
1901 ...	80	65	1	...	...	...	81	65	146	1	1	1	1	7	4	11	1	1	16	7		
1902 ...	80	89	...	2	5	...	85	91	176	1	1	...	2	2	4	...	...	...	12	6		
Totals	4,453	4,293	56	25	245	312	4,754	4,630	9,384	2	1	3	2	2	18	16	34	2	1	3	60	74
<b>CATERHAM ASYLUM.</b>																						
1870 part of ...	156	292	...	...	...	...	156	292	358	...	...	...	...	...	...	...	...	...	...	...	1	
1871 ...	664	870	...	...	...	...	664	870	1,534	...	...	...	...	...	...	...	...	...	...	4	6	
1872 ...	259	161	...	...	...	...	259	161	420	...	...	...	...	...	...	...	...	...	...	...	...	
1873 ...	183	167	1	...	...	...	184	167	351	...	...	...	...	...	...	...	...	...	...	...	...	
1874 ...	240	169	2	3	72	36	314	208	522	...	...	...	...	...	...	...	...	...	...	...	...	
1875 ...	158	180	...	...	...	...	158	180	338	...	...	...	...	...	...	...	...	...	...	...	...	
1876 ...	173	170	5	5	33	167	211	342	553	...	...	...	...	...	...	...	...	...	1	5		
1877 ...	178	56	2	...	...	1	180	57	237	...	...	...	...	...	...	...	...	...	...	...	...	
1878 ...	157	47	...	...	17	...	174	47	221	...	...	...	...	...	...	...	...	...	...	3	...	
1879 ...	176	84	...	...	6	...	182	84	266	...	...	...	...	...	...	...	...	...	...	1	...	
1880 ...	122	87	2	6	...	...	124	93	217	...	...	...	...	...	...	...	...	...	...	1	...	
1881 ...	122	105	...	...	...	...	122	105	227	...	...	...	...	...	...	...	...	...	...	...	...	
1882 ...	81	85	...	2	...	...	81	87	168	...	...	...	...	...	...	...	...	...	...	2	2	
1883 ...	73	37	3	3	...	...	76	40	116	...	...	...	...	...	...	...	...	...	...	2	...	
1884 ...	98	102	2	1	...	...	100	103	203	...	...	1	1	...	...	...	...	...	...	1	...	
1885 ...	59	48	3	3	...	...	62	51	113	...	...	...	...	...	...	...	...	...	...	...	...	
1886 ...	115	91	3	1	...	...	118	92	210	...	...	...	...	...	...	...	...	...	...	1	1	
1887 ...	103	90	2	1	...	...	105	91	196	...	...	...	...	...	...	...	...	...	...	1	1	
1888 ...	83	81	...	...	...	...	83	81	164	...	...	...	...	...	...	...	...	...	...	...	2	...
1889 ...	92	78	...	1	...	...	92	79	171	...	...	...	...	...	...	...	...	...	...	...	...	
1890 ...	119	122	2	1	...	...	121	123	244	...	...	...	...	...	...	...	...	...	...	...	1	...
1891 ...	104	108	...	...	...	...	104	108	212	...	...	...	1	1	...	...	...	...	...	1	1	
1892 ...	101	114	2	1	...	...	103	115	218	...	...	...	...	...	...	...	...	...	...	2	...	
1893 ...	86	76	...	...	...	...	86	76	162	...	...	...	1	1	...	...	...	...	...	2	...	
1894 ...	100	112	2	1	...	...	102	113	215	...	...	...	...	...	...	...	...	...	...	...	2	
1895 ...	85	75	...	1	...	...	85	76	161	...	...	...	...	...	...	...	...	...	...	2	1	
1896 ...	83	59	1	...	1	...	85	59	144	...	...	...	1	1	...	...	...	...	...	3	2	
1897 ...	84	58	...	...	...	...	84	58	142	...	...	...	...	...	...	...	...	...	...	1	3	
1898 ...	77	119	3	1	...	...	80	120	200	...	...	1	1	2	...	1	1	...	...	3	4	
1899 ...	73	67	3	1	...	...	76	68	144	...	...	...	1	1	...	1	1	...	...	5	5	
1900 ...	41	49	...	2	...	...	41	51	92	...	...	...	1	1	...	1	1	...	...	6	5	
1901 ...	54	64	...	...	...	1	54	65	119	1	1	...	2	2	...	2	2	...	...	6	3	
1902 ...	66	58	1	...	1	1	68	59	127	1	1	1	1	2	1	3	...	...	...	9	2	
Total	4,365	3,991	39	34	130	206	4,534	4,231	8,765	2	...	2	2	2	4	5	6	11	...	...	63	48

Discharges and Deaths, and the numbers of each year remaining on the 31st December, 1902. reports previous to 1900.)

TOTAL DISCHARGED AND DIED OF EACH YEAR'S ADMISSIONS.															Remaining of each year's Admissions 31st December, 1902.		
Recovered.			Relieved.			Not Improved.			To other Asylums of the Board.			DIED.			Males.	Females.	Total.
Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.			
15	8	23	26	21	47	25	44	69	12	4	16	358	446	804	32	33	65
20	15	35	30	23	53	50	49	99	15	10	25	367	394	761	38	54	92
12	6	18	12	11	23	15	14	29	5	14	19	119	189	308	...	22	22
9	4	13	9	6	15	17	21	38	10	5	15	132	146	278	5	13	18
7	2	9	3	7	10	13	17	30	...	...	2	93	130	223	...	6	6
5	3	8	3	5	8	17	13	30	...	...	...	76	80	156	11	8	19
13	3	16	18	7	25	12	13	25	...	...	...	213	202	415	28	38	66
7	...	7	5	...	5	3	...	3	...	...	...	70	4	74	11	...	11
5	...	5	4	...	4	3	...	3	...	...	...	62	1	63	9	...	9
3	3	6	3	5	8	3	8	11	...	...	...	62	57	119	9	16	25
8	4	12	10	8	18	9	3	12	...	...	...	60	42	102	5	18	23
11	7	18	7	5	12	7	3	10	...	...	...	59	52	111	5	5	10
4	6	10	3	5	8	3	3	6	...	...	...	67	63	130	9	10	19
4	2	6	7	8	15	4	8	12	...	...	...	59	71	130	6	18	24
2	8	10	3	3	6	6	7	13	...	...	...	39	76	115	8	2	10
4	9	13	5	4	9	5	8	13	...	...	...	55	60	115	4	16	20
3	...	3	3	1	4	7	3	10	...	...	...	38	62	100	14	20	34
4	3	7	5	3	8	5	5	10	...	...	...	59	65	124	9	16	25
5	3	8	4	2	6	7	3	10	...	...	...	47	56	103	10	19	29
9	4	13	10	5	15	8	12	20	...	...	...	99	78	177	16	23	39
14	12	26	12	8	20	12	7	19	...	...	...	106	98	204	19	32	51
14	6	20	7	9	16	13	15	28	...	...	...	121	83	204	24	37	61
14	6	20	11	4	15	22	10	32	...	...	...	112	89	201	26	43	69
12	4	16	8	2	10	15	10	25	...	...	...	97	63	160	28	16	44
10	2	12	9	5	14	18	11	29	...	...	...	86	60	146	31	34	65
8	3	11	9	3	12	17	10	27	2	1	3	64	75	139	26	35	61
10	1	11	4	4	8	14	9	23	...	...	...	57	44	101	54	44	98
8	1	9	8	4	12	11	13	24	...	...	...	56	41	97	62	44	106
9	5	14	4	...	4	9	13	22	...	...	...	51	57	108	46	60	106
6	2	8	10	2	12	22	15	37	2	1	3	61	52	113	95	74	169
2	3	5	1	1	2	1	4	5	2	1	3	17	23	40	55	66	121
1	...	1	1	...	1	10	4	14	1	...	1	21	11	32	47	50	97
1	...	1	...	...	...	2	2	4	...	...	...	12	6	18	70	83	153
258	135	393	253	171	424	385	357	742	51	36	87	2,995	2,976	5,971	812	955	1,767
4	4	8	7	13	20	6	7	13	2	1	3	111	149	260	26	28	54
47	31	78	50	30	80	47	35	83	19	6	25	479	678	1,157	22	89	111
24	12	36	24	10	34	11	9	20	16	11	27	175	111	286	9	8	17
19	10	29	19	6	25	13	19	32	11	8	19	110	114	224	12	10	22
18	24	42	30	13	43	1	...	1	36	18	54	204	128	332	25	25	50
13	11	24	10	8	18	9	8	17	1	3	4	115	130	245	10	20	30
2	11	13	21	13	34	5	9	14	...	...	...	149	252	401	34	57	91
...	...	...	14	4	18	5	3	8	1	...	1	133	40	173	27	10	37
5	3	8	11	1	12	4	5	9	1	...	1	126	28	154	27	10	37
6	4	10	9	4	13	13	1	14	...	...	...	129	47	176	25	28	53
7	4	11	11	7	18	8	7	15	...	...	...	82	60	142	16	15	31
3	2	5	6	5	11	10	4	14	...	...	...	79	74	153	24	20	44
9	10	19	5	5	10	2	5	7	...	...	...	47	55	102	18	12	30
11	4	15	4	3	7	3	1	4	...	1	1	43	21	64	15	10	25
7	12	19	9	11	20	6	4	10	...	...	...	60	58	118	18	18	36
2	2	4	...	1	1	5	2	7	...	...	...	39	33	72	16	13	29
12	5	17	7	6	13	10	4	14	...	...	...	68	50	118	21	27	48
7	4	11	6	2	8	7	6	13	...	...	...	60	49	109	25	30	55
4	5	9	6	...	6	5	6	11	...	...	...	51	49	100	17	21	38
8	3	11	4	4	8	5	8	13	...	...	...	58	42	100	17	22	39
8	6	14	4	3	7	9	6	15	...	...	...	65	61	126	35	47	82
5	2	7	1	2	3	5	5	10	...	...	...	54	60	114	39	39	78
2	2	4	1	1	2	6	11	17	...	...	...	52	55	107	42	46	88
8	3	11	2	5	7	9	5	14	...	...	...	45	34	79	22	29	51
6	1	7	6	3	9	3	5	8	...	...	...	50	52	102	37	52	89
4	4	8	4	3	7	8	5	13	...	...	...	35	32	67	34	32	66
2	2	4	3	1	4	6	5	11	1	...	1	39	21	60	34	30	64
5	2	7	2	1	3	7	1	8	...	...	...	35	23	58	35	31	66
1	3	4	6	4	10	5	11	16	...	...	...	27	29	56	41	73	114
10	2	12	1	2	3	2	4	6	...	1	1	23	13	36	40	46	86
2	4	6	...	...	...	...	1	1	...	...	...	15	9	24	24	37	61
1	...	1	1	1	2	1	4	5	...	...	...	11	4	15	40	56	96
1	...	1	1	...	1	2	1	3	...	...	...	9	2	11	55	56	111
263	192	455	285	172	457	238	208	446	88	49	137	2,778	2,563	5,341	882	1,047	1,929

† Includes the "not insane" cases in Table II., pp. 288-9.

TABLE IV. (contd.)—History of the Annual Admissions since the opening of the Asylums, with (Table VIII. in

YEAR.	ADMITTED.						OF EACH YEAR'S ADMISSIONS, DISCHARGED AND DIED IN 1902.											
	New Cases.		Re-lapsed Cases.		From other Asylums of the Board.		TOTAL.			Re-covered.	Relieved.	Not Improved.	To other Asylums of the Board.	DIED.				
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Grand Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
<b>DARENTH ASYLUM.</b>																		
1870 part of ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1871 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1872 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1873 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1874 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1875 ...	47	34	11	6	155	124	213	164	377	...	...	...	...	...	...	...	...	...
1876 ...	69	36	7	4	...	4	76	44	120	...	...	...	...	...	...	...	...	...
1877 ...	32	23	...	1	...	...	32	24	56	...	...	...	...	...	...	...	...	...
1878 ...	50	16	2	4	1	...	53	20	73	...	...	...	...	...	...	...	...	...
1879 ...	89	64	1	1	...	...	90	65	155	...	...	...	...	...	...	...	...	...
1880 ...	77	228	...	1	25	54	102	283	385	...	...	...	...	...	1	1	...	...
1881 ...	66	63	1	2	...	13	67	78	145	...	...	...	...	...	...	...	...	...
1882 ...	240	241	...	2	78	17	318	260	578	...	...	...	...	...	1	1	...	2
1883 ...	194	234	1	2	6	8	201	244	445	...	...	...	...	...	...	...	1	1
1884 ...	115	93	4	2	...	...	119	95	214	...	...	...	...	...	...	...	1	1
1885 ...	86	81	3	1	22	30	111	112	223	...	...	...	...	...	...	...	1	1
1886 ...	107	94	5	3	20	8	132	105	237	...	...	...	...	...	...	...	1	1
1887 ...	124	96	1	5	12	69	137	170	307	...	...	...	...	...	...	...	1	1
1888 ...	121	108	2	2	145	86	268	196	464	...	...	...	...	...	1	1	1	1
1889 ...	219	171	3	4	26	9	248	184	432	...	...	...	...	...	...	...	1	1
1890 ...	167	144	3	4	52	42	222	190	412	...	...	...	...	...	1	1	1	1
1891 ...	163	156	4	...	...	...	167	156	323	...	...	...	...	...	...	...	...	4
1892 ...	99	76	2	2	11	31	112	109	221	...	...	1	1	...	1	1	...	2
1893 ...	86	92	2	3	45	44	133	139	272	...	...	...	...	...	1	1	...	4
1894 ...	75	117	2	...	38	13	115	130	245	...	...	...	...	...	2	2	1	2
1895 ...	95	75	1	1	26	46	122	122	244	...	...	...	...	...	4	4	4	3
1896 ...	82	56	1	1	27	29	110	86	196	...	...	...	...	...	7	7	3	2
1897 ...	76	55	...	1	24	33	100	89	189	...	...	1	1	1	7	7	2	...
1898 ...	61	33	...	1	19	25	80	59	139	...	...	1	1	...	5	5	1	...
1899 ...	36	25	2	...	14	10	52	35	87	...	...	2	2	...	6	6	1	...
1900 ...	97	127	5	2	2	1	104	130	234	...	...	1	1	2	3	1	4	12
1901 ...	82	90	1	...	2	...	85	90	175	...	...	...	...	...	16	9	25	4
1902 ...	99	58	...	...	9	4	108	62	170	...	1	1	1	1	13	13	6	...
TOTALS	2,854	2,686	64	55	759	700	3,677	3,441	7,118	...	1	1	6	1	7	3	2	5
<b>ROCHESTER HOUSE ASYLUM.</b>																		
1901 ...	...	...	...	...	41	54	41	54	95	...	...	...	...	...	5	4	9	...
1902 ...	...	...	...	...	65	10	65	10	75	...	...	...	...	...	5	...	5	1
TOTALS	...	...	...	...	106	64	106	64	170	...	...	...	...	...	10	4	14	1
<b>SUMMARY.</b>																		
1870 part of ...	624	758	...	...	...	...	624	758	1,382	...	...	...	...	...	...	...	...	4
1871 ...	1,184	1,415	...	...	...	...	1,184	1,415	2,599	...	...	...	...	...	...	...	...	5
1872 ...	422	417	...	...	...	...	422	417	839	...	...	...	...	...	...	...	...	2
1873 ...	324	332	1	...	41	30	366	362	728	...	...	...	...	...	...	...	...	4
1874 ...	355	318	3	3	73	49	431	370	801	...	...	...	...	...	...	...	...	2
1875 ...	316	322	12	7	155	124	483	453	936	...	...	...	...	...	...	...	...	...
1876 ...	400	285	12	9	159	355	571	649	1,220	...	...	...	...	...	...	...	...	3
1877 ...	305	79	2	1	1	5	308	85	393	...	...	...	...	...	...	...	...	...
1878 ...	276	64	3	4	31	...	310	68	378	...	...	...	...	...	...	...	...	4
1879 ...	345	237	1	1	6	...	354	238	592	...	...	...	...	...	...	...	...	2
1880 ...	291	390	2	7	25	54	316	451	767	...	...	...	1	1	2	1	1	1
1881 ...	273	239	5	3	...	13	278	255	533	...	...	...	...	...	...	...	...	...
1882 ...	403	411	3	6	78	17	484	434	918	...	...	...	...	...	1	1	2	4
1883 ...	342	377	9	6	6	8	357	391	748	...	...	...	...	...	...	...	...	3
1884 ...	269	291	8	3	...	...	277	294	571	...	...	...	...	...	...	...	...	1
1885 ...	216	226	8	4	22	30	246	260	506	...	...	...	...	...	...	...	...	2
1886 ...	284	268	11	7	20	8	315	283	598	...	...	...	...	...	...	...	...	1
1887 ...	307	278	5	6	12	69	324	353	677	...	...	...	...	...	...	...	...	2
1888 ...	275	272	4	2	145	86	424	360	784	...	...	...	...	...	1	1	1	5
1889 ...	451	370	5	6	26	9	482	385	867	...	...	...	...	...	...	...	...	4
1890 ...	448	421	6	7	52	42	506	470	976	...	...	...	1	1	1	1	2	5
1891 ...	443	412	7	2	...	...	450	414	864	...	...	...	1	1	2	...	...	3
1892 ...	381	339	8	5	11	32	400	376	776	...	...	...	1	1	...	1	1	3
1893 ...	328	263	6	3	45	44	379	310	689	...	...	...	1	1	2	1	1	3
1894 ...	323	341	10	1	38	13	371	355	726	...	...	...	1	1	2	2	3	7
1895 ...	305	275	2	4	26	46	333	325	658	...	1	1	...	1	4	4	4	7
1896 ...	301	215	5	3	28	29	334	247	581	...	...	...	1	2	3	7	7	6
1897 ...	303	215	2	2	24	33	329	250	579	...	...	...	1	1	3	4	7	3
1898 ...	256	286	4	3	19	25	279	314	593	...	...	...	2	1	3	5	5	10
1899 ...	291	226	7	2	26	21	324	249	573	...	3	3	2	1	3	7	7	13
1900 ...	170	204	5	5	48	70	223	279	502	...	...	...	1	1	2	3	2	16
1901 ...	216	219	2	...	43	55	261	274	535	...	2	2	1	1	7	6	13	22
1902 ...	245	205	1	2	80	15	326	222	548	...	2	1	2	2	4	4	8	18
TOTALS	11,672	10,970	159	114	1,240	1,282	13,071	12,366	25,437	4	2	6	10	3	13	26	24	50

\* Includes the "not insane" cases in Table II., pp. 288-9 (Darenth Asylum).

the Discharges and Deaths, and the numbers of each year remaining on the 31st December, 1902. (Reports previous to 1900.)

TOTAL DISCHARGED AND DIED OF EACH YEAR'S ADMISSIONS.															Remaining of each year's Admissions 31st December, 1902.		
Recovered.			Relieved.			Not Improved.			To other Asylums of the Board.			DIED.			Males.	Females.	Total.
Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	...	7	7	19	26	41	16	57	102	82	184	58	45	103	...	...	...
3	...	5	11	11	11	4	10	14	37	17	54	21	15	36	...	...	...
...	...	3	4	8	8	...	...	2	14	9	23	12	8	20	...	...	...
1	...	1	9	2	11	4	1	5	27	14	41	12	3	15	...	...	...
3	3	6	7	6	13	7	...	7	44	30	74	31	26	57	...	...	...
6	6	12	10	21	31	4	26	30	37	36	73	37	160	197	6	34	40
3	7	10	9	12	21	5	2	7	26	19	45	24	34	58	...	4	4
12	10	22	23	20	43	23	24	47	43	28	71	176	142	318	41	36	77
9	13	22	25	25	50	17	15	32	48	38	86	88	128	216	14	25	39
8	5	13	15	11	26	11	9	20	25	14	39	56	52	108	4	4	8
6	4	10	18	11	29	8	5	13	29	19	48	39	57	96	11	16	27
...	...	...	23	19	42	4	13	17	33	19	52	49	39	88	23	15	38
1	1	2	21	6	27	14	12	26	18	73	91	58	55	113	25	23	48
3	...	3	16	15	31	21	17	38	72	64	136	70	63	133	86	37	123
8	4	12	25	21	46	29	14	43	34	38	72	97	73	170	55	34	89
4	1	5	12	11	23	19	17	46	30	56	86	66	67	133	81	38	119
9	16	25	12	7	19	18	6	24	14	35	49	64	73	137	50	19	69
1	2	3	14	4	18	7	6	13	14	22	36	38	41	79	76	71	147
1	2	3	6	2	8	8	7	15	16	19	35	26	37	63	54	60	114
3	3	6	8	4	12	8	7	15	16	17	32	19	24	43	79	62	141
1	3	4	5	12	17	3	5	8	15	17	32	17	18	35	66	53	119
...	...	...	2	7	9	1	...	1	24	8	32	17	18	35	65	51	116
1	5	6	6	5	11	4	5	9	15	11	26	9	12	21	47	49	96
...	...	...	5	3	8	8	...	8	8	5	20	5	2	7	33	26	59
...	...	...	3	1	4	1	...	1	12	4	16	3	4	7	67	94	161
3	1	4	2	1	3	3	5	8	12	9	21	17	20	37	60	74	134
...	...	...	...	...	...	...	1	1	21	10	31	4	5	9	89	60	149
...	1	1	...	...	1	...	1	1	13	...	13	5	...	5	...	...	...
91	94	*185	299	249	548	283	224	507	802	721	1,523	1,132	1,235	2,367	1,070	919	1,980
...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	35	50	85
...	...	...	...	...	...	...	...	...	10	4	14	1	...	1	59	10	69
...	...	...	...	...	...	...	...	...	11	4	15	1	...	1	94	60	154
19	12	31	33	34	67	31	51	82	14	5	19	469	595	1,064	58	61	119
67	46	113	80	53	133	97	85	182	34	16	50	846	1,072	1,918	60	143	203
36	18	54	36	21	57	26	23	49	21	25	46	294	306	594	9	30	39
28	14	42	28	12	40	30	40	70	21	13	34	242	260	502	17	23	40
25	26	51	32	20	52	14	17	31	38	18	56	297	258	555	25	31	56
23	16	39	20	32	52	67	37	104	103	85	188	249	255	504	21	28	49
18	16	34	50	20	70	21	32	53	37	17	54	383	469	852	62	95	157
7	3	10	23	8	31	10	3	13	15	9	24	215	52	267	38	10	48
11	3	14	24	3	27	11	6	17	28	14	42	200	32	232	36	10	46
12	10	22	19	15	34	23	9	32	44	30	74	222	130	352	34	44	78
21	14	35	31	36	67	21	36	57	37	36	73	179	262	441	27	67	94
17	16	33	22	22	44	22	9	31	26	19	45	162	160	322	29	29	58
24	26	50	31	30	61	28	32	60	43	28	71	290	290	580	68	58	126
24	19	43	36	36	72	24	24	48	48	39	87	190	220	410	35	53	88
17	25	42	27	25	52	23	20	43	25	14	39	155	186	341	30	24	54
12	15	27	23	16	39	18	15	33	29	19	48	133	150	283	31	45	76
15	5	20	33	26	59	21	20	41	33	19	52	155	151	306	58	62	120
12	8	20	32	11	43	26	23	49	18	73	91	177	169	346	59	69	128
12	8	20	26	17	43	33	26	59	72	64	136	168	168	336	113	77	190
25	11	36	39	30	69	42	34	76	34	38	72	254	193	447	88	79	167
26	19	45	28	22	50	50	30	80	30	56	86	237	226	463	135	117	252
28	24	52	20	18	38	36	26	62	14	35	49	239	216	455	113	95	208
17	10	27	26	9	35	35	27	62	14	22	36	202	185	387	106	123	229
21	9	30	16	9	25	31	22	53	12	25	37	173	129	302	126	116	242
19	6	25	23	12	35	29	23	52	16	19	35	162	149	311	122	146	268
13	10	23	18	18	36	28	20	48	17	18	35	118	131	249	139	129	268
12	3	15	9	12	21	21	14	35	25	8	33	113	83	196	154	127	281
14	8	22	16	10	26	22	19	41	15	11	26	100	76	176	162	126	288
10	8	18	15	7	22	22	24	46	15	5	20	83	88	171	134	182	316
16	4	20	14	5	19	25	19	44	14	6	20	87	69	156	168	146	314
7	8	15	3	2	5	4	10	14	14	10	24	49	52	101	146	197	343
2	...	2	2	1	3	11	9	20	23	10	33	36	20	56	182	230	412
2	1	3	2	...	2	4	4	8	23	4	27	27	8	35	273	209	482
612	421	*1,033	837	592	1,429	906	789	11,695	952	810	1,762	6,906	6,774	13,680	2,858	2,981	5,839

† Includes the "not insane" cases in Table II., pp. 288-9 (Leavesden and Caterham Asylums).

TABLE V.—Causes of Death during  
(Table VII. in

LEAVESDEN																									
CAUSE OF DEATH.	5 and under 10.			10 and under 20.			20 and under 25.			25 and under 30.			30 and under 35.			35 and under 40.			40 and under 45.			45 and under 50.			
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	
<b>CEREBRO-SPINAL DISEASES—</b>																									
Apoplexy ... ..																									
Cerebral softening ... ..																									
Cerebral softening and pulmonary tuberculosis...																									
Chronic meningitis and pulmonary tuberculosis																									
Epilepsy ... ..																									
Epilepsy and pulmonary tuberculosis ... ..				1	1	2	1	1	2				1	1	2									1	1
General paralysis ... ..													1	1	2										
General paralysis, acute enteritis, and pulmonary tuberculosis				1	1	2							1	1	2									1	1
General paralysis and general tuberculosis																						1	1		
General paralysis and pulmonary tuberculosis																							1	1	
Sarcoma of brain ... ..																									
<b>THORACIC DISEASES—</b>																									
Abscess of lung... ..																									
Bronchitis ... ..																									
Empyæma ... ..																									
Fatty degeneration of heart... ..										1	1	2													
Pneumonia ... ..																									
Pneumonia and dysentery ... ..										1	1	2													
Pulmonary tuberculosis ... ..																									
Valvular disease of heart ... ..				1	1	2				1	1	2	2	4	6										
Valvular disease of heart and pneumonia													1	1	2										
Valvular disease of heart and tubercular abscess																									
<b>ABDOMINAL DISEASES—</b>																									
Abscess of liver... ..																									
Acute nephritis... ..																									
Chronic nephritis ... ..																									
Prostate disease ... ..													1	1	2										
Strangulated hernia ... ..																									
Tubercular peritonitis ... ..																									
Volvulus .. ..																									
<b>GENERAL DISEASES—</b>																									
Acute enteritis ... ..																									
Acute enteritis and pulmonary tuberculosis																									
Cancer ... ..																									
Enteric fever, pneumonia, and pulmonary tuberculosis																									
General tuberculosis ... ..													1	1	2										
Senile decay ... ..																									
Tubercular disease of bone ... ..																									
<b>ACCIDENT OR VIOLENCE—</b>																									
Foreign body in stomach ... ..																									
Totals ... ..				1	3	4	2	3	5	1	4	5	4	6	10	3	4	7	3	5	8	3	7	10	

N.B. —Number of cases in which the cause of death was ascertained by *post-mortem*





TABLE V. (continued)—Causes of Death during  
(Table VII. in

CATERHAM																									
CAUSE OF DEATH.	5 and under 10.			10 and under 20.			20 and under 25.			25 and under 30.			30 and under 35.			35 and under 40.			40 and under 45.			45 and under 50.			
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	
<b>CEREBRO-SPINAL DISEASES—</b>																									
Apoplexy ... ..																									
Dementia ... ..																									
Epilepsy ... ..																									
General paralysis ... ..																									
Hydrocephalus ... ..																									
Imbecility ... ..																									
Organic disease of brain ... ..																									
<b>THORACIC DISEASES—</b>																									
Phthisis ... ..																									
Pneumonia ... ..																									
Valvular disease of heart... ..																									
<b>ABDOMINAL DISEASES—</b>																									
Bright's disease, chronic ... ..																									
Chronic rheumatic arthritis ... ..																									
<b>GENERAL DISEASES—</b>																									
Cancer ... ..																									
Pyæmia ... ..																									
Senile decay... ..																									
<b>ACCIDENT OR VIOLENCE—</b>																									
Asphyxia, from choking ... ..																									
Totals ... ..				1		1	6	2	8	2	1	3	3	2	5	4		4	3	2	5	3	2		
<b>DARENTH</b>																									
<b>CEREBRO-SPINAL DISEASES—</b>																									
Apoplexy ... ..																									
Cerebral softening ... ..																									
Epilepsy ... ..		1	1	2	1	3					1	1													
General paralysis ... ..				3		3					1	1					1		1						
Meningitis ... ..					1	1																			
<b>THORACIC DISEASES—</b>																									
Acute endocarditis ... ..		1	1																						
Bronchitis ... ..																									
Broncho-pneumonia ... ..				1	1	2																			
Fatty degeneration of heart ... ..																									
Phthisis ... ..		1	1	1	2	3		2	2		1	1	1	2	3										
Pneumonia ... ..				3	1	4		2	2		1	1	1		1										
Pyo-pneumo. thorax ... ..				1		1																			
Valvular disease of heart... ..					1	1																			
<b>ABDOMINAL DISEASES—</b>																									
Acute nephritis ... ..									1	1															
Diarrhoea ... ..					2	2																			
Liver, disease of (cirrhosis) ... ..														1	1							1	1		
Peritonitis ... ..																									
Volvulus ... ..																	1	1							
<b>GENERAL DISEASES—</b>																									
Cancer ... ..																									
Erysipelas ... ..							1	1																	
Influenza ... ..		1	1	1		1																			
Marasmus ... ..					1	1																			
Senile decay... ..																									
Senile gangrene ... ..																									
Tuberculosis... ..					1	1		1	1																
Totals ... ..	3	1	4	16	8	24		6	6	1	3	4	3	2	5	1	1	2		1	1				
<b>ROCHESTER</b>																									
<b>ABDOMINAL DISEASES—</b>																									
Volvulus ... ..					1	1																			
Totals ... ..					1	1																			

N.B.—Number of cases in which the cause of death was ascertained by post-mortem.



TABLE V. (continued)—Causes of Death during

(Table VII. in

CAUSE OF DEATH.	5 and under 10.		10 and under 20.		20 and under 25.		25 and under 30.		30 and under 35.		35 and under 40.		40 and under 45.		45 and under 50.								
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.							
<b>CEREBRO-SPINAL DISEASES—</b>																							
Apoplexy ... ..												1	1										
Chronic meningitis and pulmonary tuberculosis												1	1										
Cerebral softening ... ..																							
Cerebral softening and pulmonary tuberculosis...																							
Dementia ... ..													1	1	1	1							
Epilepsy ... ..	1	1	2	2	4	3	1	4	1	1	1	1	1	2	3	1							
Epilepsy and pulmonary tuberculosis ... ..																							
General paralysis ... ..				2	1	4			1	1	2	1	4	4	1	1							
General paralysis, acute enteritis and pulmonary tuberculosis															1	1							
General paralysis and general tuberculosis				1	1										1	1							
General paralysis and pulmonary tuberculosis							1	1	1	1					1	1							
Hydrocephalus ... ..														1	1								
Imbecility ... ..				1	1					2	2												
Meningitis ... ..				1	1																		
Organic disease of brain ... ..																1							
Sarcoma of brain ... ..												1	1										
<b>THORACIC DISEASES—</b>																							
Abscess of lung ... ..																	1						
Acute endocarditis ... ..	1	1																					
Bronchitis ... ..				1	1	2																	
Broncho-pneumonia ... ..																							
Empyema ... ..									1	1													
Fatty degeneration of heart ... ..																							
Phthisis ... ..	1	1	1	2	3	1	4	5	1	1	2	1	3	4	1	1	1						
Pneumonia ... ..				3	1	4	1	3	4	1	1	2	1	1	2	1	1						
Pneumonia and dysentery ... ..																							
Pulmonary tuberculosis ... ..				1	1				1	1	2	4	1	1	1	1	1						
Pyo-pneumo-thorax ... ..				1	1																		
Valvular disease of heart ... ..					1	1	1	1	1	1													
Valvular disease of heart and pneumonia										2													
Valvular disease of heart and tubercular abscess																							
<b>ABDOMINAL DISEASES—</b>																							
Abscess of liver ... ..																							
Acute nephritis ... ..							1	1															
Bright's disease, chronic ... ..																							
Chronic nephritis ... ..									1	1					1	1							
Chronic rheumatic arthritis...																							
Diarrhoea... ..				2	2																		
Liver, disease of (cirrhosis) ... ..										1	1												
Peritonitis ... ..																1	1						
Prostate disease ... ..																							
Strangulated hernia ... ..																							
Tubercular peritonitis ... ..																							
Volvulus ... ..				1	1								1	1									
<b>GENERAL DISEASES—</b>																							
Acute enteritis ... ..																							
Acute enteritis and pulmonary tuberculosis							1	1															
Cancer ... ..																							
Enteric fever, pneumonia, and pulmonary tuberculosis									1	1													
Erysipelas ... ..				1	1																		
Influenza ... ..	1	1	2																				
Marasmus ... ..				1	1																		
Pyæmia ... ..							1	1															
Senile decay ... ..																							
Senile gangrene ... ..																							
Tubercular disease of bone ... ..																							
Tuberculosis ... ..				1	1		1	1				1	1	2			1						
<b>ACCIDENTS OR VIOLENCE—</b>																							
Asphyxia from choking ... ..												1	1										
Foreign body in stomach ... ..																							
Totals	3	1	4	19	11	30	8	11	19	4	8	12	10	10	20	8	5	13	6	8	14	6	11

N.B.—Number of cases in which the cause of death was ascertained by *post-mortem* examination.



TABLE VI.—Length of Residence in those Discharged  
(Table IX. i)

LENGTH OF RESIDENCE.	LEAVESDEN ASYLUM.						CATERHAM ASYLUM.					
	RECOVERED.			DIED.			RECOVERED.			DIED.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Under 1 Month ...	...	...	...	2	...	2	...	...	...	...	...	...
From 1 to 3 Months ...	...	...	...	7	...	9	...	...	1	3	2	...
3 to 6 „	...	...	...	6	2	8	...	...	...	4	1	...
6 to 9 „	1	...	1	4	4	8	1	...	1	4	1	...
9 to 12 „	...	...	...	2	3	5	...	...	...	2	1	...
1 to 2 Years	1	...	1	9	4	13	...	...	...	7	3	10
2 to 3 „	...	...	...	6	8	14	...	...	...	5	6	11
3 to 5 „	...	...	...	6	14	20	...	...	...	4	8	12
5 to 7 „	...	...	...	...	3	3	...	...	...	8	2	10
7 to 10 „	...	1	1	4	8	12	...	...	...	4	3	...
10 to 12 „	...	...	...	3	6	9	...	...	...	1	1	...
12 to 15 „	...	...	...	...	6	6	...	...	...	...	4	...
15 to 20 „	...	...	...	1	3	4	...	...	...	3	3	...
20 to 25 „	...	...	...	2	...	2	...	...	...	6	1	...
25 to 30 „	...	...	...	8	11	19	...	...	...	12	12	24
30 and upwards)	...	...	...	...	...	...	...	...	...	...	...	...
Totals ...	2	1	3	60	74	134	2	...	2	63	48	111

TABLE VII.—Duration of Insanity on Admission, in

CLASS.	LEAVESDEN ASYLUM.										CATERHAM ASYLUM.													
	DURATION OF DISEASE ON ADMISSION IN FIVE CLASSES.										DURATION OF DISEASE ON ADMISSION IN FIVE CLASSES.													
	Ad-missions.			Re-co-veryies.			Re-mov-als not Re-co-veryed.			Deaths.			Ad-missions.			Re-co-veryies.			Re-mov-als not Re-co-veryed.			Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
First class—First attack—																								
Within 1 week on admission ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1 month „	1	1	2	...	...	...	...	...	...	3	2	5	1	1	...	...	...	...	...	...	...	...	...	...
2 months „	1	2	3	1	1	2	2	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3 „	3	3	...	...	...	...	1	1	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Second class—First attack—																								
Above 3 and within 6 months on admission ...	2	3	5	...	...	...	...	...	...	1	1	3	2	5	1	1	...	...	...	...	...	...	...	...
„ 6 „ 12 „	2	3	5	...	...	...	3	3	6	4	10	7	6	13	...	...	...	...	...	...	...	...	...	2
Third class—Not first attack—																								
And within 1 month on admission ...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
„ 6 months „	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
„ 12 „	...	...	...	...	...	...	...	...	...	1	1	1	1	1	1	...	...	...	...	...	...	...	...	...
Fourth class—First attack or not—																								
But over 12 months on admission ...	28	47	75	1	1	7	3	10	8	23	31	41	32	73	...	...	...	...	2	3	5	44	3	...
Fifth class—																								
Congenital ...	12	15	27	...	...	...	5	6	11	10	22	32	10	17	27	...	...	...	5	5	10	17	1	...
Unknown ...	39	17	56	1	1	7	4	11	27	20	47	7	7	...	...	...	...	...	...	...	...	...	...	...
Totals ...	85	91	176	2	1	3	22	17	39	60	74	134	68	50	127	2	2	7	8	15	63	...	...	...



TABLE VIII.—Showing in Quinquennial Periods the Ages of those Admitted  
(In place of Tables X. and

AGES.	ADMISSIONS.						TOTAL ADMISSIONS.			RECOVERIES.			DEATHS.			PATIENTS RESIDENT 31ST DECEMBER 1902.		
	From Parishes and Unions.*			From other Asylums of the Board.			M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.	M.	F.	Tl.
	M.	F.	Tl.	M.	F.	Tl.												
<b>LEAVESDEN ASYLUM.</b>																		
Under 5 years	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
From 5 and under 10 years	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	10	9	19	1	...	1	11	9	20	...	...	1	3	4	26	22	...	
15	12	4	16	...	...	...	12	4	16	...	...	2	3	5	80	55	...	
20	4	7	11	1	...	1	5	7	12	...	...	1	4	5	86	78	...	
25	11	12	23	1	...	1	12	12	24	...	1	1	4	6	10	77	72	
30	3	4	7	1	...	1	4	4	8	...	...	3	4	7	69	73	...	
35	7	8	15	1	...	1	8	8	16	1	...	1	3	5	8	90	87	
40	1	8	9	...	...	...	1	8	9	...	...	3	7	10	82	101	...	
45	2	8	10	...	...	...	2	8	10	...	...	8	5	13	68	100	...	
50	4	4	8	...	...	...	4	4	8	...	...	6	7	13	65	87	...	
55	4	9	13	...	...	...	4	9	12	1	...	1	6	5	11	51	102	
60	6	6	12	...	...	...	6	6	12	...	...	6	10	16	45	61	...	
65	11	4	15	...	...	...	11	4	15	...	...	5	3	8	47	63	...	
70	1	5	6	...	...	...	1	5	6	...	...	7	8	15	18	28	...	
75	2	3	5	...	...	...	2	3	5	...	...	3	2	5	6	23	...	
80	2	...	2	...	...	...	2	...	2	...	...	2	2	4	2	2	...	
85	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
90	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
95	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
100	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Unknown	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Totals...	80	91	171	5	...	5	85	91	176	2	1	3	60	74	134	812	955	1
Mean age	45	47	46	32	...	32	44	47	45	53	33	46	58	53	55	45	49	...
<b>DARENTH ASYLUM.</b>																		
Under 5 years	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
From 5 and under 10 years	55	14	69	3	...	1	4	58	15	73	...	...	4	3	7	72	55	...
10	30	12	42	3	...	2	5	33	14	47	...	...	4	3	7	162	112	...
15	7	9	16	2	...	1	3	9	10	19	...	...	11	6	17	250	134	...
20	2	2	4	...	...	...	...	2	2	4	...	...	...	4	4	156	114	...
25	2	3	3	...	...	...	...	3	3	...	...	...	1	2	3	181	92	...
30	...	3	3	...	...	...	...	3	3	...	1	1	4	2	6	93	83	...
35	...	2	2	...	...	...	...	2	2	...	...	...	...	1	1	71	55	...
40	1	2	3	...	...	...	...	1	2	3	...	...	...	2	2	13	51	...
45	...	2	2	...	...	...	...	2	2	...	...	...	...	1	1	13	40	...
50	...	...	...	...	...	...	...	...	...	...	...	...	3	1	4	15	33	...
55	1	2	3	...	...	...	...	1	2	3	...	...	...	3	3	14	33	...
60	1	2	3	...	...	...	...	1	2	3	...	...	1	...	1	6	39	...
65	1	1	2	...	...	...	...	1	1	2	...	...	...	1	1	9	28	...
70	1	1	2	...	...	...	...	1	1	2	...	...	3	3	6	9	21	...
75	...	2	2	...	...	...	...	2	2	...	...	...	1	4	5	4	12	...
80	...	1	1	1	...	1	1	1	1	2	...	...	...	6	6	1	11	...
85	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	5	...
90	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
95	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
100	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Unknown	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals...	99	58	157	9	4	13	108	62	170	...	1	1	32	42	74	1,070	919	...
Mean age	13	25	17	11	13	12	13	24	17	...	35	35	29	45	37	23	30	...
<b>ROCHESTER HOUSE ASYLUM.</b>																		
Under 5 years	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
From 5 and under 10 years	...	...	...	39	2	24	22	2	24	...	...	...	...	...	...	26	3	...
10	...	...	...	37	7	44	37	7	44	...	...	...	1	...	1	61	26	...
15	...	...	...	5	1	6	5	1	6	...	...	...	...	...	...	7	18	...
20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
35	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
40	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
45	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
50	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
55	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
60	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
65	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
70	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
75	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
80	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
85	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
90	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
95	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
100	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Unknown	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals...	...	...	...	64	10	74	64	10	74	...	...	...	1	...	1	94	60	...
Mean age	...	...	...	11	10	11	11	10	11	...	...	...	...	...	...	11	15	...

\* Including transfers



Recovered, and Died during 1902, and of those Remaining on the 31st December, 1902.

(XI. in reports previous to 1900.)

AGES.	ADMISSIONS.						TOTAL ADMISSIONS.			RECOVERIES.			DEATHS.			PATIENTS RESIDENT 31ST DECEMBER, 1902.		
	From Parishes and Unions.*			From other Asylums of the Board.														
	M.	F.	TL.	M.	F.	TL.	M.	F.	TL.	M.	F.	TL.	M.	F.	TL.	M.	F.	TL.
<b>CATERHAM ASYLUM.</b>																		
Under 5 years	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
From 5 and under 10 years	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	5	5	10	...	...	...	5	5	10	...	...	...	1	...	1	16	14	30
20	8	5	13	...	...	...	8	5	13	1	...	1	6	2	8	60	50	110
25	5	4	9	...	...	...	5	4	9	...	...	...	2	1	3	67	61	128
30	2	3	5	...	...	...	2	3	5	...	...	...	3	2	5	58	90	148
35	4	4	8	1	1	2	5	5	10	...	...	...	4	...	4	89	72	161
40	5	2	7	...	...	...	5	2	7	...	...	...	3	2	5	97	98	195
45	3	2	5	...	...	...	3	2	5	1	...	1	3	3	6	100	120	220
50	10	7	17	...	...	...	10	7	17	...	...	...	2	3	5	113	96	209
55	4	2	6	...	...	...	4	2	6	...	...	...	4	5	9	77	104	181
60	5	4	9	...	...	...	5	4	9	...	...	...	8	2	10	69	107	176
65	7	6	13	...	...	...	7	6	13	...	...	...	10	5	15	63	92	155
70	5	7	12	...	...	...	5	7	12	...	...	...	7	12	19	34	73	107
75	3	3	6	...	...	...	3	3	6	...	...	...	6	7	13	29	46	75
80	1	3	4	...	...	...	1	3	4	...	...	...	1	2	3	4	17	21
85	...	1	1	...	...	...	...	1	1	...	...	...	2	...	2	3	2	5
90	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3	1	2	3
95	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
100	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2
Unknown	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3
Totals...	67	58	125	1	1	2	68	59	127	2	...	2	63	48	111	882	1,047	1,929
Mean age	47	50	49	35	38	36	47	50	49	48	...	43	56	63	59	47	51	49
<b>SUMMARY.</b>																		
Under 5 years	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
From 5 and under 10 years	55	14	69	25	3	28	80	17	97	...	...	...	4	3	7	97	58	155
10	30	12	42	40	9	49	70	21	91	...	...	...	5	3	8	223	138	361
15	22	23	45	8	2	10	30	25	55	...	...	...	13	9	22	209	188	487
20	22	11	33	...	...	...	22	11	33	1	...	1	8	9	17	206	232	528
25	9	14	23	1	...	1	10	14	24	...	...	...	4	7	11	334	231	565
30	13	18	31	1	...	1	14	18	32	...	2	2	11	10	21	228	245	473
35	7	10	17	2	1	3	9	11	20	...	...	...	7	5	12	229	200	429
40	13	12	25	1	...	1	14	12	26	1	...	1	6	9	15	200	236	436
45	4	12	16	...	...	...	4	12	16	1	...	1	6	11	17	195	261	456
50	12	15	27	...	...	...	12	15	27	...	...	...	13	9	22	196	229	425
55	9	8	17	...	...	...	9	8	17	...	...	...	10	15	25	156	224	380
60	10	15	25	...	...	...	10	15	25	1	...	1	15	7	22	126	248	374
65	14	13	27	...	...	...	14	13	27	...	...	...	16	16	32	117	181	298
70	17	12	29	...	...	...	17	12	29	...	...	...	15	18	33	90	157	247
75	4	10	14	...	...	...	4	10	14	...	...	...	14	19	33	51	86	137
80	3	7	10	1	...	1	4	7	11	...	...	...	4	10	14	11	51	62
85	2	1	3	...	...	...	2	1	3	...	...	...	4	2	6	6	9	15
90	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3	1	3	4
95	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3
100	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Unknown	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3
Totals...	246	207	453	79	15	94	325	222	547	4	2	6	156	164	320	2,857	2,081	5,838
Mean age	33	42	37	13	14	13	28	40	33	42	32	39	51	54	53	36	44	40

Asylums not under the Board.

TABLE IX.—*Condition as to Marriage of those*  
(Included in Table XIII.)

<b>LEAVESDEN ASYLUM.</b>															
Condition as to Marriage.	Admissions.						Total Admissions.			Recoveries.			Deaths.		
	From Parishes and Unions.*			From other Asylums of Board.											
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Single ... ..	50	53	103	5	...	5	55	53	108	...	1	1	27	42	69
Married ... ..	12	20	32	...	...	...	12	20	32	1	...	1	15	8	23
Widowed ... ..	18	18	36	...	...	...	18	18	36	1	...	1	9	17	26
Unknown ... ..	...	...	...	...	...	...	...	...	...	...	...	...	9	7	16
<b>Total ... ..</b>	<b>80</b>	<b>91</b>	<b>171</b>	<b>5</b>	<b>...</b>	<b>5</b>	<b>85</b>	<b>91</b>	<b>176</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>60</b>	<b>74</b>	<b>134</b>

**CATERHAM ASYLUM.**

Single ... ..	37	31	68	1	1	2	38	32	70	1	...	1	17	10	27
Married ... ..	16	15	31	...	...	...	16	15	31	1	...	1	18	8	26
Widowed ... ..	13	12	25	...	...	...	13	12	25	...	...	...	11	14	25
Unknown ... ..	1	...	1	...	...	...	1	...	1	...	...	...	17	16	33
<b>Total ... ..</b>	<b>67</b>	<b>58</b>	<b>125</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>68</b>	<b>59</b>	<b>127</b>	<b>2</b>	<b>...</b>	<b>2</b>	<b>63</b>	<b>48</b>	<b>111</b>

**DARENTH ASYLUM.**

Single ... ..	94	50	144	8	4	12	102	54	156	...	1	1	23	21	44
Married ... ..	2	5	7	...	...	...	2	5	7	...	...	...	1	3	4
Widowed ... ..	2	3	5	1	...	1	3	3	6	...	...	...	6	3	9
Unknown ... ..	1	...	1	...	...	...	1	...	1	...	...	...	2	15	17
<b>Total ... ..</b>	<b>99</b>	<b>58</b>	<b>157</b>	<b>9</b>	<b>4</b>	<b>13</b>	<b>108</b>	<b>62</b>	<b>170</b>	<b>...</b>	<b>1</b>	<b>1</b>	<b>32</b>	<b>42</b>	<b>74</b>

\* Including transfers to

Admitted, Recovered, and Died during 1902.  
(in reports previous to 1900.)

**ROCHESTER HOUSE ASYLUM.**

Condition as to Marriage.	Admissions.						Total Admissions.			Recoveries.			Deaths.		
	From Parishes and Unions.*			From other Asylums of Board.											
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Single ... ..	...	...	...	64	10	74	64	10	74	...	...	...	1	...	1
Married ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Widowed ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Unknown ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Total ... ..</b>	...	...	...	64	10	74	64	10	74	...	...	...	1	...	1

**SUMMARY.**

Single ... ..	181	134	315	78	15	93	259	149	408	1	2	3	68	73	141
Married ... ..	30	40	70	...	...	...	30	40	70	2	...	2	34	19	53
Widowed ... ..	33	33	66	1	...	1	34	33	67	1	...	1	26	34	60
Unknown ... ..	2	...	2	...	...	...	2	...	2	...	...	...	28	38	66
<b>Total ... ..</b>	246	207	453	79	15	94	325	222	547	4	2	6	156	164	320

Asylums not under the Board.

TABLE X.—*Probable causes of Insanity*  
(Table VI. in

CAUSES OF INSANITY.	LEAVESDEN ASYLUM.									CATERHAM ASYLUM.													
	Number of instances in which each cause was assigned.									Number of instances in which each cause was assigned.													
	Number of Cases. Admissions—Males, 66; Females, 51; Total, 117.									Number of cases. Admissions—Males, 68; Females, 59; Total, 127.													
	As predisposing cause.			As exciting cause.			As predisposing or exciting, where these could not be distinguished.			Total.			As predisposing cause.			As exciting cause.			As predisposing or exciting, where these could not be distinguished.			Total.	
Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
<b>MORAL—</b>																							
Domestic trouble (including loss of relatives and friends)...																							
Mental anxiety and worry (not included under the above head) and overwork																							
Religious excitement ...																							
Fright and nervous shock ..																							
<b>PHYSICAL—</b>																							
Intemperance in drink ...																							
Venereal disease... ..																							
Self-abuse, sexual ... ..																							
Sunstroke ... ..																							
Accident or injury ... ..																							
Epilepsy ... ..																							
Parturition and the puerperal state																							
Drug habits ... ..																							
Change of life ... ..																							
Fevers ... ..																							
Privation and starvation ... ..																							
Old age ... ..																							
Other bodily diseases or disorders ... ..																							
Previous attacks... ..																							
Hereditary influences ascertained (direct and collateral) ... ..																							
Congenital defect, ascertained ... ..																							
Other ascertained causes ... ..																							
Unknown ... ..																							

NOTE.—With reference to the distinction between “predisposing” and “exciting” causes, it must be understood that the figures in the total column represent the entire number of instances in which the several causes (either alone or in combination) were assigned, and not the number of patients admitted. Transfers from other asylums are not included.



TABLE XI.—Form of Mental Disorder in the Admissions, Recoveries  
(Includes Tables IV. and

FORM OF MENTAL DISORDER.	LEAVESDEN ASYLUM.									CATERHAM ASYLUM.														
	Admissions.			Recov-eries.			Deaths.			Remaining in Asylum.			Admissions.			Recov-eries.			Deaths.			Remaining in Asylum.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
CONGENITAL OR INFANTILE MENTAL DEFICIENCY—																								
Congenital—(a) with epilepsy ...	13	5	18	...	...	...	4	9	13	91	112	203	7	8	15	...	...	...	7	6	13	38	43	...
(b) without epilepsy	16	12	28	...	...	...	9	17	26	325	287	612	9	11	20	1	...	1	9	3	12	315	318	633
Epilepsy acquired ...	10	5	15	1	1	2	9	11	66	88	154	4	2	6	...	...	...	2	2	4	67	12	...	
General paralysis of the insane ...	6	6	12	...	...	...	6	4	10	9	8	17	4	1	5	...	...	...	5	1	6	5	4	...
MANIA—																								
Acute ...	2	3	5	1	...	1	1	...	1	11	6	17	...	...	...	...	...	...	...	...	...	...	...	...
Chronic ...	1	2	3	...	...	...	1	2	3	62	88	150	5	3	8	...	...	...	1	1	129	8	2	...
Recurrent ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	54	17	...
A potu ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...
Senile ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...
MELANCHOLIA—																								
Acute ...	4	8	12	1	...	1	...	...	...	4	8	12	...	...	...	...	...	...	...	...	...	...	...	...
Chronic ...	...	...	...	...	...	...	...	...	...	9	5	14	5	1	6	...	...	...	...	...	...	5	42	...
Recurrent ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Senile ...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	4	...
DEMENTIA—																								
Primary ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Secondary ...	13	33	46	...	...	...	19	21	40	159	317	476	22	18	40	...	...	...	15	11	26	203	417	...
Senile ...	19	15	34	...	...	...	14	12	26	68	29	97	11	15	26	...	...	...	25	24	49	66	84	...
Organic (i.e., from tumours, coarse brain disease, &c.) ...	1	2	3	...	...	...	4	...	4	8	6	14	1	...	1	1	...	1	...	...	...	...	...	...
Totals...	85	91	176	2	1	3	60	74	134	812	955	1,767	68	59	127	2	...	2	63	48	111	882	1,047	1,929



TABLE XII.—*Station or Occupation*  
(Included in Table XIII. i)

STATION OR OCCUPATION.	ASYLUMS.								TOTALS.	
	LEAVESDEN.		CATERHAM.		DARENTH.		ROCHESTER HOUSE.		Males.	Females.
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.		
Acrobat ... ..	...	...	1	...	...	...	...	...	1	...
Artificial leafmaker	...	1	...	...	...	...	...	...	...	...
Art metal worker	1	...	...	...	...	...	...	...	1	...
Baker ... ..	1	...	...	...	...	...	...	...	1	...
Ballast heaver	...	...	1	...	...	...	...	...	1	...
Basket maker	...	...	1	...	...	...	...	...	1	...
Bricklayer...	...	...	1	...	...	...	...	...	1	...
Bus drivers	1	...	1	...	...	...	...	...	2	...
Butcher ... ..	1	...	...	...	...	...	...	...	1	...
Cab attendant	1	...	...	...	...	...	...	...	1	...
Cab driver	1	...	...	...	...	...	...	...	1	...
Cabinet maker	1	...	...	...	...	...	...	...	1	...
Captain of tug	1	...	...	...	...	...	...	...	1	...
Carmen ... ..	...	...	3	...	...	...	...	...	3	...
Carpenters	2	...	...	...	1	...	...	...	3	...
Chair caner	...	1	...	1	...	...	...	...	...	...
Charwomen	...	11	...	1	...	2	...	...	...	11
Clerks ... ..	2	...	2	...	...	...	...	...	4	...
Coachmen	2	...	1	...	...	...	...	...	3	...
Cooks	...	2	...	...	...	...	...	...	...	...
Coppersmith	...	...	1	...	...	...	...	...	1	...
Crossing sweeper	...	...	...	1	...	...	...	...	...	...
Dancer ... ..	...	...	...	...	...	1	...	...	...	...
Dressmakers	...	3	...	1	...	2	...	...	...	...
Engineer ... ..	...	...	1	...	...	...	...	...	1	...
Errand boy	1	...	...	...	...	...	...	...	1	...
Excavator	1	...	...	...	...	...	...	...	1	...
Factory hands	...	1	...	1	...	...	...	...	...	...
Farrier ... ..	1	...	...	...	...	...	...	...	1	...
Furrier ... ..	...	1	...	...	...	...	...	...	...	...
Gardener ... ..	...	...	1	...	...	...	...	...	1	...
Governess	...	1	...	...	...	...	...	...	...	...
Hairdressers	1	...	...	1	...	...	...	...	1	...
Hawkers ... ..	3	...	2	...	...	1	...	...	5	...
Horsekeeper	1	...	...	...	...	...	...	...	1	...
Housewives	...	7	...	2	...	...	...	...	...	...
Ironmoulder	...	...	1	...	...	...	...	...	1	...
Labourers	18	...	13	...	2	...	...	...	33	...
Laundry assistant	...	...	...	1	...	...	...	...	...	...
Leather dresser	...	...	1	...	...	...	...	...	1	...
Lighterman	...	...	1	...	...	...	...	...	1	...
Machinist	...	1	...	1	...	...	...	...	1	...
Milliners ... ..	...	2	...	...	...	...	...	...	...	...
Ostlers ... ..	1	...	1	...	...	...	...	...	2	...
Pedlar ... ..	1	...	...	...	...	...	...	...	1	...
Pianoforte tuner...	...	...	1	...	...	...	...	...	1	...
Porters ... ..	4	...	6	...	1	...	...	...	11	...
Potman ... ..	...	...	1	...	...	...	...	...	1	...
Printers ... ..	1	...	...	...	1	...	...	...	2	...
Quarryman	...	...	1	...	...	...	...	...	1	...
Rigger ... ..	...	...	1	...	...	...	...	...	1	...
Seamen ... ..	1	...	1	...	...	...	...	...	2	...
Seed sorter	...	1	...	...	...	...	...	...	...	...
Sempstresses	...	3	...	...	...	...	...	...	...	...
Servants	...	10	...	7	...	4	...	...	...	...
Shipwright	...	...	1	...	...	...	...	...	1	...
Shoeblocks	...	...	2	...	...	...	...	...	2	...
Shoemakers	3	...	...	...	...	...	...	...	3	...
Shopkeeper	...	...	1	...	...	...	...	...	1	...
Silver burnisher...	...	...	...	1	...	...	...	...	...	...
Smith's hammerman	1	...	...	...	...	...	...	...	1	...
Sorter ... ..	...	1	...	...	...	...	...	...	...	...
Stonemason	...	...	1	...	...	...	...	...	1	...
Carried forward ...	52	46	50	17	5	10	...	...	107	...

NOTE.—Transfers from other asylu



of Patients admitted during 1902.  
(reports previous to 1900).

SITUATION OR OCCUPATION.	ASYLUMS.								TOTALS.		
	LEAVESDEN.		CATERHAM.		DARENTH.		ROCHESTER HOUSE.		Males.	Females.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.			
Brought forward ...	52	46	50	17	5	10	...	...	107	73	
Street news vendor ...	...	...	1	...	...	...	} Imbeciles.	} Imbeciles.	1	...	
Tailoresses ...	...	1	...	1	...	...			...	2	...
Teacher of music ...	1	...	...	...	...	...			...	1	...
Teacher of languages ...	1	...	...	...	...	...			...	1	...
Telegraphist ...	...	1	...	...	...	...			...	1	1
Traveller ...	1	...	...	...	...	...			...	1	...
Tripe seller ...	1	...	...	...	...	...			...	1	...
Umbrella maker ...	...	...	1	...	...	...			...	1	...
Veterinary surgeon ...	...	...	1	...	...	...			...	1	...
Washing women ...	...	2	...	1	...	...			...	...	3
Wood dealer ...	...	1	...	...	...	...	...	...	1		
Wood turner ...	...	...	1	...	...	...	...	1	...		
Zinc worker ...	1	...	1	...	...	...	...	2	...		
Unknown ...	...	...	...	...	...	5	...	...	5		
No occupation ...	23	40	12	39	94	43	...	...	129	122	
Total ...	80	91	67	58	99	58	...	...	246	207	

Board are not included in this table.

TABLE XIII.—*Table of Heredity in Patients admitted in 1902.*

DEGREE.	LEAVESDEN ASYLUM.			CATERHAM ASYLUM.			DARENTH ASYLUM.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
I. DIRECT—									
Paternal ... ..	..	3	3	2	1	3	3	..	..
Maternal ... ..	1	2	3	2	2	4	6	1	..
Grandparents ... ..	..	..	..	..	1	1	5	3	..
II. COLLATERAL—									
Brothers or sisters ... ..	2	3	5	2	1	3	3	2	..
Paternal uncles or aunts ... ..	..	1	1	..	1	1	5	..	..
Maternal " " ... ..	..	1	1	..	..	..	5	3	..
Maternal or paternal uncles or aunts ... ..	1	..	1	..	..	..	..	..	..
Paternal grandparents... ..	..	1	1	..	..	..	..	..	..
Cousins ... ..	..	..	..	..	..	..	..	1	..
III. REMOTE—									
Undefined ... ..	1	3	4	..	1	1	..	..	..
Total ... ..	5	14	19	6	7	13	27	10	3
Total number of admissions ... ..	80	91	171	67	58	125	99	58	157
Number in which causes were assigned ... ..	52	61	113	59	50	109	27	10	37
Percentage of heredity on admissions ... ..	6.25	15.38	11.1	8.8	11.86	10.0	25.0	16.1	21.0

ROCHESTER HOUSE ASYLUM.				SUMMARY.		
DEGREE.	Males.	Females.	Total.	DEGREE.	Males.	Females.
I. DIRECT—				I. DIRECT—		
Paternal ... ..				Paternal ... ..	5	4
Maternal ... ..				Maternal ... ..	9	5
Grandparents ... ..				Grandparents ... ..	5	4
II. COLLATERAL—				II. COLLATERAL—		
Brothers or sisters ... ..				Brothers or sisters ... ..	7	6
Paternal uncles or aunts ... ..				Paternal uncles or aunts ... ..	5	2
Maternal " " ... ..				Maternal " " ... ..	5	4
Maternal or paternal uncles or aunts ... ..				Maternal or paternal uncles or aunts... ..	1	..
Paternal grandparents... ..				Paternal grandparents ... ..	..	1
Maternal " " ... ..				Cousins ... ..	..	1
Cousins ... ..						
III. REMOTE—				III. REMOTE—		
Undefined ... ..				Undefined ... ..	1	4
Total ... ..				Total ... ..	38	31
Total number of admissions ... ..				Total number of direct admissions ... ..	246	207
Number in which causes were assigned ... ..				Number in which causes were assigned ... ..	138	121
Percentage of heredity on admissions ... ..				Percentage of heredity on admission ... ..	15.45	14.98

Heredity conditions not known.

MEDICAL SUPPLEMENT

TO THE

REPORT OF THE STATISTICAL COMMITTEE

FOR THE

YEAR 1902.

EDITED BY

F. M. TURNER, M.D.,

AND

J. E. BEGGS, M.D.

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## P R E F A C E.

THE tables included in this supplement have been compiled on similar lines to those of previous years. The chief changes have been the reduction of space devoted to post-scarlatinal diphtheria by the omission of the lists of individual cases, and the addition of a new table on the results of intubation.

All the tables have been compiled from cases completed during the year 1902. Thus, cases admitted during 1901 but discharged after January 1st, 1902, are included, while cases still under treatment at the end of 1902 are excluded. As a result the complications tables do not show exactly the number of cases of any complication arising during the year, but the number of such cases which were discharged or died during the year.

In all tables deaths have been included from whatever cause they were due, whether connected or unconnected with the disease or operation treated of in the table.

**COMPLICATIONS TABLES.**

The figures shown in these tables are very similar to those of past years. The most noticeable difference is a rise in scarlatinal nephritis from 3.14 per cent. in 1900 to 4.00 per cent. in 1901 and 5.36 in 1902.

It may be advisable to caution the reader inexperienced in the diseases treated in our hospitals against too readily drawing conclusions from differences in the percentage incidence of certain complications at different hospitals, or at the same hospital in different years. With such complications as otitis after scarlet fever or perforation during enteric fever difficulty does not arise. But with others, such as albuminuria and rheumatism after scarlet fever or paralysis after diphtheria, different observers in observing the same cases would chronicle different results. In these and many other complications all degrees of severity are found from the severe to the evanescent, and the severe cases are exceptional, the mild greatly preponderate.

The headings albuminuria and nephritis are both open to variation according to the prepossessions of the observer. Since the year 1898, for the purposes of this report, all cases where albuminuria has been observed for only one day have been included. This obviates as far as possible differences in the enumeration of mild cases of albuminuria. On the other hand, the severe cases grade into nephritis, so that none but an arbitrary line can be drawn. In practice, however, the great majority of the cases returned as nephritis showed sudden onset with hæmaturia, so that we have no doubt that the rise noted this year is a real one.

The complications returned in the tables are those for which returns have been prepared on forms which have not been altered since the supplement was started in 1896. Certain extra complications have been noted in the returns from one or two hospitals, but we have not placed these with the other complications, since we cannot say to what extent these complications occurred at those hospitals which do not mention them.

These included (amongst the cases where two separate infectious diseases were co-existent at the time of admission) two patients with diphtheria and smallpox, one with diphtheria and mumps, and one with diphtheria and erysipelas at the Eastern Hospital, and one patient with diphtheria and mumps at the Grove Hospital.

The following additional complications were recorded at the South-Eastern Hospital: amongst the 825 scarlet fever patients there was one case of chorea, one of gangrene of the foot, five of jaundice, and one of necrosis of the ethmoid bone; amongst the 669 diphtheria patients there was one case of mastoid abscess, and seven of suppurative adenitis; amongst the 265 enteric fever patients there was one case of nephritis, two of abortion, one of gall-stones, one of cancrum oris, one of tender toes, and one of mastoid abscess. At the same hospital, one case of erysipelas occurred amongst the 669 diphtheria patients.

#### ANTITOXIN TABLES.

Lengthy reports on the use and results of antitoxin treatment were published with the reports for the years 1895 and 1896. In the following year it was decided to discontinue the greater part of these statistics on account of the labour involved, but three tables were retained, which it was considered would show a fair comparison of the effect of the treatment in different years. Of these, the first showed the total diphtheria cases, with the mortality amongst antitoxin-treated cases and all cases together; the second showed similar particulars for laryngeal cases only; the third similar particulars for tracheotomy cases.

These three tables have been published every year since, and the last, the tracheotomy table, has been held to be the best test of the efficacy of the antitoxin treatment.

Two new factors, however, have arisen which affect this table. First, many cases are operated upon in other hospitals and transferred to one of the Asylums Board hospitals after one or two weeks. This practice has only grown up in the last two or three years, and tends to diminish the tracheotomy mortality; for out of those cases operated upon at, say, the London Hospital only those that survive the first two weeks enter our institutions and appear on our statistics. On this account such cases have been excluded this year from Tables II. and III., and are returned separately.

The second new factor is the increasing use of intubation, especially at the Eastern and Park Hospitals, as a substitute for tracheotomy. Some of the worst cases require tracheotomy subsequent to intubation, because the latter fails to relieve. This tends to raise the tracheotomy mortality. The total number, however, so treated is not large.

#### TRACHEOTOMY AND INTUBATION TABLES.

The gross tracheotomy mortality in cases of primary diphtheria only is very similar to that of the preceding year, and differs by less than 2 per cent. from the gross intubation mortality in similar cases.

Secondary diphtheria chiefly consists of cases secondary to measles and scarlet fever. The column headed "other cases" chiefly consists of cases of septic scarlet

fever. In both classes the death rate is high. On the other hand, intubation for other causes than primary diphtheria has a low mortality. The cases include laryngeal paralysis and inability to dispense with a tracheal tube.

Certain cases were subjected to intubation followed by tracheotomy. Such cases are returned under both headings. They are also shown in a separate table.

Intubation has only been extensively used during the year at the Eastern and Park Hospitals. If it is assumed that at each of these institutions all suitable cases were subjected to intubation, certain cases severely cyanosed on admission would probably be subjected to tracheotomy. This would tend to keep the intubation death rate lower than the average tracheotomy death rate of other hospitals. But the death rate from both operations combined would be a fair comparison. This is shown below.

	EASTERN.		PARK.		TOTAL.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Number tracheotomised only ...	22	6	9	4	31	10
Number intubated only ... ..	15	2	16	5	31	7
Number on whom both operations were performed . . . . .	9	3	5	3	14	6
Total number of cases operated upon	46	11	30	12	76	23
	Case mortality =				30.2	

If we subtract from the total cases of tracheotomy at all the hospitals those done at the Eastern and Park, we obtain for the remaining hospitals where intubation was not in common use : -

Tracheotomy cases .. .. .	219
,,    deaths .. .. .	70
Case mortality .. .. .	31.9
Intubation cases .. .. .	3
,,    deaths .. .. .	1
Total number of cases operated upon .. .. .	222
Deaths .. .. .	71
Case mortality .. .. .	32.0

which shows a slight difference in favour of intubation.

A complete list of cases intubated at the Park Hospital is forwarded by Dr. Birdwood and published on page 332.

**LAPAROTOMY STATISTICS.**

Although two recoveries are chronicled, yet the results are far from encouraging. Several cases were operated upon in which but little hope could have been entertained, but several cases which seemed hopeful, both from the absence of collapse, the slight

amount of lymph or foreign matter found in the peritoneum, and the rapidity of the operation, also ended fatally.

After the tables are published certain papers by members of the staff of various hospitals on special cases or work done in the different infectious institutions.

(Signed) J. E. BEGGS.  
F. M. TURNER.

### COMPLICATIONS AND CO-EXISTENT INFECTIOUS DISEASES, 1902.

The following tables are compiled from cases completed during 1902:—

TABLE I.—*Incidence of Complications amongst 14,889 cases of Scarlet Fever completed during 1902.*

COMPLICATION.	Eastern.	North-Eastern.	North-Western.	Western.	South-Western.	Fountain.	Grove.	South-Eastern.	Park.	Brook.	Northern.	Total.	Percentage Incidence.
Total cases ... ..	193	2,456	2,387	1,421	1,176	2,438	376	825	1,950	1,667	[4,151]	14,889	...
Otitis ... ..	11	299	265	259	218	278	49	111	365	156	108	2,109	14.16
Albuminuria*	18	213	190	140	143	273	56	40	347	132	40	1,592	10.69
Adenitis (of convalescence)†	8	196	40	66	149	248	27	42	204	92	58	1,130	7.58
Suppurative adenitis (included in above)...	2	41	23	18	16	47	5	20	43	26	6	247	1.65
Rheumatism ... ..	1	135	38	38	81	142	3	31	89	52	9	619	4.15
Nephritis ... ..	7	137	72	54	65	153	11	48	153	65	34	799	5.36
Tonsillitis (of convalescence)...	4	108	3	20	22	25	3	1	79	11	20	296	1.98
Stomatitis ... ..	1	40	...	23	24	6	2	6	11	8	13	134	0.89
Broncho-pneumonia ...	2	9	11	24	11	15	3	3	22	12	...	112	0.75
Bronchitis ... ..	...	34	8	12	22	13	...	1	34	13	2	139	0.93
Abscess (other than mastoid or glandular)...	4	18	9	23	22	10	6	6	48	10	2	158	1.06
Mastoid abscess‡	1	13	9	16	12	15	2	3	23	7	2	103	0.69
Ophthalmia ... ..	2	36	4	16	21	7	3	1	13	16	5	124	0.83
Relapse of disease ...	...	32	22	29	9	15	2	7	9	29	23	177	1.18
Pneumonia ... ..	...	12	2	3	8	3	1	2	8	8	1	51	0.34
Endocarditis ... ..	...	15	5	8	6	16	1	5	22	36	...	114	0.76
Cervical cellulitis ...	...	8	2	3	2	...	...	6	3	4	...	28	0.18
Laryngitis ... ..	...	3	...	1	1	...	8	1	10	3	...	27	0.18
Pleurisy ... ..	...	3	...	2	3	5	...	...	6	...	...	19	0.12
Corneal ulcer ... ..	...	3	...	2	3	...	...	...	4	2	...	14	0.09
Pericarditis ... ..	...	4	1	...	1	8	...	...	4	2	1	21	0.14
Empyema ... ..	...	2	...	2	...	2	...	2	4	1	...	13	0.08
Pyæmia ... ..	1	1	...	1	...	...	...	4	5	2	...	14	0.09
Meningitis ... ..	...	...	3	3	...	1	...	2	...	...	...	9	0.06
Diphtheria ... ..	4	31	36	26	15	75	6	4	66	20	140	423	2.84
Chickenpox ... ..	...	39	18	42	59	44	7	17	35	11	34	306	2.05
Measles ... ..	3	26	36	20	23	61	11	8	28	17	29	262	1.75
Rubella ... ..	...	28	6	5	...	15	...	7	14	...	19	94	0.63
Whooping cough	...	7	20	16	11	16	2	2	21	4	34	133	0.89
Mumps ... ..	...	...	...	...	...	...	...	1	...	...	...	1	...
Erysipelas ... ..	...	1	...	...	3	9	...	1	2	5	...	21	0.14
Enteric fever ... ..	...	...	1	...	1	...	...	...	...	...	...	2	0.01

\* Albuminuria excludes cases of nephritis which are returned separately. All other cases are included in which albuminuria was observed, even if only on one occasion.

Adenitis of convalescence excludes adenitis occurring in the acute stage of the diseases.

Mastoid abscess includes all cases of suppuration in or about the mastoid.

Specific infectious diseases co-existent on admission are returned on Table IV.



TABLE II.—Incidence of Complications amongst 6,863 cases of Diphtheria completed during 1902.

COMPLICATION.	Eastern.	North-Eastern.	North-Western.	Western.	South-Western.	Fountain.	Grove.	South-Eastern.	Park.	Brook.	Northern.	Total.	Percentage Incidence.
Total cases ... ..	1,120	627	852	849	459	4	1,051	669	488	744	[335]	6,863	...
Albuminuria* ... ..	466	331	159	296	60	2	290	159	146	353	2	2,264	32.98
Paralysis ... ..	195	108	107	118	100	...	175	128	81	158	2	1,172	17.07
Relapse of disease ... ..	16	11	3	9	15	...	14	10	8	9	...	95	1.38
Broncho-pneumonia ... ..	14	3	4	14	1	...	8	8	9	4	...	65	0.94
Otitis ... ..	118	25	46	35	26	...	39	43	48	34	4	418	6.06
Pneumonia ... ..	14	2	3	4	1	...	1	1	2	4	...	32	0.46
Nephritis ... ..	...	5	6	2	9	...	3	2	5	2	...	34	0.49
Scarlet fever ... ..	53	30	31	26	19	...	39	59	66	40	3	366	5.33
Chickenpox ... ..	10	2	10	10	8	...	9	16	7	...	...	72	1.04
Measles ... ..	20	4	10	7	2	...	1	5	4	1	...	54	0.78
Whooping cough ... ..	19	3	9	10	9	...	9	...	3	9	1	72	1.04
Rubella ... ..	...	1	...	...	...	...	1	2	3	...	...	7	0.10
<i>Complications referable to Antitoxin amongst 6,015 completed cases of Diphtheria treated with it.</i>													
Total cases ... ..	1,095	529	631	812	355	2	1,000	588	364	639	...	6,015	...
Rash ... ..	549	201	134	401	177	...	635	177	128	453	...	2,855	47.46
Joint-pains ... ..	21	21	10	48	27	...	75	6	7	72	...	287	4.77
Abscess ... ..	8	5	3	4	4	...	8	3	2	5	...	42	0.69

TABLE III.—Incidence of Complications amongst 1,397 cases of Enteric Fever completed during 1902.

COMPLICATION.	Eastern.	North-Eastern.	North-Western.	Western.	South-Western.	South-Eastern.	Brook.	Park.	Grove.	Fountain.	Total.	Percentage Incidence.
Total cases ... ..	147	157	179	130	85	264	175	62	196	2	1,397	...
Relapse of disease ... ..	19	11	4	16	12	23	13	6	19	1	124	8.87
Hæmorrhage ... ..	6	19	12	14	12	16	23	6	11	...	119	8.51
Abscesses ... ..	8	3	4	9	3	10	6	4	12	...	59	4.22
Perforation ... ..	5	9	5	2	2	10	5	2	14	...	54	3.86
Pneumonia ... ..	4	4	5	7	2	4	6	3	4	...	39	2.79
Peritonitis (non-perforative) ... ..	1	2	...	...	...	...	1	...	...	...	4	0.28
Periostitis ... ..	2	...	...	1	3	2	3	1	2	...	14	1.00
Pleurisy ... ..	2	1	...	3	1	...	...	1	1	...	9	0.64
Phlebitis ... ..	8	1	...	3	1	7	6	5	2	...	33	2.36
Dementia ... ..	...	1	1	...	1	4	2	...	1	...	10	0.71
Broncho-pneumonia ... ..	2	...	5	3	1	1	2	1	1	...	16	1.14
Parotitis ... ..	...	...	2	2	2	2	1	...	1	...	10	0.71
Scarlet fever ... ..	...	...	...	...	...	1	1	...	...	1	3	0.22
Diphtheria ... ..	1	1	...	...	...	1	...	...	...	...	3	0.22

\* Albuminuria excludes cases of nephritis which are returned separately. All other cases are included in which albuminuria was observed, even if only on one occasion.

† Specific infectious diseases co-existent on admission are returned in Table IV.

TABLE IV.—Number of Cases in which two separate Infectious Diseases were co-existent at the time of admission into the acute fever hospitals during 1902.

CO-EXISTENT INFECTIONS.	Eastern.	North-Eastern.	North-Western.	Western.	South-Western.	Fountain.	Grove.	South-Eastern.	Brook.	Park.	Total.
Scarlet fever and diphtheria* ...	20	14	9	18	32	3	6	10	13	8	133
Scarlet fever and chickenpox* ...	12	11	3	4	12	2	2	10	10	12	64
Scarlet fever and whooping cough* ...	12	23	2	4	7	9	2	9	12	31	102
Scarlet fever and measles* ...	...	4	2	1	5	12	...	5	6	3	28
Scarlet fever and tuberculosis* ...	...	...	...	...	...	...	...	1	1	5	7
Scarlet fever and rubella* ...	...	...	1	...	...	...	...	1	...	1	3
Scarlet fever and enteric fever* ...	...	1	...	...	...	...	...	...	...	...	1
Diphtheria and measles† ...	11	3	4	1	...	...	12	4	5	5	41
Diphtheria and chickenpox† ...	3	...	...	1	...	...	5	6	2	12	20
Diphtheria and whooping cough† ...	7	6	6	2	3	...	3	4	6	7	44
Diphtheria and tuberculosis† ...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and enteric fever† ...	1	...	...	...	...	...	...	1	...	...	2
Diphtheria and rubella† ...	1	1	...	...	...	...	...	...	...	...	2
Total ... ..	...	...	...	...	...	...	...	...	...	...	447
Total number of scarlet fever, diphtheria, and enteric fever cases admitted	...	...	...	...	...	...	...	...	...	...	23,149
Percentage in which two diseases were present	...	...	...	...	...	...	...	...	...	...	1.93

\* These cases are in the general tables entered under scarlet fever

† These cases are in the general tables entered under diphtheria.

POST-SCARLATINAL DIPHTHERIA, 1902.

TABLE I.

	Eastern.		North-Eastern.		North-Western.		Western.		South-Western.		Fountain.		Grove.		South-Eastern.		Park.		Brook.		Northern.		Total.		Mortality per cent.		
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Non-Laryngeal Cases.	Males ...	3	11	...	12	...	11	...	4	...	46	...	2	...	2	...	2	...	32	3	5	...	45	...	173	3	...
	Females...	...	19	...	18	...	12	...	8	...	21	...	3	...	3	...	...	...	22	1	10	...	81	1	196	7	...
	Total ...	3	30	...	30	...	23	...	12	...	67	...	5	...	4	...	54	4	54	4	15	...	126	1	369	10	2.71
Laryngeal Cases.	Males ...	1	2	1	1	1	1	1	1	1	4	...	...	...	...	...	...	...	7	...	2	...	7	...	27	4	...
	Females...	...	...	...	4	3	2	...	2	1	4	...	1	...	...	...	...	...	5	2	3	...	7	1	28	7	...
	Total ...	1	2	1	5	4	3	1	3	2	8	...	1	...	...	...	...	...	12	2	5	...	14	1	55	11	20.0
All Cases.	Males ...	4	13	1	14	1	12	1	5	1	50	...	2	...	2	...	39	3	7	...	52	...	200	7	...		
	Females...	...	19	...	22	6	14	...	10	2	25	...	4	...	2	...	37	3	13	...	88	2	221	14	...		
	Total ...	4	32	1	36	7	26	1	15	2	75	...	6	...	4	...	66	6	20	...	140	2	424	21	4.95		

\* Causes of death :—1 pyemia, 1 measles, 1 erysipelas, 1 paralysis of abdomen, 2 broncho-pneumonia.  
 † Severe septic scarlet fever, in which diphtheria supervened shortly before death.  
 ‡ 17 of these were cases of fibrinous rhinitis.  
 § Died of lobar pneumonia.

TABLE II.

	Eastern.		North-Eastern.		North-Western.		Western.		South-Western.		Fountain.		Grove.		South-Eastern.		Park.		Brook.		Northern.		Total.		Mortality per cent.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Cases treated with antitoxin	2	...	22	1	31	6	23	1	11	2	40	...	5	0	4	0	40	6	18	...	188	2	334	18	5.39
Cases not so treated	2	...	10	...	5	1	3	...	4	...	35	2	1	0	0	0	26	...	2	...	2	...	90	3	3.33
Total ...	4	...	32	1	36	7	26	1	15	2	75	2	6	0	4	0	66	6	20	...	140	2	424	21	4.95

## SUMMARY OF THE ANTITOXIN TREATMENT OF DIPHTHERIA DURING 1902.

TABLE I.—*All forms of Diphtheria.*

HOSPITAL.	Cases treated with antitoxin.			Cases not so treated.			TOTAL.		
	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.
Eastern... ..	1,095	107	9.8	25	1	4.0	1,120	108	9.6
North-Eastern ...	529	70	13.2	98	1	1.0	627	71	11.3
North-Western ...	631	101	16.0	221	8	3.6	852	109	12.8
Western ... ..	812	91	11.2	37	2	5.4	849	93	10.9
South-Western ...	355	40	11.2	80	2	2.5	435	42	9.6
Fountain ... ..	2	1	50.0	2	...	0.0	4	1	25.0
Grove ... ..	1,000	76	7.6	51	2	3.9	1,051	78	7.4
South-Eastern... ..	588	76	12.9	81	*3	3.7	669	79	11.8
Park ... ..	364	65	17.8	124	2	1.6	488	67	13.7
Brook ... ..	639	85	13.3	105	6	5.7	744	91	12.2
Northern (transferred cases)	[138]	2	1.4	[2]	...	0.0	[140]	2	1.4
<b>Total ... ..</b>	<b>6,015</b>	<b>714</b>	<b>11.8</b>	<b>824</b>	<b>27</b>	<b>3.2</b>	<b>6,839</b>	<b>741</b>	<b>11.8</b>

TABLE II.—*Laryngeal Cases.*

HOSPITAL.	Cases treated with antitoxin.			Cases not so treated.			TOTAL.		
	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.
Eastern... ..	111	19	17.1	3	0	0.0	114	19	16.6
North-Eastern ...	35	8	22.8	1	0	0.0	36	8	22.2
North-Western ...	73	10	13.7	9	4	44.4	82	14	17.0
Western ... ..	91	24	26.4	2	2	100.0	93	26	28.0
South-Western ...	57	11	19.3	1	1	100.0	58	12	20.7
Fountain ... ..	...	...	...	...	...	...	...	...	...
Grove ... ..	66	11	16.6	...	...	...	66	11	16.6
South-Eastern... ..	63	11	17.5	3	...	0.0	66	11	16.6
Park ... ..	51	16	31.4	...	...	...	51	16	31.4
Brook ... ..	71	14	19.7	2	2	100.0	73	16	21.9
Northern (transferred cases)	[14]	1	7.1	...	...	...	[14]	1	7.1
<b>Total ... ..</b>	<b>618</b>	<b>125</b>	<b>20.2</b>	<b>21</b>	<b>9</b>	<b>42.9</b>	<b>639</b>	<b>134</b>	<b>20.9</b>

\* One case died of scarlet fever, one case died of posterior basic meningitis, one case was admitted on the 14th day of disease.

TABLE III.—*Tracheotomy Cases.*

HOSPITAL,	Cases treated with antitoxin.			Cases not so treated.			TOTAL.		
	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.
Eastern ... ..	30	9	30.0	1	...	0.0	31	9	29.0
North-Eastern ...	13	5	38.4	...	...	...	13	5	38.4
North-Western ...	31	6	19.3	3	1	33.3	34	7	20.6
Western ... ..	43	18	41.8	2	2	100.0	45	20	44.4
South-Western ...	23	7	30.4	...	...	...	23	7	30.4
Fountain ... ..	...	...	...	...	...	...	...	...	...
Grove ... ..	29	6	20.6	...	...	...	29	6	20.6
South-Eastern ...	28	10	35.7	...	...	...	28	10	35.7
Park ... ..	14	7	50.0	...	...	...	14	7	50.0
Brook ... ..	46	14	30.4	1	1	100.0	47	15	31.9
Northern ... ..	...	...	...	...	...	...	...	...	...
Total ... ..	257	82	31.9	7	4	57.1	264	86	32.5

In addition to these cases, 58 children were admitted upon whom tracheotomy had already been performed. Three of these died.

**TRACHEOTOMY STATISTICS, 1902.**

TABLE I.—*Showing the number of Cases and Deaths at different Ages of all Cases of Tracheotomy performed for Primary Diphtheria, Secondary Diphtheria, and also for other causes.*

AGES.	PRIMARY DIPHTHERIA.			SECONDARY DIPHTHERIA.			OTHER CASES.		
	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.
Under 1 ... ..	14	10	71.5	...	...	...	...	...	...
1 to 2 ... ..	46	21	45.6	2	1	50.0	5	4	80.0
2 ,, 3 ... ..	56	17	30.4	4	2	50.0	9	6	66.6
3 ,, 4 ... ..	52	14	26.9	4	3	75.0	5	4	80.0
4 ,, 5 ... ..	43	10	23.3	1	...	0.0	2	2	100.0
5 ,, 6 ... ..	27	5	18.5	...	...	...	...	...	...
6 ,, 7 ... ..	11	4	36.3	...	...	...	...	...	...
7 ,, 8 ... ..	5	1	33.3	...	...	...	...	...	...
8 ,, 9 ... ..	4	1		...	...	...	...	...	...
9 ,, 10 ... ..	2	1		...	...	...	...	...	...
Over 10 ... ..	4	2		...	1	1	100.0	...	...
Total ... ..	264	86	32.5	12	7	58.3	21	16	76.2

Out of these cases a certain number had been previously intubated, viz., primary diphtheria 14 cases, 3 deaths; secondary diphtheria 1 case, no death. These cases are shown in detail under intubation statistics.

In addition to these cases, 58 patients were admitted upon whom tracheotomy had already been performed. Out of these three died.

**INTUBATION STATISTICS.**

TABLE I.—*Showing the number of Cases and Deaths at different Ages of all Cases of Intubation performed for Primary Diphtheria, also for other causes, compiled from cases completed during the year 1902 at all the Hospitals.*

AGE.	PRIMARY DIPHTHERIA.			OTHER CASES.		
	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.
Under 1 ... ..	3	2	66·6	...	...	...
1 to 2 ... ..	3	1	33·3	3	1	33·3
2 ,, 3 ... ..	6	1	16·6	2	0	0·0
3 ,, 4 ... ..	14	4	28·5	3	0	0·0
4 ,, 5 ... ..	13	3	23·2	1	0	0·0
5 ,, 6 ... ..	5	...	} 33·3	1	0	0·0
6 ,, 7 ... ..	1†	1†		1	0	0·0
7 ,, 8 ... ..	1	...		...	...	...
8 ,, 9 ... ..	...	...		...	...	...
9 ,, 10 ... ..	1	1	...	...	...	
Over 10 ... ..	1	1	...	...	...	
Total ... ..	48	14	34·2	11	1	9·0

Out of these cases a certain number subsequently underwent tracheotomy. These are returned in the following table.

TABLE II.—*Cases in which Intubation was followed by Tracheotomy.*

AGE.	PRIMARY DIPHTHERIA.			OTHER CASES.		
	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.
Under 1 ... ..	3	2	66·7	...	...	...
2 ,, 3 ... ..	1	0	0·0	2	...	0·0
3 ,, 4 ... ..	2	1	50·0	...	...	...
4 ,, 5 ... ..	6	1	16·6	...	...	...
9 ,, 10 ... ..	1	1	100·0	...	...	...
Over 10 ... ..	1	1	100·0	...	...	...
Total ... ..	14	6	42·8	2	0	0·0

† Admitted on the 9th day of disease. Died of cardiac paralysis after the tube had been removed.

**SUMMARY OF LAPAROTOMIES FOR PERFORATION IN ENTERIC FEVER PERFORMED DURING 1902.**

Hospital at which Operation was performed.	Sex.	Age.	Period of Illness.	Length of time between Perforation and Operation.	Condition of Abdomen.	Nature of Operation.	Result.	Remarks.
Eastern ... ..	F	35	5th day of relapse	21 hours ... ..	General peritonitis with escape of feces	Suture of perforation; irrigation of peritoneal cavity; drainage	Death, 27 hours after operation	Perforation took place on 5th day of a relapse, and 35th from beginning of primary attack. The patient was admitted with symptoms of peritonitis, and the history pointed to perforation 4 days before; at <i>post-mortem</i> examination there was no perforation nor peritonitis. Autopsy; general peritonitis with semi-purulent fluid in pelvis and loins.
	M	26	15th day ... ..	—	Nothing abnormal ...	—	Death, 5 days after laparotomy	
North-Eastern ...	M	17	20th day ... ..	16 hours ... ..	On opening abdomen, fluid and bubbles of gas escaped; coils intensely injected, with flakes of adherent lymph; perforation in thickened ulcer in ileum	Incision in right linea semilunaris; ulcer inverted by 2 longitudinal rows of silk sutures; pelvis irrigated with sterile water and wound sewn up; no drainage	Death on 4th day	
	M	23	24th day ... ..	8 hours ... ..	On opening abdomen, straw-coloured fluid and gas escaped with a few flakes of lymph; no faecal odour; bowel inflamed; no perforation found or evidence of enteric ulceration; gall-bladder & duodenum healthy; no peritonitis in upper abdomen	Incision in right linea semilunaris; incision over gall-bladder; drainage tube in pelvis; wound sutured	Death on 4th day	Autopsy; large perforation in an erior wall of rectum, 8 inches from anus; second perforation in sigmoid flexure 6 inches higher up; numerous shallow ulcers in large intestine; very slight ulceration in ileum.
	F	6½	37th day of illness and 11th day of relapse	2½ hours .. ..	Gas, yellow fluid, lymph, and faeces in peritoneal cavity; large perforation in thickened ulcer in small intestine	Incision in right linea semilunaris; ulcer inverted by 2 longitudinal rows of silk sutures; abdomen flushed with sterile water; glass drainage tubes under liver and in pelvis; wound sutured	Death on 8th day	Autopsy; general peritonitis with buttery lymph and yellow fluid.
	M	10	17th day ... ..	6½ hours ... ..	Much gas and yellowish fluid in peritoneal cavity; coils injected; minute perforation in small intestine about 12 inches from caecum	Incision in right linea semilunaris; ulcer inverted by 2 longitudinal rows of silk sutures; irrigation with sterile water; counter-openings made in each loin, and large rubber drainage tube drawn through to anterior wound; glass tube placed in pelvis, and another under liver	Death on 6th day	Autopsy; not much lymph or fluid, but peritonitis present in loins, pelvis, and near liver; small and large intestine enormously distended with gas; stitches holding well; ulcers small but deep.

## SUMMARY OF LAPAROTOMIES FOR PERFORATION IN ENTERIC FEVER PERFORMED DURING 1902—Continued.

Hospital at which Operation was performed.	Sex.	Age.	Period of illness.	Length of time between Perforation and Operation.	Condition of Abdomen.	Nature of Operation.	Result.	Remarks.
North-Eastern (continued)	F	12	49th day of illness and 17th day of relapse	6½ hours ...	Gas and turbid fluid in peritoneal cavity; no faeces; bowel injected; large perforation in small intestine	Incision in right linea semilunaris; ulcer inverted by 2 transverse rows of silk sutures; free irrigation with Lysol (1 in 250); counter-openings made in both loins; large drainage tube drawn through from left loin, and gauze drain from right loin; gauze drain placed under liver and in pelvis	Recovered ...	A second relapse (mild) commenced on 10th day after operation.
North-Western ...	M	25	23rd day ...	—	General peritonitis; perforation of ileum 2 inches from ileo-caecal valve	General anaesthesia; Lembert's sutures; irrigation; gauze drainage	Death, 16½ hours after operation	Post-mortem; no other perforation, but extensive deep ulceration.
South-Western ...	M	21	16th day ...	4 hours ...	Gas in peritoneal cavity; turbid fluid of fecal odour, and local peritonitis in Douglas' pouch; perforation found in a coil of ileum in Douglas' pouch	General anaesthesia; Lembert's sutures; irrigation; gauze drainage	Death, 12 hours after operation	Post-mortem; no other perforation.
South-Western ...	M	31	35th day ...	12 hours ...	General peritoneal infection	Laparotomy ...	Death, shortly afterwards	No perforation found; patient's condition only permitted a very brief search.
Grove ...	M	35	10th day ...	9 hours ...	Considerable plastic peritonitis; much feculent extravasation	Caecum stitched to abdominal wall	Died in 21 hours	Very difficult operation, owing to incessant retching; perforation finally found to consist of a jagged tear on inner and posterior surface of caecum; wide area of congested, semi-necrotic bowel around.
North-Western ...	M	15	26th day ...	9½ hours ...	A little congestion around perforated ulcer	Perforation closed with longitudinal sutures; gauze drainage	Died in 22 hours	Fair general condition and straightforward operation; disappointing case.
North-Western ...	M	25	29th day of disease and 9th day of relapse	15 hours ...	General peritonitis	Perforation closed with transverse sutures; gauze drainage	Died in 6 hours	Nearly died on table.



SUMMARY OF LAPAROTOMIES FOR PERFORATION IN ENTERIC FEVER PERFORMED DURING 1902—Continued.

Hospital at which Operation was performed.	Sex.	Age.	Period of Illness.	Length of time between Perforation and Operation.	Condition of Abdomen.	Nature of Operation.	Result.	Remarks.	
South-Eastern	F	9	45rd day	22 hours	Some non-smelling serous fluid	12 Lembert sutures used for gut; no drainage tube used	Recovery	Perforation 6 inches from valve.	
	M	22	53rd day	72 hours	General peritonitis; turbid fluid	Gut sutured with 8 Lembert stitches; abdomen flushed out; drainage tube inserted	Death, 6 hours after operation	Perforation 1 foot from valve.	
	M	38	33rd day	78 hours	General peritonitis; fluid turbid and fecal	Laparotomy	Death, half-hour after operation	Patient collapsed during operation; it was decided to stop operation; wound was closed, and patient put back to bed; no perforation found.	
	M	23	17th day	12 hours	General peritonitis; fluid turbid and fecal	6 Lembert sutures used for gut	Death during operation	Perforation 1 inch from valve.	
	F	21	20th day	35 hours	Peritonitis; not much fluid; fecal odour	Continuous suture used for gut; abdomen flushed out; drainage tube inserted	Death, 11 hours after operation	Two perforations found, one a foot from valve; the other 2 feet from valve.	
	M	26	23rd day	6 hours	Good deal of fluid, non-fecal; lymph and signs of peritonitis	5 Lembert sutures used for gut; abdomen flushed out; Keith's drainage tube inserted	Death, 6½ hours after operation	Large perforation 3 inches from valve.	
	M	9	24th day	12 hours	Early peritonitis; a little fluid, not fecal; no lymph	9 Lembert sutures used for gut; abdomen flushed out; Keith's drainage tube inserted	Death, 12½ hours after operation	Perforation 1 foot from valve; operation only took half-an-hour, and the boy's condition appeared good; death from shock.	
	Park	M	27	3 weeks	12 hours	Intense peritonitis; no gas noticed; perforation in ileum, 6 inches from caecum, about size of pea; tissues around infiltrated and friable	Incision 3 inches long in right linea semilunaris; perforation closed by 1 row of interrupted Lembert's sutures; flushed out and drained by glass tube; time of operation 30 minutes	Death in 18 hours	Hæmorrhage occurred the day before the perforation; much relief afforded by operation for 12 hours; <i>post-mortem</i> ; all sutures held; ulcers scanty; sloughy bases.
		M	13	3 weeks	21 hours	Gas and fluid in abdominal cavity; perforation in ileum, 8 inches from caecum, about size of back-shot; surrounding tissue not infiltrated; pus in pelvis	Incision 2 inches long in right linea semilunaris; closed by one row of Lembert's sutures; abdomen irrigated	Death in 13 hours	<i>Post-mortem</i> ; sutures held well; all sloughs separated from ulcers.

### LIST OF CASES INTUBATED AT THE PARK HOSPITAL, 1902.

Number of case.	Disease.	Age.	Sex.	Site of Disease.	Bacteriological Examination.	Day of Disease ; Antitoxin.	Day of Disease ; Intubation.	Duration of Intubation.	Total Number of Insertions.	Broncho-Pneumonia.	Paralysis.	Result.	Remarks.
1	Diphtheria ... ..	3½	M	L	+	5	6	Days. 3	1	...	...	R	
2	Diphtheria ... ..	3	M	FNL	+	10	10	2	1	...	Yes	R	
3	Diphtheria ... ..	2½	F	FNL	+	2	3	2	1	...	...	R	
4	Diphtheria ... ..	38	F	FL	0	4	4	1	3	...	...	D	Tracheotomy. P.M., membrane extending to bronchioles.
5	Measles following Scarlet Fever ...	2	F	L	-	NA	1	1	1	...	...	R	Tracheotomy.
6	Diphtheria ... ..	1½	F	FNL	0	5	7	-	-	Yes	...	D	Death during intubation from syncope; extensive faucial membrane and pneumonia.
7	Diphtheria ... ..	3	M	FL	0	3	4	1	1	Yes	Yes	D	Paralysis of diaphragm, pneumothorax, empyema, erysipelas. Death 2½ months after intubation.
8	Diphtheria ... ..	½	F	L	+	1?	1?	3	2	Yes	...	D	Tracheotomy. P.M., necrosis of cricoid cartilage and tracheal rings.
9	Diphtheria ... ..	4	M	FL	0	3	4	1	1	...	...	R	
10	Diphtheria ... ..	½	F	L	0	3	3	5 mns.	1	...	...	R	Intubation failed to relieve Tracheotomy.
11	Diphtheria ... ..	4	M	L	+	5	5	7	5	Yes	...	R	Tracheotomy.
12	Diphtheria ... ..	4	F	L	+	8	8	2	1	...	...	R	
13	Diphtheria ... ..	3	F	FL	0	6	6	3	1	...	...	R	
14	Diphtheria ... ..	3½	M	FNL	+	8	8	3 hrs.	1	...	Yes	R	Tube coughed up
15	Diphtheria ... ..	3½	M	FL	0	2	3	4	1	...	...	R	
16	Diphtheria ... ..	5	F	FNL	0	2	4	4	1	...	...	R	
17	Diphtheria ... ..	4	M	FNL	0	5	6	2½	2	...	...	D	Death from cardiac paralysis.
18	Diphtheria ... ..	3	F	L	0	2	2	3	2	Yes	...	D	Tracheotomy
19	Diphtheria ... ..	4½	F	L	+	3	3	3	1	Yes	...	D	Scarlet fever 5 days after intubation. Death from broncho-pneumonia.
20	Diphtheria ... ..	3	M	FNL	0	3	4	3½	1	...	...	R	
21	Diphtheria ... ..	2	F	FL	0	3	3	5	1	...	...	R	
22	Scarlet Fever ... ..	2½	F	L	-	NA	-	3	1	...	...	R	Tracheotomy
23	Diphtheria ... ..	3	F	NL	0	3	3	6	1	Yes	...	D	Death from broncho-pneumonia 9 days after intubation

### NITROGEN EXCHANGE IN DIPHTHERIA AND SCARLET FEVER.

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The following observations relate chiefly to the nitrogenous exchange of children suffering from scarlet fever and diphtheria during the first three weeks of their stay in hospital, and were undertaken to obtain a general idea of the nutritive process under these conditions. Most previous records, of which few exist connected with this subject, have covered a shorter period, often less than a week.

**A.—INTRODUCTION.**

To eliminate idiosyncrasy, which may play an important part in matters of this kind<sup>1</sup>, as many cases as possible were examined: they include 7 of diphtheria (G. M. C.), 5 of scarlet fever (H. W. L. B.), and 1 of a healthy child (G. M. C.), with partial observations of one or two others.

Such estimations are performed in a fever hospital at some disadvantage. In young children suddenly removed from home in the first stage of an acute illness to be placed under ordinary hospital treatment, the satisfactory collection of the egesta is very difficult, and would be quite impossible without the help of the nursing staff. The phenomena of the initial stage occurring before admission escape observation altogether, and the limited time available without interruption for an analysis may impose the choice of a method chiefly commended for its speed. It is, however, hoped that the general character of the results is such as to render the conclusions drawn reliable, especially where they relate not to individual numbers, but to sustained variations from the mean.

The method of plotting out the daily amounts in curves has been adopted, the uric acid, ammonia, and phosphoric acid being represented on ten times the scale of the nitrogen, urea, and chlorine. The numbers on which these are founded are afterwards tabulated to the first few decimal places. No calibration of the instruments used has been undertaken, the object being not so much the most exact measurement of the quantities dealt with as the recognition of those major changes due to disease.

The following has been the routine observed. The nature of the diet, but not its amount, was fixed on admission for each case. Usually milk only was given first, supplemented later by bread, biscuits, milk pudding, or a patent food, leading up to ordinary diet. The milk was given in measured amounts (100 c.c.) by the nurse in charge of the ward; the bread and pudding were weighed in the ward; the patent food taken from a tared packet weighed outside, and other articles dealt with similarly. Samples of morning and evening milks, of beef tea, pudding, biscuit, &c., were then sent down to the laboratory, and the nitrogen they contained estimated by Kjeldahl's method. At first, this was done every day for many of the articles, but, as analyses accumulated, average values were obtained and made use of subsequently. These are given at the end, together with a few others obtained from tables, and once or twice made use of in default of actual analysis. The total fluid and solid excreta were collected during 24-hour periods, usually from 9 a.m. to 9 a.m. It sometimes happened in small children with scarlet fever that some admixture at first took place; if so, the amount of fluid, with the urea it contained, was measured and a correction applied to the total daily quantity of urine. A few other cases in which a portion only of the daily output could be obtained are indicated in the tables by a + sign; still another small number in which a rough estimate of the total amount for 24 hours was arrived at by multiplying an aliquot part are placed within brackets. The relative proportions of the constituents are here accurate, though the daily quantities are in doubt. The patients under observation were in no respect treated differently from others; their diet was not limited in amount, and they were taking no special medicines

<sup>1</sup> Garrod. *The Lancet*, 1902. ii., p. 1,616.

except purgatives. No examination of the blood was made, nor could the children be weighed.

### B.—ANALYTICAL METHODS.

The analytical methods employed are described in the 10th edition of Neubauer and Vogel's treatise, to which reference is made.<sup>2</sup>

The urea was estimated in ordinary Southall's tubes, the careful management required in the Mörner Sjöqvist process rendering it too lengthy for use in the limited time at our disposal. Of three tubes used, all gave too high results, but one less so than the others; illustrative numbers are given below. It will be seen, therefore, that the urea estimations are only approximate, and may be in certain cases as much as 10 per cent. or more above the truth. Thus occasionally the total nitrogen given is insufficient to account for the amount of urea found, as will be mentioned later. No distinct deviation in the opposite sense was found to occur.

#### Examples—

1. Scarletinal urine containing .7854 % N.

Urea by ureometer 1.65 % ; by Mörner Sjöqvist 1.48 % .

2. Diphtheria urine containing 1.035 % N.

Urea by ureometer—	(a)	(b)	(c)
Old hypobromite in incubator	2.15	2.1	1.9
Old hypobromite in room ..	2.03	2.0	1.95
New hypobromite in room ..	2.2	2.25	2.05
By Mörner Sjöqvist process	1.98 %		

3. Diphtheria urine : urea by ureometer 4.05 ; by Mörner Sjöqvist 4.1 % .

The uric acid was estimated by Denigès's<sup>3</sup> modification of Hopkins's process, which proved best suited to our requirements. The analyses were nearly always performed in duplicate, and the mean taken if no reason to the contrary appeared ; they should agree within a few tenths of a cubic centimetre of silver solution.

The phosphoric acid<sup>4</sup> and chlorine<sup>5</sup> were determined volumetrically in the usual way, occasionally in duplicate.

The nitrogen was estimated according to Kjeldahl's method,<sup>6</sup> but not as a rule in duplicate unless an error was suspected. To repeat over 300 determinations would have been a serious labour, not possible in the limited time at our disposal. In any case of loss the analysis was repeated, but the difference between the two results was often not great, even under such conditions.

For example :—

1. .84084 % N. = 4.37 grammes daily,
2. .86856 % N. = 4.51 grammes daily,

a little having been lost the first time.

The small quantities of urine often passed prevented a large multiplication of a small error. It follows that though a few faulty estimations may possibly have been overlooked, the large majority are correct.

The ammonia was determined by Schloessing's method<sup>7</sup>.

The solid excreta, after acidification with sulphuric acid, were evaporated to dryness on the water bath, weighed, powdered, and the nitrogen estimated by Kjeldahl's process. The average of several days was sometimes taken in estimating the amount when the stools were irregular. In two or three the nitrogen was slightly over-estimated owing to accidental admixture of urine; these cases are indicated later.

### C.—SCARLET FEVER CASES.

*Cases 1 and 2.*—In Tables I. and II. are recorded the daily quantities excreted in the case of two brothers, aged 6 and 7 years, attacked by severe scarlet fever of a septic type, the latter being most seriously ill; a third younger child died from the disease in hospital.

Pyrexia was more prolonged in the second case than the first, and was accompanied by a correspondingly larger excretion of nitrogen, which in both fell before the temperature did. At the end of the acute stage there was a marked diminution in urinary water and solids, most distinctly shown in the phosphoric acid curves and least in the chlorine, whose output was scarcely altered. In case 1 no urine was passed on the 4th day during 24 hours.

The amount of all the urinary constituents was increased with increased feeding subsequently to this; but the rise in nitrogen, phosphoric and uric acids in case 2 before the diet was altered is probably to be attributed to otitis media.

A feature of these cases is the small average amount of uric acid excreted, which may have been a family peculiarity.

*Case 3* was one of mild scarlet fever without complications in a well-grown boy of 5. The intake of nitrogen corresponded more closely to the output than in others, and there was not so much collapse after the acute stage was over.

In *Case 4*, a boy of 6½ years, the attack was also moderate, but was complicated by an adenitis about the 10th day, accompanied by a rise in nitrogen and uric acid. The inorganic constituents were not estimated, and once or twice there was a doubt as to the total daily quantity.

In *Case 5* an attack of moderate severity in a child of 4 was followed on the 27th day by a typical nephritis, whose symptoms were distinct but never severe. There were anæmia and hæmaturia, but no pain, vomiting, œdema, nor uræmic symptoms and very slight pyrexia. Traces of albumen were present for four days before the observations began, and did not entirely disappear till ten days after they had ceased, in all 35 days (23rd—58th day). Blood was present in small quantities from the 1st to the 10th day of observation, when it ceased to be recognisable spectroscopically, but gave for some days longer a faint guaiacum reaction.

The amount of albumen was never large, and was therefore not separately estimated. On the 1st day of observation it was less than .05% by Esbach's tube, and thereafter diminished rapidly. The casts were most numerous in the early stage and presented no peculiarities.

During the acute stage the daily quantities were for a day or two in some doubt, but afterwards could be more accurately measured and form a useful check on the numbers obtained during nephritis, the retention of phosphoric acid, comparative stability of chlorine, and normal amount of uric acid being shown.

*Intake.*—In four cases (Nos. 1, 3, 4, and 5) the daily nitrogen intake was calculated during the first five or six days when the patient was on milk diet, but in No. 1 no allowance was made for repeated vomiting, so that the numbers given on the first two days are above the truth. In case 5 the diet during nephritis consisted of milk, bread, jam, butter, and milk pudding, with a little tea in the last week. The nitrogen in the milk, bread, and pudding was allowed for, but the small quantities in the tea, jam, and butter were disregarded. The phosphoric acid in the diet was approximately calculated from Tunncliffe and Rosenheim's results,<sup>9</sup> the composition of their milk and bread being in other respects the same as ours.

*Absorption.*—In the three last cases (Nos. 3, 4, and 5) an attempt was made to determine the percentage of milk nitrogen remaining unabsorbed from the amount evacuated by the bowel, assuming none was thereby excreted. For this, it is necessary to know, first, the time taken to traverse the gut, and secondly, the amount of intake. The former could not be computed at first, but in two cases later on it was about three days. The nitrogen taken in daily before admission must always remain unknown. Two courses are, therefore, open. The average faecal nitrogen for the first three or four days may be referred to the intake for the same period:—

No. 3	...	4.6 % N. unabsorbed during first three days.
No. 4	...	10.0 % N. unabsorbed during first four days.
No. 5	...	[9.5 %] N. unabsorbed during first four days.

No. 5 is, however, unreliable owing to slight loss. In No. 4, and possibly No. 3, a slight admixture of urine occurred on the first day, which would raise the figure beyond the actual amount.

Or, secondly, the faecal nitrogen of the 3rd or 4th day may be compared with the intake on the 1st day of observation. We thus obtain:—

No. 3	...	1.3 % N. unabsorbed.
No. 4	...	9.1 % N. unabsorbed.

The only objection to this is caused by possible irregularity in the bowel's action, which may account for the difference shown in the two cases; in neither is there evidence of a deviation from health, but the attacks were of moderate severity with no septic diarrhoea.

*Nephritis.*—The results obtained during nephritis in case 5 may be grouped under three headings. First, a consideration of the changes in urinary secretion shows that in the beginning, without much change in water, there was a fall in total nitrogen, urea, phosphoric acid, and uric acid, with a slight rise in ammonia, and very little change in chlorine. This diminution did not affect the urea and nitrogen for more than a couple of days. A second case, No. 5b, in a boy of six years, otherwise remarkably similar to the first, illustrates these alterations better. The uric acid on the other hand remained too low during the whole period of active nephritis, and only rose again when the blood disappeared. It is possible its quantity may have been slightly influenced in the last week by the tea allowed.<sup>10</sup>

<sup>9</sup> Tunncliffe and Rosenheim. *Journal of Hygiene*. Vol. i.

<sup>10</sup> A. Baginsky. *Zeitschrift für Physiologische Chemie*. Vol. viii., p. 399.

Previous observers, notably Baginsky,<sup>11</sup> writing 10 years ago, have already recorded most of these facts for shorter periods. The diminution in nitrogen and urea is generally admitted, but that in uric acid is disputed and does not occur in all forms of nephritis.<sup>12</sup> It has been suggested that its place is filled by other purin bodies whose total amount is increased owing to defective transformation in the kidney.<sup>13</sup> In this case these compounds were not estimated.

Secondly, the changes in absorption are noticeable. The faecal nitrogen was estimated during four periods of two or four days each; the bowel acted with tolerable regularity, and was traversed in three days, no aperients being given if possible during the time of examination. Supposing no intestinal secretion of nitrogen took place, we obtain by referring the amounts recovered to the intake of three days previously:—

On the 2nd, 3rd, and 4th days of nephritis ...	4.5 % N. unabsorbed.
On the 9th and 10th days of nephritis ... ..	10.1 % N. unabsorbed.
On the 13th and 14th days of nephritis ... ..	10.6 % N. unabsorbed.

These figures agree with previous observations. In several children with nephritis, Baginsky recovered<sup>14</sup> on an average 9.4 % of food nitrogen. In healthy children the amount is not very different from this.<sup>15</sup>

Finally, the difference between nitrogen taken in and given out merits attention. It was always, with one exception, in the same sense, and amounted during 18 days' observation to a deficit of 71 grammes, or a daily retention of 3.79 grammes by the body after allowing for non-absorption. Such figures may at first suggest an error, for, as has been pointed out,<sup>16</sup> loss of milk and urine both here tend in the same direction, and it is certain that some occurred during 18 days' measurement. But if present there was no reason to think it great. Some small amounts of food nitrogen were neglected. Many diphtheria cases showed a similar condition, and in the literature we find that a child of 5 suffering from acute scarlatinal nephritis was found by Baginsky<sup>17</sup> to retain daily for six days a very similar amount, namely, 4 grammes of nitrogen. She gained in weight .59 kilo., but two other children with nephritis, retaining less (1.7 and 1.5 grammes nitrogen daily), showed no increase at all. Numerous other instances in sick and healthy children might be cited from which it is clear that the condition is of general occurrence in the young, and may be connected with processes of growth, though not always accompanied by an increase in weight. It follows that a child with nephritis can tolerate a proportionately larger amount of purin-free proteid food than would be proper in an adult.

To sum up, this patient with moderately marked nephritis absorbed well during the first week a much larger quantity of proteid than on his first arrival in hospital, and gave out comparatively little nitrogen in exchange. Then

<sup>11</sup> A. Baginsky. *Archiv. für Kinder Heilkunde.* Vol. xv., p. 161. 1893

<sup>12</sup> Butler and French. *Guy's Hospital Reports.* Vol. lvi

<sup>13</sup> Kolisch. Quoted in Osler's "Medicine," p. 409.

<sup>14</sup> A. Baginsky. *Archiv. für Kinder Heilkunde.* Vol. xv. p. 161. 1893

<sup>15</sup> Tunncliffe and Rosenheim. *Journal of Hygiene.* Vol. i.; and *Brit. Med. Journal*, 1900, Vol. ii., p. 1,083.

<sup>16</sup> Butler and French. *Guy's Hospital Reports.* Vol. lvi.

<sup>17</sup> A. Baginsky. *Archiv. für Kinder Heilkunde.* Vol. xv., p. 161. 1893.

absorption somewhat failed, he lost appetite, and the amount taken in was less, while that thrown out grew more. On the 16th day for the first time it exceeded the intake, a condition elsewhere associated with uræmia,<sup>18</sup> though here nothing of the kind was observed. Finally the primary state was re-established, except that the uric acid remained at a healthy standard, and this condition was maintained until the end of observation.

A somewhat dissimilar case of parenchymatous nephritis with œdema in a boy of 7, where very favourable opportunities for accurate observation existed, has been reported by Drs. Butler and French in vol. 56 of the Guy's Hospital Reports. The references proper to the subject are given in this paper.

#### D.—DIPHTHERIA CASES.

*Case 6* was one of mild diphtheria treated with antitoxin on the 2nd day, and uncomplicated, except by paralysis of the palate, setting in on the 24th day and lasting 10 days.

The nitrogen intake was carefully estimated for the first 14 days, an average value being, however, taken for the pudding, which could not be accurately weighed; afterwards it was more approximately calculated for 20 days longer, the quantities taken being known, but the nitrogen value of some of them being obtained from tables. The urinary output was carefully estimated throughout, and the faecal nitrogen examined during the first fortnight.

The following points merit attention. The vomiting on the evening of the 3rd day was immediately followed, not only by a fall in nitrogen output, but by marked deficiency in urea.

The fall in nitrogen on the 23rd day was accompanied by a fall in intake, and led in part to the discovery of the palatal paralysis which followed it. Unfortunately a gap follows, the measurement having been discontinued for 36 hours.

The rise in nitrogen intake on the 8th day coincided with the addition of jam, biscuits, and butter to the diet; its fall on the 13th and 14th was accompanied by loss of appetite and sleeplessness, but not by an antitoxin rash or pyrexia.

During the first fortnight of observation, absorption was very complete, the average being 3·7%, nitrogen unabsorbed, though at first, in common with the other diphtheria cases, we find this amount slightly exceeded. It was definitely ascertained that the food took three days to traverse the bowel. Table 14 shows the changes spoken of. The variations in nitrogen balance were at first against the patient and afterwards in his favour, catabolism predominating in the febrile stage.

Days.	Average N. intake.	Average N. output.	Balance.
3—6	5·62	7·05	-1·43
7—10	10·49	6·79	+3·70
11—16	11·83	8·26	+3·63

In *Case 7*, a boy of 7, suffering from a mild attack of diphtheria, was admitted and treated with antitoxin on the 3rd day. From the 4th to the 16th day the intake and output were completely studied, the only complications being a serum rash on the 8th and 9th days. Slight pyrexia was present during the first five days of observation.

The urea curve first demands attention, the total nitrogen being insufficient to

<sup>18</sup> Butler and French. Guy's Hospital Reports. Vol. lvi.



account for the urea found on three occasions; such errors have already been discussed.

The nitrogen curve shows three or four depressions below the average, of which the first is the rule after the increased nitrogen excretion at the beginning of the illness; the second, very slightly marked, coincides in time with the serum rash, and the last two at the end of the 2nd week appear at a time of disease most usually affected by antitoxin phenomena, though here none were observed. The fall on the 13th day was due to diminished water as well as solids; the quantity was only 294 c.c., as against an average of 504 c.c.

The nitrogen intake, always high, was in no way responsible for these fluctuations; only on the 4th and 15th days did it fall below the output, and this large excess was always well absorbed, only 3 per cent. being on an average recovered from the bowel during 13 days' examination. Even at first the amount of unabsorbed nitrogen fell very little below this mean value.

The phosphoric acid closely follows the nitrogen excretion, but during the first six days the relation of one to the other was less than  $\frac{1}{2}$ , while afterwards it exceeded this; the excretion was therefore relatively diminished during the febrile stage.

Differences in the average amounts of chlorine, ammonium, and uric acid excreted during the febrile and non-febrile periods are also found to exist; during pyrexia the former is slightly diminished and the latter two are increased:—

Substance.	4-7 days.	8-11 days.
Chlorine .. .. .	1.13	1.21
Ammonium .. .. .	.38	.28
Uric Acid Nitrogen ..	.08	.07

*Case 8* was a mild attack in a boy of  $8\frac{1}{4}$  years, both tonsils being covered on admission on the 3rd day, when antitoxin was given. Further progress was satisfactory. There was mild albuminuria from 7th to 17th day, and paralysis of palate in the 5th week.

For seven days after admission milk only was given, the nitrogen being estimated daily and the  $P_2O_5$  calculated. The patient lost appetite for milk about the 9th day of illness, and the fall in intake was met by a change of diet.

The average nitrogen intake from the 5th to 10th day was 7.00 grammes, the output in the urine 7.5 grammes; it is evident, therefore, that catabolism was at this time in the ascendant.

The urea defect noted on the 12th, 13th, and 14th days is interesting, unaccompanied as it was by a fall in nitrogen or by antitoxin phenomena. A trace of albumen was present at the time, as it was before and afterwards.

The ammonium excretion is highest at the outset, gradually falling till the 11th day, and afterwards becoming variable. The uric acid curve calls for no special note.

Until the 12th day the excretion of chlorine was low, the rise on that day and the following days corresponding to middle diet. With some exceptions the  $P_2O_5$  appears to follow the nitrogen excretion, and as in scarlet fever we find that much less leaves the body by the kidneys than was taken in by the mouth.

*Case 9* was one of a practically healthy child sent in as scarlet fever and placed in an observation ward. His illness had lasted for about a day and had been over

for a week or more when he came under observation. He was then on full diet and getting up.

The results obtained serve to show the variations possible in health.

*Case 10* was a mild attack of diphtheria in a boy of 7, with membrane on the right tonsil only. It was complicated by albuminuria lasting off and on till the 23rd day, when he was allowed to get up, by vomiting on the 13th day, and by transient paralysis of the palate on the 14th. 9,000 units antitoxin were given on the 2nd day, producing a passing serum rash on the 11th. The case was uncomplicated by pyrexia.

The points of importance in the analytical curves are:—

1. The defective excretion of urea, which continued throughout, and was present on the 35th day of disease, when the patient was well, up all day, and on full diet.
2. The fall on the 11th day, when the serum rash appeared.
3. The drop on the 14th day, accompanied by vomiting and nasal voice.
4. The intersection of the nitrogen and urea curves on the 18th day.
5. The rise in nitrogen excretion following middle diet on the 17th day, the fall on the 19th being partly due to accidental loss.

*Case 11* was one of unusual severity admitted late on the 5th day, with abundant membrane on tonsils and palate, great glandular enlargement, profuse nasal discharge, extreme restlessness and sleeplessness, and an easily compressible pulse. Vomiting set in early on the 8th day, and was repeated daily with two or three exceptions until death occurred from syncope on the 15th. Degenerated nerve fibres were found in the vagi. 12,000 units antitoxin were given on admission. The patient's age was 15 years.

The most marked feature of the analytical curves is the great drop in all at the commencement of vomiting on the 8th day.

There was also present throughout a large urea defect, the urea nitrogen averaging only 61.2% of the total (minimum 50% on the 9th day, maximum 73.1% on the 11th). The ammonium is highest on the 6th and 7th days, but its nitrogen is insufficient to account in full for the missing urea.

The uric acid curve presents no marked variation.

The phosphoric acid follows the nitrogen somewhat closely, with an average daily excretion of 2.04 grammes (minimum .8 on 8th day, maximum 3.56 on 6th day).

The chlorine excretion is highest on the 6th and 7th days, the curve gradually tailing off—an exception to the general rule.

On the 7th and 8th days there was present a slight pyrexia.

*Case 12* was one of diphtheria in a boy of 8, who was admitted late on the 6th day and therefore received no antitoxin. There was then a little membrane on the left tonsil, with enlarged glands and slight pyrexia. His progress was uneventful until the afternoon of the 22nd day, when vomiting of food took place after dinner, followed by pyrexia of 102° F., and in the evening a bright erythematous rash without throat symptoms. The vomiting recurred from time to time. There was delirium during the night, and in the morning marked cyanosis and embryocardia, the rash having completely disappeared. The patient gradually sank and died in the afternoon. The cervical vagus contained degenerate nerve fibres, and other

indications pointed to cardiac paralysis as the cause of death. The rash was probably due to enemata. Up to the time of the fatal attack daily determinations of the urinary and faecal nitrogen had been made and the food nitrogen had been calculated. It was found that the intake gradually rose from 8.25 grammes on the 7th day to 13 grammes nitrogen on the 17th, and it was only on the former occasion that the output exceeded it.

At the end of 15 days' observation the nitrogen balance was thus in favour of the patient to an extent, allowing for .48 gramme recovered daily on an average from the faeces, of almost exactly 73 grammes, or 4.3 grammes of nitrogen per diem.

The faecal nitrogen was estimated throughout, but that on the 16th day was lost. Taking two-day periods, the customary changes are shown, the absorption improving after the first day or two, but never actually being below the limits permissible in health.

Urea we find is present in normal amount, its nitrogen accounting on an average for 85% of the total. On the 19th day there has clearly been an error, the figure given being too high.

The ammonium is absolutely and relatively increased for the first four days, its nitrogen then amounting to 5% of the whole, against an average of 2% for the whole period. This increase coincided with the period of pyrexia, but there was no deficiency in urea and no change in the diet.

The uric acid excretion reaches its maxima of .37 on the 7th and 10th days. Its rather high average relation to the total nitrogen may possibly be explained by the beef tea in the diet.

The changes in phosphoric acid more closely follow those in urea than in nitrogen on the first three days. Both its actual amount and proportion to nitrogen are below the average, so that there seems to have been a retention in the body. It amounted to 10.4% of the nitrogen, as against an average of 21.9%.

There is a slight shortage of chlorine on the first five days, and the maximum on the 14th day does not correspond to the maximum of water.

The fall in all the constituents, including water, on the 11th day was not due to antitoxin, vomiting, or accidental loss; it was unaccompanied by urea defect or alteration in ammonium, and must remain unexplained.

In *Case 13* a boy of 7 with exceptionally severe diphtheria was admitted and given antitoxin on the 3rd day. He had very extensive membrane on the tonsils and soft palate, with free nasal discharge and much swelling of the neck. There were marked restlessness and sleeplessness, with continued pyrexia throughout. Albuminuria was also constant, reaching 7 parts per 1,000 on the 7th day. Petechiæ on the neck were noted on the 4th and 6th days, and on the 5th and 6th days bleeding from the nose and throat occurred. There was some cough from the 5th day onwards, but the physical signs of left basal pneumonia did not develop until a day before death. The vomiting was persistent and is shown on the chart. Regurgitation per nares was noticed from the 10th to 15th day. Heart failure occurred on the 18th.

Feeding was carried out by the mouth until the 15th day, when rectal feeds were substituted, first partially, then completely. The diet is given in the table. Estimations of the nitrogen in urine, food, and faeces were carried out, and the other urinary constituents were measured.

It will be noticed :—

1. That the nitrogen intake only twice exceeds the output, the average nitrogen balance being 1 gramme per diem against the patient. The continuous pyrexia accounts for this, but in spite of its presence the average output was not high and was much depressed during vomiting.

2. The table at the end shows the changes in absorption, which are of the usual type, showing a slight initial deficiency. In estimating the amount of proteid absorbed per rectum, allowance was made for the average daily amount of nitrogen descending the bowel from above—about .267 gramme, which was subtracted from the nitrogen found in the wash-out, thus :—

Day.	N. in feeds per rectum.	N. recovered in wash-out.	Average Faecal N.	Unabsorbed Nitrogen.
16	1.5	.998	.267	.731
17	4.75	2.594	.267	2.327

From this it is clear that in both days about 50 % of the proteid introduced was absorbed.

3. The urea curve fell below that of nitrogen on the day the vomiting was most severe, its nitrogen then amounting to only 44 % of the total, though the general average was 85.6 %.

4. As might be expected from the pneumonia, the chlorine excretion is much depressed and the phosphoric acid is also too low, except on the last two days of life.

5. The uric acid and ammonia present no special features.

#### E.—COMMENTARY.

(a) Records of the kind here given present two broad lines of variation from which inferences may be drawn.

First, they show alterations in the daily amount of material taken in, given out, or passed unchanged through the body. These concern the organism as a whole, and indicate its exchange of energy and matter as modified by disease.

Secondly, they may show variations in the distribution of a particular element among its compounds, due either to personal peculiarity affecting the excretory apparatus of the individual, or to imperfections in its action brought on by disease. Such changes serve as indications of a local functional defect, for example, of the kidney or of the liver.

In the following statement, after allowing for some unavoidable defects of observation, it is endeavoured to bring into line the chief features of the different cases examined. It is clear that a mere oscillation on the curves may mean little or nothing, for it might be produced by accidental loss or by retention in the bladder. Attention must rather be directed to persistent departure from the average in the particular case considered, constants obtained from other sources being here of little value.

In commencing, it may not be out of place to briefly recapitulate von Noorden's account of the changes commonly found in fever.<sup>19</sup> The most constant and well established is the increase in nitrogen excretion during the acute stage, due to destruction of tissue proteid; it commences before the rise of temperature, and may

<sup>19</sup> Von Noorden. Pathologie des Stoffwechsels.

be well marked when the latter is very slight or absent. It is succeeded by a fall, either gradual or irregular, which does not always synchronise with the fall in temperature; at the very commencement of the post-febrile stage a rise may take place owing to increased diuresis. The distribution, as a rule, is but little changed, but the uric acid and ammonia are both slightly increased during pyrexia, the latter at the expense of the urea to combine with acid proteid decomposition products. The chlorine and phosphoric acid are diminished and the aromatic sulphates increased. Except in cases of diarrhœa the absorption of food is not markedly interfered with. These conclusions are chiefly founded on data obtained in other fevers than those here dealt with. A few subsequent inquiries concerning scarlet fever and diphtheria will be found mentioned in their place. The points of resemblance and difference between these results and ours will be easily recognised without further explanation.

(b) *In Scarlet Fever* the nitrogen outburst which heralds the approach and accompanies the manifestation of the febrile state is nearly over by the time the patient reaches hospital. It disappears before the fall of temperature, as the latter not infrequently precedes the disappearance of the rash; so that, except in a septic case, the actual nitrogen excretion during the first few days, when the rash is still brilliant and the fever high, is not above, but below the average, the brunt of the febrile process being possibly borne by non-proteid materials. Just at first it is, however, relatively great, for it then equals or exceeds the intake—a condition not subsequently maintained. The conclusion of the acute stage is often signalled by a marked fall in all the urinary constituents, including water, amounting in one instance to temporary suppression. This may have been originated by changes in the renal circulation, for it is at this period that the early cardiac dilatation of scarlet fever<sup>20</sup> is oftenest found, and some of the patients were a little collapsed owing to frequent vomiting.

A rapid recovery follows, no doubt aided by increased proteid food. In the 2nd and 3rd weeks the nitrogen excreted is above the average, and may even then attain its highest point, though the elevation is not constant, a second period of diminution occurring between the two.

The common inflammatory complications of scarlet fever, adenitis and otorrhœa, were marked in the single instances examined by slightly increased outputs of uric and phosphoric acids and of nitrogen: in all probability they were accompanied by a leucocytosis.<sup>21</sup> Of individual compounds the urea and uric acid followed as a rule the changes in nitrogen, except that in case 5, during acute nephritis, the latter was more markedly diminished. The variations in ammonia were somewhat irregular and call for no special remark. Among inorganic bodies the phosphoric acid and chlorine merit attention. The former was much diminished in the acute stage. It afterwards followed with some deviations the general course of the nitrogen excretion. The amount found in the urine was considerably less than that taken in with the food, but it is known that some leaves the body by other channels than the kidneys<sup>22</sup> in health. The latter was steadily excreted without much reference to the amount of water, in quantities apparently

<sup>20</sup> Nothnagel's Encyclopædia. p. 560. Art., Scarlet Fever.

<sup>21</sup> Bowen. *Journal of Pathology*. 1902.

<sup>22</sup> Noel Paton. *Journal of Physiology*. Vol. xxv., p. 212. 1900.

depending on what was taken in, though there was some evidence during the first week of a retention in the body. These differences in behaviour are well known, and not peculiar to scarlet fever.

The case of scarlatinal nephritis presents some interesting, if not novel, features, the chief being the considerable amount of nitrogen retained in the body. Combined with the defective excretion in the early stage and the more prolonged deficiency in uric acid, it might lead to the conclusion that the kidneys were being overtaxed. No actual limitation in amount of food is practised as a rule in this complication, and it has been shown that in this case about 90–95 % of the proteid given was absorbed as in health. In normal adults increased proteid feeding produces almost immediately increased excretion of nitrogen,<sup>23</sup> and this also holds good even in chronic nephritis<sup>24</sup>; hence it would appear that the condition here revealed must prove in the long run injurious. But the clinical evidence pointed in the other direction, and the truth appears to be that, though for a few days the child's kidneys were defective in functional power, the lesion was at first so purely local that the ordinary processes of growth were unaffected, and the excess of proteid stored as fresh tissue in the body may perhaps have taken the place of fat or water, with or without an increase in the general weight.

(c) The cases of *diphtheria* coming later under observation afford no better evidence of a nitrogen output raised at first above the mean than those of scarlet fever: it was present in only three instances out of seven. A second reason for this may be the high general average for the first three weeks: in case 6 it showed a tendency to fall later on, and we have no means of deciding which of the two was normal.

The variations from the mean are greater than in scarlet fever, and bear but small relation to the temperature, which soon fell to normal or below it. In case 13 the conditions were different owing to concurrent pneumonia. Though here, fever was present from first to last, the output was by no means high, being less on an average than in two other non-febrile children of the same age (Nos. 6 and 7), but it was relatively excessive because greater than the intake, and thus more than the body could afford. A more or less marked fall in nitrogen excretion was not uncommonly present towards the end of the second week of illness. It was sometimes connected with a serum rash (cases 7 and 10), but was also present in case 12, where no antitoxin had been given. As is seen in case 8, the fall may be occasionally confined to the urea.

In addition to variations in the amount of excreted nitrogen, there were always changes in its distribution whereby less than usual appeared in the form of urea. In four these were so marked that they caused the two curves to intersect. Such changes cannot be due to isolated analytical errors, for they do not occur in scarlet fever nor in the single healthy individual examined, and are presented in groups more prominently in some diphtheria patients than in others. Their duration was very variable, but they were especially marked during the acute stage and during cardiac vomiting.

Similar alterations have been described in the experimental diphtherial intoxication of animals (dogs),<sup>25</sup> where they affect the sulphur as well as the nitrogen,

<sup>23</sup> Goodbody and others. *Journal of Physiology*. 1902.

<sup>24</sup> Prior. Quoted in Nothnagel. p. 557.

<sup>25</sup> Noel Paton and others. *Journal of Physiology*. Vol. xxiv., p. 331. 1899.

and have been attributed to functional disorder of the liver: they have been noticed in addition after subcutaneous injection of dextrose.<sup>26</sup>

The present records throw but little light on the nature of the nitrogen compounds replacing the urea. The ammonia, it will be seen, is usually slightly increased during the period of defect, often exceeding in amount the uric acid, which is not sensibly altered, but this would account for a small proportion only.

The remaining purin bodies which there is some reason to think are increased, were unestimated in our experiments, and no attempt was made to search for nitrogenous products of nervous waste, such as choline, which in some allied diseases, like beri-beri, is present in the blood.<sup>27</sup>

The relation to vomiting is not quite clear. The condition was present to a marked extent in four out of five cases at the time of the attack, and where the vomiting was distinctly cardiac was accompanied by a very considerable diminution in urinary water and solids, which varied with the amount of sickness. Yet it once lasted three weeks, accompanied by only a single fit, and was clearly manifest in two others where none at all occurred. Probably a connection does exist, for corresponding changes<sup>28</sup> have been described after severe muscular exertion, of which vomiting is a well-recognised symptom. However this may be, the condition cannot be supposed to be without significance. Its continued presence extending over days or weeks would seem to throw some doubt on the suitability of certain supporting diets occasionally recommended in this disease.

The uric acid, generally speaking, varied in the same sense as the nitrogen. Apart from age the average amount was sometimes rather high, possibly because beef tea was often allowed. In No. 1 the slight rise on the 6th day appears to be due to this cause: it is known that in health 50 % of the purin bodies in the food go to form the exogenous moiety of uric acid in the urine.<sup>29</sup>

In contrast with scarlet fever, we find the ammonia frequently at first increased.

There remain the phosphoric acid and chlorine, whose variations resemble in general course those taking place in scarlet fever, though the primary fall in the first is not so marked, and there is considerable increase later even on an unchanged diet. As in scarlet fever, however, the amount in the urine never exceeds that in the food.

The chlorine is relatively low in the first week and higher in the second. It would appear that in man, as in animals, some retention occurs at first. The customary diminution during pneumonia is well exemplified in case 8.

The *total nitrogen intake* was measured during the first five days of observation in four cases of scarlet fever, and for a longer period in five of diphtheria, of which one differed clinically from the rest owing to co-existing pneumonia. In seven of the nine the faecal nitrogen was also estimated for various periods, and the changes in absorption are shown in Table 14. With respect to balance, it was only at first in the majority of cases that more nitrogen left the body than was taken in; the opposite condition was the more prevalent and permanent, and would seem to indicate that the body gained in proteid, if not in weight.

<sup>26</sup> Scott. *Journal of Physiology*. March, 1902.

<sup>27</sup> Mott. *British Medical Journal*. 1902.

<sup>28</sup> Chibret et Huguët. Quoted in Neubauer and Vogel, p. 291. *Comptes Rendus*. Vol. cxv., p. 288. 1892.

<sup>29</sup> I. Walker Hall. *British Medical Journal*. 1902.

1. These relations may be thus numerically expressed:—

Case.	Age.	Disease.	Days' Observation.	Food N.	Urine N.	Per cent. Food N. Unabsorbed.	Daily Balance.
3	5	Sc. F.	5 ( 2- 6)	5.2	3.8	1.3 % = .07	+ 1.33
4	6½	Sc. F.	4 ( 4- 8)	4.7	3.9	9.1 „ = .43	+ .37
5	4	Sc. F.	4 ( 3- 6)	3.9	3.1	9.7 „ = .38	+ .42
5	4	Nephritis	20 (27-47)	8.3	4.3	7.8 „ = .69	+ 3.79
6	7	Diphtheria	14 ( 3-16)	9.3	8.1	4.7 „ = .44	+ .76
7	7	Diphtheria	13 ( 4-16)	9.05	6.5	3.5 „ = .32	+ 2.23
12	8	Diphtheria, Cardiac Paralysis	16 ( 7-22)	11.15	6.33	4.9 „ = .55	+ 4.3
13	7	Diphtheria, Pneumonia	14 ( 5-18)	3.67	5.02	7.2 „ = .26	- 1.61

The numbers given are averages, and some are based on far fewer observations than others, this being especially true of the faecal nitrogen, which, moreover, as previously explained, does not here strictly correspond to the intake as it does in Table 14.

In only one case, No. 13, were the chemical requirements of the febrile state maintained throughout; the average nitrogen exchange was of healthy type in the remainder.

2. There is nothing to show that the absorption of proteid was seriously impaired in children on milk or low diet during scarlet fever or diphtheria; once swallowed it was almost as well absorbed during scarlatinal nephritis or diphtheritic pneumonia as in health (*Table 14*). During two days' rectal feeding in case 13, half the proteid given by the bowel was absorbed, only 50 % of the nitrogen being recovered. This tallies with the fact that the gastric juice often retains its digestive power during cardiac vomiting, pepsin and free hydro-chloric acid being found by one of us in five cases out of ten.

3. The rather wide variations in nitrogen intake must in part depend on individual palate. It was nearly doubled in case 6 by the addition on the 6th day of an attractive article of food, namely, biscuits. A child of 4 eating bread, milk, and pudding during nephritis, took in twice as much nitrogen daily as when on milk alone during the acute stage. These changes in diet only gradually affected nitrogen output, a child's capacity for nitrogen storage preventing that immediate response which would probably occur in an adult. Sometimes little alteration at all occurred, but here the change may have been more apparent than real, for, though the low, middle, and full diets for children contain in theory about 8, 12, and 13 grammes of nitrogen each, the quantity of food supplied is not strictly limited, so that the child becomes a more important factor than his diet, and the quantity of this latter than its kind. The true nitrogen value of these changes could only be determined in comparatively few instances.

4. The frequently mentioned retention of nitrogen in the body seems to be a natural phenomenon in young growing children, even when accompanied as it may be for short periods by a loss, not a gain, in weight. Two healthy children of 2½



and 5 years, observed by Tunnicliffe and Rosenheim for 7 and 5 days respectively, retained 1·4 and 1·17 grammes nitrogen daily, and lost each day 23 grammes and 34 grammes in weight.<sup>30</sup> In animals this unrecovered nitrogen may also be high; but the condition does not usually occur in adult healthy men.<sup>31</sup> A child in whom it is present may be said to be physiologically "over-eating himself" as far as proteids are concerned, and it is only when certain limits are passed that safeguards come into play, of which in children the most frequent seems to be vomiting. The increased prominence of this symptom since the introduction of antitoxin invests it with some interest. Very rarely it seems to be a direct consequence of the serum; much oftener it is due to the prolongation of life, until the onset of cardiac paralysis, of which it is the common forerunner. The increased prevalence of the latter is undoubted, as the following figures show:—

Observer.	Year.	No. of cases.	% C.P.	% of total deaths due to C.P.
Gron, Scandinavian sources <sup>32</sup> ..	1891	1,800	1·4%	7·14%
Myers, M.A.B., Park Hospital <sup>33</sup> ..	1899	1,316	4·8%	[36·8%]

The latter observer took account only of fatal cases. The usual treatment is to feed in the interim when the child is often practically well,<sup>34</sup> and, if he took in no more nitrogen than left the body, would probably feel very hungry. Our observations emphasise the difference in different children, but do not help in deciding where the line should be drawn. There was nothing to show that the child in case 12 retaining 4·3 grammes nitrogen daily was unable to deal with the proteid he received, for the oxidation was almost complete, and in the absence of information about the other food constituents, it is idle to speculate upon the possibility of his having taken too much; a knowledge of the whole bodily metabolism would be required to decide the question.

A serum rash occurred twice, in cases 7 and 10, but in both cases was transient. It was accompanied and followed by some depression in the nitrogen curve, but not in case 7 by any alteration in absorption (Table 14). In case 10 the absorption could not be determined.

In case 13 a rash occurred two days after antitoxin injection, and apparently due to it; as observation began on the same day, its effect on the curve is not clearly indicated.

<sup>30</sup> Tunnicliffe and Rosenheim. *Journal of Hygiene*. Vol. 1.

<sup>31</sup> Goodbody and others. *Journal of Physiology*. 1902. But see Hale-White and Sprigg, *Journal of Physiology*, 1901. Vol. xxvi., p. 162.

<sup>32</sup> Gron. *Archiv für Kinder Heilkunde*. Vol. xiii., p. 153. 1891.

<sup>33</sup> Myers. *The Lancet*. 1900. Vol. ii., p. 869.

<sup>34</sup> Kirton. *The Lancet*. 1901. Vol. i., p. 1,666.

APPENDIX.<sup>35</sup>

## SCARLET FEVER.

CASE 1.—*F. K., aged 6, male, severe scarlet fever, no complications.*

Day.	Amt.	Urea.	Uric Ac.	N H <sub>3</sub> .	N. out.	N. in.	P <sub>2</sub> O <sub>5</sub> out.	P <sub>2</sub> O <sub>5</sub> in.	Cl.	T.	Remarks.
1	325	4.2	...	...	...	...	...	...	...	101.5	Vomiting and rash.
2	200	6.6	.15	.026	2.9	7.4	.75	3.5	.5	104.5	Vomiting.
3	140	5.0	.19	.052	2.7	4.8	.30	2.2	.2	102	Do.
4	0	...	...	...	...	4.2	...	2.0	...	100	Rash fading.
5	290	5.0	.09	...	3.1	5.3	.36	2.5	2.1	99	
6	250	6.7	.25	.19	3.4	6.9	.21	3.2	.52	99	
7	100	1.4	.03	.02	.7	6.9	.11	3.2	.2	99	
8	310	9.9	.10	...	4.5	...	.90	...	.54	N.	Middle diet.
9	350	10.5	.09	...	5.5	...	.50	...	.61	N.	
10	Lost	...	...	...	...	...	...	...	...	N.	
11	230	5.7	.11	...	3.0	...	.13	...	.56	N.	
12	670	8.7	.06	...	4.6	...	.61	...	2.0	N.	
13	570	6.8	.15	...	3.4	...	.35	...	.9	N.	
14	470	7.5	.07	...	3.8	...	.54	...	1.5	N.	
15	420	11.7	.25	...	5.7	...	1.40	...	2.6	N.	
16	450	11.7	.12	...	5.5	...	.83	...	2.3	N.	
17	440	11.4	.26	...	5.6	...	1.00	...	3.0	N.	
18	370	9.1	.19	...	5.4	...	.99	...	...	N.	
19	330	7.7	.16	...	3.9	...	.60	...	3.2	N.	
20	380	11.8	.14	...	4.7	...	1.70	...	2.3	N.	Full diet.
21	340	8.0	...	...	3.6	...	.66	...	1.3	N.	
Average	...	7.8	.14	.072	4.0	5.9	.66	2.7	1.43	...	

CASE 2.—*J. K., aged 7, male, septic scarlet fever, otorrhœa, rhinorrhœa, stomatitis.*

Day.	Amt.	Urea.	Uric Ac.	N.	N H <sub>3</sub> .	P <sub>2</sub> O <sub>5</sub>	Cl.	T.	Remarks.
1	...	...	...	...	...	...	...	102.5	Vomiting.
2	[380]	10.6	.09	5.2	.055	1.1	.80	101	Vomiting and rash.
3	420	13.4	.22	6.4	.09	1.5	.66	102	Vomiting.
4	290	8.8	.15	4.5	...	.7	.41	100	
5	170	5.8	.06	3.0	...	.4	.24	100	
6	100	2.7	.07	1.5	...	.03	.3	100	Rash faded.
7	100+	2.3	...	1.16	...	.14	.4	99	Otorrhœa.
8	370	8.1	.18	4.4	...	.70	.65	100.3	Low diet.
9	380	9.1	.27	4.6	...	.4	.46	99	
10	410	9.8	.22	4.9	...	.6	.5	99	
11	340	7.5	.08	3.8	...	.5	.83	97	
12	280	5.6	.05	2.9	...	.4	.47	N.	
13	310	6.5	.15	3.5	...	.6	.81	N.	
14	300	8.1	.18	4.1	...	.7	1.10	N.	
15	375	7.1	.06	3.2	...	.4	1.0	N.	
16	460	8.3	.13	4.3	...	.6	1.7	N.	Middle diet.
17	360	6.8	.07	3.8	...	.6	1.7	N.	
18	240	6.7	.19	3.13	...	.5	1.5	N.	
19	440	9.5	.12	4.35	...	.7	2.1	N.	
20	565	9.6	.10	5.3	...	.75	2.7	N.	
21	395	9.5	.08	4.4	...	...	...	N.	
22	420	9.0	...	4.0	...	...	...	N.	
23	120+	3.36	...	1.66	...	...	...	N.	
Average	...	7.69	.13	3.82	.072	.6	.91		

<sup>35</sup> The daily amount of urine is given in cubic centimetres; the daily weight of each constituent in grammes; a + sign indicates loss; a (?) a doubtful quantity.

CASE 3.—*S. H. F., aged 5, male, uncomplicated scarlet fever.*

Day.	Amt.	Urea.	Uric Ac.	N H <sub>3</sub> .	N. out.	N. in.	Fæcal N.	P <sub>2</sub> O <sub>5</sub> out.	Cl.	S O <sub>2</sub> .	T.	Remarks.
1	...	...	...	...	...	...	...	...	...	...	...	Vomiting.
2	300+	9.0	.11	.005	4.4	3.6	.65	...	...	...	101	Rash.
3	130	5.0	.18	.100	2.4	5.5	...	...	...	...	102	
4	275	11.5	.22	.055	5.7	5.8	.055	.52	...	.25	100.3	
5	130	5.2	.12	.170	2.5	7.2	...	.32	.32	...	100	
6	300	6.9	.17	.216	3.8	4.1	...	.57	1.1	.38	99	Rash fading.
7	300(?)	6.9	.18	...	3.7	...	...	.57	.47	.07	N.	Middle diet, [albumen.
8	270	8.1	.22	...	4.4	...	...	.67	1.6	.15	N.	
9	370	8.1	.24	.116	4.1	...	...	.74	...	.47	N.	
10	450	11.2	.34	.153	5.8	...	...	1.24	1.6	.36	N.	
11	425	10.2	.32	.076	5.1	...	...	.74	.96	...	N.	
12	580	13.3	.50	.142	7.1	...	...	.84	1.7	...	N.	
13	270(?)	8.5	.23	.076	4.1	...	...	.54	.9	...	N.	
14	230	7.6	.20	...	4.0	...	...	.57	.96	...	N.	Albumen.
15	410	13.5	.42	...	7.0	...	...	1.13	2.0	...	N.	
16	430	10.7	.33	...	5.3	...	...	.95	1.7	...	N.	
17	330	10.4	.30	...	4.6	...	...	.77	1.4	...	N.	
18	260	9.1	.25	.092	4.0	...	...	.80	1.4	...	N.	
19	320	11.2	.26	...	6.6	...	...	.90	1.6	...	N.	
20	480	11.0	.21	...	4.1	...	...	.70	1.9	...	N.	Full diet.
Average	...	9.33	.25	.109	4.7	5.2	.23	.74	1.3	...	...	

CASE 4.—*H. S., aged 6½, male, scarlet fever, adenitis.*

Day.	Amt.	Urea.	Uric Ac.	N H <sub>3</sub> .	N. out.	N. in.	Fæcal N.	T.	Remarks.
1	...	...	...	...	...	...	...	...	Headache, sore throat.
2	...	...	...	...	...	...	...	...	Vomiting.
3	...	...	...	...	...	...	...	...	Rash.
4	[450]	9.6	.17	.20	4.8	3.6	1.3	100	Milk diet.
5	225	6.5	.21	...	3.0	4.2	.25	N.	Rash fading.
6	320	7.2	.28	...	3.7	5.3	.00	N.	
7	410	7.1	.25	.10	3.4	5.0	.33	100	
8	390	6.6	.23	.06	3.5	5.3	...	N.	
9	465(?)	8.4	.27	.02	4.2	...	...	101	Middle diet, adenitis.
10	500	12.7	.35	.07	6.1	...	...	N.	
11	305+	7.8	.24	.01	3.9	...	...	N.	
12	355	8.5	.26	.19	4.5	...	...	N.	
Average	...	8.3	.25	.09	4.1	4.68	.48	...	

CASE 5.—*G. J., aged 4, male, scarlet fever.*

Day.	Amt.	Urea.	Uric Ac.	N H <sub>3</sub> .	N. out.	N. in.	Fæcal N.	Stools	P <sub>2</sub> O <sub>5</sub> out.	P <sub>2</sub> O <sub>5</sub> in.	Cl.	S O <sub>2</sub> .	T.	Remarks.
3	150(?)	6.0	.32	...	2.7	4.2	[.378]+	2 Ap.	.2	2.0	.50	...	100	Rash out.
4	200(?)	6.8	.20	.18	3.9	3.7	[.378]+	1	.05	1.75	.66	.35	98	
5	170(?)	5.4	.30	...	2.7	3.7	[.378]+	2	.08	1.75	.60	.43	97.5	
6	240	5.6	.30	.09	3.0	4.2	[.378]+	1	.36	2.0	1.10	.33	99.5	
7	350	5.9	.29	.07	3.2	4.8	...	1	.52	2.25	1.20	.50	99	Nasal [discharge.
8	260+	5.7	.21	.09	4.0	...	...	1	.39	...	.63	.36	101	
9	200	6.0	.27	...	2.9	...	...	1	.55	...	.56	.23	100	
Average	...	5.9	.27	.107	3.2	4.1	.378	...	.31	1.95	.74	.31	...	

CASE 5.—*G. J.*, aged 4, male, albuminuria 22nd, nephritis 27th day.

CASE 5B.—*M. S.*, aged 6, male, albuminuria 25th, nephritis 26th day.

CASE 5B.— <i>M. S.</i>				CASE 5.— <i>G. J.</i>											
Day.	Amt.	Urea.	T.	Amt.	Urea.	Uric Ac.	NH <sub>3</sub> .	N. out.	N. in.	Faecal N.	Stools.	P <sub>2</sub> O <sub>5</sub> out.	P <sub>2</sub> O <sub>5</sub> in.	Cl.	T.
26	220	4.2	99	...	...	...	...	...	...	...	...	...	...	...	...
27	300+	6.3	100	[500]	11.7	.30	.10	5.7	...	...	1	.92	...	1.3	.99
28	188	3.6	N.	550(?)	6.8	.12	.12	3.0	[9.2]	.31	1	.43	...	2.2	N.
29	280	3.9	N.	640	6.7	.06	.13	3.4	9.5	.31	2	.66	3.7	1.5	N.
30	350	3.5	N.	670	11.0	.13	.06	5.3	11.1	.45	1	.72	4.1	1.7	N.
31	465	4.6	101	850	11.0	.09	.09	5.2	8.5	.45	1	.66	3.4	2.0	N.
32	460	5.5	104	685	10.9	.10	.04	4.7	8.2	.45	0	.90	3.2	1.3	N.
33	580	6.4	101	665	11.9	.02	.05	4.9	9.8	.45	2 Ap.	.84	4.0	1.6	.99
34	460	5.5	101	535	7.5	.07	.06	3.5	9.5	...	1 Ap.	.55	3.7	1.3	.99
35	...	...	N.	450	11.0	.09	...	5.0	9.0	...	2	.57	3.9	1.8	.99
36	565	9.3	N.	530(?)	9.1	.06	.02	5.1	7.8	...	2	.68	3.3	.54	N.
37	425	6.4	N.	685	10.8	.15	...	5.4	6.0	...	1	.80	2.4	2.1	.99
38	555	5.6	N.	330	7.1	.14	.09	3.1	7.8	.85	3	.53	3.2	1.1	N.
39	790	9.0	N.	450	12.9	.15	.03	6.3	6.5	.85	0	.97	2.5	1.7	N.
40	990	7.9	N.	360	10.3	.21	...	4.4	7.8	...	4	.66	3.1	.95	N.
41	465	4.6	N.	...	...	...	...	...	...	...	2	...	...	...	N.
42	760	8.7	N.	1,190	16.7	.25	...	9.9	8.7	.76	2	1.4	3.6	2.5	N.
43	580	7.5	N.	840	10.5	.22	...	6.0	8.7	.76	3	1.0	3.4	2.2	N.
44	420	5.9	N.	650	9.1	.29	...	4.7	8.7	...	0 Ap.	.73	3.4	1.4	N.
45	...	...	...	520	9.9	.13	...	4.5	10.2	...	3	.84	4.1	1.8	N.
46	...	...	...	320	5.8	.07	...	2.9	8.8	...	1 Ap.	.44	3.6	.5	N.
47	...	...	...	320(?)	4.9	.29	...	2.3	11.0	...	1	.37	4.2	1.3	N.
Average	...	...	...	Average	9.76	.15	.07	4.7	8.8	.564	...	.73	3.5	1.54	...

### DIPHTHERIA.<sup>36</sup>

CASE 6.—*W. F.*, aged 7 years, male, faucial diphtheria, paralysis of palate.

Day.	Amt.	Urea	Uric A.	NH <sub>3</sub> .	N. out.	N. in.	Faecal N.	P <sub>2</sub> O <sub>5</sub> .	Cl.	T.	Remarks.
1	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	Antitoxin.
3	551	9.91	.238	.351	7.5	3.8	0	2.26	.96	...	Milk vomited once.
4	250	5.12	.201	.229	5.67	5.9	0	.85	.51	...	...
5	310	9.3	.137	.361	7.57	6.36	0	1.08	1.77	...	Beef tea, syr. ferri. [phosp. co.]
6	455	10.23	.339	.540	7.45	6.41	.60	1.18	.94	...	...
7	920	12.96	.399	.272	5.44	6.82	.25	1.08	.98	...	...
8	600	10.20	.362	.413	7.7	10.87	0	1.05	1.71	...	Biscuits, jam, butter.
9	816	13.05	.329	.364	7.4	12.2	.34	1.22	2.56	...	...
10	860	11.61	.225	.116	6.57	12.03	0	1.33	2.46	...	Sago pudding, eggs.
11	950	15.20	.249	.180	9.09	12.27	.345	1.09	2.37	...	...
12	760	13.30	.214	.174	8.04	12.75	0	1.18	2.71	...	...
13	430	10.75	.281	.116	6.5	9.17	2.46	1.29	2.15	...	...
14	758	12.88	.343	.184	7.7	9.35	0	1.70	2.97	...	...
15	1,214	13.35	.244	.229	7.7	10.75	0	1.51	3.03	...	...
16	1,090	19.62	.318	.206	10.1	11.71	.96	1.90	4.28	...	...
17	1,107	17.15	.279	.164	9.59	14.0	...	1.66	3.55	...	Middle diet.
18	1,124	16.80	.181	.060	9.15	14.0	...	1.57	4.01	...	...
19	600	10.80	.211	.113	6.47	11.4	...	1.08	2.99	...	...
20	528	11.88	.303	.270	6.8	12.5	...	1.16	2.45	...	...
21	973	16.54	.441	.328	10.3	14.5	...	1.70	3.99	...	...
22	658	11.18	.298	.097	6.16	9.7	...	1.05	1.76	...	...
23	593	9.2	.243	.147	4.58	8.1	...	.86	2.65	...	Up 4 hours.
24	...	...	...	...	...	...	...	...	...	...	Thirty-six hours' interval.
25	714	15.35	.288	.202	6.6	14.8	...	1.25	2.55	...	Nasal voice.
26	924	13.86	.372	.274	8.92	13.8	...	1.38	2.31	...	...
27	766	13.78	.309	.207	7.12	15.0	...	1.30	2.32	...	Up 2 hours.
28	760	12.16	.329	.217	7.09	15.2	...	1.25	2.17	...	Full diet.
29	580	11.6	.263	.179	6.00	15.8	...	.93	1.86	...	...
30	690	8.97	.202	.131	4.39	16.1	...	.69	2.58	...	Up 4 hours.
31	406	5.48	.143	.050	2.80	...	...	.49	1.45	...	...
32	890	17.80	.314	.285	8.19	16.1	...	1.42	2.86	...	...
33	566	12.45	.120	.158	4.81	16.1	...	1.16	1.82	...	...
34	480	11.52	.126	.125	6.81	15.8	...	1.20	1.16	...	...
35	810	13.36	.261	.184	7.41	15.5	...	1.50	2.17	...	...
36	448	11.2	.180	.135	5.39	...	...	1.12	1.82	...	Voice still nasal.
37	596	13.11	.357	.203	7.38	...	...	1.49	2.76	...	...
Average	...	...	...	...	...	...	...	...	...	...	...

<sup>36</sup> I the diphtheria cases, the ammonia (NH<sub>3</sub>) has been calculated as ammonia (NH<sub>4</sub>). This change slightly raises the values given in the second decimal place, but does not affect the general result.

CASE 7.—*S. E. C., male, aged 7 years, faucial diphtheria, albuminuria.*

Day.	Amt.	Urea.	Uric Ac.	NH <sub>4</sub>	P <sub>2</sub> O <sub>5</sub>	Cl.	N.	N. in.	N. in F.	T.	Remarks.
1	...	...	...	...	...	...	...	...	...	...	
2	...	...	...	...	...	...	...	...	...	...	
3	...	...	...	...	...	...	...	...	...	...	
4	334	9.01	.43	.35	1.25	.95	7.09	4.54	.263	100	Admission; antitoxin. Diet: milk, beef tea, [sago pudding, biscuit.
5	215	6.02	.26	.17	.94	.44	4.90	9.78	0	99.5	
6	488	10.6	.36	.27	1.22	1.13	6.76	7.71	.158	N.	
7	510	13.77	.35	.20	1.27	2.00	7.65	9.67	0	99	
8	550	12.1	.27	.23	1.03	1.96	6.09	10.2	.027	N.	Serum rash.
9	581	15.10	.37	.19	1.30	1.34	6.97	9.37	0	N.	Serum rash.
10	609	15.22	.34	.19	1.52	2.28	9.31	9.84	1.60	N.	Albumen.
11	320	8.48	.20	.09	1.0	1.37	5.02	9.54	0	99	
12	780	15.6	.31	.15	1.75	2.92	7.46	9.6	.37	N.	
13	230	6.44	.09	.06	.96	.72	2.93	9.16	0	N.	
14	487	10.71	.24	.13	1.40	1.60	5.71	10.28	0	N.	
15	900	19.8	.40	.14	2.13	2.89	9.43	9.09	.73	N.	
16	556	13.9	.24	.21	1.59	1.78	7.03	10.4	0	N.	The same diet through- out.
Average	504.6	12.5	.29	.19	1.31	1.65	6.49	9.05	.242	...	

CASE 8.—*S. O., male, aged 8 1/4 years, diphtheria, paralysis of palate later on.*

Day.	Amt.	Urea.	Uric Ac.	NH <sub>4</sub>	P <sub>2</sub> O <sub>5</sub>	Cl.	N.	N. in.	T.	Remarks.
1	...	...	...	...	...	...	...	...	...	
2	...	...	...	...	...	...	...	...	...	
3	...	...	...	...	...	...	...	...	...	
4	[170]+	3.91	.137	.165	.527	.43	2.14	[3.88]	...	Antitoxin. 17 hours milk' diet.
5	454	8.85	.206	.4	.90	.65	5.9	6.67	...	
6	1,068	12.8	.350	.335	1.175	.68	8.5	7.41	...	
7	692	14.5	.280	.285	1.211	.74	8.5	8.25	...	Traces albumen.
8	888	9.77	.220	.23	1.06	1.27	6.8	9.0	...	
9	858	12.87	.290	.22	1.46	1.47	8.86	6.4	...	Traces albumen.
10	485	8.73	.280	.20	1.14	1.14	6.4	4.27	...	Traces albumen.
11	620	9.6	.280	.174	1.02	1.22	7.8	...	...	Middle diet; traces alb.
12	582	8.73	.264	.32	1.01	2.07	8.8	...	...	Traces albumen.
13	784	9.8	.276	.25	1.33	3.36	8.99	...	...	Full diet; traces alb.
14	658	14.47	.265	.2	1.32	3.05	7.6	...	...	Traces albumen.
15	660	12.8	.280	.24	1.12	3.77	7.8	...	...	Traces albumen.
16	930	14.9	.234	.18	1.21	3.6	8.4	...	...	Traces albumen.
17	440	9.5	.177	.142	1.16	1.73	6.4	...	...	Two hours clothes.
18	597	14.33	.277	.29	1.4	3.6	8.77	...	...	Traces albumen.
19	804	12.8	.180	...	1.6	2.8	8.1	...	...	Traces albumen.
Average	...	11.14	.25	.24	1.165	1.97	7.48	7.0	...	

## HEALTH.

CASE 9.—*B. B., aged 5 years, male, healthy.*

Day.	Amt.	Urea.	Uric Ac.	N H <sub>4</sub> .	P <sub>2</sub> O <sub>5</sub> .	Cl.	N.	Remarks.
1	620	13.3	.248	.257	.93	2.43	6.93	Temp. normal. On full diet.
2	906	12.7	.226	.215	1.09	3.04	6.7	2 hours up.
3	579	8.7	.202	.137	.93	1.60	4.55	
4	726	13.07	.290	.146	1.45	1.75	7.11	4 hours up.
5	908	14.07	.317	.145	1.25	1.86	7.30	
6	640	13.44	.320	.091	1.12	1.71	6.74	
7	576	14.11	.288	.226	1.15	2.16	6.39	6 hours up.
Average ...	...	12.77	.27	.174	1.13	2.06	6.53	

Full diet equal to about 10 grammes nitrogen daily.

## DIPHTHERIA.

CASE 10.—*H. R., male, aged 8 $\frac{1}{2}$  years, faucial diphtheria, moderate severity.*

Day.	Amt.	Urea.	N.	Uric Ac.	Cl.	T.	Remarks.
1	...	...	...	...	...	...	Admission; antitoxin; low diet; traces albumen.
2	...	...	...	...	...	...	Traces albumen.
3	...	...	...	...	...	...	Traces albumen.
4	...	...	...	...	...	...	Traces albumen.
5	345	...	5.48	...	...	...	Traces albumen.
6	206	3.91	3.44	...	...	...	Traces albumen.
7	467	7.00	5.59	...	...	...	Traces albumen.
8	595	6.54	5.04	...	1.75	...	Traces albumen.
9	788	10.22	7.44	...	2.28	...	Traces albumen.
10	410	4.1	3.23	...	.97	...	Traces albumen.
11	765	6.88	5.3	...	1.89	...	Serum rash; traces albumen.
12	275	3.3	3.11	...	.96	...	Middle diet; no egg; vomited once; tr. albumen.
13	203	2.43	2.3	...	.32	...	Milk diet; traces albumen; nasal voice.
14	477	6.43	6.3	.268	1.00	...	Low diet.
15	448	6.22	4.08	...	1.44	...	
16	415	4.35	3.5	.15	1.43	...	Traces albumen.
17	715	7.15	7.31	...	...	...	Middle diet; no egg; no potato.
18	965	8.68	6.21	...	...	...	
19	220+	2.75	2.75	...	...	...	Traces albumen.
20	890	8.9	7.97	...	...	...	Traces albumen.
21	680	13.6	8.98	...	...	...	
22	508	7.62	7.04	...	...	...	2 hours up; traces albumen.
23	370	8.32	6.32	...	...	...	
24	545	9.81	6.86	...	...	...	Full diet; 4 hours up.
25	550	7.7	5.31	...	...	...	
Average ...	...	6.8	5.38	...	...	...	

CASE 11.—*P. G. W., aged 15, male, severe faucial diphtheria, cardiac paralysis.*

Day.	Amt.	Urea.	Uric Ac.	N H <sub>4</sub> .	P <sub>2</sub> O <sub>5</sub> .	Cl.	N. out.	Remarks.
1	...	...	...	...	...	...	...	
2	...	...	...	...	...	...	...	
3	...	...	...	...	...	...	...	
4	...	...	...	...	...	...	...	
5	...	...	...	...	...	...	...	
6	...	...	...	...	...	...	...	Admission; antitoxin; low diet.
7	950	20.9	.37	.71	3.56	2.5	16.43	Albumen throughout.
8	925	20.35	.44	.66	3.13	2.31	16.83	Brandy.
9	230	5.06	.13	.14	.79	.78	4.31	Vomited twice; ice, beef tea, calfs foot jelly.
10	718	15.07	.32	.43	1.95	2.55	14.07	Vomited thrice; cocoa.
11	856	23.11	.46	.46	2.14	2.26	15.22	No vomiting.
12	665	17.29	.46	.37	1.42	1.11	11.03	Vomited twice.
13	655	12.44	.48	.35	1.80	1.16	10.82	Vomited once; grapes, coffee.
14	703	15.81	.24	.27	1.44	.50	10.87	Vomited once.
15	892	19.6	.42	.44	2.14	.47	14.23	No vomiting; middle diet.
16	...	...	...	...	...	...	...	Death.
Average	...	16.26	.37	.43	2.04	1.51	12.6	

CASE 12.—*T. H., male, aged 8 years, diphtheria, albumen, enema rash, cardiac paralysis.*

Day.	Amt.	Urea.	Uric Ac.	NH <sub>4</sub> .	P <sub>2</sub> O <sub>5</sub> .	Cl.	N. out.	N. in.	N. in F.	T.	Remarks.
1	...	...	...	...	...	...	...	...	...	...	
2	...	...	...	...	...	...	...	...	...	...	
3	...	...	...	...	...	...	...	...	...	...	
4	...	...	...	...	...	...	...	...	...	...	
5	...	...	...	...	...	...	...	...	...	...	
6	...	...	...	...	...	...	...	...	...	...	
7	565	14.69	.370	.374	1.13	1.71	9.06	8.25	0	102.5	Admission; no antitoxin.
8	285	9.97	.201	.254	.513	1.73	5.29	8.74	.558	100.5	Traces albumen. Diet: milk, beef tea, biscuits, butter, sago pudding.
9	918	12.85	.296	.360	1.33	2.62	6.94	9.17	0	101	
10	775	12.4	.370	.356	1.55	1.66	6.83	10.03	1.324	99	
11	408	6.12	.156	.060	.856	.874	3.63	11.02	0	99	Traces albumen.
12	694	10.8	.260	.110	1.35	1.98	6.05	10.57	.965	98.5	Traces albumen.
13	696	10.44	.220	.060	1.18	2.98	5.60	11.6	0	9.8	No albumen.
14	905	15.38	.391	.077	1.72	4.68	8.85	10.44	.55	98	Traces albumen.
15	855	14.53	.240	.068	1.50	3.66	7.26	11.17	0	98	Traces albumen.
16	1,000	14.0	.280	.074	1.8	3.57	6.90	12.16	[lost]	98	Traces albumen.
17	540	9.72	.220	.101	1.13	1.89	5.56	13.04	0	98	Traces albumen.
18	652	10.53	.172	.067	1.87	1.99	5.50	12.49	.837	98	Traces albumen.
19	1,096	13.0	.221	.052	1.81	3.13	6.5	12.41	0	98.5	Traces albumen.
20	536	8.84	.188	.086	1.29	1.82	4.55	12.94	1.513	98.5	Traces albumen.
21	680	9.52	.204	.040	1.36	2.38	5.34	12.96	0	98.5	Traces albumen.
22	756	15.38	.302	.062	1.4	2.96	7.51	...	...	102	Middle diet, vomiting, rash.
23	...	...	...	No measurement	made.	...	...	...	...	104	Vomiting, death, rectal [feeds].
Average	...	12.0	.25	.13	1.35	2.3	6.33	11.15	.48	...	

CASE 13.—*S. C., aged 7, male, hæmorrhagic diphtheria, lobar pneumonia.*

Day.	Amt.	Urea.	Uric Ac.	NH <sub>4</sub> .	N. out.	N. in.	Fæcal N.	P <sub>2</sub> O <sub>5</sub> out.	P <sub>2</sub> O <sub>5</sub> in.	Cl.	T.	Remarks.
1	...	...	...	...	...	...	...	...	...	...	...	
2	...	...	...	...	...	...	...	...	...	...	...	
3	...	...	...	...	...	...	...	...	...	...	...	Admission; antitoxin.
4	...	...	...	...	...	...	...	...	...	...	102	
5	360	9.9	.198	.166	4.77	3.58	.116	.72	...	.69	101	Milk diet; serum rash.
6	284	9.8	.248	.306	4.83	4.01	0	.64	...	.40	101	
7	268	6.97	.215	.219	3.96	3.0	.863	.40	...	.57	101.5	Vomited after powder; [bruises appear.
8	440	8.6	.25	.078	4.61	4.6	.451	.88	...	.39	104.5	
9	543	13.57	.29	.161	9.02	4.99	0	1.08	...	.35	102	
10	534	15.65	.33	.33	8.07	2.83	.606	.80	...	.38	103	Milk and lemonade.
11	360	11.16	.30	.23	5.85	4.07	.450	.54	...	.06	102	Sago pudding; regurgitation.
12	344	11.69	.258	.20	5.72	4.38	.225	.69	...	.34	100.5	
13	226	7.91	.226	.322	4.67	3.87	0	.37	...	.04	100	
14	87	2.96	.09	.106	1.61	2.52	.465	.23	...	.04	99	Vomited three times.
15	326	11.41	.383	.140	6.23	2.7	.057	1.05	...	.17	100.5	Vomited once; rectal [feeding.
16	220	3.96	.165	.113	4.22	3.62	1.23	.44	...	.12	101.5	Vomited twice.
17	260	8.84	.169	.108	4.65	4.7	2.59	1.23	...	.16	99.5	Vomited once; pneumonia.
18	224	7.84	.168	.093	4.10	2.75	...	1.06	...	.12	101	No vomiting.
19	...	...	...	...	...	...	...	...	...	...	...	Death in morning.
Average	...	9.3	.23	.19	5.02	3.67	.5	.72	...	.28	...	

TABLE 14.—Percentage of Food Nitrogen recovered unabsorbed from Bowel.

Day of Disease.	Case 3. Sc. F.	Case 4. Sc. F.	Case 5. Sc. F.	Case 5. Nephritis.	Case 6. Diphtheria.	Case 7. Diphtheria.	Case 12. Diphtheria Cardiac Paralysis.	Case 13. Diphtheria Pneumonia.
1	...	...	...	...	...	...	...	...
2	1·3	...	...	4·5	...	...	...	...
3	...	...	[9·7]	4·5	5·3	...	...	...
4	...	[9·1]	...	4·5	5·3	4·1	...	...
5	...	...	...	...	5·3	4·1	...	10·0
6	...	...	...	...	2·8	4·1	...	10·0
7	...	...	...	...	2·8	4·0	8·02	10·0
8	...	...	...	...	2·8	4·0	5·55	5·5
9	...	...	...	10·1	6·5	4·0	5·5	5·5
10	...	...	...	10·1	6·5	2·4	2·6	5·5
11	...	...	...	...	6·5	2·4	2·6	6·2
12	...	...	...	...	4·2	2·4	...	6·2
13	...	...	...	10·6	4·2	...	...	6·2
14	...	...	...	10·6	...	...	3·8	...
15	...	...	...	...	...	...	3·8	...
16	...	...	...	...	...	...	6·0	...
17	...	...	...	...	...	...	6·0	...
Average	1·3	9·1	9·7	7·8	4·7	3·5	4·9	7·2

TABLE 15.—Nitrogen-value of some Articles of Food.

Bread	...	...	...	...	...	1·2 %
"Force"	...	...	...	...	...	2 "
Biscuits	...	...	...	...	...	·21 "
Beef tea	...	...	...	...	...	variable: Average ·5 %.
Tea infusion with milk	...	...	...	...	...	·27 %
Rice pudding	...	...	...	...	...	·65 "
Tapioca pudding	...	...	...	...	...	·47 "
Sago pudding	...	...	...	...	...	·26 "
Milk (average of 50 samples; a considerably larger number were analysed)	...	...	...	...	...	·53 "

*Values obtained from Tables.*

Nitrogen in egg	...	...	...	...	...	1 gramme.
Nitrogen in egg-white	...	...	...	...	...	·5 "

*Values obtained from Tunnicliffe and Rosenheim's Paper.*

Phosphoric acid in milk	...	...	...	...	...	·25 %
Phosphoric acid in bread	...	...	...	...	...	·15 "

## EXPLANATORY NOTE.

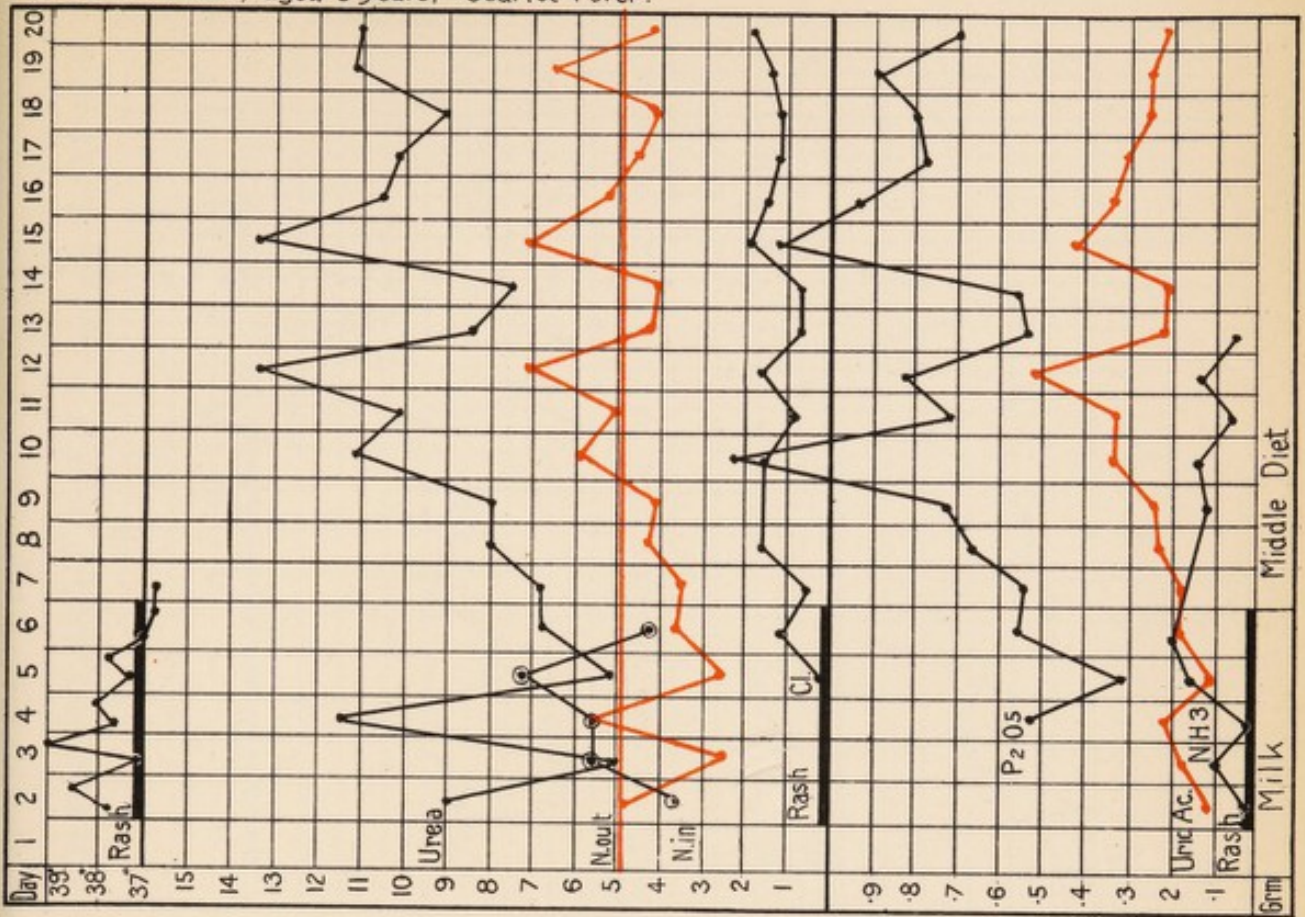
1. On all charts except 10 and 11 there are three horizontal base lines in black, upon which the duration of certain conditions, *e.g.*, "rash" or "hæmaturia" is indicated by local thickening. The injections of antitoxin and occurrence of serum rashes are indicated by vertical red lines.
2. The abscissæ in every case indicate days of disease starting from the date of initial symptoms.
3. The ordinates of the upper base line show the daily temperature in degrees centigrade.
4. The ordinates of the middle line show the daily quantities of chlorine, urea, and nitrogen in grammes, the average and daily output of the latter being indicated in red, and the intake in black, thus ⊖-⊖-⊖.
5. The ordinates from the lowest base line indicate the daily amounts of ammonia (or ammonium), phosphoric and uric acids, in decigrammes, the uric acid curve being in red. In charts 10 and 11 these quantities are not given, or are given on the same scale as the others.
6. V indicates vomiting; the index gives the number of times, thus V<sub>x</sub>= a doubtful number.



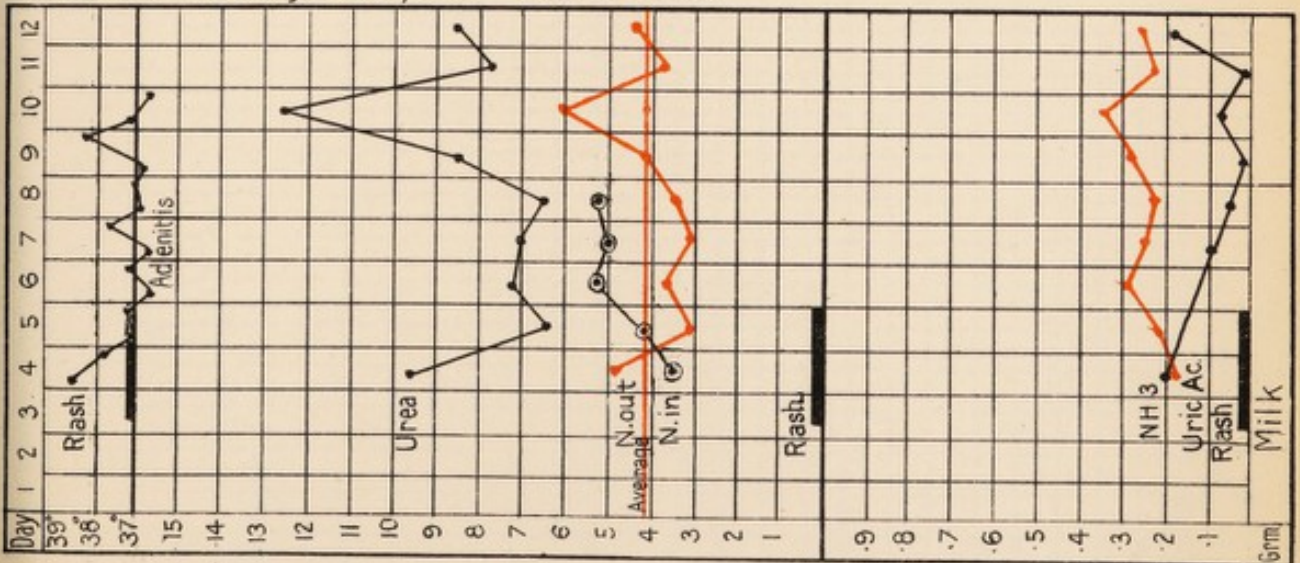


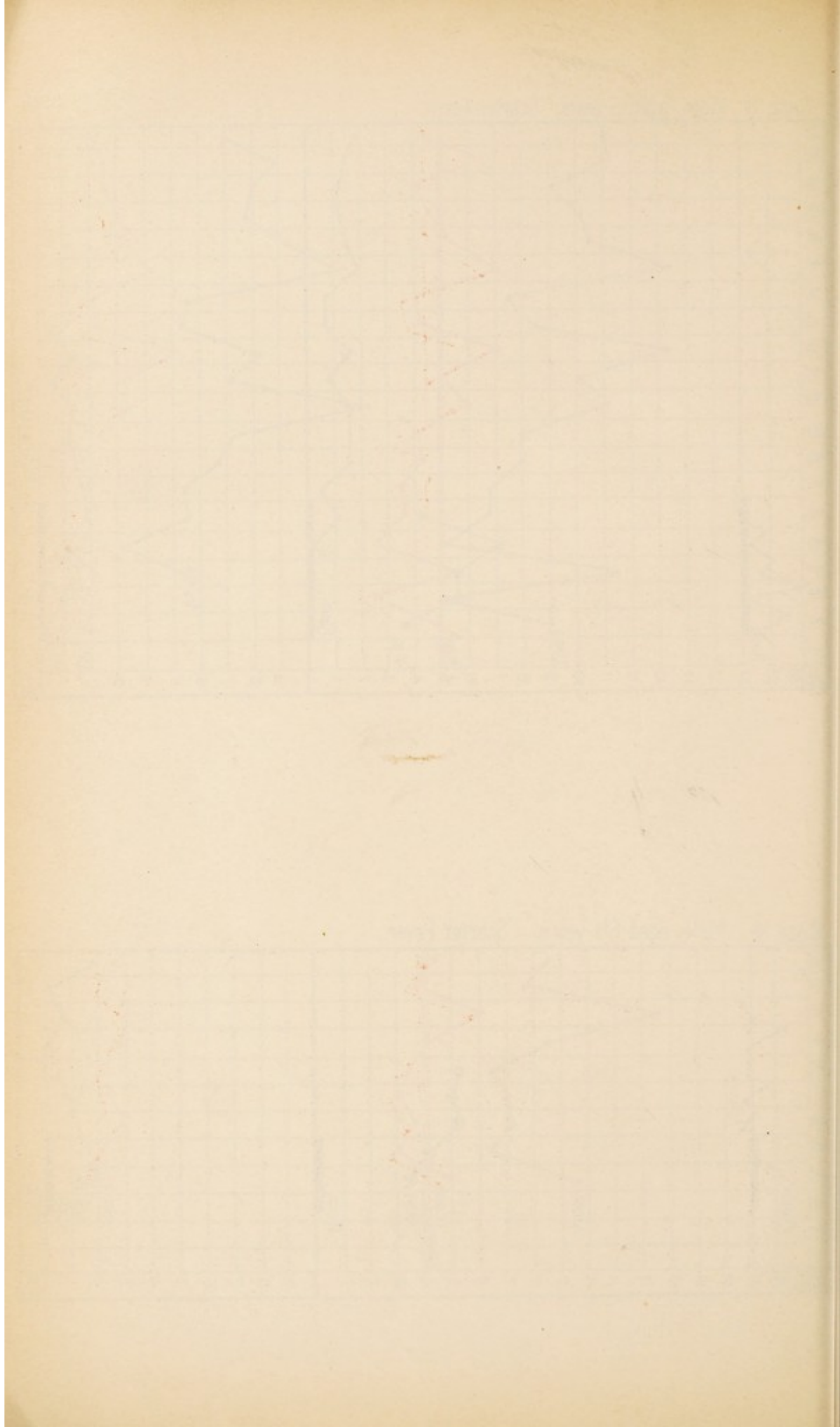
Handwritten text in a cursive script, appearing to be a list or series of entries. The text is faint and difficult to decipher, but seems to include several lines of writing.

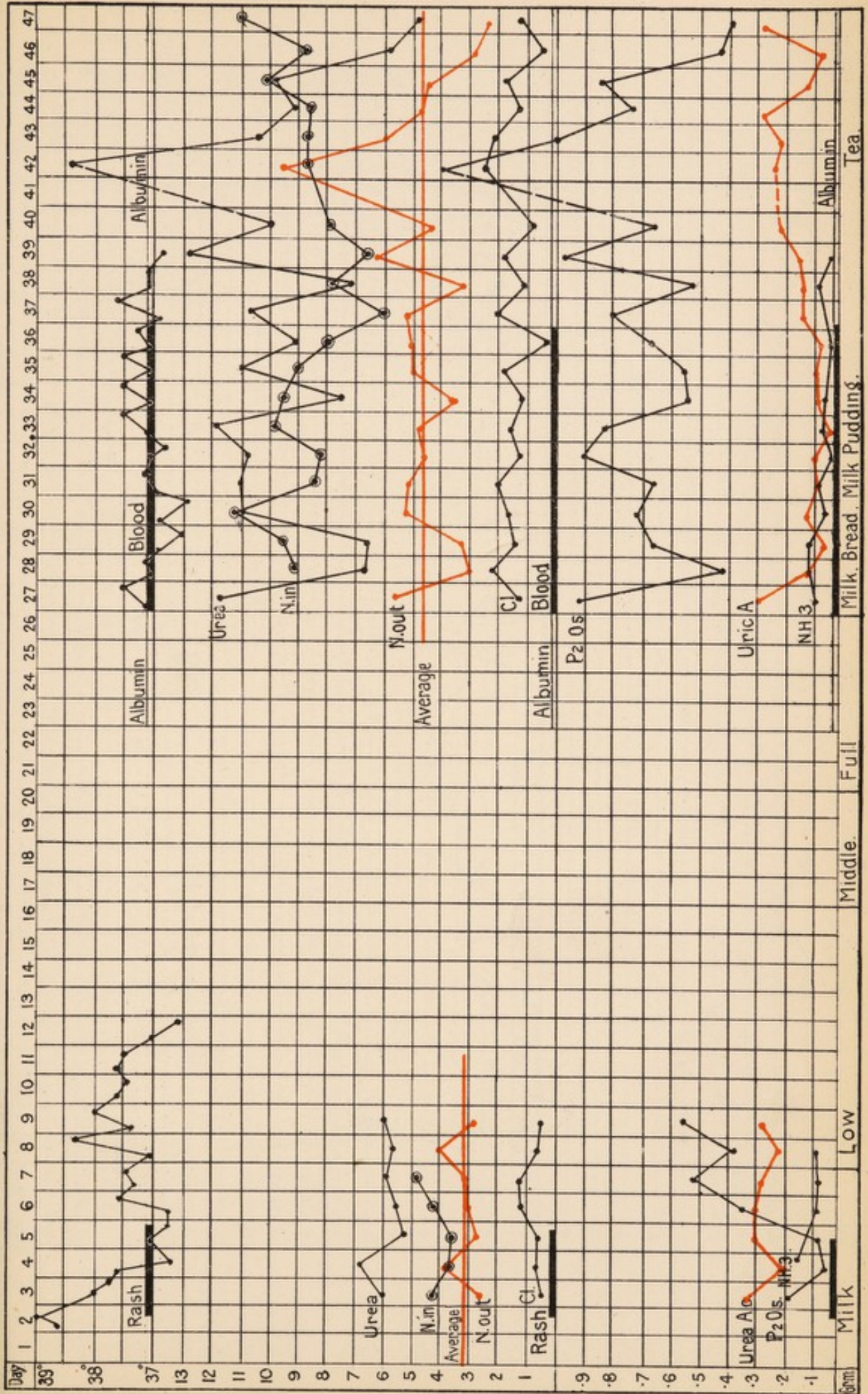
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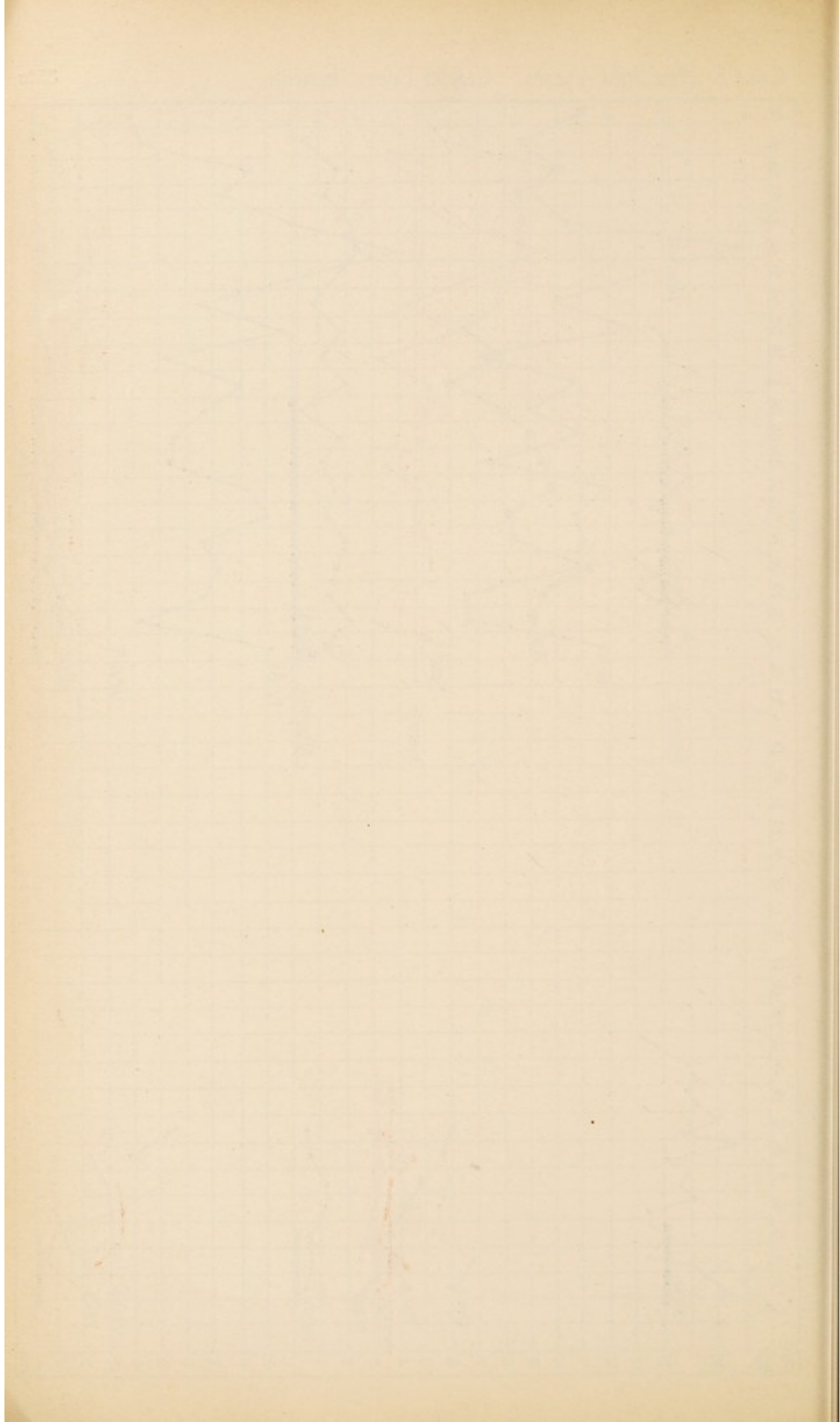


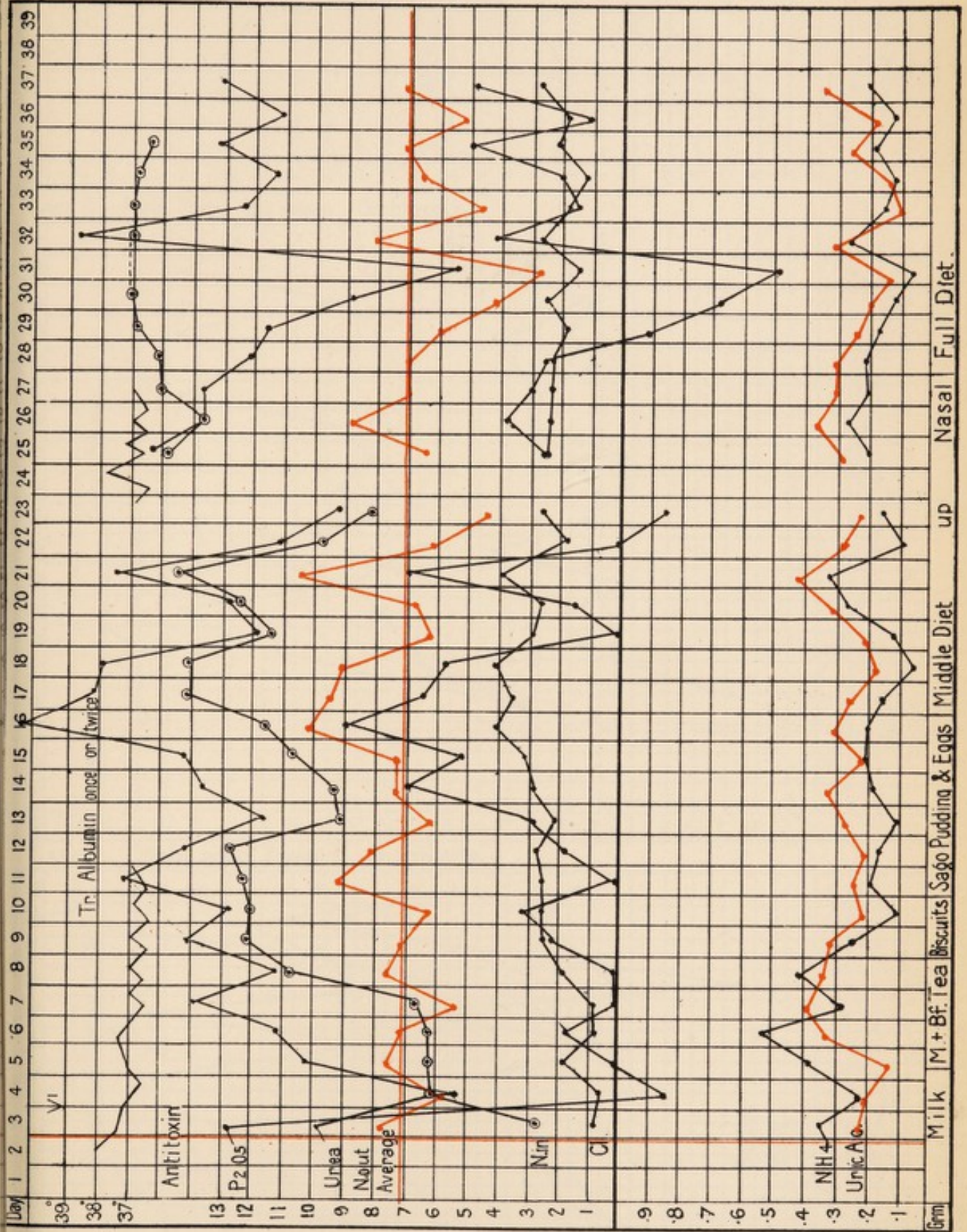
CASE 4. Male, aged 6½ years. Scarlet Fever.

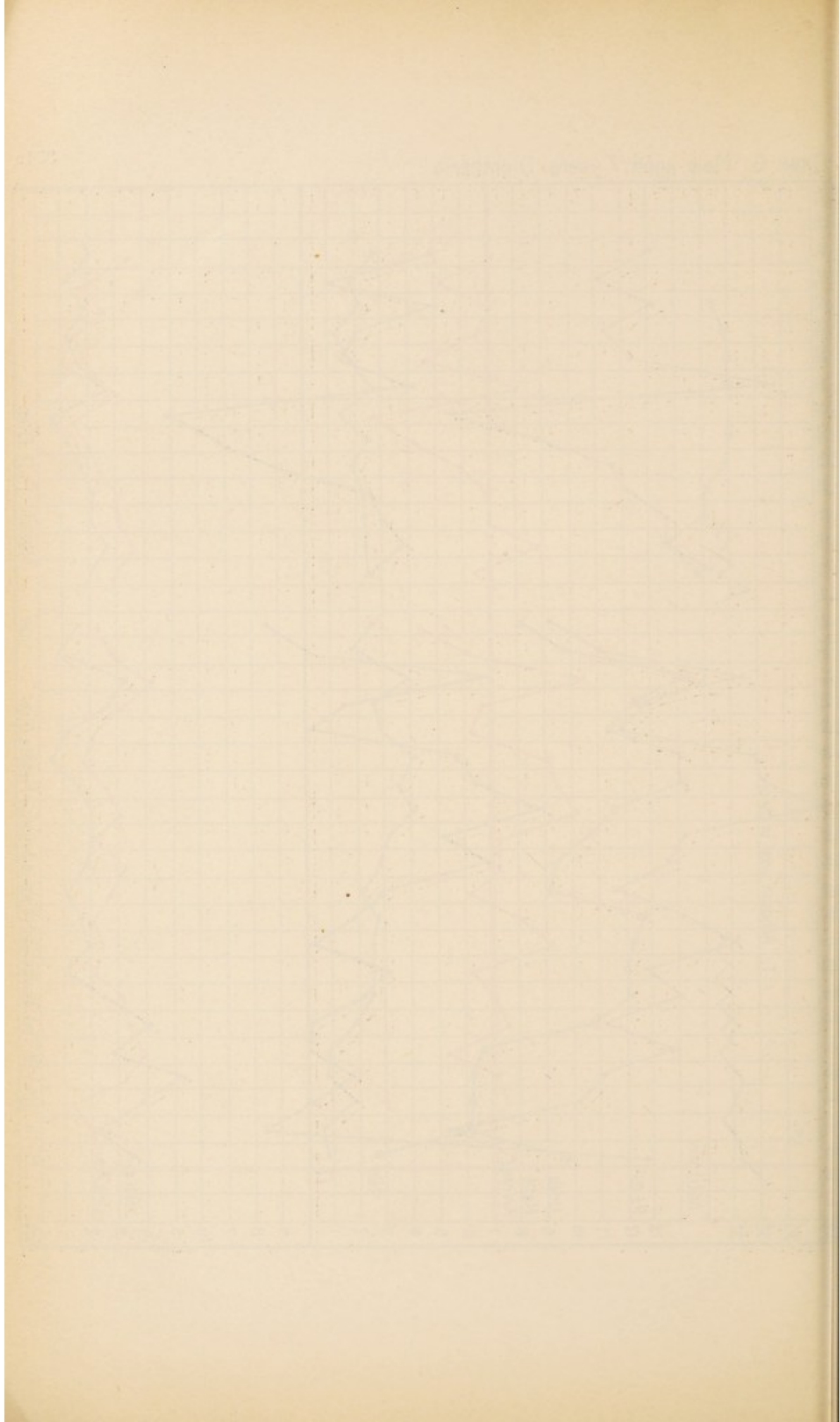




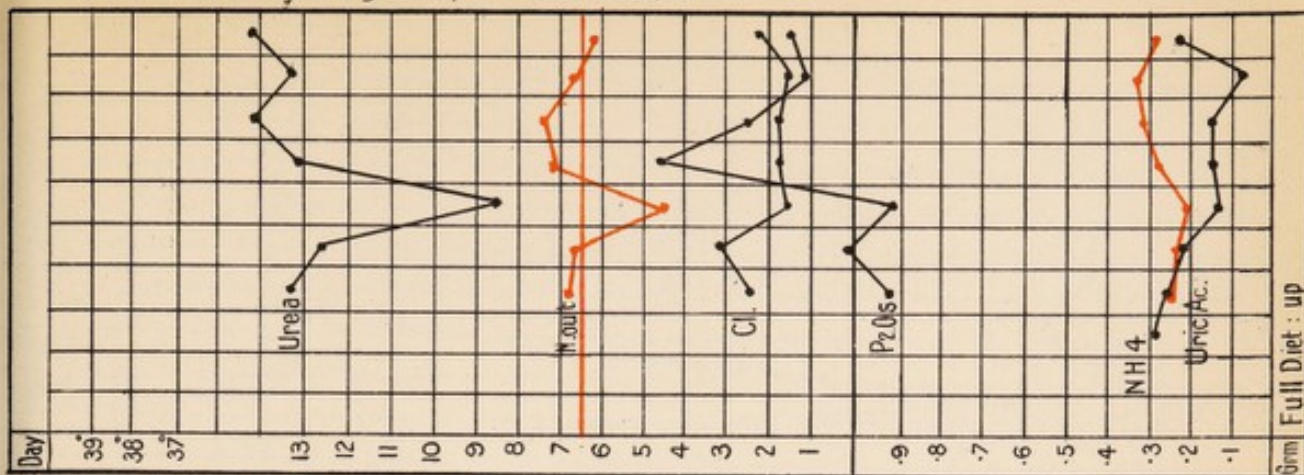




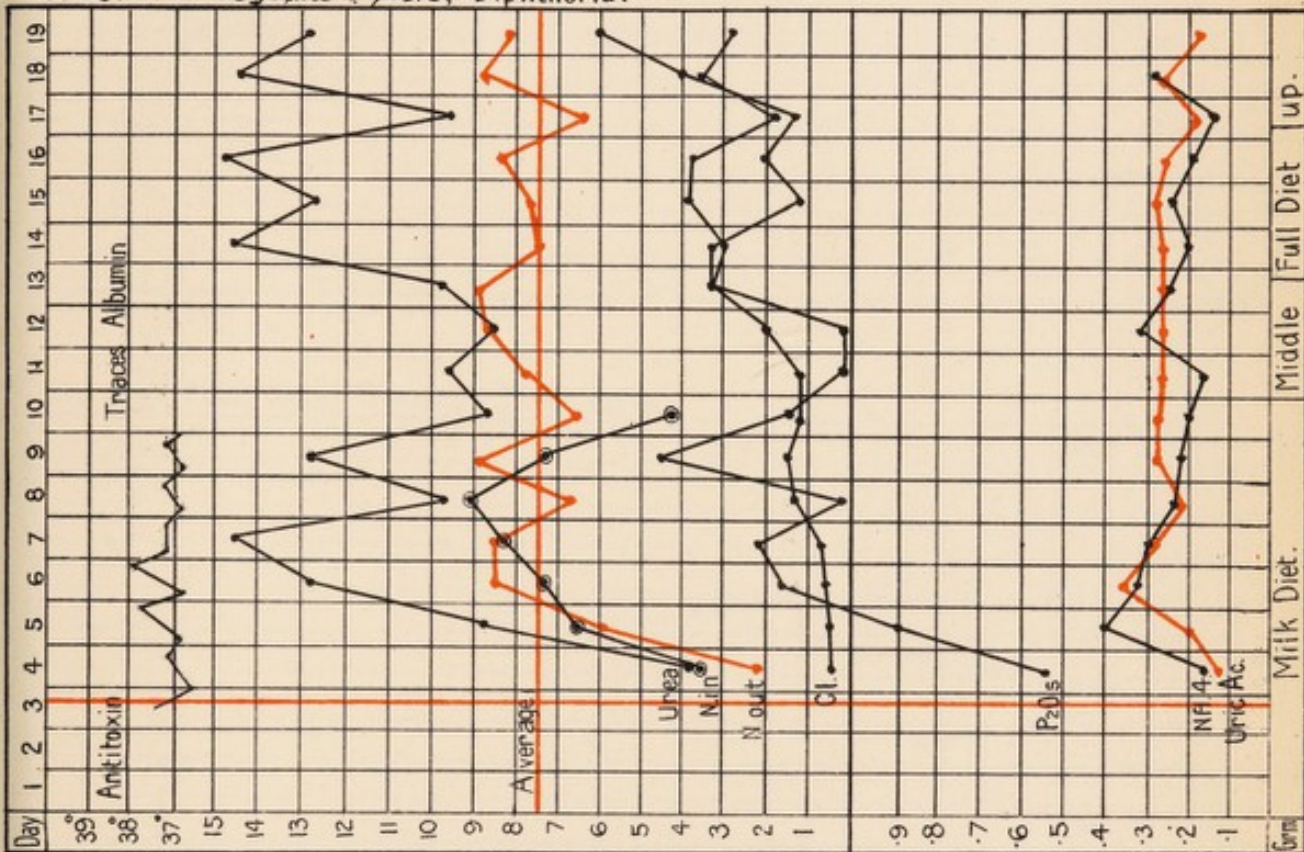




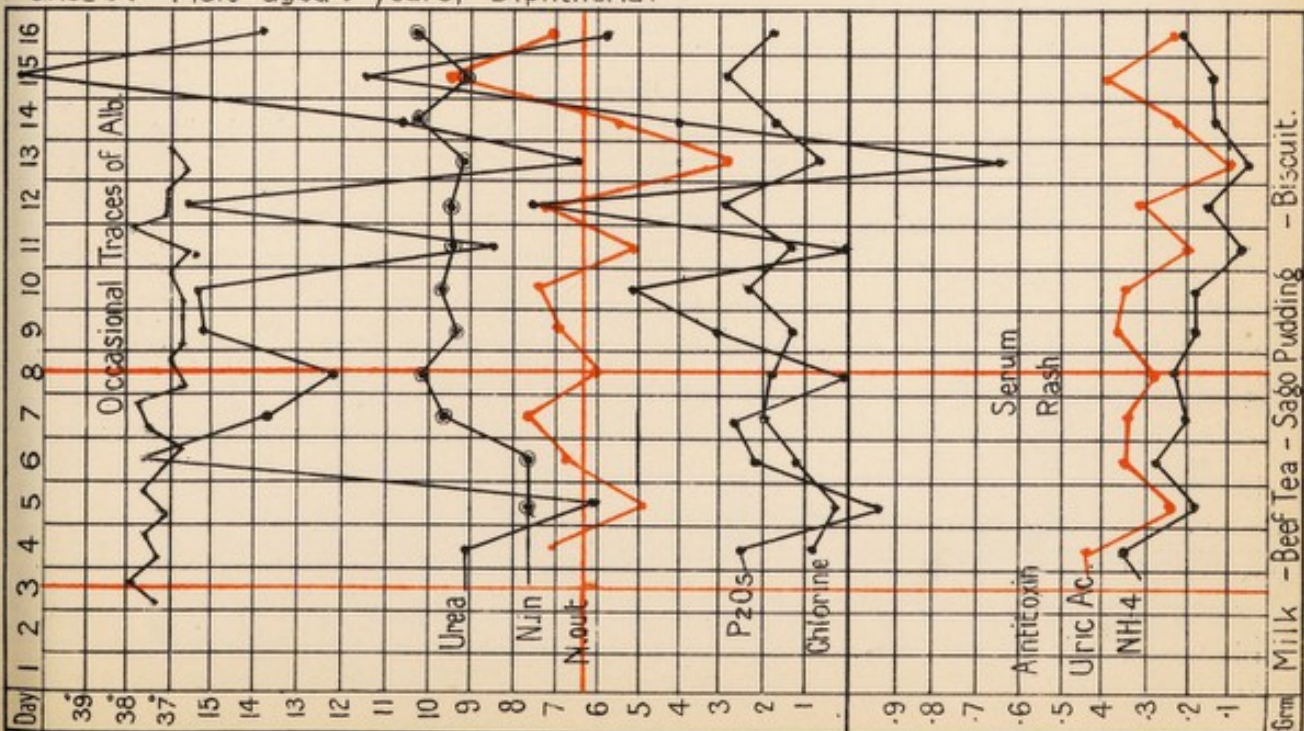


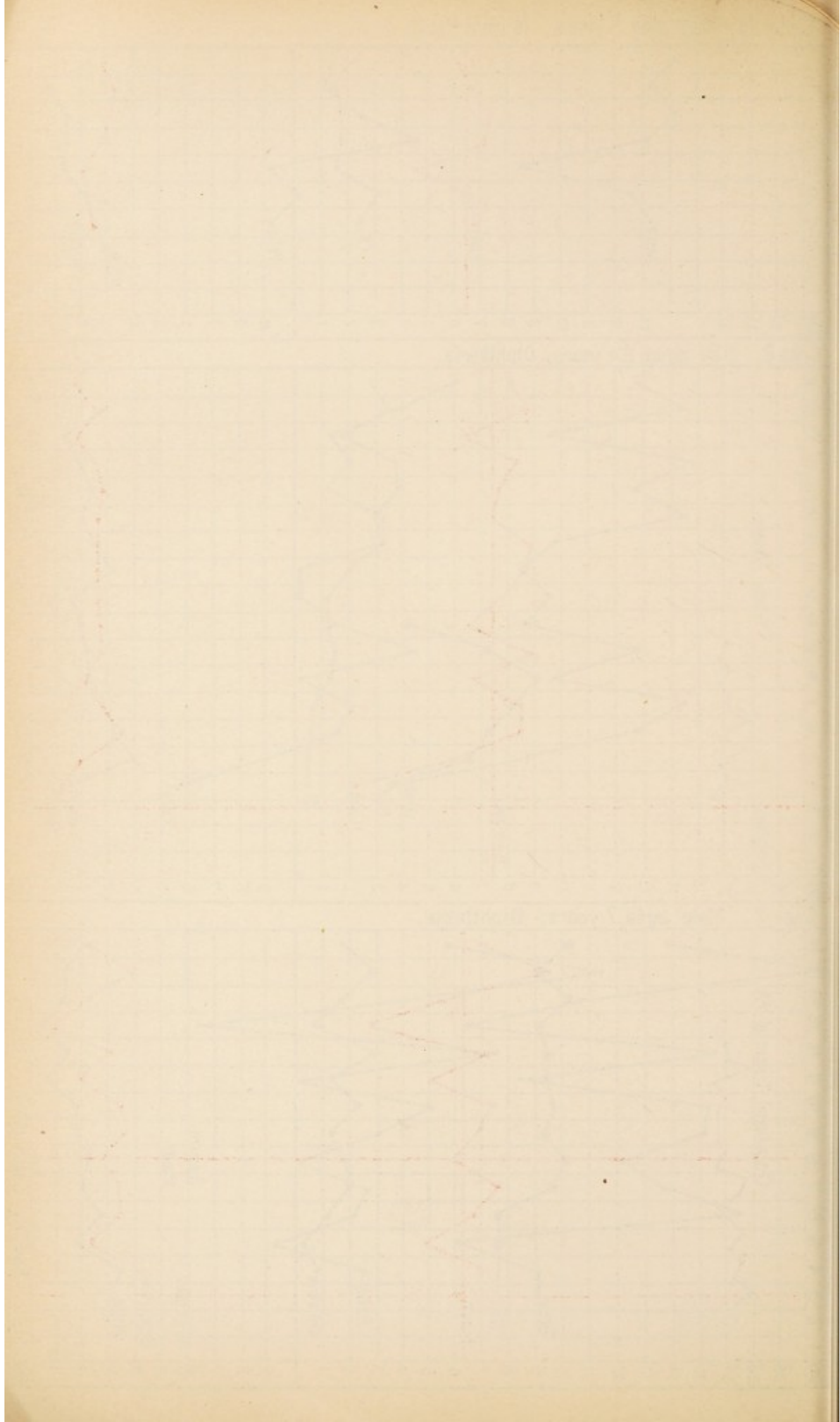


CASE 8. Male aged 8½ years, Diphtheria.

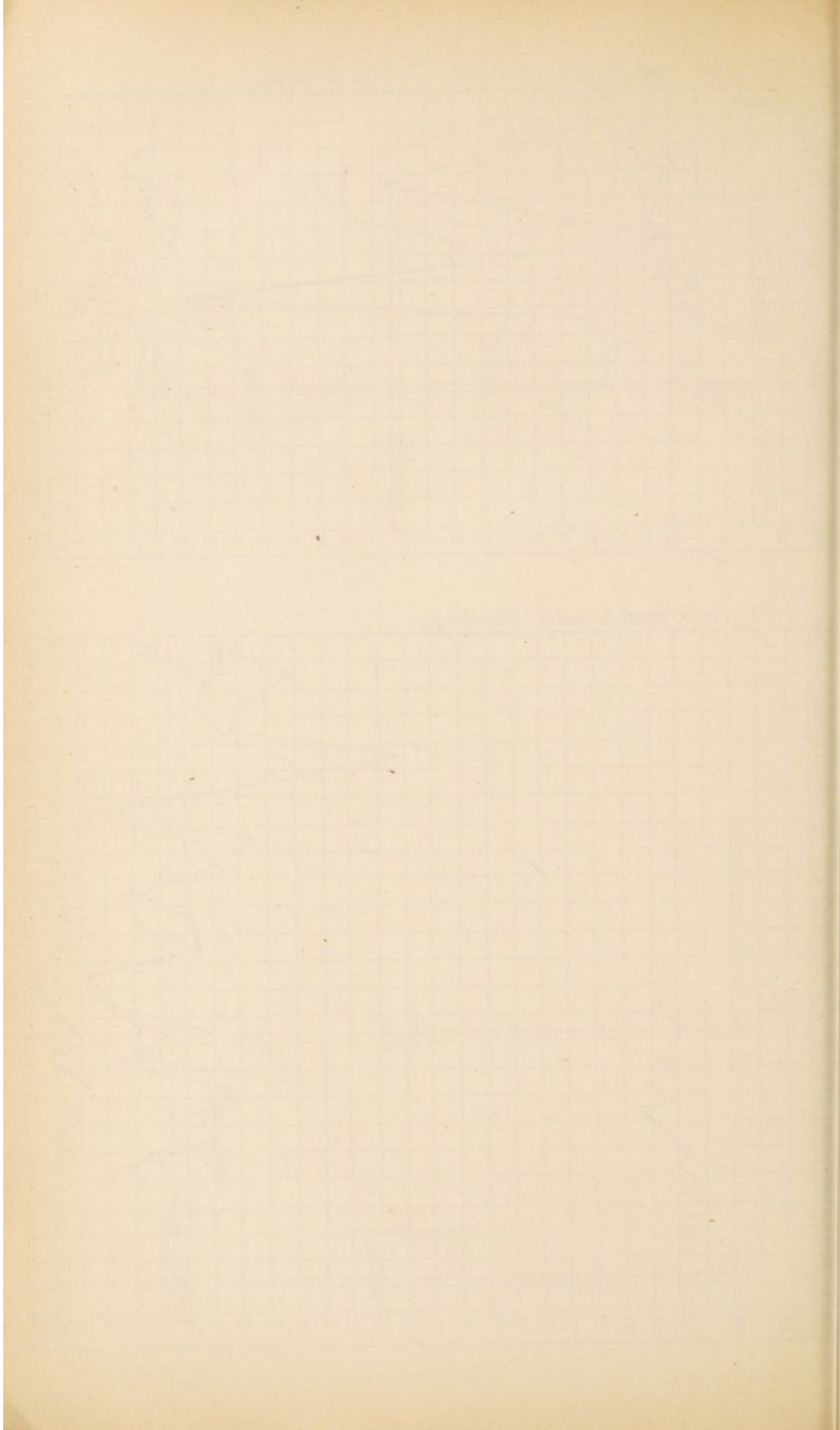


CASE 7. Male aged 7 years, Diphtheria.

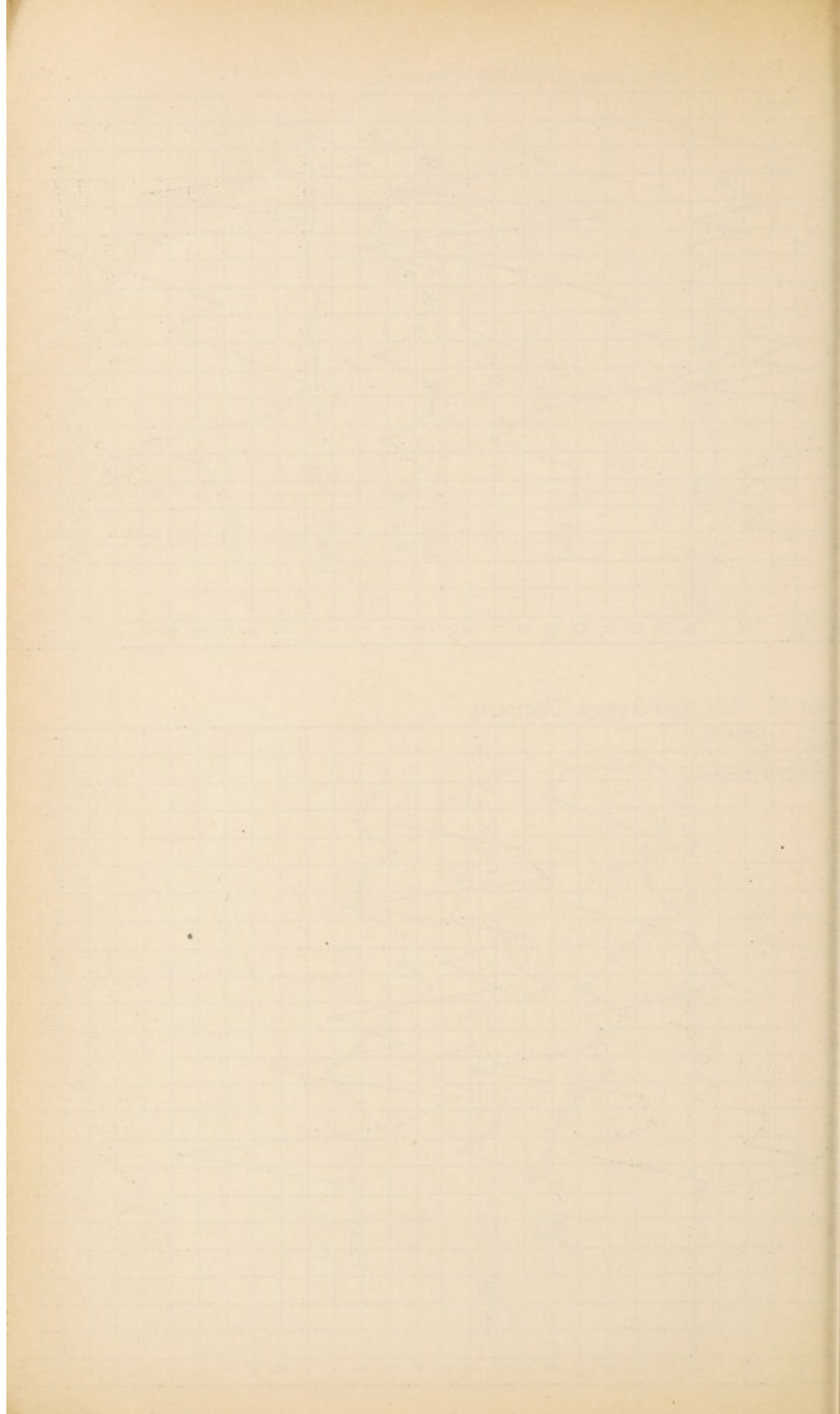












## A SUCCESSFUL CASE OF LAPAROTOMY FOR PERFORATION IN ENTERIC FEVER.

(By J. WILKINS, M.R.C.S., L.R.C.P., South-Eastern Hospital.)

The patient, R. C., aged 9, was admitted January 13th, 1902, on the 8th day of her illness. On admission there was a copious eruption of rose papules, the abdomen was tympanitic, and there was some tenderness in the right iliac fossa. The spleen was palpable, one inch below the costal margin. The tongue was dry and coated, and sordes were present on the gums and teeth. There was considerable bronchitis. The patient was restless and fretful during the day and delirious at night, and obviously had a severe attack of enteric fever.

The temperature for the first eight days after admission was usually between 103 and 104, but on January 14th it reached 105, and on the 16th, 105·4. On the 22nd (the 17th day of disease) the temperature began to remit, and the general condition of the patient improved, the abdomen becoming less distended, and the tongue moist and clean. She was still, however, restless and delirious at night, and unable to sleep without opium, Tinct. opii m.v. being usually given. The improvement continued until January 26th (the 21st day of disease), when abdominal pain was complained of. This was only moderately severe and not definitely localised; with it there was slight increase of distension and some tenderness in the right iliac fossa. The temperature fell from 101 to 98·8; the pulse was frequent, 116 to 132, but not wiry. The following day the pain and tenderness had disappeared. The next day, the 28th, the temperature rose to 103·8, the pain returned, the abdomen was more distended, the wall more contracted, and there was tenderness and a sense of resistance on palpation in the right iliac fossa. The pain was complained of at times until February 4th (the 30th day of disease), but from that time until February 17th there was marked improvement in every way, though pyrexia of a remittent type persisted; the evening temperature usually registering 102 or 103, and the morning 99 or subnormal. The bowels throughout the illness were confined, a soap and water enema being required every other day.

On February 17th (the 43rd day of disease), the temperature for the first time remained normal for 12 hours. At this time the patient's general condition had greatly improved, the abdomen was flaccid and free from pain and tenderness. The tongue was moist and clean and the appetite good, the patient for 10 days having been allowed an egg, a small amount of bread and butter and milk pudding, in addition to three pints of milk daily.

On this day, at 4.30 p.m., after a light tea, the patient suddenly cried out with severe abdominal pain; at 6.45 p.m., she vomited; at 7.30 p.m., the temperature rose to 100·2. Tinct. opii m.v. was given at 4.30 and repeated later, but the pain continued, and the patient passed a restless night.

At 10 o'clock the next morning the patient was much worse; the face was pale and sunken, the nose pinched; there was a profuse, clammy sweat on the face and extremities; the pulse was small, frequent (132), and wiry. There was severe abdominal pain; the abdomen was very tender, motionless, and boardlike, the respiration being purely thoracic. There was now no doubt that perforation had taken place and that peritonitis was present.

At 2.30 p.m., 22 hours after perforation had apparently taken place, chloroform was administered, and an incision  $2\frac{1}{2}$  to 3 inches in length made through the outer border of the right rectus abdominis muscle. On incising the peritoneum a quantity of thin turbid sero-purulent fluid escaped, which was not fæculent in odour. The cœcum was sought for and found with some difficulty, and on tracing the ileum upwards a small perforation the size of a large pin's head was found about 9 or 12 inches from the cœcal valve. Liquid fæces exuded on handling the bowel. The peritoneum was markedly injected, and there was some flaky lymph around the perforation and on the adjacent coils of intestine, and numerous recent adhesions. The opening was closed and the ulcer inverted by nine Lembert sutures of fine silk, and the parts cleaned with sterilised sponges, but the abdominal cavity was not douched. The peritoneum was sutured separately with catgut, and the wound closed, no drain being inserted. The patient stood the operation, which lasted about an hour, fairly well. On its completion, Tinct. opii m.x. and brandy  $\frac{3}{4}$  ss. were given by rectum.

She had a fairly good night, but the next morning looked very ill; the face was still pale and sunken, the temperature kept at 96.6. She complained of abdominal pain and vomited once. The pulse was small and weak, and varied from 124 to 136. During the afternoon and evening she vomited three times and appeared to be getting worse; at midnight the temperature was 96.4 and the face more sunken. Chloroform was now administered and three stitches removed from the lower part of the wound, as well as the corresponding deep catgut sutures, the peritoneal edges, which were firmly united, separated, and a Keith's tube inserted into the pelvis. There was considerable plastic peritonitis present, and adhesions were broken down in inserting the tube. The tube was exhausted with a glass syringe, but no fluid was found. The wound and peritoneal cavity appeared sweet and healthy.

The following day, the 20th, the face was less pinched and the pulse improved. The temperature was subnormal. She vomited once. At 6 p.m., the Keith's tube, which remained dry, was removed.

The next morning (the 21st) there was marked improvement, the face was less pale and sunken, the eyes were brighter, and the tongue clean and moist. Ten ounces of peptonised milk were given by mouth, and there was no retching or vomiting. From this time there was steady improvement. On the 23rd she was allowed one pint of peptonised milk, a pint of beef tea, an egg beaten up, and baked custard; on the 4th of March, bread and butter and two boiled eggs, and the diet was then gradually increased.

The wound healed slowly by granulation in the lower part, and was not completely united until March 28th. She was allowed up for the first time on April 5th, and was discharged in excellent condition on May 2nd. She was seen six months later, and was then very well in every way. The cicatrix had not stretched, and there was no bulging or forcible expiration.

The case was undoubtedly a most favourable one for operation, as, although the attack was a very severe one, the perforation occurred late, on the 43rd day of disease, when the general condition was improving and was then fairly good. The symptoms occurring earlier in the attack, and starting on January 26th, the 21st day of disease, moderately severe abdominal pain, sudden fall of



temperature, with increase of distension and tenderness in the right iliac fossa, were certainly suggestive of perforation, but the general condition of the patient appeared to negative it, there being no change in the character of the pulse or alteration in her facial expression, and the expectant treatment was certainly justified by the result. When the symptoms cleared up, it was thought possible that they were due to peritonitis, the result of a direct extension of inflammation through the thin base of an ulcer, an explanation that was suggested for such symptoms in a previous account of a successful case of laparotomy for perforation, but there was no confirmation of this found at the operation, although evidence was looked for. With regard to the opening up of the wound and the insertion of the Keith's tube, although nothing was found to justify its having been done, it is interesting to note that improvement dated from the time of this interference, though whether it was *post* or *propter hoc* it is impossible to say.

## SYMMETRICAL GANGRENE OF THE LEGS OCCURRING DURING AN ATTACK OF SCARLET FEVER.

(By G. L. THOMPSON, M.B., South-Eastern Hospital.)

G. S., female, age  $2\frac{1}{2}$  years, was admitted to the South-Eastern Hospital on December 17th, 1901.

After a fairly sharp attack of scarlet fever, with a dirty throat, profuse nasal discharge, otorrhœa, and irregular temperatures lasting two weeks, came a week nearly free from pyrexia. On January 7th, 21 days after admission, there appeared on both legs dark purple patches. The right leg showed discoloration extending from the toes up to the tubercle of the tibia in front and to the middle of the calf behind. On the other side was a similar discoloration but less extensive. There was on this side a small patch over the patella. Two days later there appeared over the discoloured area small vesicles, which ultimately burst, discharging a thin serous fluid tinged with blood.

The affected skin was now definitely gangrenous. On the right side the gangrene was limited above near the tubercle of the tibia in front and one to two inches lower behind, and entirely encircled the leg. The upper limit practically remained unaltered during the formation of the slough, but at the lower end the discoloration of the toes cleared up and a line of demarcation formed above the ankles, but it included the greater part of the skin of the dorsum of the foot. On the left side a slough formed, not so large as the other, but covering nearly the whole front surface and sides of the leg, but not completely encircling it. A small slough also formed over the patella.

On the right side the slough became hard and dry, and in shrinking compressed the deeper parts. Redness and œdema appeared in the tissues immediately above and below, and on January 14th chloroform was given, and the slough, which formed a complete hard legging, was slit from end to end in three places in order to relieve tension. Grumous material escaped, but the sloughs did not

separate at once. Portions loosened and were removed with scissors during three to four weeks. Thus an ulcer was left completely encircling the lower part of the leg, which granulated freely and slowly healed. Skin grafting was tried unsuccessfully.

She was discharged on June 4th, 1902. The legs had both healed and the scars were much smaller than the original sloughs. The left leg showed no deformity, the right showed a circular constriction just above the ankle. The ankle was over-extended, and the three middle toes were also drawn up. The girl could walk well with hardly a noticeable limp.

The cause of the gangrene is not clear. Embolism could not account for the deep tissues and toes escaping, and at the onset the pulse was felt in both popliteals, and doubtfully in the anterior tibials. Except that the toes escaped, the case resembles Raynaud's disease.

### A CASE OF ENTERIC FEVER ACCOMPANIED BY PROLONGED COMA.

(By E. SWAINSTON, M.D., South-Eastern Hospital.)

The case to which the following notes refer is of interest more on account of the intense cerebral symptoms existing early in the disease than to the development of post-febrile dementia after the acute stage was past.

The patient's parents state that, up to the onset of enteric, the boy was attending school, was perfectly sound in intellect, and of a bright and happy disposition.

*J. H. A.*, a boy aged 12, was perfectly well up to the 20th May, 1902, when he began to show signs of being out of health.

By the 25th May he was complaining of headache, shivering, and backache, with abdominal pain and diarrhoea. On this day he had some epistaxis.

On May 29th, patient was admitted to the South-Eastern Hospital. That is, on the 10th day of disease.

The notes made in the receiving room state:—

*Abdomen.*—Neither distended nor tympanitic; no gurgling in right iliac fossa; spleen could not be felt; rose-coloured papules absent.

*Tongue.*—Somewhat tremulous, furred, but moist at edges and tip.

*Heart.*—Normal.

*Lungs.*—Sonorous rhonchi all over chest, both anteriorly and posteriorly.

*Pulse.*—Regular, tension fair.

*Temperature.*—Ascertained in ward, 104·2° Fah.

By the following morning the mouth and throat were very dirty, the body had acquired a dusky hue, and, although the abdomen was not distended, distinct gurgling could be felt in the right iliac fossa. The temperature had fallen to 103° Fah. The single stool passed consisted of brownish yellow liquid. A positive reaction was obtained from the Widal test.

On May 31st, the 12th day of illness, the patient vomited, and commenced to reject any milk offered to him. The abdomen was becoming tense, the bowels constipated, the pulse rapid, and signs of delirium were evident. Constipation and distension were relieved by olive oil enemata and delirium by opium.

During the next three days the patient was still muttering, restless, and objecting strongly to nourishment, the temperature remaining about 103°, any further rise being met with tepid sponging and occasional baths. A semi-comatose condition was now present, the patient lying motionless except for a constant side to side shaking movement of his head; his excreta were being passed under him, and the only means of feeding being by the nasal tube.

For the next fortnight the patient never changed his position, but remained lying on his right side with his knees drawn up to the abdomen, and tended to gravitate to the foot of the bed. If turned on to his left side to ease the right buttock, he remained motionless, but showed his discomfort by groans.

During this period the complete coma and cerebral irritability—shown chiefly by his objection to having his head touched or his eyes opened for inspection—gave his illness a strong resemblance to meningitis; and had it not been for the undoubted reaction to the Widal test and the meagre abdominal symptoms a diagnosis of the latter disease would probably have been made.

Under the influence of opium the muttering became less frequent, and the jerky movements of the head almost ceased. On the 24th day of illness the temperature commenced to descend, but the patient still retained his unconscious condition, shouting out if touched; and as he still made no attempt to drink, the nasal feeds of milk and brandy, with raw meat juice occasionally, had to be continued.

On the 32nd day the temperature reached normal, and remained there for the rest of the illness. With this the pulse improved, and the stools became semi-formed and of a better colour; but the mental condition remained unaltered, nourishment being still refused. On one or two occasions a little greenish fluid was vomited, but as a rule the nasal feeds were well retained. On the 48th day of disease the patient took some milk by mouth, and after this the nasal feeds were not required. On the 54th day, unwillingly, and after a deal of persuasion, the boy consumed some bread and butter, and subsequently took any food that was put into his mouth, mastication being quite mechanical, the patient not seeming to realise the fact that he was eating. This state of things continued for a few days until he began to look about him, and appeared to be taking stock of his surroundings.

The patient now began to sit up, shouting or singing as the spirit moved him. Disconcerting comments on the daily routine of the ward were of frequent occurrence. Bursts of discordant laughter or copious tears, with plaintive howls, were given vent to with equal ease, and often followed each other in rapid succession. At meal times, unless each spoonful were carefully guided to its destination, his bed and nightshirt received the greater portion of his food. After the 65th day it was deemed advisable to get the boy up in blankets for a little while. Later, when clothes were produced, he took the liveliest interest in each garment, but on the completion of his toilet at once crawled into bed, and met attempts to bring him forth with howls and struggles. By the 80th day, though able to sit at table, the

patient could not feed himself in a cleanly manner. At this time, owing to the constant noise he made in the ward, it was necessary to remove him to an isolation room. By the 84th day the patient could convey food to his mouth with a fair amount of accuracy, and a week later was able to dress himself, take his meals decently, and though noisy and boisterously hearty in manner, had a fair idea of carrying on a conversation. Marked daily improvement was now noticed, and by the 100th day of illness his mind appeared quite clear.

On the 102nd day of disease, after a stay of 13 weeks, the patient left the hospital in a normal condition. When seen some months after discharge the boy appeared to be in excellent bodily and mental health.

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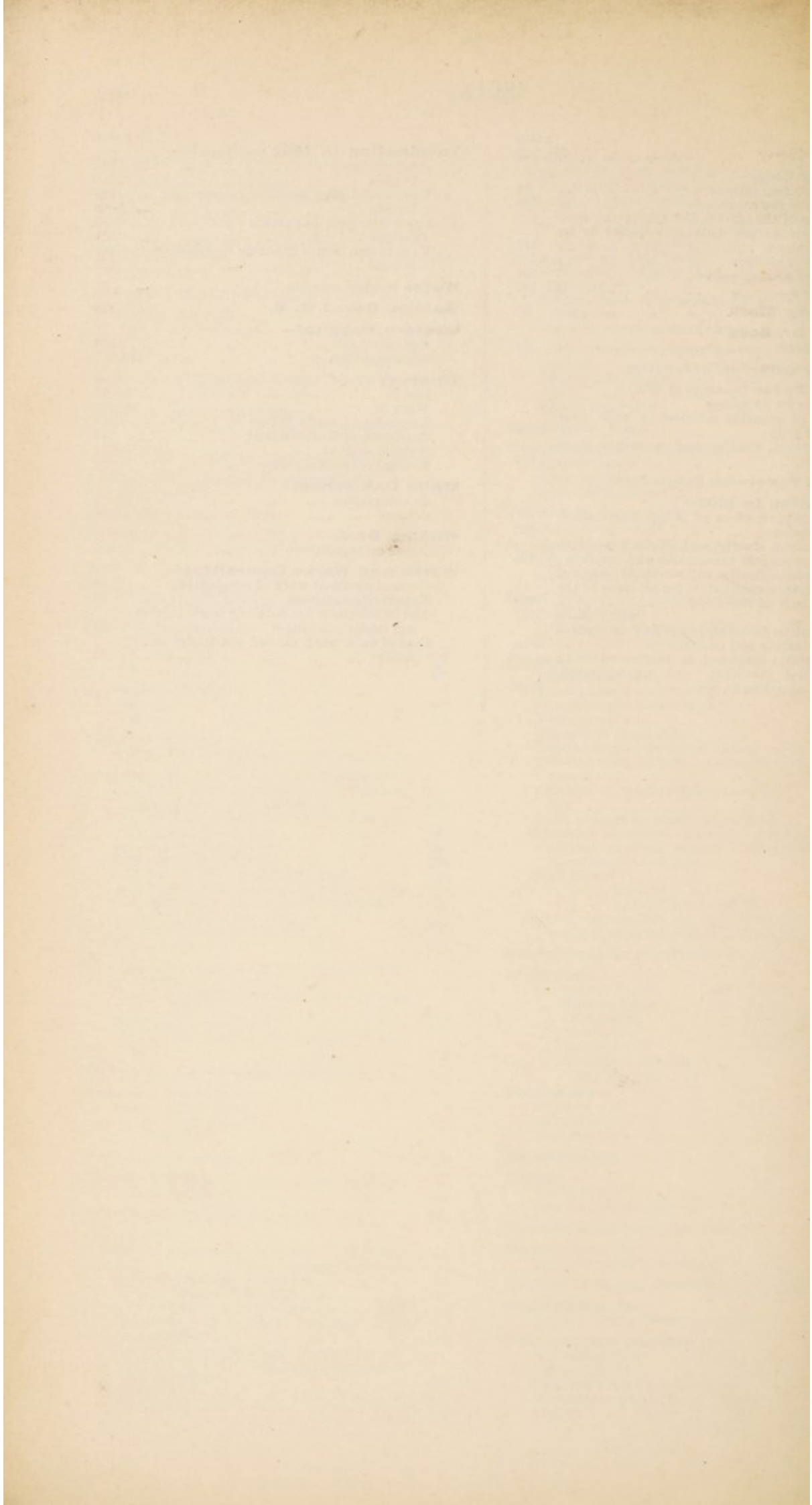
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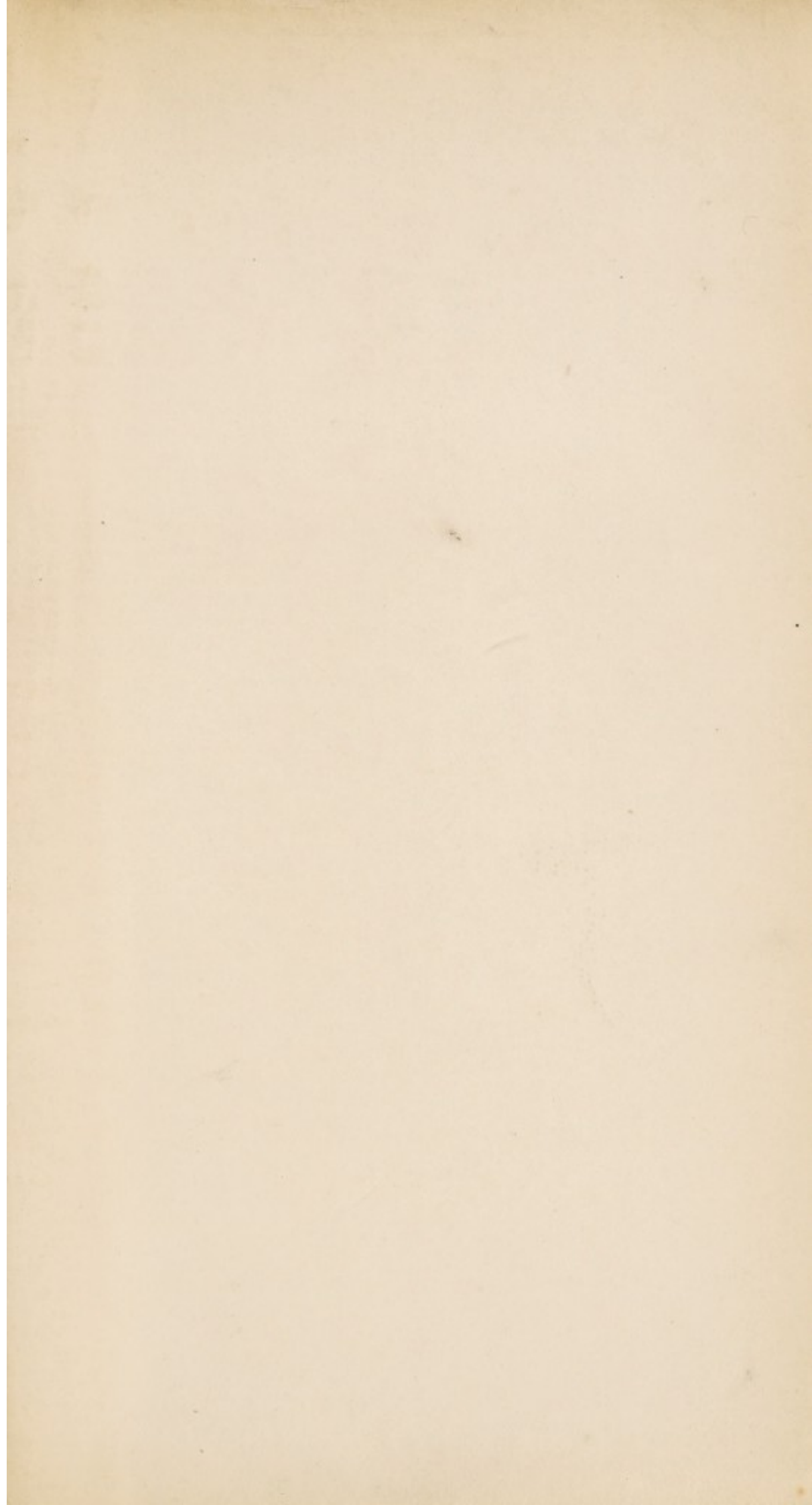
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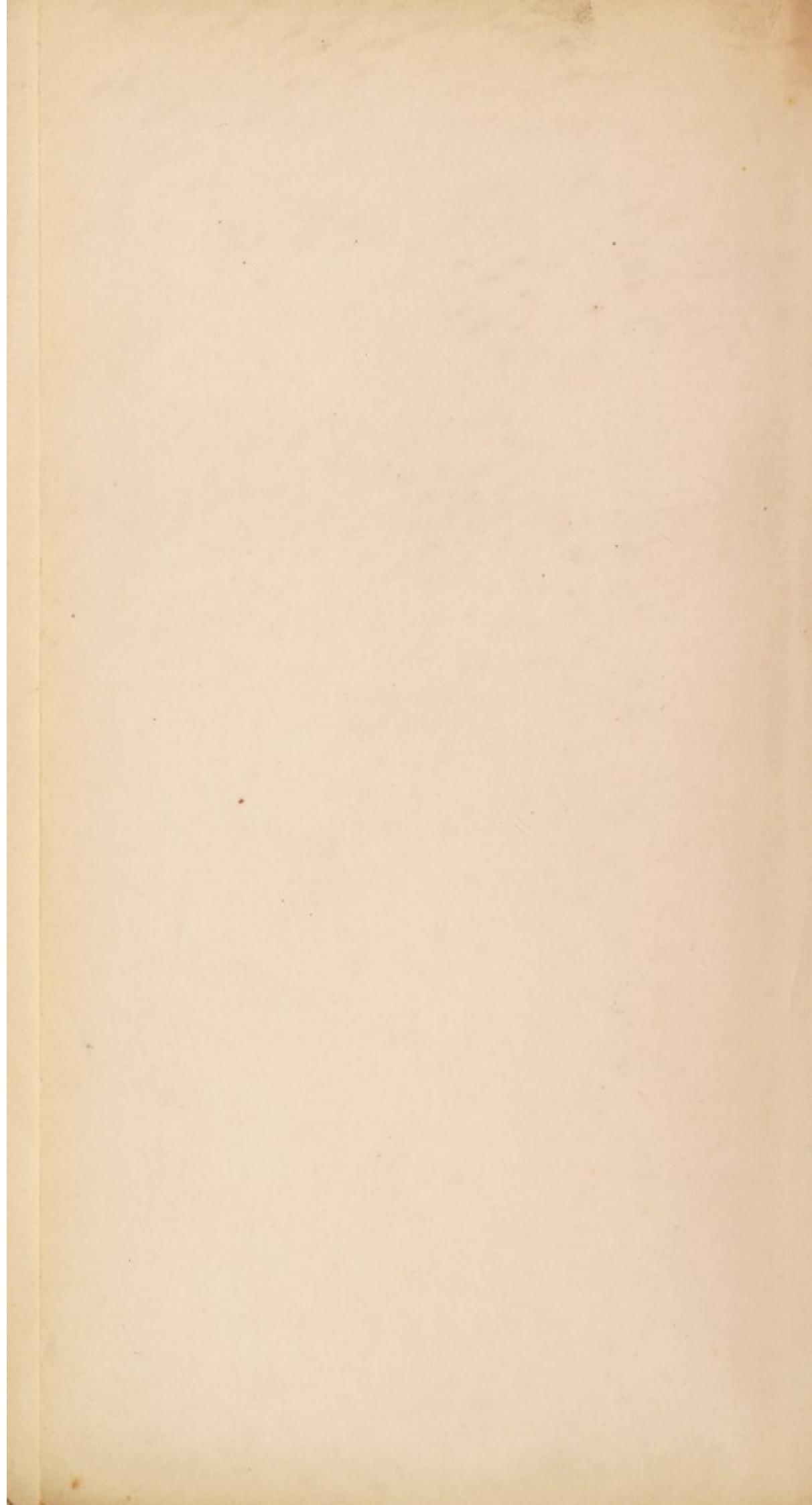
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Scarlet Fever, 1st Quarter 1902

# A MAP OF LONDON

SHOWING  
THE METROPOLITAN BOROUGHS  
COMPRISED IN  
THE METROPOLITAN ASYLUM BOARD DISTRICT  
1902.

SCARLET FEVER

The map shows the extent of the epidemic in the 1st Quarter 1902. The epidemic is shown by red dots, and the extent of the epidemic is shown by red lines. The map is published by the Metropolitan Asylums Board, and is available for sale at the Metropolitan Asylums Board, 10, Abchurch Lane, London, E.C. 4.



Scarlet Fever, 2<sup>nd</sup> Quarter 1902.

A MAP OF  
**LONDON**  
SHOWING  
THE METROPOLITAN BOROUGHS  
COMPILED BY  
THE METROPOLITAN ASYLUMS BOARD DISTRICT  
1902.

SCARLET FEVER. Cases reported in the Metropolitan Asylums Board District, 2<sup>nd</sup> Quarter 1902.  
Map of the Metropolitan Asylums Board District, 1902.  
Red dots indicate cases of Scarlet Fever. Red lines indicate the Metropolitan Asylums Board District.



# A MAP OF LONDON

SHOWING  
THE METROPOLITAN BOROUGHES  
COMPILED BY  
THE METROPOLITAN ASYLUM BOARD DISTRICT  
1902.

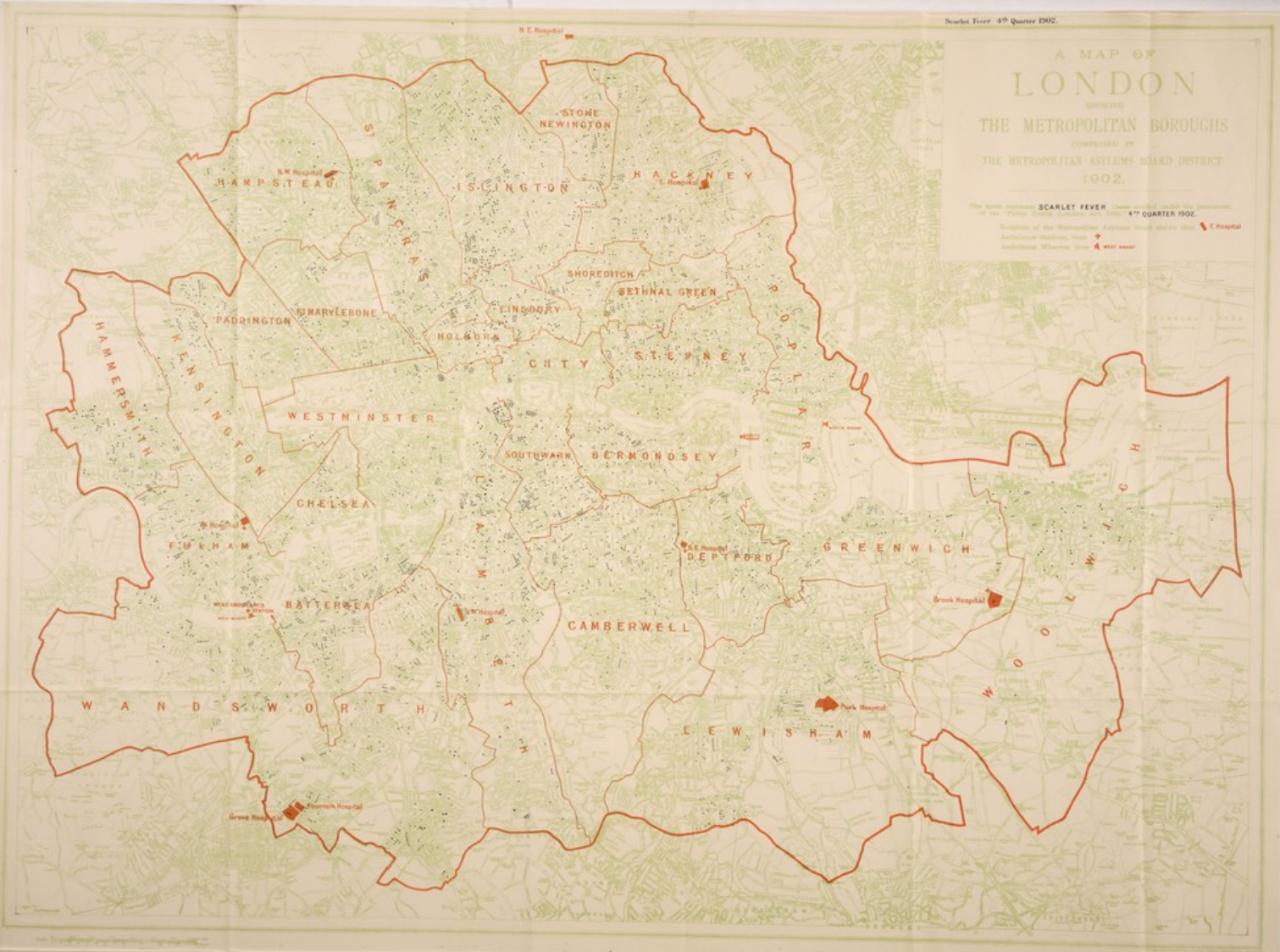
The area marked SCARLET FEVER shows the extent of the epidemic of the 3<sup>rd</sup> QUARTER 1902.  
Boundaries of the Metropolitan Asylum Board District marked with a red line.  
London Stations marked with a red cross.  
Hospitals marked with a red square.



Scarlet Fever - 4<sup>th</sup> Quarter 1902.

A MAP OF  
**LONDON**  
SHOWING  
THE METROPOLITAN BOROUGHES  
COMPILED BY  
THE METROPOLITAN ASYLUMS BOARD DISTRICT  
1902.

The area affected by SCARLET FEVER during the 4<sup>th</sup> QUARTER 1902.  
Boundaries of the Metropolitan Asylums Board District shown in red.  
Hospitals shown in red squares. Hospital  
Isolation Stations, marked with a red cross and the word 'ISOLATION'.





A MAP OF  
**LONDON**  
SHOWING  
THE METROPOLITAN BOROUGHS  
COMPRISED IN  
THE METROPOLITAN ASYLUMS BOARD DISTRICT  
1902.

The map indicates **DIPHTHERIA** cases reported during the six months of the "Great" Epidemic (Jan. 1902 - June 1902).  
Boroughs of the Metropolitan Asylums Board made since 1888. Hospital  
Institution (Wharfedale, etc.)





Smallpox & Typhus, 1902

A MAP OF  
**LONDON**  
SHOWING  
THE METROPOLITAN BOROUGHS  
COMPRISED IN  
THE METROPOLITAN ASYLUMS BOARD DISTRICT  
1902.

The white squares represent **SMALLPOX** cases notified under the provisions of the Public Health Act, 1891.  
THE TYPHUS FEVER CASES ARE MARKED THUS +  
Asterisks indicate the positions of the Metropolitan Asylums Board Hospitals.



Enteric Fever, 1902.

A MAP OF  
**LONDON**  
SHOWING  
THE METROPOLITAN BOROUGHES  
COMPRISED IN  
THE METROPOLITAN ASYLUMS BOARD DISTRICT  
1902.

The spots marked **ENTERIC FEVER** have either under the provision of the "Public Health Act, 1902,"  
been notified to the Metropolitan Asylum Board, or  
have been notified to the Metropolitan Asylum Board under the provisions of the "Public Health Act, 1902."



