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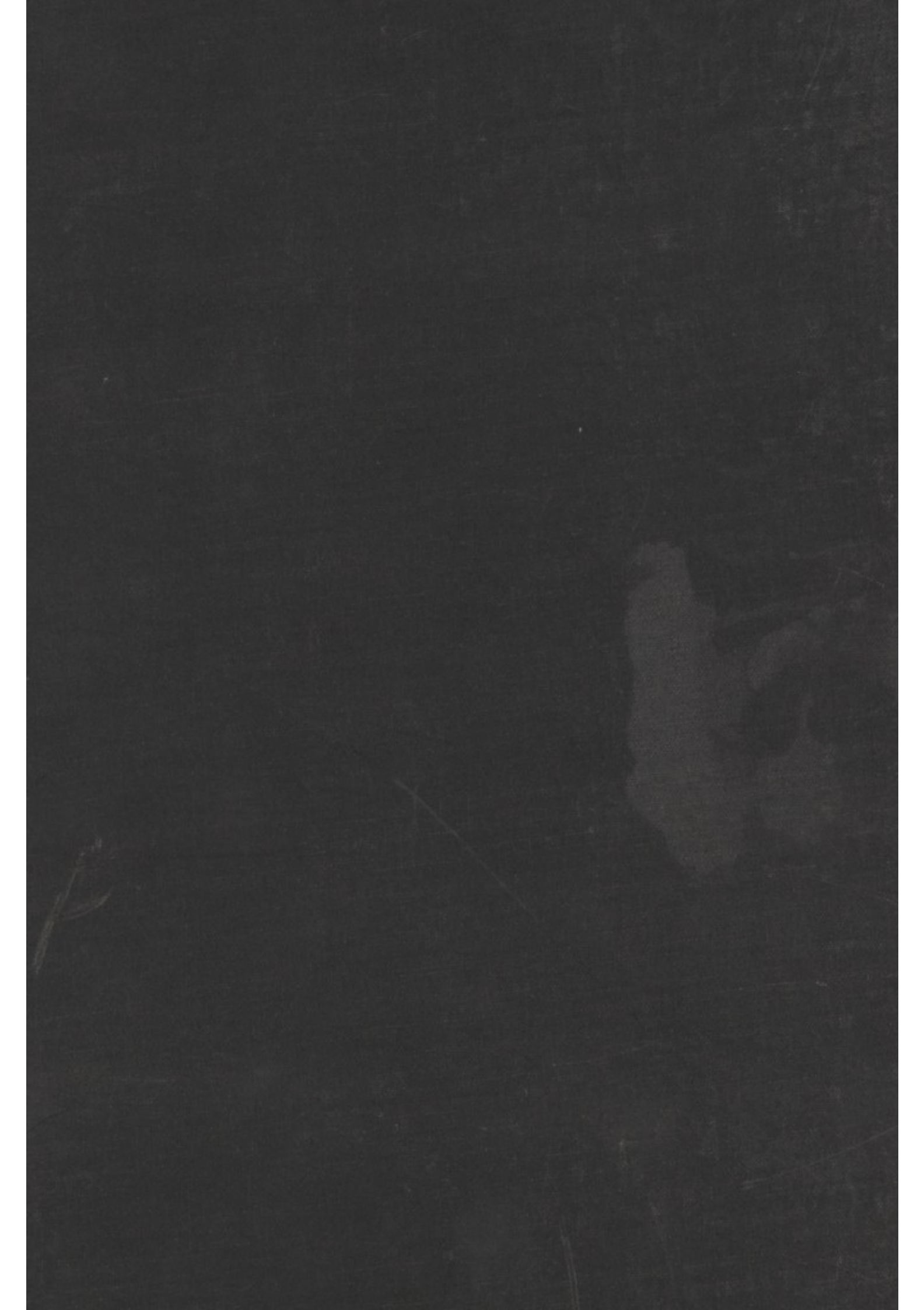
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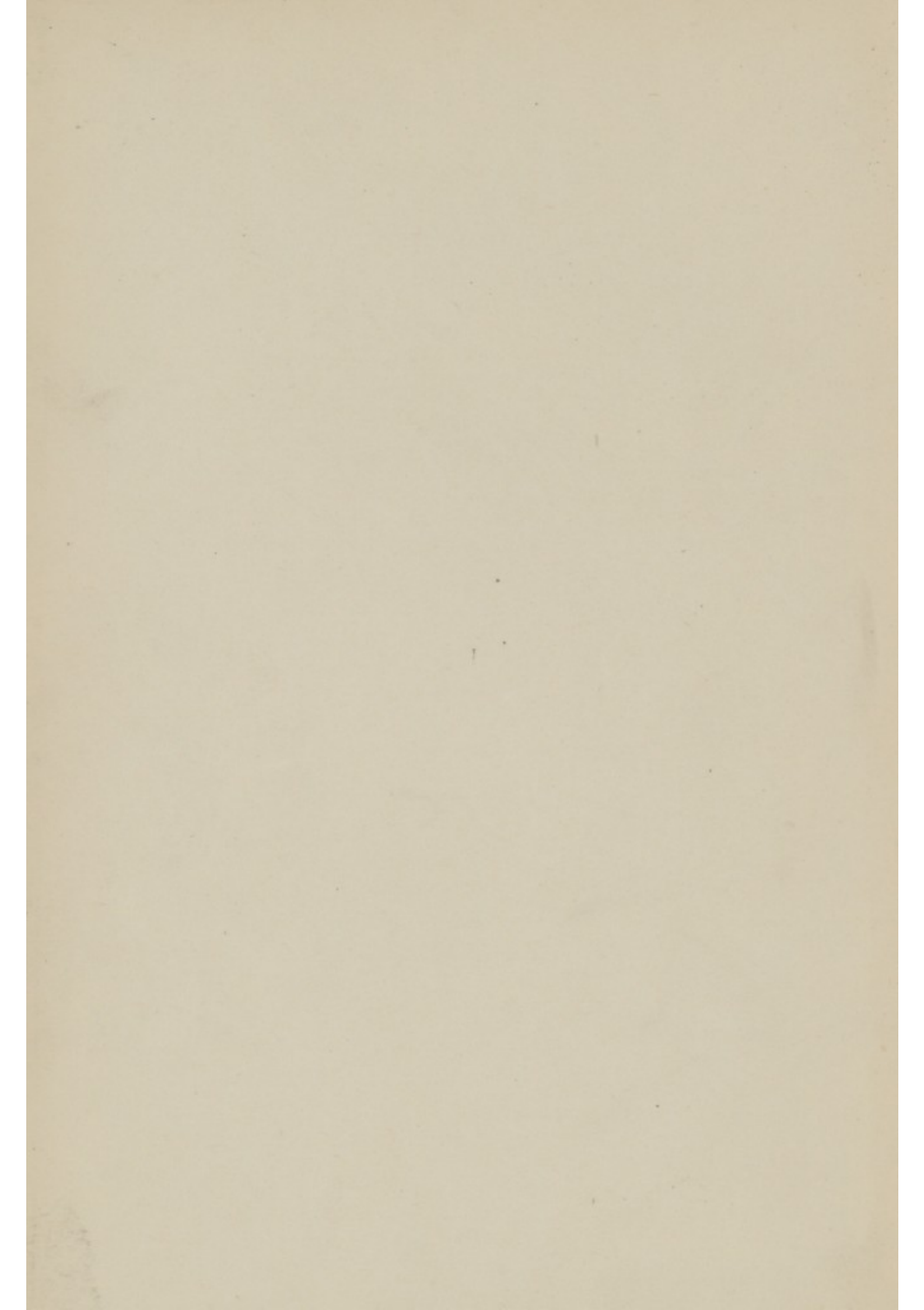


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London County Council.



ANNUAL REPORT OF THE
COUNCIL, 1929.

Vol. II.

MENTAL HOSPITALS AND
MENTAL DEFICIENCY.



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London County Council.

ANNUAL REPORT OF THE COUNCIL, 1929.

VOL. II.—MENTAL HOSPITALS AND MENTAL DEFICIENCY.

CHAPTER I.

During the year ended 31st March, 1930, the position, powers and duties of the Council in regard to the care of the mentally afflicted were not altered. A full list of these powers and duties will be found in Vol. I. of the Annual Report. The passing of the Local Government Act, 1929, has introduced changes which, however, did not become operative until 1st April, 1930, and will be matter for discussion, therefore, in a subsequent report.

CHAPTER II.

REPORT OF THE MENTAL HOSPITALS COMMITTEE TO THE LONDON COUNTY COUNCIL. Scope of the report.

1. This report, for the year ended 31st March, 1930, is the thirteenth annual report of the Committee to which, under section 35 of the London County Council (General Powers) Act, 1915, stand referred all matters relating to the exercise by the Council of the powers of a visiting committee under the Lunacy Acts. It is the thirty-eighth annual report upon the administration of the London County mental hospitals.*

2. During the period covered by this report, meetings have been held as follows:—Mental Hospitals Committee, 16; visiting sub-committees of mental hospitals (ordinarily fortnightly, one meeting being held to transact general business and the next to discharge patients and to make statutory inspections), 272; other sub-committees (dealing with matters arising from the Council's administration of the Lunacy Acts), 38. Meetings.

Accommodation.

3. On 1st January, 1930, the accommodation at the London County mental hospitals, on the basis of the requirements of the Board of Control as to bed space, was:— Accommodation.

TABLE I.

Mental hospital.	Beds.		
	Males.	Females.	Total.
Banstead	1,132	1,414	2,546
Bexley... ..	1,043	1,110	2,153
Cane Hill	850	1,260	2,110
Claybury	930	1,281	2,211
Claybury (for private cases only) ...	65	—	65
Colney Hatch	1,052	1,511	2,563
Hanwell	1,023	1,335	2,358
Horton	271	1,773	2,044
Long Grove	1,128	1,005	2,133
West Park	1,128	968	2,096
Ewell Colony	100	329	429
Total	8,722	11,986	20,708
Total (excluding private accommodation at Claybury) ...	8,657	11,986	20,643

* It should be observed that a few of the matters dealt with in this chapter, *e.g.*, under the section relating to superannuation acts, have an application wider than the mental hospital service and concern also the service under the Mental Deficiency Act, which, strictly, is matter for chapter III., which follows.

Additional
accommo-
dation.

4. Comparison of table 1 with the corresponding table in the last report (Annual Report of the Council, 1928, Vol. II., p. 3) shows a net increase in the total measured accommodation of all the hospitals (excluding special provision for private male patients at Claybury) of 127 beds (5 for men and 122 for women). The increase in the accommodation for women is due chiefly to the reversion for use for patients, on the completion of a new nurses' home, of wards at Horton mental hospital (118 beds) which, for some time, had been adapted to serve as dormitory accommodation for staff; there have been minor adjustments also at Claybury, Colney Hatch and Hanwell mental hospitals. The increase in male accommodation was made possible by the re-measurement of available space at Hanwell mental hospital.

Progress with
approved
schemes.

5. During the year 1929 progress was made with the erection of nurses' homes at Claybury and Bexley mental hospitals which will set free, for use by patients, accommodation at these hospitals which since 1919 it has been necessary to use as dormitory accommodation for nurses. Reference was made to the inception of schemes for the provision of these homes in the Council's annual report for 1927 (Vol. II., chap. 2, par. 6). At that time it was contemplated that the completion of the Bexley nurses' home would set free accommodation for 65 women patients; the greater need, however, for beds for male patients led to a re-consideration of this arrangement and a later scheme was made to evacuate nurses from a ward on the male side which it had been intended to leave untouched, with the result that the accommodation made available for patients is 51 beds for men and 40 for women. This accommodation was not ready for use by 1st January, 1930, however, nor was the accommodation for 70 women patients at Claybury mental hospital to be made available on the completion of the nurses' home there.

New schemes
approved.

6. During 1929 we have approved schemes, referred to in the Council's annual report for 1928 (Vol. II., chap. 2, par. 7) as in contemplation, for the erection (a) at Banstead mental hospital of an admission villa to house in two wings, 50 male and 50 female patients, (b) at Long Grove and Cane Hill mental hospitals of nurses' homes which will restore, for the accommodation in the one case of 33 additional male patients and in the other of 76 additional women patients, wards, which since 1919 have been used as staff dormitories, (c) at Long Grove mental hospital of a sanatorium villa for 30 women patients and (d) at Horton mental hospital of a small building (an annexe to "A" admission hospital) to enable certain forms of special treatment (electrical and Plombiere) to be administered and of an addition to "C" hospital (where malarial treatment for general paralysis of the insane is given) to provide 10 beds for male patients in addition to the 14 for women hitherto provided.

Date of
completion of
approved
schemes.

7. Schemes for provision of additional accommodation, referred to in this and previous reports as approved, are due for completion as follows, namely:—

	<i>Institution.</i>			<i>Work.</i>	<i>Beds made available for patients.</i>		
					<i>M.</i>	<i>F.</i>	<i>Total.</i>
<i>During 1930—</i>							
	Claybury...	...	...	Nurses' home	...	70	70
	Long Grove	...	...	Nurses' home	...	33	33
<i>During 1931—</i>							
	Banstead...	...	...	Nurses' home	...	30	30
	Hanwell ...	...	...	Admission villa	...	50	100
	Horton ...	...	...	Addition to "C" hospital...	...	10	10
	Long Grove	...	...	Sanatorium villa	...	30	30
<i>During 1932—</i>							
	Banstead...	...	...	Admission villa	...	50	100
	Cane Hill	...	...	Nurses' home	...	76	76

8. The following schemes for provision of additional accommodation are under consideration :—

Institution.	Work.	Additional beds to be made available.			Schemes under consideration.
		M.	F.	Total.	
Ewell Colony	Additional villas ...	395	125	520	
Horton mental hospital ...	Additional nurses' home	—	126	126	
	Total	395	251	646	

9. On the basis of schemes approved or under consideration as set out in the foregoing paragraphs 6, 7 and 8, the numbers of beds at the mental hospitals which may be expected to be available for use in two or three years' time are approximately as follows :—

Institution.	Male.	Female.	Total.
Banstead	1,182	1,494	2,676
Bexley	1,094	1,150	2,244
Cane Hill	850	1,336	2,186
Claybury	995	1,351	2,346
Colney Hatch	1,052	1,511	2,563
Hanwell	1,073	1,385	2,458
Horton	281	1,902	2,183
Long Grove... ..	1,161	1,035	2,196
West Park	1,128	968	2,096
Ewell Colony	495	454	949
Totals	9,311	12,586	21,897

10. The annual increase during the 5 years ended 31st December, 1929, in the total number of patients for whom the Council was responsible to find accommodation (see table 5, *post*) has averaged 395. For the 10 years ended on the same date the average is somewhat less, namely, 374. A glance at the figures in table 5, column 6 will show that the variation from this average in individual years is very considerable and it is not possible to forecast with any real probability of accuracy what the figures will be in any ensuing year or years. In the last annual report (Vol. II., p. 5, par. 10) some figures were given of estimated requirements based on an average annual increase of 390 (192 males, 198 females). Continuing on this basis the estimated numbers of patients for whom the Council will be responsible to find accommodation during the next few years would be as set out below :—

	Males.	Females.	Total.
1st January, 1930 (actual) ...	8,842	12,192	21,034
„ 1931 (estimated) ...	9,034	12,390	21,424
„ 1932 „ ...	9,226	12,588	21,814
„ 1933 „ ...	9,418	12,786	22,204
„ 1934 „ ...	9,610	12,984	22,594

11. On 1st January, 1930, 272 London patients (males 35, females 237) were boarded out under contract at out-county mental hospitals (see table 4, *post*). On the basis of contract accommodation continuing to be available to approximately the same extent, a comparison of estimated available accommodation (par. 9) with estimated requirements (par. 10) indicates that within three years the available accommodation as at present anticipated will be insufficient to meet demands.

12. It is becoming increasingly difficult to secure beds at out-county mental hospitals under contract, and additional accommodation in this direction cannot be hoped for. As was pointed out in the last annual report (Vol. II. p. 5, par. 11), there is little prospect of any substantial addition to accommodation for the insane as the result of the transfer to the Council from 1st April, 1930, of the Metropolitan Asylums Board's hospitals and the London Poor Law institutions. Some beds at the London County mental hospitals may be rendered available following a review

of patients now certified under the Lunacy Acts who might be dealt with more appropriately under the Mental Deficiency Acts, but the number will not be large. Such additional accommodation as it has been found possible to provide at the London County mental hospitals in recent years has resulted mainly from the addition of admission villas at the older hospitals and from the provision of nurses' homes, which has enabled ward accommodation adapted as staff dormitories to revert to use as accommodation for patients. The extent to which additional accommodation can be provided in these ways is limited. As previously stated (par. 8), a scheme for the enlargement of the Ewell Colony is in active preparation. Each of the other mental hospitals, none of which was designed originally to accommodate more than approximately two thousand patients, already is accommodating more, and in some cases considerably more than that number, and it is doubtful whether any further substantial addition to present numbers is either desirable or administratively workable. It remains to be seen how far the operation of the Mental Treatment Act, which received the Royal assent in July, 1930, and makes entirely new provision for the reception after 1st January, 1931, in mental hospitals of voluntary patients and for the detention of patients for temporary treatment without certification, will affect the demands made upon accommodation in the London County mental hospitals.

Mental
Treatment
Act, 1930.

Patients—
number
resident.

13. The number of patients resident on 1st January, 1930, were :—

TABLE 2.

Mental hospital.	Males.	Females.	Total.
Banstead	1,132	1,402	2,534
Bexley... ..	1,047	1,114	2,161
Cane Hill	870	1,248	2,118
Claybury	941	1,308	2,249
Claybury Hall (private section only)	60	—	60
Colney Hatch	1,102	1,505	2,607
Hanwell	1,051	1,366	2,417
Horton	270	1,735	2,005
Long Grove	1,141	1,025	2,166
West Park	1,140	964	2,104
Ewell Colony	100	332	432
Total	8,854	11,999	20,853
Total (excluding private section, Claybury)	8,794	11,999	20,793

These figures include 38 male and 76 female patients (total 114) chargeable to parishes and unions outside the County of London,

14. A comparison of table 1 with table 2 shows that on 1st January, 1930, except at Banstead and Horton mental hospitals, the number of patients exceeded the number for which the measured accommodation provided. At that time at the two hospitals mentioned there was vacant certain accommodation for female patients which temporarily had not been available and was in process of being filled. This accommodation was absorbed within a short time. Taking the total figures for all the hospitals at 1st January, 1930, there were 132 male patients and 13 female patients in excess of the number provided for by measured space, giving a net excess of 145. The improved position, as compared with 1st January, 1929, in respect of female patients, was due to the addition during 1929 of 122 beds for women (see par. 4).

Patients for
whom the
Council was
responsible.

15. The statutory returns made to the Board of Control by the London boards of guardians, collated with other available information, show that on 1st January, 1930, the Council was responsible for finding accommodation for 21,034 insane persons, who were housed as follows :—

TABLE 3.

	Males.	Females.	Total.
Parish patients in London County mental hospitals	7,738	11,506	19,244
Parish patients maintained by the Council in other mental hospitals under contract	35	227	262
Parish patients in the mental hospitals of other counties and boroughs under arrangements made by guardians	51	42	93
<i>Total parish patients</i>	7,824	11,775	<i>19,599</i>
Private patients at Horton mental hospital ...	—	132	132
Patients in various London County mental hospitals on the private list (Lunacy Act, 1891, section 3), including ex-soldiers classified as "service" patients and private patients	1,005	285	1,290
<i>Total private patients</i>	1,005	417	<i>1,422</i>
Criminal lunatics in various London County mental hospitals chargeable to the Prison Commissioners	13	—	13
	8,842	12,192	<i>21,034</i>

The totals in the last column, printed in italics, appear again in Table 5.

[This table does not include male private patients in the private section at Claybury mental hospital, but it does include female private patients at Horton mental hospital, all of whom have London settlements and are received at a low charge, so that probably, if they were not dealt with thus, the Council would have to provide for them as parish cases. This is true also of the "private list" cases, all of whom are admitted in the first instance as parish cases, and of the majority of the "service" cases.]

16. The number of London rate-aided patients accommodated in London Parish County mental hospitals on 1st January, 1930, exceeded by 187 (159 males, 28 females) the number so accommodated on 1st January, 1929. The number of London patients accommodated in out-county mental hospitals under arrangements made by London boards of guardians, i.e., patients admitted to out-county mental hospitals but subsequently found to be chargeable to London parishes or unions, was 6 less on 1st January, 1930, than on 1st January, 1929 (7 more males and 13 fewer females). During the year 1929 the number of such patients transferred from out-county mental hospitals to London County mental hospitals was 120 (42 males, 78 females), and one male patient who was in a licensed house on 1st January, 1929, was transferred to a London County mental hospital.

17. The number of patients boarded out under contracts made between the Council and the visiting committees of out-county mental hospitals was on 1st January, 1929, 269 (35 males, 234 females). On 1st January, 1930, the contracts in force were as shown in Table 4.

18. Table 5 shows the total number of the insane for whom the Council has been responsible to find accommodation on 1st January, in certain years since 1890.*

* The figures for each year up to 1915 will be found in the Annual Report for 1915-1919 (Vol. II., p. 15) and for 1916-1919 in the Annual Report for 1921 (Vol. II., p. 6).

TABLE 4.

Mental hospital.	Number contracted for.		Charge a head a week provided for in the original contract.	Charge a head a week on 1st January, 1930.	Date of commencement.	Full term of contract.	Date of expiry.
	N.	F.	£ s. d.	£ s. d.		Years.	
City of London...	35	5	1 5 0	1 10 11	1st July, 1923	7	30th June, 1930 (terminable earlier by six months' notice).
Hants County ...	—	1	1 8 0	1 10 4	15th April, 1926	5	14th April, 1931 (terminable earlier by three months' notice).
Ipswich Borough	—	1	1 8 0	1 8 0	22nd June, 1926	5	21st June, 1931 (terminable earlier by three months' notice).
Leicester City ...	—	100	1 6 10	1 6 10	16th July, 1924	7	15th July, 1931 (terminable earlier by three months' notice).
Monmouth County	—	70	1 2 8½	19 2½	8th January, 1927	3	7th January, 1930. Extended for three years to 7th January, 1933 (terminable earlier by three months' notice) for 55 patients only at a charge of 21s. a head a week.
Oxford County ...	—	20	1 6 10	1 8 0	3rd September, 1923	7	2nd September, 1930 (terminable earlier by three months' notice).
Yorks, East Riding	—	40	1 5 6	1 5 6	6th February, 1926	4	5th February, 1930. Extended for three years to 5th February, 1933 (terminable earlier by three months' notice) for 37 patients only.

TABLE 5.

Date.	Parish and county patients.	Chargeable to Prison Commissioners.	Patients on private list, etc., and private patients at Horton.	Total.	Increase.	Decrease.
1	2	3	4	5	6	7
1st January—						
1890 ...	10,100	4	—	10,104	—	—
1900 ...	15,061	17	107	15,185	5,081(a)	—
1910 ...	19,288	39	587	19,914	4,729(a)	—
1920 ...	16,243	7	1,046	17,296	—	2,618(b)
1921 ...	16,557	40	1,219	17,816	520	—
1922 ...	17,085	36	1,228	18,349	533	—
1923 ...	17,343	15	1,142	18,500	151	—
1924 ...	17,725	10	1,183	18,918	418	—
1925 ...	17,653	10	1,397	19,060	142	—
1926 ...	17,876	13	1,419	19,308	248	—
1927 ...	18,418	11	1,378	19,807	499	—
1928 ...	18,744	11	1,392	20,147	340	—
1929 ...	19,426	13	1,432	20,871	724	—
1930 ...	19,599	13	1,422	21,034	163	—

(a) In each year of these decennia there was an increase. The average yearly increase was, from 1890 to 1900 508, and from 1900 to 1910, 473.

(b) During the first 5 years of this decennium there was an average annual increase of 162, the next four years (1916-1919) showed decreases averaging 1,078 a year, the last year (1920) showed an increase of 70.

Patients—
increase in
number.

19. The increase in the number of patients for whom the Council on 1st January, 1930, was responsible to find accommodation was 163. The number of additional rate-aided patients was 173 (165 males, 8 females). There were 10 additional patients on the private list and one additional patient in the private ward at Horton mental hospital, but the number of service and ex-service patients decreased by 21. In considering table 5 reference should be made to tables 9 to 12 inclusive and to the corresponding tables in the Annual Report for 1928.

20. It will be seen that the total number of admissions, both direct and indirect (table 9) was 3,563, as against 4,038 for 1928, a decrease of 475; the recoveries (table 10) were 906, as against 787 for 1928, an increase of 119; and the deaths numbered

1,565 as against 1,226, an increase of 339. The percentage of total recoveries to total admissions (table 11) was 25.42 as against 19.48 for 1928; and the percentage of total deaths to the average daily number on the registers (table 12) was 7.59 as against 6.06 for 1928. The total number of discharges was 1,409 as against 1,328 for 1928, an increase of 81.

21. It should be pointed out that the total admissions (table 9) include transfers between London County mental hospitals, whereas in the total discharges (table 10) transfers to other mental hospitals are excluded and the figures represent actual discharges from mental hospital care. Excluding transfers between London County mental hospitals, transfers to Claybury mental hospital on private classification, and cases in which chargeability has been adjudicated to out-county parishes or unions, the total number of admissions to London County mental hospitals during 1929 was 3,109. The "exits" of London cases, *i.e.*, discharges, transfers, deaths, etc., numbered 2,932, so that the number of admissions exceeded the total number of exits by 177. The number of London patients under treatment in out-county mental hospitals was decreased by 14 during the year, so that the net increase in London patients was 163 as indicated by table 5. This increase represents an inevitable process of accumulation in the Council's mental hospitals of chronic patients for whom discharge is not practicable.

22. Details of the total number of the insane (excluding male patients in the private section at Claybury mental hospital) under the care of public authorities in London responsible for dealing with them are as follows:—

Insane persons within the knowledge of public authorities, 1890-1930.

TABLE 6.

Date.	Lunatics under reception orders in County or Borough mental hospitals.	Lunatics in M.A.B. mental hospitals.	Lunatics in workhouses or with relatives and friends.	Total number of lunatics.	Annual increase or decrease of			
					Lunatics under reception orders.		Total number of lunatics.	
	(i)	(ii)	(iii)	(iv)	(v)		(vi)	
					Increase	Decrease	Increase	Decrease
1st January—								
1890 ...	10,104	5,566	692	16,362	—	—	—	—
1900 ...	15,185	5,770	562	21,517	5,081	—	5,155	—
1910 ...	19,914	6,676	413	27,003	4,729	—	5,486	—
1920 ...	17,296	5,291	328	22,915	—	2,618	—	4,088
1921 ...	17,816	5,385	326	23,527	520	—	612	—
1922 ...	18,349	5,320	298	23,967	533	—	440	—
1923 ...	18,500	5,101	279	23,880	151	—	—	87
1924 ...	18,918	5,148	312	24,378	418	—	498	—
1925 ...	19,060	4,976	294	24,330	142	—	—	48
1926 ...	19,308	4,975	245	24,528	248	—	198	—
1927 ...	19,807	4,817	239	24,863	499	—	335	—
1928 ...	20,147	4,640	236	25,023	340	—	160	—
1929 ...	20,871	4,525	264	25,660	724	—	637	—
1930 ...	21,034	4,370	207	25,611	163	—	—	49
Net increase in 40 years ...					10,930		9,249	
Average increase per annum ...					273		231	

23. Table 6 shows that the total number of the London insane decreased in the year by 49 as compared with an increase during 1928 of 637. Actually the London County Council had to provide on 1st January, 1930, for 163 additional cases as compared with 1st January, 1929 (*see* table 5), but the number of cases in the institutions of the Metropolitan Asylums Board on 1st January, 1930 was 155 less than the number on 1st January, 1929, and the number of cases for whom boards of guardians were providing treatment either in the infirmary or workhouse or with relatives and

friends of the patients was 57 less than the number on 1st January, 1929. The number of cases in the institutions of the Metropolitan Asylums Board on 1st January, 1930, is once more the lowest recorded since 1890.

Metropolitan
Asylums
Board's
accommoda-
tion.

24. During 1929, 25 male and 1 female patients of a kind eligible for detention in the Metropolitan Asylums Board's mental hospitals were transferred from London County mental hospitals to the Board's care, and the London County mental hospitals received, by transfer from the Board's institutions, 8 male and 12 female patients.

Applications for admission.

Applications
for beds.

25. The applications for beds for cases of insanity received from the relieving officers in the County of London and dealt with during each month of the period 1919-1930 are shown in table 7 below. This table, as we have pointed out in previous years, has some value as an indication whether there is any actual increase in the incidence of mental unsoundness in the county. The figures give the total applications made each month, of which a certain number (between 4 and 5 per cent.) were withdrawn for one reason or another. The figures therefore do not represent the total number of cases actually admitted to a London County mental hospital. It will be noted that the number of applications is 71 less than last year.

TABLE 7.

	1919-20	1920-21	1921-22	1922-23	1923-24	1924-25	1925-26	1926-27	1927-28	1928-29	1929-30
April ...	303	294	242†	267	263	243	256	297	244†	265	310
May ...	347*	303	324*	337*	328	265	329	270	274	308	352*
June ...	314	347*	274	275	303	265	266	304	309	306	269
July ...	327	308	323	272	333*	338*	340*	340*	280	366*	319
August ...	317	292	263	300	297	252	238	265	303	318	292
September ...	265	261	257	282	238	237	273	267	283	302	279
October ...	270	298	287	233†	278	275	287	245†	250	275	322
November ...	217†	231†	242†	261	289	236†	228†	276	260	286	258
December ...	228	287	286	291	256	300	294	295	291	287	253
January ...	316	302	278	286	297	297	248	320	293	303	296
February ...	286	279	252	287	266	266	314	253	300	254†	225†
March ...	336	292	280	302	211†	275	319	276	321*	265	289
Total ...	3,526	3,494	3,308	3,393	3,359	3,249	3,392	3,408	3,408	3,535	3,464
Monthly average	293	291	275	282	280	270	282	284	284	294	288

* Highest in each year.

† Lowest in each year.

Readmissions.

Former
patients
readmitted
after being
discharged
"recovered."

26. The total number of patients who were readmitted to the London County mental hospitals during the year ended 31st March, 1930, after having been discharged "recovered" from one or other of the London County mental hospitals, was 354. Of this number 84 were readmitted within twelve months of the date of their discharge.

27. Statistics as to recoveries and readmissions during the past 35 years are as in Table 8.

28. Records have been kept of readmissions since 1895 and the figures relating to the five hospitals which were in existence then are quite consistent. From these it appears that of the discharges "recovered" more than thirty per cent. have relapsed sooner or later after discharge and about eleven per cent. within twelve months after discharge.

TABLE 8.

Mental hospital.	Patients discharged "recovered" between 1895 and 1929.	Number of such patients readmitted to any London mental hospital up to 31st March, 1930.	Percentage of readmissions in col. (ii) to discharges "recovered" in col. (i).	Number of patients in col. (i) readmitted to any London mental hospital within twelve months of their discharge up to 31st March, 1930.	Percentage of readmissions in col. (iv) to discharges "recovered" in col. (i).
	(i)	(ii)	(iii)	(iv)	(v)
Banstead	5,554	1,844	33.20	660	11.88
Bexley (from 19th September, 1898)	3,349	938	28.00	316	9.43
Cane Hill	4,044	1,387	34.29	451	11.15
Claybury	6,556	2,036	31.05	743	11.33
Colney Hatch	5,019	1,586	31.59	555	11.05
Hanwell	5,564	1,903	34.20	676	12.14
Horton (from 3rd March, 1902—out of use from May, 1915, to November, 1919)	1,720	466	27.09	145	8.43
Long Grove (from 18th June, 1907)...	2,061	547	26.54	189	9.17
The Manor (from 8th June, 1899—out of use from July, 1916, to March, 1919; disused entirely as accommodation for cases of insanity since January, 1922)	742	206	27.76	69	9.29
Ewell Colony (from 19th August, 1903—out of use from June, 1918, to February, 1927)	199	32	16.08	15	7.53
West Park (from 23rd June, 1924)...	639	176	27.54	58	9.07
Total	35,447	11,121	31.37	3,877	10.93

Admissions, Deaths and Discharges.

29. The following tables (9 and 10) give particulars of the admissions, deaths and discharges at each of the London County mental hospitals during 1929. In tables 11 and 12 are statistics of the death and recovery rates:—

TABLE 9.

Hospital.	Admissions—1929.									Total number under treatment, 1929.*		
	Direct.			Indirect			Total.			(iv)		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
Banstead	224	190	414	5	9	14	229	199	428	1,344	1,593	2,937
Bexley	154	146	300	8	15	23	162	161	323†	1,207	1,291	2,498
Cane Hill	125	150	275	7	19	26	132	169	301	994	1,430	2,424
Claybury	110	197	307	18	22	40	128	219	347	1,126	1,533	2,659
Colney Hatch	204	200	404	16	19	35	220	219	439	1,290	1,710	3,000
Ewell Colony	8	76	84	2	1	3	10	77	87	111	412	523
Hanwell	173	166	339	17	10	27	190	176	366	1,214	1,539	2,753
Horton	—	256	256	25	58	83	25	314	339	294	1,985	2,279
Long Grove	248	100	348	17	1	18	265	101	366	1,355	1,124	2,479
West Park	208	325	533	17	17	34	225	342	567	1,358	1,317	2,675
	1,454	1,806	3,260	132	171	303	1,586	1,977	3,563	10,293	13,934	24,227

*i.e. Total of column (iii) and numbers of patients resident on 1st January, 1929, given in Table 2 in the Annual Report, 1928, Vol. II., p. 6.

†Includes one male and one female patient subsequently discharged as not "insane."

||Includes one male patient subsequently discharged as not "insane."

Discharges
and deaths.

TABLE 10.

Hospital.	Discharged (excluding transfers to other mental hospitals, but including cases sent for further care in institutions of the M.A.B.)—1929.										Died, 1929.			
	Recovered.			To care of friends on undertakings under sec. 79 of the Lunacy Act, 1890.			Relieved or not improved, otherwise than under col.ii.*			Total discharges.				
	(i)			(ii)			(iii)				(iv)	(v)		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.			M.	F.	Total.
Banstead ...	48	56	104	33	22	55	15	7	22	181	95	82	177	
Bexley ...	47	44	91	13	29	42	8	4	12	145	78	83	161	
Cane Hill ...	23	41	64	14	14	28	7	7	14	106	71	100	171	
Claybury ...	30	71	101	3	2	5	27	16	43	149	53	120	173	
Colney Hatch	37	57	94	36	29	65	16	3	19	178	77	96	173	
Ewell Colony	6	44	50	1	—	1	—	4	4	55	1	18	19	
Hanwell ...	42	36	78	6	18	24	11	1	12	114	84	102	186	
Horton ...	—	56	56	—	12	12	5	15	20	88	16	142	158	
Long Grove ...	43	33	76	14	6	20	7	4	11	107	92	45	137	
West Park ...	51	141	192	23	52	75	13	6	19	286	99	111	210	
	327	579	906	143	184	327	109	67	176	1,409	666	899	1,565	

Three patients (2 male and 1 female) discharged "not insane" are not included.

* "Relieved" or "not improved" for the purpose of this table includes discharges to a workhouse (including an institution provided by the Metropolitan Asylums Board), discharges of patients whom it is intended to deal with under the Mental Deficiency Act, discharges of alien patients for repatriation, discharges of private patients by order of a relative or the person making payment for maintenance (Sec. 72, Lunacy Act, 1890), discharges following escape if a patient is not recaptured within 14 days (and, occasionally, on the expiration of a reception order which is not continued as provided for by sec. 38 of the Lunacy Act, 1890), as well as discharges (made by order of visitors) of patients who, though not recovered, can be cared for outside the hospital, but in whose cases undertakings under sec. 79 of the Lunacy Act, 1890, are not given.

NOTE.—In Table 10 printed in the Annual Report for 1928 (p. 11), the discharges in column (ii) were inadvertently included in column (iii). The totals in column (iv) should therefore be reduced by the totals in column (ii).

Average daily
number on
registers—
Recovery
rate on total
admissions.

TABLE 11.

Hospital.	Remaining on registers 31st December, 1929.			Average daily number on registers, 31st Dec., 1929.			Percentages of recoveries on total admissions, 1929.		
	(i)			(ii)			(iii)		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
Banstead ...	1,132	1,402	2,534	1,121	1,381	2,502	20.96	28.14	24.29
Bexley ...	1,047	1,114	2,161	1,040	1,102	2,142	29.01	27.32	28.17
Cane Hill ...	870	1,248	2,118	863	1,247	2,110	17.42	24.26	21.26
Claybury...	1,001	1,308	2,309	990	1,304	2,294	23.43	32.42	29.10
Colney Hatch	1,102	1,505	2,607	1,086	1,500	2,586	16.81	26.02	21.41
Ewell Colony	100	332	432	100	327	427	60.00	57.14	57.47
Hanwell ...	1,051	1,366	2,417	1,041	1,359	2,400	22.10	20.45	21.31
Horton ...	270	1,735	2,005	269	1,660	1,929	—	17.83	16.51
Long Grove	1,141	1,025	2,166	1,117	1,012	2,129	16.22	32.67	20.76
West Park ...	1,140	964	2,104	1,130	957	2,087	22.66	41.22	33.86
	8,854	11,999	20,853	8,757	11,849	20,606	20.61	29.28	25.42

Analysis of
statistics.

30. The hospital with the highest number of direct admissions was West Park, the most recently opened institution, followed (in the order shown) by Banstead, Colney Hatch, Long Grove, and Hanwell. Including the indirect admissions, the hospital with the highest total number of admissions was again West Park, followed by Colney Hatch, Banstead, Hanwell, and Long Grove. The hospital with the largest number of patients under treatment during the year was Colney Hatch, followed by Banstead, Hanwell, Claybury, Bexley, Long Grove, Cane Hill, West Park, Horton, and the Ewell Colony, which is much smaller than any of the other hospitals.

31. The hospital with the highest number of discharges "recovered" was West Park, followed by Banstead and Claybury. The hospital with the lowest number of discharges "recovered" (excluding Ewell Colony) was Horton, followed by Cane Hill, Long Grove, and Hanwell. The hospital with the highest number of discharges to the care of friends was West Park, followed by Colney Hatch and

Banstead; and the hospital with the highest number of discharges "relieved" or "not improved" was Claybury, followed by Banstead and Horton. On the total number of discharges, West Park was highest, followed by Banstead and Colney Hatch.

TABLE 12.

TABLE 12.											Recovery rate—Death rate.
Hospital.	Percentage of total recoveries to direct admissions, 1929.			Percentage of recoveries yielded by direct admis- sions to the direct ad- missions.			Percentage of deaths on average daily number to registers, 1929.				
	(i)			(ii)			(iii)				
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.		
Banstead	21.42	29.47	25.12	8.92	10.00	9.42	8.47	5.93	7.07		
Bexley	30.51	30.13	30.33	11.03	13.69	12.33	7.50	7.53	7.51		
Cane Hill	18.40	27.33	23.27	8.00	12.66	10.54	8.22	8.01	8.10		
Claybury... ..	27.27	36.04	32.89	7.27	11.16	9.77	5.35	9.20	7.54		
Colney Hatch ...	18.13	28.50	23.26	5.39	12.50	8.91	7.09	6.40	6.68		
Ewell Colony ...	75.00	57.89	59.52	—	10.52	9.52	1.00	5.50	4.44		
Hanwell	24.27	21.68	23.00	11.56	8.43	10.02	8.06	7.50	7.75		
Horton	—	21.87	21.87	—	5.07	5.07	5.94	8.55	8.19		
Long Grove	17.33	33.00	21.83	9.27	12.00	10.05	8.23	4.44	6.43		
West Park	24.51	43.38	36.02	8.17	15.38	12.57	8.76	11.59	10.06		
	22.48	32.05	27.79	8.66	11.18	10.06	7.60	7.58	7.59		

32. The hospitals with the highest death rates in proportion to the average daily numbers resident were West Park (10.06 per cent.), Horton (8.19 per cent.), and Cane Hill (8.10 per cent.). The lowest death rate was at the Ewell Colony (4.44 per cent.).

33. The percentage of recoveries to the total admissions for all the mental hospitals was 25.42, as compared with 19.48 for 1928; and the percentage of deaths to the total average daily number on the register during the year 1929 was 7.59, as compared with 6.06 for the previous year.

Private List, County and Service patients.

34. The usual enquiries have been made as to all patients in respect of whom it appeared likely that there were means, and 177 patients have been found entitled to be classified as private patients in accordance with section 3 of the Lunacy Act, 1891, the cost of maintenance being recovered from the patients' estates or secured by undertakings to pay on the part of relatives or friends.

35. The following statement shows the action taken in regard to the classification of patients during the year ended 31st March, 1930:—

TABLE 13.

Number of patients on private list (Lunacy Act, 1891, sec. 3) on 31st March, 1929 ...	394
Number of patients transferred to private list during the year ended 31st March, 1930 ...	177
Of these were—	571
re-transferred to parish list ...	17
discharged ...	56
died ...	37
removed to private section, Claybury hospital (males) ...	2
removed to private ward, Horton hospital (females) ...	24
removed to private institutions ...	4
transferred to "Service" (private) class ...	1
	141
Number of patients on private list on 31st March, 1930 ...	430

These were located at Banstead (11 m. 20 f.), at Bexley (19 m. 25 f.), at Cane Hill (9 m. 23 f.), at Claybury (20 m. 28 f.), at Colney Hatch (11 m. 37 f.), at Ewell Colony (3f.), at Hanwell (13 m. 27 f.), at Horton (65 f.), at Long Grove (32 m. 26 f.), and at West Park (22 m. 39 f.).

County
patients.

36. Patients who are chargeable to the county are those who have not acquired a poor law settlement in any parish of England and Wales or who have no status of irremovability from any such parish.* All patients when first received into the mental hospitals are *prima facie* chargeable to the union or parish from which they are sent. The parochial authorities in the case of a patient who is found not to be settled in or irremovable from any parish or union of England and Wales may give notice to the local authority (the Council) of intention to obtain an order of a justice to adjudicate the chargeability to the county. All such cases are enquired into by the chief officer of the mental hospitals department, and where settlements can be found elsewhere steps are taken to get the notices withdrawn. The attention of the parish authorities is also drawn to cases in which, from information obtained, it would appear that patients might be chargeable to out-county parishes.

37. The chief officer makes enquiries as to the ability of all patients, who are chargeable to the county, to reimburse either wholly or in part the expenses of their maintenance.

38. During the year under review 29 notices were received from London boards of guardians of their intention to obtain orders adjudicating the chargeability of patients to the County of London. With 13 cases standing over from last year this gave a total of 42 cases to be dealt with. In 6 cases settlements were found and the notices were withdrawn; in the remaining 36 cases, orders were made on the County of London.

39. The 36 patients adjudicated to the county appeared to belong to the following countries:—Ireland, 10; England, 3; Scotland, 8; Denmark, 1; Roumania, 1; Russia, 1; Canada, 1; South Africa, 1; Mauritius, 1; United States of America, 1; South America, 1; China, 1; Unknown, 6.

40. The number of patients chargeable to the county, as compared with the total number chargeable to London boards of guardians and to the county, for whom the Council was providing accommodation at the commencement of 1930, and of previous years, was as follows†:—

TABLE 14.

Date, 1st January.			Chargeable to the County.	Chargeable to London boards of Guardians and the County.	Date, 1st January.			Chargeable to the County.	Chargeable to London boards of Guardians and the County.
1890	...	...	532	10,100	1924	...	...	478	17,725
1900	...	...	510	15,061	1925	...	...	491	17,653
1910	...	...	564	19,288	1926	...	...	515	17,876
1915	...	...	555	20,882	1927	...	...	525	18,418
1920	...	...	424	16,243	1928	...	...	520	18,744
1921	...	...	436	16,557	1929	...	...	522	19,426
1922	...	...	448	17,085	1930	...	...	521	19,599
1923	...	...	459	17,343					

41. The total number of patients chargeable to London boards of guardians and the county on 1st January, 1930, was 173 more than the number on 1st January, 1929. In 1890 the number of patients chargeable to the county amounted to 5 per

* As from 1st April, 1930, the law in this respect has been altered by the Local Government Act, 1929.

† Figures for 1890–1899, 1901–1909, 1911–1914 and 1916–1919 are given in the Annual Report for 1921 (Vol. II., p. 9).

cent. of the total ; in 1900, it had fallen to 3.3 per cent. ; and is now only 2.6 per cent. The necessity for discrimination ceased at 1st April, 1930, after which date boards of guardians ceased to exist and settlement is within the county and not within parishes or unions comprised in the county.

42. The following table gives particulars of "Service" patients at each of the London County mental hospitals during the year ended 31st March, 1930 :—

Service patients.

TABLE 15.

	"Service" patients at the hospital at 31st. March, 1929.	Admission of patients who have had military service.				Patients classified as "Service" patients during the year.	"Service" patients discharged or transferred during the year.	"Service" patients died during the year.	"Service" patients remaining at 31st. March 1930.
		Under Section 91 of Army Act.	Under summary reception orders.	Transferred from other mental hospitals.	Un-classified.				
Banstead ...	120	—	55	—	1	2	6	2	115
Bexley ...	76	—	61	2	—	1	4	1	72
Cane Hill ...	86	—	41	2	—	2	1	1	86
Claybury ...	142	—	5	—	—	5	5	2	140
Colney Hatch	78	—	18	—	—	3	6	1	74
Ewell Colony	—	—	—	—	—	—	—	—	—
Hanwell ...	123	—	63	—	3	4	3	2	125
Horton ...	—	—	—	—	—	—	—	—	—
Long Grove ...	130	—	95	7	1	4	4	1	130
West Park ...	42	1	10	—	—	6	4	2	42
Total ...	797	1	348	11	5	27	33	12	784

43. The number of patients who have had military service admitted under summary reception orders (*i.e.*, through poor law parishes or unions) was 14 more than the number so admitted during the previous year. Every such case is considered by the Ministry of Pensions with a view to "service" classification should the Ministry be satisfied that the mental disability is due to or is aggravated by military service during the Great War. The number of such cases to receive "service" classification during the year ended 31st March, 1930, was less by 8 than the corresponding number for the year ended 31st March, 1929. The number of those patients admitted who have had military service has not decreased to any great extent during the past few years, but the number of such patients who are considered by the Ministry of Pensions to be entitled to "service" classification has decreased considerably. Obviously with the passage of time the number of cases in which mental disability is directly due to or has been aggravated by military service during the Great War must diminish.

Alien Lunatics.

44. There has been no change since our last annual report in the arrangements made for the deportation of alien lunatics.

Alien lunatics.

45. During the year ended 31st December, 1929, 89 alien patients were admitted to London County mental hospitals chargeable to London parishes or unions or to the county, and there were 670 already in residence on 1st January, 1929. Of the total number of 759, 1 has been deported under the provisions of the Aliens Act, 5 have been discharged to friends for repatriation, 9 have been transferred to other mental hospitals, 44 have died, and 31 have been discharged either "relieved" or "recovered," 90 in all, leaving 669 in residence on 31st December, 1929.

46. The nationalities of these 669 patients were as follows :—American (U.S.A.), 11 ; American (South), 3 ; Arabian, 1 ; Armenian, 3 ; Asiatic (country unknown), 1 ; Austrian, 22 ; Belgian, 10 ; Bulgarian, 1 ; Chinese, 9 ; Czecho-Slovak, 4 ; Danish

2; Dutch, 14; Egyptian, 2; Finnish, 2; French, 49; German, 74; Greek, 4; Hungarian, 5; Italian, 57; Japanese, 1; Latvian, 3; Lithuanian, 6; Norwegian, 4; Persian, 1; Polish, 78; Portuguese, 1; Roumanian, 8; Russian, 253; Serbian, 1; Spanish, 6; Swedish, 5; Swiss, 21; Syrian, 1; Turkish, 4; Unknown, 2.

The Mental After-Care Association.

Mental
After-Care
Association.

47. This Association has continued to give valuable assistance in connection with patients discharged or allowed to be absent on trial.

48. The arrangement whereby a payment of two shillings and sixpence is made to the Association in respect of each patient dealt with by the Association on the grant of leave of absence on trial under section 55 of the Lunacy Act, 1890, and for services rendered by the Association in connection with applications made for the discharge of patients under section 79 of the Lunacy Act, 1890, has been continued.

49. During 1929-30 the following cases were helped by the Association in the manner indicated:—

			<i>Home visits.</i>	<i>Placed in cottage homes.</i>	<i>Placed in situations.</i>	<i>Old cases, i.e., before 1929, helped in various ways.</i>
Banstead ...	...	...	165	19	15	8
Bexley ...	...	...	112	14	12	8
Cane Hill ...	...	...	95	9	8	5
Claybury ...	...	...	115	24	13	9
Colney Hatch ...	...	...	14	11	7	6
Hanwell ...	...	...	122	16	9	15
Horton ...	...	...	82	12	10	7
Long Grove ...	...	...	87	14	9	4
West Park ...	...	...	212	27	23	11
Maudsley ...	...	...	—	28	7	—
Ewell Colony ...	...	...	40	7	8	3
Totals ...	...	...	1,044	181	121	76

Queen Adelaide's Fund.

Queen
Adelaide's
Fund.

50. Grants have been made from this private fund during the year, for the relief of deserving patients upon their discharge "recovered" from the mental hospitals. The number of cases in which grants were made at each of the London County mental hospitals during the year ended 31st March, 1930, and the amounts were as follows:—

	<i>No. of patients receiving grants.</i>			<i>Total amount of grants.</i>					
	M.	F.	Total.	M.			F.		
				£	s.	d.	£	s.	d.
Banstead ...	14	18	32	39	5	0	45	0	0
Bexley ...	21	30	51	43	10	0	128	6	2
Cane Hill ...	9	8	17	24	15	0	24	0	0
Claybury ...	11	15	26	28	10	0	42	14	6
Colney Hatch ...	9	4	13	26	15	0	18	4	6
Ewell Colony ...	2	6	8	6	0	0	14	7	0
Hanwell ...	19	10	29	52	2	0	35	0	0
Horton ...	—	17	17	—	—	—	55	0	0
Long Grove ...	17	9	26	48	16	0	36	9	6
West Park ...	13	17	30	39	0	0	50	0	0
Total ...	115	134	249	308	13	0	449	1	8

Though the majority of the grants were made at the date of the patients' discharge, a small number were made to ex-patients after they had left the hospital.

Treatment of General Paralysis.

51. The experimental scheme for the co-ordination of the work done at the mental hospitals in connection with the treatment of general paralysis of the insane by induced malaria, to which we referred in our last report (Annual Report of the Council 1928, Vol. II., p. 17, par. 54) is producing useful results as regards both the treatment of individual patients and the investigation of the disease. We have authorised the continuance of the arrangement for a further period of 12 months.

Scheme for co-ordination of treatment of general paralysis of the insane.

Indian Clinical Assistant.

52. At the request of the High Commissioner for India, we have granted facilities for a qualified Indian medical man to act as an unpaid clinical assistant during a period of two years, at those of the London County mental hospitals at which necessary arrangements can be made.

Contributions to medical literature.

53. Contributions to medical literature have been made by members of the medical staff of the London County mental hospitals during the year ended 31st March, 1930, as follows:—

Contributions to medical literature.

- Dr. G. A. Lilly, deputy medical superintendent, Banstead mental hospital. "Journal of Mental Science," July, 1929.—"A note on the Wassermann Reaction in the blood-serum and cerebro-spinal fluid of female admissions to Banstead mental hospital."
- Dr. R. G. B. Marsh, third assistant medical officer at Claybury mental hospital. "The Lancet," May, 1929.—"The Excitability of the Respiratory Centre in Psychotic subjects."
- Dr. J. C. Ramsay, fifth assistant medical officer, Claybury mental hospital. "Journal of Medical Science," January, 1930.—"Intensive Antisyphilitic treatment following Induced Malaria in nineteen cases of General Paralysis."
- Dr. W. A. Caldwell, fourth assistant medical officer, Hanwell mental hospital. "The British Journal of Experimental Pathology," 1930, Vol. XI.—"The Immunity reactions against Cultivated *Spironema Pallidum* of General Paralytics treated by Induced Malaria."
- Dr. J. R. Lord, medical superintendent, Horton mental hospital. "Journal of Mental Science," April, 1929.—"The Evolution of the Nerve Hospital as a Factor in the Progress of Psychiatry." "Journal of Mental Science," October, 1929.—"The Admission of Mental Patients to In-patient Treatment." "Journal of Mental Science," January, 1930.—"The Local Government Act, 1929 and Administrative Psychiatry." "Journal of Mental Science," January, 1930.—"The New York State Psychiatric Institute and Hospital." "Journal of Mental Science," January, 1930.—"The State Registration of Mental Nurses." Edited "The Mott Memorial Volume." (Pubd. March, 1929.) H. K. Lewis and Company, Limited.
- Dr. W. D. Nicol, deputy medical superintendent, Horton mental hospital. "British Journal of Venereal Diseases," April, 1929.—"Treatment of General Paralysis by Malaria." "Habits of Anopheles in relation to their role in spread of Malaria." "Experiments on the Treatment of Malaria in England."
- Dr. E. G. T. Poynder, second assistant medical officer, Long Grove mental hospital. "Journal of Mental Science," January, 1930.—"The Incidence of Syphilis in Admissions to Mental Hospitals."
- Dr. R. W. Armstrong, fourth assistant medical officer, West Park mental hospital. "Journal of Mental Science," December, 1929.—"An Investigation into the Distribution of Chlorine in the Blood and Urine in certain Psychoses."

Works of improvement, etc., at mental hospitals.

54.—Alterations and additions to the buildings and fittings, and other structural works which have been carried out at the mental hospitals are set out below. The statement does not include minor works carried out at small cost:—

Structural alterations and additions.

Banstead mental hospital.

	£	s.	d.
Push bells for dormitories	263	6	1
Transposition of day room and dormitory at ward 6	59	13	4
Adaptation of staff rooms as clinical rooms in ward H	54	17	6
Improvements to heating apparatus	199	13	0
Repair of padded room	55	13	9
Bath room at farm bailiff's house	100	0	0
Loose boxes at farm	337	3	0

Bexley mental hospital.

	£	s.	d.
Strengthening fireproof ceilings, wards E2 and F2.	297	5	3
Hair carding machine	78	17	10
Two steamers for general kitchen	165	7	8
Potato cleaning machine	93	16	1
Gas supply to North villa	20	5	4
Conversion of root store into cowshed	308	1	1
Alterations to cow sheds	159	19	9
Hay racks at cowsheds	26	18	4
Cesspit pump	19	8	10

Cane Hill mental hospital.

Electric fans in kitchen and scullery	103	14	11
Gas-heated warming cupboards in kitchen	58	5	6
Repairs to walls of kitchen annexe	117	16	8
Alterations at kitchenmaids' messroom	15	10	10
New laundry machinery	167	4	6
Additional radiators in wards C1 and C2	177	11	2
Alterations to sanitary annexes at wards D1 and D2	489	15	4
Ultra violet ray apparatus	18	18	9
Roof to open yard at farm	133	11	11

Claybury mental hospital.

External staircase to T. block	223	6	0
Repairs to corridor ceilings	148	0	8
Additional radiators in visitors' corridor	18	16	4
Adaptation of staff rooms as clinical rooms	51	6	4
Demonstration room for invalid cookery	66	9	10
Bathroom at gate-porter's lodge	36	6	2
Blinds in recreation hall	23	11	1
Decoration of recreation hall	348	4	10
Potato peeling machine	89	7	3
Motor cycle shed	87	14	8
Improvements to forecourt of Claybury Hall	69	11	0
Recovering of cow sheds	63	19	2
Fencing at farm	167	19	8
Office for farm bailiff	18	10	8

Colney Hatch mental hospital.

Deepening of well	1,752	2	9
Granolithic flooring, female low-level corridor	247	16	6
Additional lavatories at female wards 15 to 19	106	11	1
Alterations to female wards 15 to 20	1,933	7	10
Alterations to ward B3	70	13	0
Additional fire alarm indicator	26	12	5
Conversion of room in N. block into cubicles	210	16	2
Refrigerator	623	4	0
Water service at football field	15	18	1
Surfacing all-weather tennis court	58	9	0
Replacement of roof at cowshed	506	14	9
Replacement of roof at boiler house	330	0	2
Alterations at No. 4 female airing court	376	4	10
Electric motor for Hobart mixer	29	18	6
Apparatus for pathological laboratory	99	0	10
Alterations and additions at fireman's cottage	194	12	8
Relief drain at fireman's cottage	103	9	9
Renovation of stage scenery	153	10	0
Boiler and gas cooker at boys' villa	85	17	9
Renewal of steel supports to coal drops	200	9	2

Hanwell mental hospital.

Concreting paths at main cowyard	149	7	6
Protection to overhead conductors of fire alarm system	29	0	9
Verandahs at female wards 2 and 7	536	18	5
Alterations to stores basement	63	14	4
Alterations to staff bedroom windows	22	10	2
Ironing machine	108	11	4
Alterations to washing machine	25	8	4

Hanwell mental hospital—continued.

	£	s.	d.
Boiler at piggeries	19	10	2
Fencing at kitchen garden	19	5	11
Fencing at farm	79	1	2
Water supply to farm meadows	93	19	10
Shelter and tool shed at kitchen garden	23	8	7
Repairs to hay store	24	2	10
Alterations to farm bailiff's office	16	17	6
Alterations to gate in male airing court No. 3	19	17	8
Guards to radiators in male ward 11	11	15	8

Horton mental hospital.

Glazed porch at pathological laboratory	14	15	8
Alterations to mortuary	15	13	6
Parking place for motor cars	21	9	4
Heating apparatus at garage	56	3	6
Hot and cold water service and wash basin at massage room	14	17	5
Laundry washing machine	195	17	7
Enlargement of enclosure for ironing stove	115	15	8
New gates to fields	27	16	1
Fencing at farm	76	10	6
Footpath, fencing and gates at southern boundary	147	15	3
Shed to store X-ray films	45	10	9

Long Grove mental hospital.

Two loose boxes at South farm	110	8	5
Automatic drinking bowls in cowsheds	62	13	1
Shed for young cattle... ..	220	15	4
Land drainage	29	5	7
Equipment of staff lecture room	66	15	7
Repairs to padded room	100	10	4
Alteration to stores offices	45	4	2

West Park mental hospital.

Replacement of 12 gas fires by coal grates	63	13	11
Radiators in two bathrooms	33	16	9
Alterations to laundry	19	0	0
Extension of foul laundry yard	34	4	1
Fencing of meadows	59	0	8
Electric wiring at head cowman's and head pigman's cottages	38	4	2
Rebuilding pavilion destroyed by fire	455	6	3
Gas supply and geyser at new pavilion	39	19	7
Bay windows at pavilion	25	0	0
Rooflights at bakehouse	14	18	9
Repairs to weigh bridge	40	12	10

Ewell Colony.

Adaptation of workshop as pathological laboratory	98	7	8
Equipment for pathological laboratory	215	3	10
Fencing at farm	23	11	10
Water supply to meadows	50	4	10
Tar paving of paths at three villas	59	10	3
Tar paving of paths at laundry drying ground	29	9	5
Wash hand basins at nurses' home... ..	44	4	4
Slot meters and gas rings at nurses' home	11	6	5
External decorations to medical superintendent's house	19	3	8

The Maudsley hospital.

Four additional clinical rooms; Matron's quarters at nurses' home	277	12	10
Additional bathroom at nurses' home	39	7	8
Double casement windows at hall	61	6	9
Racks at linen stores room	14	12	0
Additional lighting at wards 3 and 6	19	18	11
Recurbing airing court, ward 1	55	0	0
Boundary fencing	216	15	9

Matters affecting individual hospitals.

55. In the following paragraphs we refer in detail to certain matters which affect, in particular, individual hospitals.

Banstead mental hospital.

Admission
villa.

56. Plans of an admission villa to accommodate 100 patients, 50 of each sex, have been approved by the Minister of Health and the work will be commenced shortly.

Laundry.

57. The laundry has been enlarged and the machinery, which was out of date and practically worn out, has been replaced by modern plant capable of dealing with 50,000 articles a week.

Outbreak of
swine fever.

58. An outbreak in July, 1929, of swine fever at the hospital necessitated the disposal of the whole of the herd of pigs at the main piggeries. The piggeries will be restocked on the removal of restrictions by the Ministry of Agriculture.

Sewage
disposal.

59. Following protracted negotiations, the Epsom Rural District Council have agreed without special charge, to take the drainage from the hospital into their sewage system.

Cane Hill mental hospital.

Nurses
home.

60. A scheme has been approved for the erection of a nurses' home. This will provide accommodation for 84 nurses who at present occupy accommodation formerly occupied by patients. The completion of the home will enable this accommodation to be used for the reception of patients (*see par. 6*). The building has been designed to permit of subsequent extension, by the addition of a wing, to provide an ultimate total accommodation for 105 female nurses.

Grazing of
cattle.

61. Arrangements for the grazing of cattle from the hospital on land at Southern's Farm, on suitable terms, have been renewed until 25th March, 1931. The new licence will include 23 acres additional to the land (about 140 acres) included in the previous licence.

Surrender of
land.

62. A strip of land about 10,250 square feet in area which formed part of the hospital estate, has been surrendered to the Surrey County Council on payment by that Council of £100, for a widening of the main Brighton road.

Claybury mental hospital.

Operating
theatre.

63. We have authorised expenditure of £950 for the provision of a new operating theatre, including a surgeon's room, anæsthetic room and a sterilising room. The former operating theatre will be used as a surgery for minor casualties and as a clinical room for visiting consultant surgeons.

Dental room.

64. We have authorised expenditure of £375 for the provision of a new dental room.

Cottage for
head cow-
man.

65. At most of the institutions under our direction the head cowman resides on the estate and occupies a cottage provided as an emolument by the Council. The head cowman at this hospital is non resident at present and we have authorised the erection, at a cost of £735, of a cottage for his occupation.

Colney Hatch mental hospital.

Electric
cable.

66. We have granted permission to the North Metropolitan Electric Power Supply Company to lay an electric cable in the grounds of Colney Hatch mental hospital, subject to the company paying a yearly rent of £1 1s. for the privilege, and to the work being carried out by the company to the satisfaction of the Council. Electric power for the hospital will be conveyed by this cable.

Water
supply.

67. The work of deepening the well was completed early in the year under review, and it is anticipated that the supply of water now obtainable from the well will be adequate for the purposes of the hospital for some years.

68. The construction of the North Circular-road through the grounds of the hospital has not yet been commenced. Construction of north circular road.

Hanwell mental hospital.

69. A contract has been entered into with W. H. Gaze and Sons, Limited, for the erection of an admission villa to accommodate 100 patients (50 males and 50 females). The amount of the contract is £37,902 (*see par. 7*). Admission villa.

70. A scheme for the supply of electric current to the hospital has been approved. The scheme provides for the installation of electric lighting throughout the hospital, and for the supply of electric power for such purposes as refrigeration, labour-saving devices, cinematograph, and water pumping, etc. The current will be supplied by the Metropolitan Electric Supply Company, Limited, and we have sanctioned an agreement with that company for the supply of electric current at the rate of £8 per kilowatt of maximum demand per annum, plus 4/10ths of a penny per unit for all current used. The existing gas works at the hospital, which now supply gas for lighting, cooking and heating throughout the hospital will eventually be closed down, as it will be more economical, when electric current is used for lighting, to obtain the relatively small quantity of gas which will be required for cooking and heating, from the Gas Light and Coke Company. The total cost of the scheme is estimated to be £23,000. To reduce to a minimum the inconvenience and discomfort to patients and staff during the wiring of the buildings, the work will be carried out gradually and it is anticipated that it will be completed during the year 1931-32. Electricity scheme.

71. The level of the water in the hospital well fell so low during the year that it was necessary to obtain all the water required for the hospital from the South West Suburban Water Company, and we authorised a test to be made of the capacity of the well to ascertain whether the inflow of water would justify the installation of pumping plant. As the result of the test we have authorised the installation of a deep well pump at an estimated cost of £1,800, which, it is anticipated, will maintain for some years a supply of water sufficient for the needs of the hospital, and will result in an annual saving of about £700 as compared with the cost of purchasing the water. Deep well pump.

72. We have authorised expenditure of £970 for the enlargement of the butcher's shop and the provision of refrigerating plant. Butcher's shop and refrigerating chamber.

73. We have approved a scheme for the modernisation of the male general bathroom. The scheme provides for improved ventilation and lighting and the replacement of the baths, which are of obsolete pattern by six spray and four slipper baths of modern design. Male general bathroom.

Horton mental hospital.

74. Plans have been approved by the Minister of Health of an extension of "C" hospital, which is used for malarial therapy of general paralysis of the insane (*see par. 6*). Extension of "C" hospital.

Long Grove mental hospital.

75. A contract has been entered into with J. W. Ellingham, Limited, Dartford, for the erection of a nurses' home to accommodate 80 nurses and 3 sisters. The amount of the contract is £15,890 (*see par. 6*). Nurses' home.

76. The Council on our recommendation has approved a scheme for the provision of a sanatorium for 30 female patients suffering from tuberculosis, dysentery, or typhoid fever. The provision of this sanatorium will relieve to a large extent one of the infirmary wards on the female side of the hospital, and will enable non-infectious cases to be separated from infectious cases. Sanatorium for female patients.

Male
occupations
officers.

77. The Council on our recommendation has authorised the employment of a male occupations officer as an experiment for one year from 1st April, 1930. This officer will be concerned entirely with male patients, who, hitherto, have received instruction, to a limited extent, from the woman occupations officer.

Outbreak of
swine fever.

78. Following an outbreak of swine fever at the hospital in March, 1929, a large part of the herd of pigs was disposed of. The herd is now free from the disease, and will be brought up to the required numbers.

The Maudsley hospital.

79. The Maudsley hospital has now entered upon its eighth year of work and continues fully to prove its value for the treatment on a voluntary basis of early cases of mental disorder. The publication shortly, as a separate document, of a report by the medical superintendent upon details of the work done during recent years, is anticipated.

Number of
cases under
treatment.

80. The numbers of patients treated at the hospital during the twelve months ended 31st December, 1929, were made up as follows :—

<i>Out-patients.</i>	Numbers treated.			Disposed of in out-patient department during 1929.			Admitted to wards from out-patient department during 1929.			Still attending on 31st December, 1929.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Number carried over from year 1923-24 ...	—	1	1	—	1	1	—	—	—	—	—	—
Number carried over from year 1924-25 ...	1	—	1	1	—	1	—	—	—	—	—	—
Number carried over from year 1925-26 ...	2	—	2	2	—	2	—	—	—	—	—	—
Number carried over from year 1926 ...	2	2	4	1	1	2	—	—	—	1	1	2
Number carried over from year 1927 ...	26	20	46	11	10	21	—	—	—	15	10	25
Number carried over during 1928 ...	65	105	170	44	66	110	5	2	7	16	37	53
Number registered during 1929 ...	701	861	1,562	467	544	1,011	135	163	298	99	154	253
Total number ...	797	989	1,786	526	622	1,148	140	165	305	131	202	333

<i>In-patients.</i>						Males.	Females.	Total.
In hospital on 1st January, 1929 ...	...	...	...	...	...	64	105	169
Admitted from out-patient department during 1929 ...	...	...	...	...	...	140	165	305
Admitted otherwise during 1929 ...	...	...	...	...	...	129	144	273
Total ...						333	414	747
Discharged during the year 1929 ...	...	...	...	...	...	248	299	547
Died during the year 1929 ...	...	...	...	...	...	27	12	39
Total ...						275	311	586
Remaining in hospital 31st December, 1929 ...	...	...	...	...	...	58	103	161

Note.—Thirteen male and three female patients admitted during 1929 were, after discharge, readmitted, four male patients being readmitted three times. Of these readmissions six male and two female patients remained in the hospital at 1st January, 1930. The figures given above do not include the second and subsequent admissions and discharges.

Child
Guidance
Council—
psychiatrist
and director
of clinic.

81. In our last report (Annual Report of the Council, 1928, Vol. II, par. 73) we referred to the establishment of a child guidance clinic by the Child Guidance Council. The preliminary arrangements for the establishment of the clinic took longer than was anticipated, and the Council, on our recommendation, has granted

Dr. Wm. Moodie, deputy medical superintendent of the Maudsley hospital, leave of absence without pay for a further period of twelve months to enable him to continue to act as psychiatrist and director of the clinic.

82. We have authorised a further course of lectures in psychological medicine with clinical instruction and demonstrations, subject to the conditions which have been applied to previous courses. This will be the thirteenth course held at the hospital. Lectures in psychological medicine.

Staff.

83. The established staff of the mental hospitals department (including the staff at the central offices), numbered, on 31st March, 1930, 705 officers, 4,027 nurses (male and female) and 1,154 employees of various grades. Number.

84. Dr. P. J. McCowan resigned his position as deputy medical superintendent of West Park mental hospital on 22nd May, 1929, on appointment as medical superintendent of the Cardiff City mental hospital. The consequential vacancy was filled by the promotion of Dr. E. L. Hopkins, second assistant medical officer of West Park mental hospital. Changes in medical staff.

85. Dr. W. J. Lascelles, third assistant medical officer at Claybury mental hospital, was promoted to be second assistant medical officer to fill the vacancy caused by the promotion of Dr. H. W. Parnis to be deputy medical superintendent of Bexley mental hospital. (*see Annual Report of the Council, 1928, Vol. II, p. 24, par. 80*).

86. Dr. E. G. T. Poynder, resigned his position as second assistant medical officer at Long Grove mental hospital, on 13th March, 1930, on appointment as medical superintendent of Plymouth mental hospital.

87. Dr. J. K. C. Laing, deputy medical superintendent of Colney Hatch mental hospital has been promoted to be medical superintendent of the Darenth training colony.

88. We have granted the medical superintendent of Banstead mental hospital special leave, with pay, for not more than two weeks additional to his annual leave, to enable him at his own expense to visit the United States of America to study the arrangements made there for the early treatment of mental disorder. We have received from him an interesting report. Visits to America.

89. We have granted the medical superintendent of the Maudsley hospital special leave, with pay, for not more than five weeks, to enable him to pay an observational visit to America to study arrangements for the prevention and treatment of mental disorder and for research and teaching in psychological medicine.

90. We have granted permission to Dr. A. Walk, third assistant medical officer at Long Grove mental hospital, to accept an unpaid clinical assistantship at University College hospital for a period of six months. Dr. A. Walk clinical assistantship.

Asylums Officers' Superannuation Act, 1909, and Asylums and Certified Institutions (Officers Pensions) Act, 1918.

91. We continue to deal with matters under these statutes by virtue of powers delegated by the Council. Superannuation Acts.

92. During 1929-30, eighty-two superannuation allowances were granted, to the amount of £9,540 0s. 6d. a year. Allowances granted.

93. In three cases where application had been made for the addition of years of service under section 2 (3) of the Act of 1909, the Council, on our recommendation, and with the consent of the Ministry of Health, added in each instance, five years to the actual period of service in computing the amount of superannuation allowance. Additional years of service.

94. In two cases contributions towards pensions granted by the Council have been claimed from other authorities from whose institutions the pensioners had removed after at least two years' service; the contributions as agreed amounted to £9 14s. 5d. a year. No contributions by the Council were agreed towards pensions granted by other authorities. Contributions by other authorities Contributions by the Council.

Repayment
of contri-
butions.

95. Claims made by one hundred and sixty-two officers and employees for repayment of superannuation contributions under section 10 (1) of the Asylums Officers' Superannuation Act were allowed. The total amount so repaid was £1,501 1s. 6d.

96. Ninety-eight applications from women officers and employees leaving to be married, for return of their contributions, as permitted by section 10 (2) of the Asylums Officers' Superannuation Act, were granted. The sums returned amounted to £2,364 9s. 2d.

97. In fourteen cases the application for return of contributions could not be acceded to owing to the circumstances in which the services of the applicants had been terminated.

Gratuities.

98. The Council granted, under the provisions of section 4 (a) of the Act of 1909, gratuities, totalling £1,239 2s. 10d., to the dependants of five employees who had died in the service.

Deceased
pensioners.

99. Twenty-seven persons in receipt of pensions under these Acts died during the year 1929-1930.

Sanction to
remove.

100. Written sanction to remove, under section 6 of the Act of 1909, was given to fifteen officers and employees who were transferring to the service of other authorities.

Basis of
computation
of average
remuneration.

101. For the purpose of determining the yearly average salary or wages as indicated by section 16 of the 1909 Act, full scale rates of pay have been used since 1st October, 1929; before that date the amounts actually paid in salaries or wages (allowing for reduced sick pay, etc.) were used for this purpose. Similarly, from the same date the contributions paid currently by members of the staff have been calculated on the full scale rate of pay, not upon such reduced payments of salary or wages as actually may have been received during a period of absence with sick-pay.

Income and expenditure.

Income and
expenditure.

102. The income and expenditure on maintenance account upon mental hospitals, etc., during the year ended 31st March, 1930, is shown in the following table in comparison with the amounts for the previous ten years:—

<i>Year ended 31st March.</i>	<i>Income.</i>	<i>Expenditure.</i>	<i>Year ended 31st March.</i>	<i>Income</i>	<i>Expenditure.</i>
	£	£		£	£
1920	... 1,270,666	1,314,295	1926	... 1,473,076	1,565,089
1921	... 1,868,646	1,641,962	1927	... 1,644,339	1,581,075
1922	... 1,872,482	1,564,770	1928	... 1,653,925	1,588,027
1923	... 1,508,039	1,381,656	1929	... 1,667,954	1,609,827
1924	... 1,330,068	1,391,237	1930	... 1,657,220	1,604,947
1925	... 1,349,319	1,468,820			

Statement of
accounts.

103. A detailed statement of the accounts for the year ended 31st March, 1930, is shown with other accounts of the Council in the published Abstract of Accounts (see Vol. V.).

Cost of maintenance.

Cost of main-
tenance.

104. The charge made by the Council to London boards of guardians on 31st March, 1929, for the maintenance of parish patients in the mental hospitals was 26s. 10d. a head a week and this has remained unchanged throughout the year.

105. As the charge for in-county parish patients has exceeded the limit of 14s. a week, prescribed by section 283 of the Lunacy Act, 1890, the same charge has been made for patients chargeable to out-county parishes.

Charges for
private
patients.

106. The charge made for female private patients in the private ward at Horton mental hospital, which on 31st March, 1929, was 35s. 0d. a head a week, has remained unchanged throughout the year.

107. The charges made for male private patients in the private section of Claybury mental hospital (other than those on the "private list") which on 31st March,

1929, were 44s. 11d. a week for those having a London settlement and 48s. 5d. a week for out-county patients, have remained unchanged throughout the year.

108. The charges for "private list" patients, viz., those admitted chargeable to a parish who, having a settlement in or status of irremovability from a London parish, have means sufficient to defray the full cost of maintenance (or perhaps a little more, as a contribution to capital expenses which are not included in cost of maintenance) have been, at the minimum, the charge current for parish patients and, at the maximum, 4s. 1d. a week in excess of that charge.

"Private list" cases.

R. H. CURTIS,
Chief Officer.

A. M. ROBERTS,
Chairman.

CHAPTER III.

TWELFTH REPORT OF THE LONDON COUNTY COUNCIL TO THE BOARD OF CONTROL.

(This chapter contains the report in respect of the year ended 31st December, 1929, which the Council is required to make by No. 28 of the Mental Deficiency Act Provisional Regulations, 1914.)

Administrative arrangements.

1. The Council's administrative arrangements for the discharge of its duties under the Mental Deficiency Acts, through the Mental Hospitals Committee, remain as described in previous reports (*see* Annual Report for 1915-19, Vol. II., p. 29, and 1920, Vol. II., p. 17).

Committee and Sub-Committees

2. During 1929, meetings of the Mental Hospitals Committee and of sub-committees wholly concerned with work under the Mental Deficiency Acts have been as follows:—Committee, 14; managing sub-committees of certified institutions for the mentally defective, 62; Mental Deficiency Acts Sub-Committee, 11; Cases Section, 18.

Meetings.

Staff.

3. The administrative and executive work under the Mental Deficiency Acts continues to be undertaken in the Mental Hospitals department and the Public Health department in accordance with the scheme detailed in the first annual report (*see* Annual Report for 1914, Vol. II., p. 280). The collection of contributions towards the Council's expenses of maintaining defectives in institutions, or under guardianship (and, in some instances, towards the Board of Control's expenses of maintaining defectives in State institutions for defectives of dangerous or violent propensities) is undertaken in the department of the Comptroller of the Council, and when it is necessary to enforce payment of arrears of such contributions, the Solicitor to the Council takes appropriate action. (For particulars as to collection of contributions and as to the result of legal proceedings taken to recover payment from persons liable to contribute, *see* paragraphs 83 and 84, *post*.)

Departmental arrangements.

4. On 31st December, 1929, the staff authorised for employment in the Mental Hospitals department entirely upon work connected with the administration of the Mental Deficiency Acts was:—1 principal assistant (temporary rank); 1 senior assistant (temporary rank); 2 assistants, first class; 3 assistants, second class; 6 assistants, general grade; 1 record assistant; 2 enquiry officers (non-pensionable). In the Public Health department at the same date 3 women inspectors were employed entirely for the work under the Acts.

Staff employed for central administration.

Report of the Departmental Committee on Mental Deficiency.

"Wood"
Report.

5. Following its publication during the summer of 1929, some consideration was given to the report of the Mental Deficiency Committee (the "Wood" report). This Committee, which was a joint committee of the Board of Education and the Board of Control, was appointed in 1924 by the chief medical officer of the Board of Education "to consider the problems presented by mental deficiency among children of school age." Subsequently, however, the Committee decided that their inquiry could not profitably be confined to children, but must range over the whole field of mentally defective persons.

Scope of the
Report.

6. The Committee's report is in four parts, viz. :—I. General. II. The Mentally Defective Child. III. The Adult Defective. IV. Report on an Investigation into the Incidence of Mental Deficiency. The report deals fully with the various aspects of the problem which it discusses and, undoubtedly, is the most exhaustive survey of the problem which has yet been made.

Report of
Investigator.

7. The conclusions which it submits are based largely upon the result of investigations conducted by Dr. E. O. Lewis, an inspector of the Board of Control, into the incidence of mental defect in six selected areas typical of the whole country. The report of these investigations (Part IV.) constituting, in effect, a careful statistical survey of the incidence of mental deficiency in England and Wales, conducted by one set of observers and therefore based, for each area dealt with and (by inference) for the whole country, upon a uniform foundation, is perhaps the most striking feature of the report.

8. At the end of 1929, the Committee's conclusions and recommendations were still receiving the Council's consideration.

Ascertainment.

9. During 1929, the Council's duty to ascertain what persons in London were defectives within the meaning of the Mental Deficiency Acts, 1913 to 1927, and were subject to be dealt with under those Acts, was discharged as fully as possible.

Number of
cases of which
information
was received.

10. The cases of which the Council received information during the year ended 31st December, 1929, were :—

TABLE 1.

Source of information.							Total.
Miscellaneous sources.	London Association for Mental Welfare.	Education authority.	Poor law authorities.	Criminal cases.			
				Charged with offences before a court of criminal jurisdiction (Sec. 8).	Prisons (Sec. 9).	Industrial schools (Sec. 9).	
199	90	334	67	69	6	9	774

Sources of
information.

11. As in previous years, the most fertile source of information of cases of mental defect during 1929 was the local education authority. The numbers of cases of which information was received from other sources also were approximately in the same proportion as in other years.

Probable
increase in
number of
cases for
ascertain-
ment.

12. There is little doubt that, after 1st April, 1930, when the Local Government Act, 1929, has come into force, there will be a large increase in the number of cases referred to the local authority for the purpose of ascertainment. Reference to this matter is made later (*see par. 15, post*).

13. The total number of defectives on 31st December, 1929, who had been ascertained by the Council as being subject to be dealt with, or who might become subject to be dealt with, was 10,136. This figure, which excludes all cases of mental defect who were being dealt with by metropolitan poor law guardians, also children attending the Council's special schools for the mentally defective, shows a ratio of 2.28 per thousand of the population of the County of London as estimated by the Registrar-General as at midsummer, 1929 (4,430,000).

Number of cases ascertained.

14. The passing of the Local Government Act, 1929, has provided local authorities from 1st April, 1930, with an opportunity for securing unified control of the care and treatment of all mentally defective persons within their respective areas, irrespective of whether or not those persons are in receipt of public assistance. Accordingly the Council included in the administrative scheme which it was required to make pursuant to section 4 of the Act (which has been approved by the Minister of Health), a declaration that, as soon as circumstances permit, all assistance which could, after 1st April, 1930, be provided either by way of relief or by virtue of the Mental Deficiency Acts shall be provided exclusively by virtue of those Acts and not by way of relief.

Local Government Act, 1929.

15. Following this decision, a survey of the position was made, in preparation for an exhaustive ascertainment, after 1st April, 1930, of cases of mental defect in London. It was estimated that it would be necessary to consider individually some 5,000, and perhaps more, cases in institutions provided by the Metropolitan Asylums Board (not already detained under orders made under the Mental Deficiency Acts), as well as some thousands in poor law care and in London County mental hospitals. Thus, probably, between 7,000 and 8,000 cases will need to be subjected to scrutiny, if not detailed examination and investigation.

Ascertainment of cases hitherto dealt with by poor law guardians.

Supervision.

16. Arrangements for the supervision in their own homes of those persons ascertained to be defective and subject to be dealt with, for whom this measure appears to provide adequate protection or for whom no better means of care can be furnished, continued to be made through the London Association for Mental Welfare (*but, see par. 22, post*).

Employment of the London Association for Mental Welfare.

17. For the financial year ended 31st March, 1930, the Council has paid £2,798 to the Association, for general work undertaken on the Council's behalf (mainly the supervision of defectives in their own homes), an increase of £440 upon the payment for the previous year. The increased expenditure is accounted for as follows:—normal salary increments of the Association's officers, £150; increased minima of salaries, £60; increased maxima of salaries, £20; one additional worker, £180; additional administration grant in respect of new occupation centres, £30. The payment of £2,798 includes consideration for services rendered by the Association in furnishing (i) reports upon the home circumstances of the relatives of defectives, required by the visitors of certified institutions in which London cases are maintained to enable the visitors to perform their duties under section 11 of the Act of 1913, and (ii) reports as to the progress of defectives who may be absent in London on licence from certified institutions with a view to ultimate discharge.

Grant made to the Association.

18. Friendly visitation has again been afforded by the Association in suitable cases for defective persons resident in London, after discharge from institutions or guardianship. No payment has been made by the Council for this work as the cases are no longer "subject to be dealt with."

Friendly visitation or after-care.

19. At 31st December, 1929, the number of cases under statutory supervision in London was 2,276 (1,091 males and 1,185 females).

Cases supervised.

Occupations
of defectives
under super-
vision.

20. The variety of occupations followed by defectives under statutory supervision, on 31st December, 1929, is indicated in the following table :—

TABLE 2.

Occupation.	Number of defectives employed.	Occupation.	Number of defectives employed.
<i>Males—</i>		<i>Females—</i>	
Bakers	4	Artificial flower maker	1
Boot makers and repairers	4	Battery manufacturers	5
Bottlers and bottle washers	2	Bottlers and bottle washers	5
Building trade	7	Cap making	2
Cabinet making	8	Cardboard box and paper trade	7
Chicken farming (own business)	1	Confectionery	3
Coal trade	16	Domestic service :—	
Dairy work	2	Daily general	49
Decorating trade	2	Daily kitchen	46
Domestic work	8	Office cleaners	4
Driving horse and van	1	Resident	13
Dyeworks	1	Useful work at home	45
Errand boys and shop boys	39	Dressmaking, millinery and making of woollen goods	7
Factory hands	29	Errand girls	2
French polishers	6	Factory hands	57
Gardeners	2	Fish curer	1
Gas fitter	1	French polishers	3
Glass blowers	10	Furrier	1
Hat manufacturer	1	Hawkers	2
Hawkers	19	Laundry workers	8
Hiring stools to theatre queues	1	Leather workers	3
Kitchen workers	4	Metal workers	2
Labourers	13	Packer	1
Laundry	1	Rag sorters	2
Leather worker	1	Rubber work	1
Metal workers	9	Shop assistant	1
Motor driving	1	Street sellers	2
Old iron trade	1	Tailoring	10
Organ blower	1	Various (odd jobs)	1
Packer	1	Ward maid	1
Plumber's mate	1		
Porters	8		
Potmen	2		
Poulterer	1		
Printer	1		
Rag sorters	2		
Shop assistants	8		
Street musicians	3		
Street sellers (including newspaper sellers)	24		
Tailoring	7		
Transport workers	4		
Upholsterers	2		
Van boys	2		
Various (odd jobs)	15		
Wood trade :—			
Chopping and odd jobs in yard	3		
Sawmills	4		
Total	283	Total	285

Position of
voluntary
associations
after 31st
March, 1930.

21. To safeguard the position of voluntary associations which undertake the duty of assisting or supervising defectives who are not in institutions, the Minister of Health is required by section 102 (2) of the Local Government Act, 1929, before the beginning of each fixed grant period, to make a scheme for the payment by each

local authority to any such voluntary association which operates in its area of such amounts as may be specified in the scheme. To this end the Council was required to furnish the Minister with particulars of the duties to be undertaken by the voluntary associations during the three years ending on 31st March, 1933, and of the amount of grant proposed to be paid by the Council to those associations in each of the three years. In effect, the Council was required to indicate what duties under the Mental Deficiency Acts it intended to allocate to the London Association for Mental Welfare during the three years ending on 31st March, 1933, and what payments the Council proposed to make to the Association for the work thus undertaken on the Council's behalf.

22. This request led the Council to consider the whole position in relation to the execution, in the future, of those duties under the Mental Deficiency Acts which the London Association hitherto had carried out on the Council's behalf. As a result, the Council decided that, as from 1st April, 1931, it would itself undertake those delegated duties, and would absorb as far as possible into its service the staff employed by the Association. In arriving at this decision, the Council put upon record its complete satisfaction with the manner in which the London Association had carried out their duties on its behalf; but with the prospect, resulting from the passing of the Local Government Act, of a large increase in the number of defectives to be supervised and of cases on leave of absence from institutions, and of additional inquiries as to home circumstances for the visitors of institutions likely to be called for as the number of cases in institutions and under guardianship increases, it seemed better, in view of the considerable expenditure involved, that the Council should itself undertake those duties, rather than delegate them to a voluntary agency. Further reference to this matter will be made in the next report.

Council's decision itself to undertake delegated duties as from 1st April, 1931.

Provision of occupation and industrial centres.

23. The use of "occupation centres," details of which are given in the Annual Reports for 1923 (Vol. II., pp. 19-21) and 1924 (Vol. II., pp. 27-28) has been continued during 1929. These centres at which mentally defective children who are unfit for attendance at special schools may attend otherwise than compulsorily for simple occupational training, are organised by voluntary effort with financial assistance from the Council and the Board of Control.

Continuation of the scheme of "occupation centres."

24. In view, however, of section 7 (2) (i) of the Mental Deficiency Act, 1927, which imposes upon local authorities a duty to provide training or occupation for defectives under supervision, occupation centres have become a necessary part of the Council's machinery for administering the Mental Deficiency Acts, and are no longer part of a voluntary scheme.

Duty to provide training or occupation.

25. Two additional part-time occupation centres for children were opened during 1929, one at Hammersmith and one at Lewisham.

New occupation centres.

26. In the Annual Report for 1928 (Vol. II., par. 33, *et seq.*), reference was made to the proposed establishment of industrial centres for defectives under supervision or on licence from certified institutions who are over sixteen years of age. During 1929 four such centres were established, viz.: two for elder girls and young women (one at Hackney and one at Southwark) and two for boys of 16 to 18 years of age (one at Camberwell and one at Shoreditch).

Industrial centres.

27. By the end of the year there was evidence that the experiment of establishing industrial centres for defectives over 16 years of age promised to be successful. Owing, however, to the Council's decision itself to undertake those duties under the Mental Deficiency Acts hitherto performed by the London Association (*see par. 22, ante*), it was decided not to extend the experiment of establishing industrial centres before 1st April, 1931.

Results of experiment.

28. The following table gives particulars of the centres of which use has been made by the Council during the year ended 31st March, 1930, and of attendances

Centres in use, and attendances.

made thereat by "recognised" cases, *i.e.*, by defectives who are under statutory supervision. These are the cases for whom the centres are primarily intended, and in respect of whom the Council makes a financial contribution to the expenses of the centres, and at least 75 per cent, of the places available at each centre are reserved for such cases. The centres are under the management of the London Association for Mental Welfare, except the "Agnes Western," and Willesden centres, controlled by the Central Association for Mental Welfare; but all arrangements (including the financial arrangements) in respect of the "Agnes Western" centre are made for convenience through the London Association. The Willesden centre provides for children residing outside the London county area, but it has been found convenient for a few isolated London cases to attend there, and the figures as to Willesden given in the table relate only to these cases:—

TABLE 3.

Centre.	Address.	Sessions a week.	Average number on roll.	Average daily attendance.
<i>Occupation centres for children—</i>				
*Agnes Western ...	St. James' Parish Hall, Collier-street, Islington	10	21	14
Hackney ...	Infants' School, Dalston Congregational Church, Middleton-road, Dalston	10	21	13
Southwark ...	St. John's Parish Hall, Bedford-street, Walworth	10	33	24
Battersea ...	Primitive Methodist Church School Room, Grayshott-road, Battersea	5	27	15
†Hammersmith ...	Wesleyan Church Memorial Hall, Shepherd's Bush-road	5	19	13
Lambeth ...	Kennington Sunday School Mission, Stannary-street, Kennington	5	26	15
†Lewisham ...	St. Mary's Institute, Ladywell-road, Lewisham	5	18	10
Poplar ...	St. Frideswide's Club House, Follett-street, East India Dock-road	5	10	6
Whitechapel ...	Butler-street Girls' Club, Commercial-street, E.	5	12	6
Woolwich ...	St. James' Parish Hall, Burrage-road, Plumstead	5	16	8
Willesden ...	Pember Hall, Pember-road, Kensal Green	5	2	2
<i>Craft centres for boys—</i>				
†Camberwell...	L.C.C. former Blind School, Albany-road, S.E.	5	9	7
†Shoreditch ...	St. Michael's Clergy House, Mark-street, E.C.	5	12	8
<i>Senior classes for young women—</i>				
Hackney ...	Church Room, Dalston Congregational Church, Middleton-road, E.	5	13	9
Southwark ...	St. John's Parish Hall, Bedford-street, S.E.11	5	8	5
Total ...		—	247	155

*The Agnes Western Centre closed as from 31st March, 1930.

†These Centres opened early in 1929.

Payment
for use of
centres.

29. The grant voted by the Council to the London Association in respect of occupation and industrial centres during the financial year ended 31st March, 1930, was a sum not to exceed £3,173, an increase of £1,249 on that for the previous year. The grant was apportioned as follows:—for the Hackney and Southwark occupation centres, the actual net cost not exceeding £475 5s. each; for the Agnes Western centre, the actual net cost (not defrayed from private funds) not exceeding £279; for the Battersea, Lambeth, Poplar, Whitechapel and Woolwich occupation centres, £155 10s. each; for the Hammersmith and

Lewisham occupation centres, £153 each; for the Hackney and Southwark classes for elder girls and young women, £165 each; and for the Camberwell and Shoreditch craft centres for boys 16 to 18 years of age, £265 each. The increase of £1,249 was accounted for mainly by the addition of six new centres. The actual payment made by the Council to the Association in respect of occupation and industrial centres during the financial year 1929-30 was £3,115 13s. 10d., which was less by £57 6s. 2d. than the maximum grant voted. This was because the actual expenditure incurred in respect of the Hackney and Southwark centres did not reach the maximum amounts voted by the Council in respect of those centres. The grant in respect of occupation centres for children covers the provision at the Agnes Western whole-time centre and at each of the part-time centres of one guide, and at the Hackney and Southwark whole-time centres of two guides each, to escort certain children on their journeys to and from the centres, and to assist the supervisors during the sessions. Payment in respect of two London children who attend the Willesden centre was made at the rate of £5 a year for each case.

30. For the year ended 31st March, 1930, a supplementary grant to the London Association not to exceed £910 was voted by the Council, to cover the cost of employing additional guides. The amount of the grant actually made for this purpose was £725 3s. 7d. Additional guides.

31. During the year the Council considered the possibility of utilising the motor vehicles used to convey defective children to and from the Council's special schools, to convey children to and from occupation centres, instead of employing guides as escorts. At the end of the year, however, a final decision in this matter had not been reached. Conveyance of children to and from centres.

32. The cost to the Council for the financial year ended 31st March, 1930, for each defective attending a centre or class (taking the average of actual attendances) was approximately £25 a year. Per capital cost.

33. During 1929, a medical examination of the defectives in attendance at the occupation centres for children was carried out by assistant medical officers in the public health department, in accordance with an arrangement details of which were set out in the Annual Report for 1928 (Vol. II., p. 32). Medical inspection and treatment.

34. The medical officers examined 154 children of ages ranging from 6 to 16 years; 89 were boys and 65 girls. At a large percentage of the examinations the parent of the child was present. In clothing, cleanliness and nutrition the children were up to the standard of the elementary schools. Number examined.

35. The following table summarises the defects which required treatment and compares the frequency of such defects with those found in the elementary schools as a whole during the year. Number requiring treatment.

TABLE 4.

Defects.	Children at the centres.		Children at elementary schools. Percentage.
	Number.	Percentage.	
Teeth	40	26.0	30.4
Vision	7	4.5	10.9
Nose and throat	3	1.9	5.7
Eye disease, including squint	13	8.4	1.2
Discharging ears	3	1.9	0.7
Skin disease	1	0.6	0.6
Rickets and deformities	3	1.9	0.5
Other defects	6	3.9	3.6

36. In addition to the above, 53 defects (not serious enough to require treatment) were noted, and 3 children were reported to be inarticulate. Cases not treated.

Vision.

37. With regard to vision, the test depends upon the child saying what he can see at a measured distance and in many cases no intelligible answer was forthcoming, so that the figures for the ineducable children in the occupation centres almost certainly do not represent the total amount of defect that exists.

Comparison with elementary school children.

38. The most noteworthy difference between these children and those in elementary schools is in the number of cases of "squints" and "deformities," as also of "other defects," which include three cases of enuresis, all of which defects are frequently associated with mental defect and lack of self-control.

Conclusion.

39. Taken on the whole, the children appeared to be clean and well cared for and in fairly good condition physically.

Guardianship.

Use of guardianship.

40. During 1929 the use of guardianship as a means of providing suitable care and control for certain selected cases was continued.

Number of cases under guardianship.

41. During the year 38 additional cases were placed under guardianship or were granted leave of absence from certified institutions with a view to guardianship. On 31st December, 1929, 61 males and 35 females were being maintained under guardianship or were on leave of absence from institutions with a view to guardianship. Of these, 40 males and 7 females were in private village homes, placed through the agency of The Guardianship Society, Brighton, 2 males and 4 females in Hertfordshire and 1 female in Middlesex had been placed through the agency of the Central Association for Mental Welfare, 17 males and 12 females were under the guardianship of parents, near relatives or friends, and 2 males and 11 females were in institutional homes in or near London under the personal guardianship of officers of the homes.

Charges for maintenance, etc.

42. Payments as follows are made by the Council in respect of cases under guardianship :—

TABLE 5.

To		At the rate of
Guardianship Society, Brighton		£1 1s. a head a week, made up as follows :— Maintenance, 17s. 6d.; medical attention, 1s.; clothing, 2s. 6d. In addition, supervision, 50s. a head a year.
Central Association for Mental Welfare		Not exceeding 20s. a head a week for males and 15s. a week for females. In addition, medical examination and treatment, 15s. a head a year; supervision, £5 a head a year; upkeep of outfit, £5 a head a year.
Parents, near relatives or friends		Not exceeding 15s. a head a week (in one case, payment is being made at the rate of 21s. a week).
Other small institutional homes in or near London		From 12s. to 42s. a head a week.

Provision of care in institutions.(A) *Accommodation under contract.*

Accommodation in institutions under contract.

43. During the year 1929 the Council was still obliged to make use of accommodation which it had been able to secure under contract to enable it to make provision for those ascertained cases of mental defect for which supervision or guardianship does not make sufficient provision. The following table (6) shows the number of cases for which accommodation was being provided thus at the end of 1929 :—

TABLE 6.

Institution.	Males.	Fe- males.	Institution.	Males.	Fe- males.
Besford Court, Worcester ...	6	—	Royal Earlswood Institution, Redhill	15	7
Bigod's Hall, nr. Dunmow ...	1	—	Royal Hostel, Elstead	5	—
Cardiff Poor Law Institution, Ely ...	—	1	St. Elizabeth's Home, Much Hadham	—	2
Crathorne, Finchley, N. ...	—	11	St. Joseph's Home, Sudbury ...	—	2
Cumnor Rise Home, Oxford ...	—	2	St. Mary's Home, Alton (and ancillary premises)	—	23
Dovecot, Liverpool	—	1	St. Michael's Convent, Streatham	—	20
Durran Hill House, Carlisle ...	—	1	St. Raphael's, Brentford ...	—	11
Eagle House Hostel, Mitcham... ..	—	5	St. Teresa's, Lewisham, S.E. ...	—	19
Ellen Terry Home, Reigate ...	—	2	Stoke Park Colony, Bristol (and ancillary premises)	30	54
Etloe House, Leyton, E. ...	—	26	The Home, Liverpool	—	1
Girls' Village Home, Barking- side (ancillary premises) ...	—	9	Tubwell Farm, nr. Crowborough	1	—
Helping Hand Home, Highgate, N.	—	25	Walsham How Home, Waltham- stow	—	19
Hillside, Buntingford	9	—	Western Counties' Institution, Starcross	1	—
House of Help, Bath	—	2	Whittington Hall, Chesterfield...	—	5
*Littleton House, Cambridge ...	1	—	Woolwich Poor Law Institution, Plumstead, S.E.	22	9
Metropolitan Asylums Board Certified Institution	628	614	Total	724	885
Monkton Hall Home, Jarrow- on-Tyne	2	—			1,609
Pield Heath House, Hillingdon...	—	6			
Pontville, Ormskirk	1	—			
Princess Christian's Farm Colony, Hildenborough... ..	2	8			

*See para. 47 post.

44. The class of patient received, and the charges made for maintenance, etc., were as set out in the following Table :—

Charges
made for
maintenance,
etc.

TABLE 7.

Institution.	Religion.	Class of defective received.	Charges.					
			By contract.			Supplemental payments.		
			Main- tenance (a week).	Burials.	Outfits.	Main- tenance (a week)	Burials.	Outfits.
Besford Court, Wor- cestershire	Roman Catholic	Feeble-minded males, high grade	£80 a year	£10	£10	£10 a year	—	—
Bigod's Hall, nr. Dun- mow, Essex	No restric- tion	Juvenile males, imbe- ciles and feeble-mind- ed	17/6	£5	—	—	—	—
Cardiff (Ely), Poor Law Institution	No restric- tion	All grades, adults of both sexes	20/-	£5	—	—	—	—
Crathorne, Finchley...	Protestant	Mothers (feeble-minded or moral defectives) and their children (no child retained over age 7)	11/6	£5	£3	6/-	—	£3
Cumnor Rise Home, Oxford	Church of England	Feeble-minded females from age 14 (epilep- tics and fallen women not taken)	12/-	£5	£5	3/-	—	—
Dovecot, Knotty Ash, Liverpool	No restric- tion	High-grade feeble-mind- ed females, from age 16	£34 a year	£10	—	£31 a year	—	—
Durran Hill House, Carlisle	Roman Catholic	Feeble-minded adults ...	11/6	£5	—	5/6	—	—

For notes see page 35.

Institution.	Religion.	Class of defective received.	Charges.					
			By contract.			Supplemental payments.		
			Maintenance (a week).	Burials.	Outfits.	Maintenance (a week).	Burials.	Outfits.
Eagle House Hostel, Mitcham	No restriction	Feeble-minded women of high grade	20/- (a)	£5	£5	—	—	£7 (for patients entering domestic service)
Ellen Terry National Home for Blind Defective Children, Reigate	No restriction	Imbecile and feeble-minded blind children up to age 12	£90 a year	£5	£5	—	—	—
Etloe House, Leyton	Roman Catholic	Feeble-minded females from age 16	11/6	£6	£6	5/6	—	—
Girls' Village Home, Barkingside (Dr. Barnardo's Homes)	No restriction	Feeble-minded and imbecile girls	14/-	£10	—	—	—	—
Helping Hand Home, Cathcart Hill, N.	No restriction	Feeble-minded females, preferably from age 16	17/6	£6	£8 and allowances for upkeep	—	—	—
Hillside, Buntingford, Herts	Roman Catholic	Educable males ...	11/6	£7	—	7/-	—	—
House of Help, Bath...	Church of England	Feeble-minded females	16/6	£8	£5	—	—	—
Littleton House, Cambridge	No restriction	Feeble-minded males ...	£72/16- a year	£5/10/-	£8	—	—	—
London Lock Hospital (b)	No restriction	Feeble-minded and morally defective females	36/- 18/-(c)	£7/10/-	—	6/- 3/-(c)	—	—
Metropolitan Asylums Board Certified Institution—Sections at: Caterham, Surrey Darenth, Kent Fountain, Tooting Leavesden, Herts	No restriction	All grades, both sexes	Actual cost, viz. :— 31/9½ 28/- 35/- 31/2½	Reasonable expenses	—	—	—	—
Monkton Hall Home, Jarrow-on-Tyne	No restriction	Feeble-minded males over age 16	19/-	£8	£5	—	—	—
Field Heath House, Hillingdon, Middlesex	Roman Catholic	Females, feeble-minded and moral defectives (tractable cases up to age 16)	11/6	£7	—	5/6	—	—
Pontville, Ormskirk, Lanes.	Roman Catholic	Feeble-minded males, aged 5 to 16	20/-	£7	—	—	—	—
Princess Christian's Farm Colony, Hildenborough, Kent	No restriction	High grade cases, both sexes	17/-	£5 10s.	£7	-/9	—	—
Royal Earlswood Institution, Redhill	No restriction.	All grades, both sexes	Not exceeding £63 a year	Reasonable expenses	£5	—	—	—
Royal Hostel, nr. Elstead, Surrey	No restriction	High-grade male adults	30/- (a)	£7	£7	—	—	—
St. Elizabeth's Home, Much Hadham, Herts	Roman Catholic	Epileptic idiots, imbeciles and feeble-minded, both sexes	12/6	£5	£4	7/6	—	—

Institution.	Religion.	Class of defective received.	Charges.					
			By contract.			Supplemental payments.		
			Maintenance (a week).	Burials.	Outfits.	Maintenance (a week).	Burials.	Outfits.
St. Joseph's Home, Sudbury, Suffolk	Roman Catholic	Feeble-minded females aged 16 to 20	11/6	£6	—	6/-	—	—
St. Mary's Home, Alton, Hants.	Church of England	Females over age 16, who might have had illegitimate children	14/-	—	£5	2/6	—	—
St. Michael's Convent, Streatham Common	Roman Catholic	Feeble-minded females	22/6	£5	£5	Reduction 1/6	—	—
St. Raphael's, Brentford	Roman Catholic	High-grade feeble-minded girls over age 16	22/6	£5	£5	—	—	—
St. Teresa's, Lewisham	Roman Catholic	Feeble-minded females over age 16	22/6	£5	£5	Reduction 1/-	—	—
Stoke Park Colony, Bristol, and Whittington Hall, Chesterfield	Protestant	All grades, both sexes (males, only such as can be dealt with by a female staff)	High-grade cases 10/6 Low grade cases:— 14/-	£3 £3	— —	} 7/7		£1
The Home, Everton Terrace, Liverpool.	Protestant	Females, feeble-minded and moral defectives over age 16	15/-	£8	£5	2/6	£2	—
Tubwell Farm, Jarvis Brook, Sussex	No restriction	Feeble-minded males aged 16 to 25	21/-	Not to exceed the Poor Law rate for the district	£5	—	—	—
Walsham How Home, Walthamstow	Church of England	Females, feeble-minded and moral defectives	12/-	£3	—	5/6	—	£6
Western Counties Institution, Starcross	No restriction	High-grade cases, both sexes	Actual cost plus 2/6 a head a week as "overhead" charge. For 1929-30 the charges were:—					
			23/-	£5	—	—	—	—
Woolwich Poor Law Institution, Plumstead	No restriction	All grades (adults), both sexes	Average actual cost. Institution. 20/5·87 In-firmary 67/2·05	Not to exceed £6	—	—	—	—

(a) Less earnings of patients which are pooled and refunded proportionately to local authorities.

(b) No defectives were being maintained at the end of 1929.

(c) Charges in respect of each infant born in the institution of a defective if pregnant at time of admission.

45. Except for the Metropolitan Asylums Board Certified Institution, the accommodation under contract provided little opportunity for the reception of new cases. To the institutions of the Metropolitan Asylums Board 153 such cases were sent during 1929.

New cases sent to institutions under contract.

46. Reference was made in the Annual Report for 1928 (Vol. II., p. 39) to representations which the Council had made to the Metropolitan Asylums Board and to the Board of Control as to the desirability of the removal from the Metropolitan Asylums Board's institution of those defectives who were not chargeable to London, so that London cases might replace them. During 1929, the Metropolitan Asylums Board, in response to the representations thus made, gave notice to the extra-metropolitan local authorities concerned to terminate the agreements under which extra-metropolitan defectives were being maintained in the Board's institutions, at

Extra-metropolitan cases in Metropolitan Asylums Board certified institution.

varying dates, the latest being 31st March, 1930. By the end of 1929, however, few cases had been removed.

Littleton House.

47. During the year, Littleton House, Cambridge, was transferred to the management of the Royal Eastern Counties institution, Colchester. The charge for maintenance remained the same, and a new reception agreement was not necessary.

Eagle House Hostel.

48. The Council agreed to pay to the managers of the Eagle House hostel an allowance at the rate of 10s. a head a year, to meet the expense involved in the supervision of girls placed in residential service on leave of absence from the hostel.

(B) *Accommodation provided by the Council.*

Number of cases accommodated.

49. Accommodation has continued to be provided at (i) The Manor, Epsom (488 male and 603 female defectives of all classes, including 38 high grade female adult defectives in Hollywood Lodge, Epsom-common (ii) the South Side Home, Streatham-common, S.W. (80 females, higher grade cases), (iii) Brunswick House, Mistley, Essex (75 males, higher grade cases), and (iv) Farmfield, near Horley, Surrey (133 adult or adolescent males of criminal experience or intractable disposition). The accommodation at these institutions continues to be reserved exclusively for London cases. A statement of expenditure on the administration of these institutions is given in Appendices I. and II. At 31st December, 1929, the four institutions were practically full.

The Manor.

Progress made.

50. During 1929 steady progress was made at The Manor.

Transfer of land and buildings.

51. In the Annual Report for 1928, reference was made to the Council's decision that, subject to the approval of the Minister of Health, the land and buildings at The Manor should be transferred permanently from the lunacy service to the mental deficiency service for the accommodation of cases of mental defect. Negotiations as to terms upon which the transfer should be accepted were opened in 1929, but at the end of the year, terms had not been settled.

Orthopædic clinic.

52. The orthopædic clinic at The Manor, instituted in 1928, continued to give very satisfactory results. During 1929 the visiting surgeon examined, diagnosed and recommended treatment for about 68 cases and performed 9 surgical operations. An average of about 20 cases attended the clinic daily.

School accommodation.

53. The need for improving the school accommodation and the facilities for teaching received consideration during the year. The opinion was formed that the heavy expenditure involved by the provision of new school buildings was not justified, but that the position would be met if the existing school accommodation, originally a ward, was brought up to modern requirements. To effect this improvement, the following works were carried out:—a workshop for practical instruction in domestic subjects, two large covered shelters in the school garden, and open-fronted verandahs on the east side of the schoolroom were provided, the outer wall on the east side of the schoolroom was removed and a folding glass partition was substituted. The total cost of these works was £1,600.

School attendances.

54. The average attendance of children at the school during the year ended 31st March, 1930, was 135, a decrease of 4 on the average for the previous twelve months.

Teaching and training of blind patients.

55. As an experiment, arrangements were made with the Metropolitan Association for the Blind for a welfare worker to visit The Manor once a week or once a fortnight, as might be convenient, for the purpose of giving the blind patients there such specialised teaching and training as was possible. Experience alone will show how far expenditure upon the teaching of cases with the double defect of mental deficiency and blindness can be justified, but it is apparent that there is a need, and experiment in the direction of meeting it is called for.

56. The classes for drill and organised games and for singing instituted during 1928, have proved to be of such benefit to the patients, both physically and mentally, that the arrangements have been extended to provide for four sessions of two hours in each week, instead of two sessions of two hours in each week. Visiting teachers.

57. In the Annual Report for 1928 (Vol. II., p. 42) reference was made to a scheme for the enlargement of The Manor by the erection of three detached villas for sixty patients each, two for male patients of the trainable and tractable type, and one for female adult or adolescent of intractable temper and criminal antecedents. Plans for the erection of these villas were approved by the Minister of Health, and a tender for the work, amounting to £29,253 was accepted. In addition expenditure of £8,855 for necessary engineering work was authorised. The erection of these villas will be completed during 1930. Additional accommodation for patients.

58. The enlargement of the institution has necessitated the provision of new refrigerating plant and a cold storage chamber, and these were installed at a cost of £390. New works.

59. The herd of cows on the institution farm was increased and a new cow-shed was provided at a cost of £800. Farm.

60. Mr. W. A. Frankcombe, formerly clerk and house steward at the Ewell Colony, was transferred to be house steward at The Manor, in the place of Mr. G. L. Brown, transferred to be house steward of Hanwell mental hospital. House steward.

61. During the year ended 31st March, 1930, the sales of articles made in the workshops realised £3,817, as compared with £2,932 during 1928. In addition, articles, valued (at cost) at £2,974, were made for use in the institution itself. The industrial capacity of The Manor will probably be increased during 1930, when there will be a larger market in the Council's service consequent upon the transfer thereto of poor law institutions. Industries.

Farmfield.

62. This institution continues to provide accommodation for a difficult type of adult male defective who cannot be housed in a mixed institution without detriment to the discipline and welfare of other inmates.

63. The work of enlarging the institution to accommodate 48 additional patients, making 133 in all, to which reference was made in the Annual Report for 1928 (Vol. II., p. 41), was completed during 1929. By the end of the year the institution was full. Enlargement of institution.

64. During the year 53 patients were granted licences, and only in 11 cases was it necessary to revoke the licences and bring the patients back to the institution. Grants of licence.

65. Arrangements were made for patients of the Roman Catholic faith to attend services at a Roman Catholic Church in Horley. Religious services.

66. Arrangements were made for an eye specialist employed in the Council's public health department to visit the institution twice yearly to examine, when necessary, the eyes of patients, and to prescribe any treatment called for. Eye specialist.

67. As an experiment for six months authority was given for a temporary male clerical assistant to be employed at the institution. Clerical work.

68. During the year the Horley and District Electricity Supply Company, Limited, submitted proposals that the Council should grant the company a wayleave for a main overhead transmission line to cross the Farmfield estate and that the company should supply to Farmfield electrical energy for lighting and power hitherto generated on the Farmfield estate. The necessary wayleave was granted, and the company's offer to supply current to Farmfield was accepted. Electricity supply.

69. Authority was given for the provision at a cost of £430 of tanks and filter beds for the treatment of sewage from the staff cottages erected in 1927, and for the provision of a new carpenter's shop at a cost of £300. Special works.

70. During the year payments for articles made or repaired in the bootmaker's carpenter's and tailor's shops amounted to £90. Industries.

Brunswick House

71. The usefulness of Brunswick House was increased considerably by the enlargement of the institution to accommodate 25 additional patients, to which reference was made in the Annual Report for 1928 (Vol. II., p. 41). This work was completed during 1929, and the institution now accommodates 75 high-grade tractable adult defectives, chiefly cases who have proved or are likely to prove suitable for agricultural work. At the end of the year the institution was full.

Housekeeper-
matron.

72. It has been decided to employ at the institution from 1st April, 1930, a housekeeper-matron (the superintendent's wife) instead of a seamstress.

Superin-
tendent's
cottage.

73. It was decided to carry out necessary alterations to the superintendent's cottage at an estimated cost of £418. Other works which were carried out were the erection of a shelter for patients in the recreation field and the provision of a new tarred ash drill square.

Visiting
chaplain.

74. The Rev. D. Bayley was appointed to be visiting chaplain of the institution, with effect from 1st January, 1930, in succession to the Rev. W. E. Gardiner.

Employment
of patients.

75. During 1929, about £388 was received by the superintendent in payment of wages earned by patients in daily employment locally, and was credited to the Council.

South Side Home.

Reorganisa-
tion of
institution.

76. During 1929 it was decided to re-organise the South Side Home, to permit of its use mainly as a hostel for the accommodation of higher grade female adult patients suitable for employment in daily domestic service. The institution is well situated for such a purpose. It is no longer necessary to retain a school section at the South Side Home in view of the provision made at The Manor.

Type of
patient to be
accommo-
dated.

77. The development of the hostel system necessitated the admission to the institution of patients slightly different from some of those already accommodated there. To enable this to be done it was decided to transfer elsewhere a number of the inmates in substitution for a better class of patients who would be more suitable for an institution of the hostel type. Patients are to be admitted in future to the South Side Home in the first instance on leave of absence on trial from other institutions in which little or no opportunity for placing out exists. This will enable a patient to be returned speedily to the institution from which she is licensed, should she prove unsuitable for hostel life. If, after a reasonable trial the patient proves suitable for retention at the home, arrangement will be made for her formal transfer. A sufficient number of patients is available during the day to ensure that the domestic work of the home will be carried on efficiently.

Changes in
staff.

78. The reorganisation necessitated an increase of the fixed staff by the appointment of a deputy superintendent and a manual training officer (the latter required to teach music and games and to take charge of the company of girl guides), and a reduction by dispensing with the services of the certificated teacher who had been in charge of the discontinued school department, a chief charge nurse and a charge nurse. It was estimated that this would effect a saving to the Council of £120 a year during the first year and an average of £70 a year in subsequent years.

(c) Prospective accommodation.

79. In the Annual Report for 1928 (Vol. II., p. 42) the extent of the Council's need for additional institutional accommodation for defectives was discussed fully. The experience gained during 1929 gave no cause for modification of the forecast then given.

Proposed
new colony.

80. Bearing in mind that the re-classification of poor law accommodation in London which would be necessary when the Local Government Act, 1929, came into operation would be unlikely to set free any substantial block of such accommodation which would be suitable for use as institutional accommodation for the mentally

defective in addition to the accommodation already being used for that purpose, the Council decided to explore the possibility of finding a vacant site upon which could be planned a large colony for some 1,500 defectives of both sexes and all types. At the end of the year serious consideration was being given to a site, which appeared to be suitable for the purpose. This site has since been acquired.

81. Beyond this, the Council had in mind that the removal of extra-metropolitan defectives from the Metropolitan Asylums Board's institutions (about 1,400 in number) would provide a considerable number of beds for London cases, and, as those institutions would be transferred to the Council on 1st April, 1930, it was determined that every endeavour should be made after that date to secure those beds for London cases as speedily as possible. It is, perhaps, proper to mention here that the Council is being severely handicapped in its efforts to provide institutional care for its cases, on account of the failure of many extra-metropolitan local authorities to provide institutional accommodation for their own cases (*see par. 46, ante*).

82. During 1929 a further step was taken to increase, though in a small measure, the accommodation required for defectives in need of institutional care. Enquiries were instituted with a view to finding a property suitable for use as a hostel for male defectives. The need for such a hostel has long been apparent. While the hostels at Hollywood Lodge (attached to The Manor) and the South Side Home, in addition to the Eagle House hostel (where beds are available under contract) afford an outlet for the training of female defectives suitable for domestic service, the only places for male defectives are found at the Royal hostel, Elstead (available under contract) and in country homes, under single care, through the agencies of the Brighton Guardianship Society and the Central Association for Mental Welfare. Many more male cases than these agencies can absorb might be transferred usefully to a hostel if one existed and the number of such cases doubtless will increase when the Council has to deal with defectives hitherto provided for under the poor law. An arrangement has been found to be possible, but its completion falls within the period to be covered by a subsequent report.

Contributions towards expenses of maintenance of defectives in institutions or under guardianship.

83. The following statement shows for the year ended 31st December, 1929, how the Council discharged the duty of making recovery, where possible, of such contributions as were available in relief of the expenses of maintaining defectives in institutions or under guardianship:—

TABLE 8.

(1) Cases under contribution.	(2) Amount out- standing at 1st January, 1929.	(3) Sum accrued.	(4) Sum collected.	(5) Percentage of sum col- lected to sum due.	(6) Sum written off.	(7) Sum outstanding.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d.
1,733	1,549 11 10	10,728 14 6	10,347 3 8	84.27	614 4 4	1,316 18 4

84. Legal proceedings had to be taken during the year for the recovery of payment from persons liable to contribute with the following result:—

TABLE 9.

In 9 cases, orders made to pay amounts totalling:—		21 cases adjourned upon undertaking to pay being given.	In 8 cases, amounts paid at Court before proceedings, totalling:—		In 7 cases summons adjourned, <i>sine die</i> .
Arrears.	Costs.	Arrears.	Arrears.	Costs.	Arrears.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
53 7 6	1 7 0	148 0 6	33 0 6	1 4 0	30 15 6

Presentation of Petitions.

Petitions.

85. During 1929, petitions for orders sending defectives to institutions or placing them under guardianship were presented in 254 cases. In 248 cases orders were made; in only 6 cases were the petitions dismissed.

London cases granted leave of absence from certified institutions.

Leave of absence on trial.

86. The following statement furnishes some interesting particulars as to London cases to whom leave of absence from certified institutions has been granted with a view to discharge at some later date :—

TABLE 10.

Name of institution.	On leave of absence on 1st Jan., 1929.		Granted leave of absence during 1929.		No. of licences revoked during 1929.		No. of cases on licence whose orders were discharged during 1929.		No. of cases on licence transferred to guardianship.		No. of cases on licence transferred to other institutions.		Died whilst on leave during 1929.		No. of cases still on licence on 31st Dec., 1929.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
The Manor, Epsom	65	65	15	34	13	20	6	2	—	2	—	2	—	1	61	72
Farmfield, Horley	24	—	29	—	11	—	2	—	—	—	—	—	1	—	39	—
Brunswick House, Mistley	8	—	6	—	2	—	—	—	—	—	—	—	—	—	12	—
South Side Home, Streatham	—	7	—	1	—	—	—	—	—	—	—	—	—	—	—	8
"Contract" institutions]	31	39	27	25	3	13	2	4	—	3	—	—	—	—	53	44
Total ...	128	111	77	60	29	33	10	6	—	5	—	2	1	1	165	124
	239		137		62		16		5		2		2		289	

Leave of absence in daily employment.

In addition, the following were on leave of absence in daily employment on 31st December, 1929 :—from The Manor, 9 females; from the South Side Home, 7 females.

87. The proportion borne by the number of cases to whom licence was granted with a view to ultimate discharge to the total number of cases receiving institutional care was about 1 to $8\frac{1}{2}$, as compared with 1 to 9 during 1928, 1 to 10 during 1927, 1 to $12\frac{1}{2}$ during 1926, and 1 to 15 during 1925. During 1929, 16 per cent. of the cases on licence failed to make good, and the licences had to be revoked. In 1928, there were 14 per cent., in 1927, 18 per cent., and in 1926, 19 per cent. of failures.

Occupation during leave of absence.

88. Table 11 shows the various occupations of defectives on leave of absence from institutions with a view to discharge who were residing within the London area on 31st December, 1929.

Location of cases of mental defect residing in London.

Location of defectives.

89. Table 12 presents an interesting analysis of cases dealt with by the Council under the Mental Deficiency Acts during the months of November and December, 1929, showing the numbers residing north and south of the River Thames and east and west of an imaginary line drawn through Waterloo Bridge.

Highest incidence.

90. It will be seen that by far the largest number of cases of mental defect of which the Council had knowledge during the latter part of 1929, resided in the north east of London. A similar analysis for the whole of the year 1930 will be included in the next annual report.

TABLE 11.

Occupation.	Number of defectives employed.	Occupation.	Number of defectives employed.
<i>Males—</i>		<i>Females—</i>	
Boot makers and repairers ...	2	Domestic service :—	
Building trade ...	4	Daily general ...	3
Cabinet making ...	4	Daily kitchen ...	4
Coal trade ...	2	Resident ...	7
Decorating trade ...	1	Useful work at home ...	1
Despatching clerk ...	1	Dressmaking and millinery ...	1
Domestic work ...	6	Factory hands ...	1
Errand boys and shop boys ...	8	Furriers ...	1
Factory hands ...	7	Hawker ...	1
French polishers ...	1	Laundry workers ...	2
Furriers ...	2	Railway carriage cleaner ...	1
Gardeners ...	2	Shop assistant ...	1
Glass blower ...	1		
Hawker ...	1		
Kitchen work ...	3		
Labourers ...	4		
Metal work ...	5		
Motor driving ...	1		
Motor repairs ...	1		
Pastry cook ...	1		
Porters ...	3		
Rag sorters ...	1		
Road worker ...	1		
Seaman ...	1		
Shop assistant ...	1		
Street sellers ...	2		
Tailoring ...	2		
Transport workers ...	2		
Van boy ...	1		
Various (odd jobs) ...	1		
Wood trade—Sawmills ...	1		
Total ...	73	Total ...	23

TABLE 12.

District.			New cases.		Old cases.		Totals.			Percentage.	
			M.	F.	M.	F.	M.	F.	Net.		
North	East	...	38	34	81	62	119	96	215	} 305	61
	West	...	17	19	24	30	41	49	90		
South	East	...	24	11	34	46	58	57	115	} 177	35.4
	West	...	8	9	20	25	28	34	62		
No fixed abode ...			3	1	5	5	8	6	14	14	2.8
Out-county...			1	0	1	2	2	2	4	4	.8

Analysis of types of cases dealt with during the year.

91. The following statement furnishes an analysis of the various types of cases notified during the year 1929, which were dealt with by way of institutional care, guardianship or supervision during the year :—

Analysis of cases dealt with.

Cause of Death.	MALE.						FEMALE.						TOTAL.
	SUPERVISION.			INSTITUTIONAL CARE.			SUPERVISION.			INSTITUTIONAL CARE.			
	Feeble-minded.	Imbecile.	Idiot.	Feeble-minded.	Imbecile.	Idiot.	Feeble-minded.	Imbecile.	Idiot.	Feeble-minded.	Imbecile.	Idiot.	
Heart disease	1	—	—	1	2	—	—	—	—	1	—	5	
Congenital brain disease	—	—	—	—	2	—	—	—	—	—	1	3	
Hæmorrhage	—	—	—	1	—	—	1	—	—	—	—	2	
Chronic nephritis	—	—	—	—	—	—	—	—	1	—	—	1	
Bronchitis	—	—	—	1	3	—	—	1	—	—	1	6	
Meningitis	—	1	—	—	—	—	—	—	—	—	—	1	
Epilepsy	—	—	—	1	1	—	—	1	—	—	1	4	
Paralysis	—	—	1	—	—	—	—	1	—	1	1	4	
Influenza	—	—	—	—	—	—	—	—	—	1	—	2	
Scarlet fever	—	—	—	—	1	—	—	—	—	1	—	2	
Measles	—	—	—	—	1	—	—	—	—	—	—	1	
Diabetes	—	—	—	—	—	—	—	1	—	—	—	1	
Tonsillitis	—	1	—	—	—	—	—	—	1	—	—	2	
Mastoiditis	—	—	—	—	—	—	—	—	—	—	1	1	
Uræmia	—	—	—	—	—	—	—	—	—	1	—	1	
Intestinal obstruction	—	—	—	1	—	—	—	—	—	—	—	1	
Endocarditis and rheumatism... ..	—	—	—	—	—	—	—	—	—	1	—	1	
Hirschspring's disease	—	—	—	—	—	—	—	—	—	—	1	1	
Causes not known	—	—	—	—	—	—	—	1	—	—	1	2	
Total	1	6	2	10	16	3	2	6	3	8	8	5	70

Statistics.

93. In the absence of any directions by the Board of Control as to the form in which statistics required by No. 28 of the Provisional Regulations, 1914, shall be submitted, the Council submits the following tables, which continue for the year ended 31st December, 1929, the information tabulated on p. 48 of the last Annual Report (Vol. II.) :—

TABLE 15.

SOURCES FROM WHICH INFORMATION HAS BEEN RECEIVED OF CASES OF ALLEGED MENTAL DEFECT.

Source of information.	Period.	
	From 1st Apr., 1914, to 31st Dec., 1929.	During 1929 only.
London Association for Mental Welfare	1,136	90
Local education authority	4,864	334
Poor law authority	536	67
Police authority (Section 8)	976	69
Transfers from prisons (Section 9)	164	6
Transfers from industrial schools (Section 9)	392	9
Miscellaneous	2,171	199
Total number of cases of which information was received	10,239	774

ACTION TAKEN ON ABOVE CASES.

(a) Position at 31st December, 1929, with regard to the 10,239 cases referred to in the first column of the preceding table—

Detained—

In institutions provided by the Council—

The Manor	...	...	...	...	...	...	...	1,232*
Farmfield	...	...	...	...	...	...	...	175*
Brunswick House	...	...	...	...	...	...	...	87*
South Side Home	...	...	...	...	...	...	...	87*

In institutions under contract 1,608*

Under guardianship 74

In places of safety awaiting the presentation of a petition for an order 19

Total number of cases detained 3,282

Under statutory supervision... .. 2,276

Still under consideration 135

Total remaining on the active list 5,693

Removed from active list—

Discharged from institutional care 336

Removed to a mental hospital under Lunacy Acts 242

Removed to a State institution (violent or dangerous cases) 60

Dealt with through the poor law 690

Ascertained not subject for action 2,486

Died 732

4,546

Total 10,239

(b) Summary of action taken during the year 1929 :—

Placed in institutions provided by the Council :—

The Manor	...	...	...	...	...	...	...	64
Farmfield	...	...	...	...	...	...	...	69
Brunswick House	...	...	...	...	...	...	...	17
South Side Home	...	...	...	...	...	...	...	2

Placed in institutions under contract 152

Placed under guardianship 19

Placed in places of safety until the presentation of a petition for an order 58

Placed under statutory supervision 485

Discharged from institutional care... .. 43

Removed to a mental hospital 30

Removed to a State institution 4

Dealt with through the poor law 69

Ascertained not subject for action 270

Died 70

* These included a number of cases absent on licence, whose names remained on the books of the institutions, and who were liable to be recalled should they prove to be unsatisfactory.

Financial statement.

Financial statement.

94. No. 28 of the Regulations provides also for the submission of financial statements for the year ending 31st March. Such a statement (prepared by the Comptroller of the Council) showing the cost to the Council of the administration of the Mental Deficiency Acts, from 1st April, 1929, until 31st March, 1930, forms Appendix I., and particulars of the Council's expenditure on the maintenance of defectives in its own institutions are given in Appendix II.

APPENDIX I.

FINANCIAL STATEMENT SHOWING THE COST OF ADMINISTRATION OF THE MENTAL DEFICIENCY ACT DURING THE YEAR ENDED 31ST MARCH, 1930.

(As appearing in the Council's grant claim upon the Board of Control.)

	£	s.	d.	£	s.	d.	£	s.	d.
<i>Expenditure—</i>									
(1) Ascertaining numbers, supervising and dealing with defectives—									
(a) Salaries, etc., of officers	...	...	...	13,819	3	1			
(b) Travelling expenses	...	...	...	299	15	11			
(c) Costs and charges in legal proceedings	...	...	...	52	3	—			
(d) Temporary detention in places of safety, including expenses of conveyance, removal, etc.	...	...	...	1,848	18	9			
(e) Grants to voluntary societies	...	...	...	6,668	17	5			
(f) Other expenses (stationery, furniture, office expenses, etc.)	...	...	...	5,540	17	3			
							28,229	15	5
(2) Institutional treatment under contract—									
(a) Accommodation and maintenance	...	...	...	108,595	4	2			
(b) Conveyance, removal, etc.	...	...	...	352	17	2			
(c) Other expenses	...	...	...	117	12	2			
							109,065	13	6
(3) Guardianship—									
(a) Maintenance	...	...	...	3,463	9	2			
(b) Conveyance, removal and other expenses	...	...	...	243	17	7			
							3,707	6	9
									141,002 15 8
(4) Maintained in institutions provided by the local authority—									
Brunswick House, Mistley (a)	...	...	...	4,833	—	2			
South Side Home, Streatham (a)	...	...	...	4,987	—	8			
The Manor, Epsom (a)	...	...	...	93,646	5	3			
Farmfield, Horley (a)	...	...	...	12,925	4	7			
									116,391 10 8
									257,394 6 4
<i>Income—</i>									
Contributions towards maintenance of defectives and costs recoverable	...	...	...				10,450	17	7
Superannuation contributions, Central Office staff	...	...	...				23	19	10
Charges to staff in Council's institutions for board and lodging, superannuation contributions, and miscellaneous income—									
Brunswick House	...	...	...	614	1	10			
South Side Home	...	...	...	889	2	6			
The Manor	...	...	...	13,794	13	11			
Farmfield	...	...	...	1,591	1	5			
							16,888	19	8
Grant from Board of Control (b)	...	...	...				115,252	6	8
									142,616 3 9
Net cost to the Council	...	...	...						114,778 2 7

(a) Including debt charges.

(b) Including gratuities in respect of criminal defectives.

APPENDIX II.

RETURN OF EXPENDITURE (AND COST PER HEAD) DURING THE FINANCIAL YEAR ENDED 31st MARCH, 1930, ON MAINTENANCE OF DEFECTIVES AT INSTITUTIONS PROVIDED BY THE COUNCIL.

Heading.		Cost per patient weekly.							
		Brunswick House.		South Side Home.		The Manor.		Farmfield.	
Number of patients (average) ...		71.3		78.9		1,076.3		115.4	
Salaries and wages (excluding farm and repairs)—		s.	d.	s.	d.	s.	d.	s.	d.
Medical staff			6.5		4.4		10.5		9.8
Other institution staff		7	9.6	9	6.8	12	10.4	16	8.1
Superannuation, insurance and travelling expenses of staff			2.0		.1		2.0		4.1
		8	6.1	9	11.3	13	10.9	17	10.0
Less income from staff for board, lodging, etc.			11.3	3	3.1	3	0.6	2	5.6
Net cost of staff... ..		7	6.8	6	8.2	10	10.3	15	4.4
Provisions (including staff meals and net cost of farm produce, if any)		5	7.7	6	1.9	5	7.3	6	5.1
Clothing and staff uniforms		1	5.7	1	1.5	(a) 1	5.3	(a) 2	1.3
Medical requisites and drugs			.7		1.9		2.6		1.6
Fuel, light and water		1	2.5	1	8.4	2	3.7	2	7.6
Washing and cleaning materials, etc. ...		1	10.4		5.2		7.8		9.8
Furniture and bedding			4.8	(a)	8.0	(a) 1	2.7	(a)	8.3
Removals, burials, etc.			3.7		.1		.2		3.1
Rates, taxes, and insurance			7.5		7.9		11.0	1	9.4
Stationery, postage and sundries			3.1		9.7	(a)	6.0		5.4
Miscellaneous			7.2		3.9		3.4	1	1.8
Rent of land and buildings			—		—	3	2.0		—
Debt charges—interest and redemption		1	8.6		9.5		2.3	4	2.2
Repairs and upkeep of buildings, etc. ...			9.3	1	2.1	1	7.8	3	2.5
Additional equipment and special expenditure		2	4.8		.9		10.1		10.3
		24	10.8	20	9.2	29	10.5	40	0.8
Less miscellaneous income (other than for maintenance of patients)		2	2.2		10.3	1	5.0	2	4.9
Total cost per patient weekly... ..		22	8.6	19	10.9	28	5.5	37	7.9
	Brunswick House.	South Side Home.		The Manor.		Farmfield.		Total.	
Actual figures used in preparing above table—	£ s. d.	£ s. d.		£ s. d.		£ s. d.		£ s. d.	
Expenditure (b)	4,624 8 9	4,275 2 8		83,840 18 —		12,058 11 9		104,799 1 2	
Less income other than contributions towards maintenance of patients (b)	405 10 5	177 4 6		3,989 6 8		724 8 7		5,296 10 2	
Net expenditure at institutions	4,218 18 4	4,097 18 2		79,851 11 4		11,334 3 2		99,502 11 —	

(a) Including cost of materials for industries.

(b) The figures are less than those shown in Appendix I., because to meet the requirements of the Board of Control only the net financial result of the farming operations is included for cost purposes and superannuation contributions are deducted from wages. The net expenditure is the same in both tables.

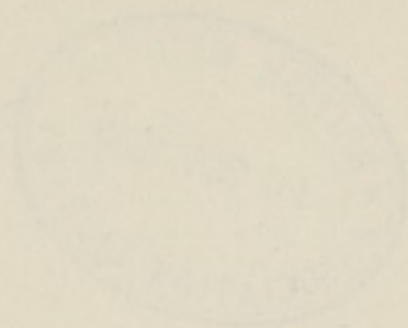


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London County Council.

ANNUAL REPORT OF THE COUNCIL, 1929.

VOL. III—PUBLIC HEALTH.

CHAPTER I.

REPORT OF THE COUNTY MEDICAL OFFICER FOR THE YEAR 1929.

By F. N. KAY MENZIES, M.D., F.R.C.P. (Ed.), D.P.H., F.R.S.E., County Medical Officer of Health and School Medical Officer.

VITAL STATISTICS.

The population of the County of London at the census of 20th June, 1921, Population. was 4,484,523, including members of the armed forces in London but excluding Londoners on active service elsewhere. It is estimated by the Registrar General that the population normally resident in London at the date of the census was about 4,524,000, allowance being made in this estimate for persons absent on holiday when the census was taken. The Registrar General estimates the total population in the middle of 1929 to have been 4,430,000 including 12,100 non-civilians. The estimated population of the metropolitan boroughs in 1929 is shown in the table on page 18.

The marriages registered in London during 1929 numbered approximately Marriages. 42,301, being 19.1 per thousand of the population, the rate for the preceding year being 18.9.

The births in London during 1929 numbered 70,089 compared with 72,352 in Births. the preceding year. The birth-rate was 15.8 per thousand as against 16.2 in 1928. This is the lowest birth-rate ever recorded in London, the number of births being fewer by 887 than in 1918 when the influence of the European War was at its height.

The birth-rate for each metropolitan borough will be found in the table on page 18.

The deaths in the civil population of London during 1929 numbered 62,889 Deaths. giving a death-rate of 14.2 per thousand compared with 12.1 in 1928. The distribution of death by ages in 1929 and recent preceding periods is shown in the following table :—

Year.	0—	1—	2—	5—	10—	15—	20—	25—	35—	45—	55—	65 +	All ages.
1919-22 ...	7,836	2,131	1,919	1,376	853	1,175	1,318	3,103	4,238	6,414	8,265	19,828	58,456
1923-26 ...	5,546	1,611	1,453	828	637	1,013	1,220	2,479	3,659	6,080	8,456	21,004	53,986
1927... ..	4,357	1,181	1,152	788	527	992	1,254	2,420	3,620	6,434	9,073	23,372	55,170
1928... ..	4,879	1,556	1,278	863	484	1,042	1,215	2,362	3,375	5,869	8,705	22,267	53,895
1929... ..	4,995	1,642	1,217	842	502	1,047	1,272	2,528	3,765	6,907	10,491	27,681	62,889

The marked increase in the number of deaths in 1929 was due to the severe influenza epidemic, associated with an unusually rigorous winter, and, in addition, the epidemic prevalence of whooping-cough.

Fatal street accidents continue to increase in number, the total being 814 in the 52 registration weeks of 1929 as against 747 in 1928. Among children under 15 years of age, the deaths numbered 169, this being 20 more than in the preceding year.

The death-rates from all causes and from certain specified causes in each metropolitan borough and in London as a whole will be found in the table on page 18.

Infant
mortality

The weather conditions in the summer of 1929 were such that an epidemic of infantile diarrhoea might have been anticipated: it is remarkable, when one considers the result of such weather conditions in 1911, that the rise in the diarrhoeal mortality was so small compared with 1928 and less than half that of the mean of the rate for 1911 to 1914.

The mortality from whooping-cough was heavy and this was the main factor contributing to an increase of the rate of infant mortality from 67 in 1928 to 71 in 1929.

The following table gives an analysis of the principal causes of infantile deaths during recent years:—

Cause of Death.	1911 to 1914.	1915 to 1918.	1919 to 1922.	1923 to 1926.	1924.	1925.	1926.	1927.	1928.	1929.
Measles	3.40	3.84	1.64	2.02	3.37	0.87	2.88	0.63	3.93	0.61
Whooping-cough	3.63	4.45	2.50	2.60	2.30	4.58	1.29	3.08	2.45	6.15
Influenza	0.27	1.10	0.81	0.38	0.62	0.38	0.34	0.46	0.23	0.96
Tuberculosis ...	3.40	3.20	1.52	1.26	1.20	1.48	1.14	1.05	0.95	0.77
Bronchitis	6.41	6.72	4.42	2.91	3.62	3.02	2.59	2.12	2.56	2.87
Pneumonia	12.28	14.96	12.60	11.51	14.13	12.27	10.59	11.37	13.03	14.15
Diarrhoea	24.28	16.10	12.16	9.36	7.89	9.72	10.78	6.97	9.52	9.93
Premature birth	18.16	17.42	17.00	14.74	15.89	14.31	14.11	13.94	14.22	14.81
Congenital defects	14.69	14.66	11.26	8.39	7.96	8.70	8.12	7.17	7.60	7.65
All causes ...	108	103	79	65	69	68	64	59	67	71

Infectious Diseases.

The notification attack-rates and death-rates of the principal infectious diseases in London and the constituent metropolitan boroughs are shown in the tables on pages 18-19.

Smallpox.

The mild type of smallpox (variola minor) which invaded London during 1928, became established in many parts of the metropolitan area during 1929. The fact that the disease was in many cases so benign in character, associated in certain instances with a few spots with little or no promonitory illness, rendered the task of controlling the disease extremely difficult. Missed or ambulant cases were constantly discovered, many of them being free from infection when detected during the investigation of a secondary, or even tertiary, crop of cases to which they had given rise. It was, therefore, not surprising to find that in congested districts like the East end of London where the population was largely unprotected by vaccination, the disease made rapid progress in spite of all the precautions which were taken. The discovery of cases in the in-patients' and out-patients' departments of hospitals,

etc., was of frequent occurrence and led to much dislocation of hospital regime. Series of cases occurred also among employees of large firms and business houses and a number of common lodging houses was effected.

It was noteworthy, however, that contrary to the experience in 1928, the vagrant class was not specially involved.

As will be noted in the following table showing the notified cases which occurred during the year, the disease was most prevalent in the East end :—

<i>Metropolitan Borough.</i>				<i>Notified cases of Smallpox.</i>	<i>Metropolitan Borough.</i>				<i>Notified cases of Smallpox.</i>
<i>West—</i>					<i>East—</i>				
Paddington	...	...	...	3	Shoreditch	...	...	...	246
Kensington	...	...	...	5	Bethnal Green	...	...	...	262
Hammersmith	...	...	...	3	Stepney	...	...	...	489
Fulham	...	...	...	—	Poplar	...	...	...	158
Chelsea	...	...	...	—					
Westminster	...	...	...	2	<i>South—</i>				
<i>North—</i>					Southwark	...	...	...	153
St. Marylebone	...	...	...	3	Bermondsey	...	...	...	46
Hampstead	...	...	...	—	Lambeth	...	...	...	72
St. Pancras	...	...	...	87	Battersea	...	...	...	2
Islington	...	...	...	70	Wandsworth	...	...	...	15
Stoke Newington	...	...	...	6	Camberwell	...	...	...	117
Hackney	...	...	...	58	Deptford	...	...	...	19
<i>Central—</i>					Greenwich	...	...	...	1
Holborn	...	...	...	43	Lewisham	...	...	...	8
Finsbury	...	...	...	32	Woolwich	...	...	...	5
City of London	...	...	...	3	Total				1,908

No vaccinated child under 11 years of age contracted smallpox. The following table prepared by the Metropolitan Asylums Board, shows the vaccinal condition of 3,031 cases of smallpox admitted from the metropolitan and certain extra-metropolitan areas during 1929, together with the number of deaths :—

Year of age of patient.	Vaccinated in infancy only.		Vaccinated and revaccinated.		No evidence of vaccination prior to infection.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1—5 ...	—	—	—	—	379	4
6—10 ...	—	—	—	—	668	1
11—15 ...	3	—	—	—	587	1
16—20 ...	9	—	—	—	440	—
21—25 ...	12	—	—	—	218	—
26—30 ...	12	—	—	—	156	—
31—35 ...	27	—	1	—	93	—
36—40 ...	37	—	1	—	62	1
41—45 ...	49	1	1	—	37	1
46—50 ...	69	—	2	—	22	—
51—55 ...	46	—	—	—	13	—
56—60 ...	45	—	2	—	9	—
61—65 ...	13	—	1	—	3	—
66—70 ...	6	—	—	—	1	—
71—75 ...	4	—	—	—	2	—
76—80 ...	1	—	—	—	—	—
81—85 ...	—	—	—	—	—	—
Totals	333	1	8	—	2,690	8

Of the 9 deaths referred to in the above table, 6 occurred among patients from the administrative County of London. Particulars are as follow :—

DEATHS IN 1929.

Borough.	Age.	Sex.	Vaccinal Condition.	Date of Death.	Cause of death.
Finsbury	8 months	M.	Unvacc.	8.3.29	Hæmorrhagic smallpox. (P.M.)
Woolwich	9 years	M.	Unvacc.	16.5.29	Smallpox.
Stepney	37 „	M.	Infancy	27.6.29	I. (a) Hypostatic pneumonia. (b) Chronic peritonitis.
Stepney	3 days	F.	Unvacc.	2.7.29	II. Smallpox (unvaccinated). I. (a) Smallpox (unvaccinated, born with rash). II. Prematurity. No P.M.
Bethnal Green ...	13 years	M.	Unvacc.	23.7.29	I. (a) Septicæmia. (b) Confluent smallpox.
Poplar	3 weeks	M.	Unvacc.	24.11.29	II. Vesical Fistula. No P.M. I. Smallpox. II. Prematurity.

Chickenpox was made notifiable for varying periods in seven metropolitan boroughs during the year, viz., Bethnal Green, Chelsea, Deptford, Lambeth, Poplar, Southwark and Stepney. In Paddington chickenpox has been notifiable since 1923.

Smallpox of a virulent type was introduced into London by passengers and members of the crew of the S.S. *Tuscania* which arrived at Liverpool on 1st April from Bombay where virulent smallpox was epidemic. The first case on board this vessel was a seaman who was landed on 27th March at Marseilles, where he died. The vessel then proceeded to Liverpool and passengers were invited to be vaccinated on board.

A list of contacts who had proceeded to London from Liverpool was received on 4th April and was circulated to all medical officers of health the same day. A further list was received on 9th April from Glasgow, where the *Tuscania* proceeded after leaving Liverpool, of passengers who had left the vessel at Marseilles on 27th March and had travelled overland to London. This list was circulated at once. Further names and addresses were received during the next few days and they were telephoned to the medical officers of health concerned as soon as they were received. Owing to the period which had elapsed between the disembarkation of the passengers and the receipt of the list of contacts, several were found to be already suffering from smallpox when visited by an officer of the local sanitary authority. Of these cases, 7 occurred in London, the last being removed to hospital on 12th April. In each instance, vaccination of the contacts was offered and generally accepted.

Other cases from the same source occurred in different parts of the country and abroad. Of the 1,568 passengers and crew 45 primary cases were notified, and of these, two occurred in France, i.e., the seaman who died at Marseilles and a passenger taken ill in an hotel in Paris.

The remainder were distributed as follows:—

No. of cases.	Places where notified.
1	Liverpool.
7	London.
6	Outer London ring.
7	Northern England.
8	Southern England.
14	Scotland (1 Aberdeen, 13 Glasgow).

Altogether there were 8 deaths, *i.e.*, 7 in this country and one at Marseilles. No deaths occurred in London among those who were infected on the ship.

There was, however, one fatal case of smallpox in Woolwich shortly after this time. The patient was an unvaccinated boy, age 9, a pupil at one of the Council's elementary schools. He fell ill on 4th May, his rash developed on 5th May, he was removed to hospital on the 10th, and died on 16th May. The source of infection was not conclusively traced, but enquiries elicited the fact that the boy had attended a fair on Woolwich Common on 20th April, and it was later ascertained that an employee at one of the stalls—a dart stall—which the boy is said to have visited, belonged to a family, living in Gravesend, in which four cases of smallpox had occurred, two of them proving fatal. There was a history of a possible missed case in the family and an examination of the youth who was employed at the dart stall revealed a few indefinite scars. In the absence of other evidence, it appeared probable that the origin of infection in the fatal case in Woolwich was linked up with the Gravesend cases through the medium of the fair. About that time there was a series of smallpox cases at Gravesend, Tilbury, Sheerness, Grays and Sheppey, *i.e.*, districts associated with shipping traffic.

The importation of virulent smallpox from the East exemplifies the constant risk which is being run in this country and especially in London from the maritime traffic between England and smallpox-infected areas in the East. It is, therefore, inevitable that vessels, with a history of smallpox on board, arrive from time to time in the Port of London, or discharge passengers at Marseilles or other ports *en route* for London, and the precaution of keeping such persons under observation is one of considerable importance.

The first line of defence in this network of organised preventive measures in London is occupied by the Port of London Authority, upon whose vigilance much depends. The fact that the virulent variety of smallpox is comparatively seldom introduced into London, and that, even when such cases do occur, the disease rarely spreads to any material extent, provides eloquent testimony to the vigilance of the port authorities and the energetic measures taken by the metropolitan public health authorities.

The prevalence of the mild type of smallpox in London renders these precautions against the introduction of *variola major* all the more necessary and important, in view of the complications and difficulty which would arise in the event of the co-existence of the mild and more fatal types of the disease.

The deaths from measles totalled 206 compared with 1,358 in 1928. The death-rates in the metropolitan boroughs are shown in the table on page 18. Measles.

There were 1,141 deaths from whooping cough in London during 1929 compared with 405 in 1928. The epidemic prevalence was foreshadowed by a marked increase in deaths towards the end of 1928, and its severity is shown by the fact that the total number of deaths during 1929 exceeded that in any year since 1918. The distribution of the mortality in the various metropolitan boroughs in 1929 is shown in the table on page 18. Whooping cough.

There were 15,855 cases of scarlet fever notified in 1929 (52 weeks), the corresponding figure for 1928 being 15,297. The attack-rate was 3.6 per thousand as against 3.5 in 1928. The deaths numbered 75, giving a death-rate of 0.02 per thousand of the population at all ages, and a case-mortality of 0.5 per cent. Scarlet Fever.

The notified cases of diphtheria numbered 11,788 in 1929 (52 weeks) compared with 12,155 in 1928. This gives an attack-rate of 2.7 per thousand, being the same as in the preceding year. There were 350 deaths as against 399 in 1928. The case-mortality was 3.0 per cent. Diphtheria.

Diarrhoea and enteritis caused 768 deaths among children under two years of age or 10.96 per thousand births. The corresponding rate in 1928 was 10.32 Diarrhoea and enteritis.

Puerperal
fever and
pyrexia.

There were 312 notifications of puerperal fever and 758 of puerperal pyrexia in 1929 (52 weeks) compared with 294 and 768 respectively in 1928. The death-rates from puerperal fever and other accidents of childbirth per thousand births in each metropolitan borough in the period 1920-1927, together with the deaths in childbirth in 1928 and 1929, are shown in the following table:—

District.	Childbirth deaths per 1,000 births. 1920-1927.			Number of deaths in Childbirth.				
	Puerperal fever.	Other causes.	Total.	1928.		1929.		
				Puerperal fever.	Other causes.	Puerperal fever.	Other causes.	
<i>West—</i>								
Paddington ...	1.48	1.81	3.29	3	4	6	3	
Kensington ...	1.93	1.65	3.58	3	4	10	6	
Hammersmith ...	2.09	1.75	3.84	5	5	5	2	
Fulham ...	1.95	1.55	3.50	5	1	7	3	
Chelsea ...	1.84	2.93	4.77	—	3	3	4	
Westminster, City of	1.51	2.87	4.38	9	9	2	1	
<i>North—</i>								
St Marylebone ...	2.07	2.60	4.67	4	5	2	3	
Hampstead ...	1.74	1.63	3.37	1	5	—	5	
St. Pancras ...	1.40	1.66	3.06	4	3	3	7	
Islington ...	1.39	1.50	2.89	9	15	12	7	
Stoke Newington ...	2.55	1.88	4.43	2	3	1	3	
Hackney ...	1.75	1.50	3.25	4	11	10	6	
<i>Central—</i>								
Holborn ...	2.87	0.61	3.48	1	—	—	1	
Finsbury ...	0.95	1.36	2.31	4	1	1	1	
City of London ...	2.01	1.00	3.01	1	—	—	—	
<i>East—</i>								
Shoreditch ...	1.11	1.24	2.35	3	4	2	2	
Bethnal Green ...	0.88	1.66	2.54	3	—	5	5	
Stepney ...	1.04	1.41	2.45	5	4	5	8	
Poplar ...	1.20	1.75	2.95	—	8	4	6	
<i>South—</i>								
Southwark ...	1.26	1.43	2.69	6	5	5	2	
Bermondsey ...	1.15	1.76	2.91	1	4	3	2	
Lambeth ...	1.77	1.36	3.13	4	7	8	8	
Battersea ...	0.91	1.88	2.79	3	4	2	3	
Wandsworth ...	1.60	1.67	3.27	6	13	16	7	
Camberwell ...	1.75	1.47	3.22	8	10	7	4	
Deptford ...	1.63	1.74	3.37	7	4	1	1	
Greenwich ...	1.01	1.37	2.38	3	4	—	2	
Lewisham ...	1.05	1.91	2.96	4	3	9	8	
Woolwich ...	1.16	1.64	2.80	8	5	3	11	
London County ...	1.46	1.63	3.09	116	144	132	121	

Owing to the smallness of the figures, the death-rates for a single year are misleading and the relative mortality in the various boroughs can only be inferred from rates covering a considerable period, as, for instance, those shown in the table for the 8 years 1920-1927.

The above table shows that during this period the boroughs with the lowest maternal mortality per 1,000 births were Finsbury, Shoreditch, Greenwich and Stepney; and that the highest mortality occurred in Chelsea, St. Marylebone, Westminster and Stoke Newington. The deaths per 1,000 births, *i.e.*, the maternal mortality, in 1929 are shown in the table on p. 18.

There were 351 notifications of enteric fevers in London in 1929 (52 weeks) compared with 580 in 1928. The deaths in the calendar year numbered 45 as against 51 in 1928.

Enteric
fevers.

A remarkable incidence of multiple cases of typhoid fever occurred in Lambeth where in one house occupied by two families no less than twelve cases were notified in the course of August and September, two being fatal. The source of infection could not be traced. Other instances of multiple cases were :—21 of two cases in one house, of which 17 occurred in Lewisham ; four of three cases in one house, two of which occurred in Lewisham, where also in one instance there were five cases in one house.

A considerable prevalence of typhoid fever occurred during the latter part of September in the south-eastern area of London and the adjoining districts of Beckenham and Penge outside the County area. The distribution of the cases was as follows :—

Lewisham	...	...	100 cases, including 11 secondary cases
Beckenham	...	19	„ „ 2 „ „
Penge	...	...	5 (no secondary cases)
			—
			124
			—
			13
			—

Of these cases, seven were fatal, six in Lewisham and one in Penge.

Although the early patients in this series began to sicken about 23rd September, it was not until more than two weeks later that the serious nature of the outbreak became apparent. The long incubation period, the insidious onset, and the fact that the early cases of an epidemic may be so mild that they are at first overlooked, constitute some of the reasons why it is so difficult to prove definitely the cause of such an outbreak. The ordinary person has some difficulty in remembering where he had been, what he had done, and, still more, what food or drink he had consumed several weeks prior to the onset of his illness, and even supposing that he does remember, the suspected article of food is seldom available for analysis.

Classifying the 124 notified cases according to the date of their onset, the infection seems to have been operative first on Saturday, 14th September, and to have caused, so far as is known, 42 cases ; but the same or a similar source of infection appears to have become active again on or about 26th September and to have caused, so far as can be ascertained, 61 cases.

A very careful survey of the information available as to the food consumed by the patients finally fixed suspicion upon the supplies distributed by a certain shop in the Lewisham area. This hypothesis was strengthened by the discovery that a patient living in Hitchin had one meal in London on 23rd September at a friend's house and recollected, not without annoyance, that the meal had only consisted of cooked ham. This ham was traced to the firm in question. The employees of the firm were placed under observation and enquiries elicited the fact that one of the employees had become ill about 9th October and was absent from duty suffering, as was thought, from influenza. He subsequently had a relapse with hæmorrhage of the bowel and died. A post-mortem examination showed the cause of death to be enteric fever. This man in all probability was infected by the same source as the other cases, and was not the original carrier. The evidence strongly suggests that the outbreak was caused by a "carrier" infecting cooked food, but by the time the probable source of infection was traced his carrier condition had ceased. It is regrettable to report that two of the thirteen secondary cases occurred among nurses in two of the foremost London hospitals to which cases from Lewisham had been admitted.

The sequence of the cases notified in Lewisham according to date of onset of illness is set out below. The figures in heavy type show, against the date of onset, the age of males and the italic figures the age of females, attacked.

Date of onset of illness.			Ages of persons falling ill on the date shown.											
Sep.	23	...	42	50										
	24	...	24	59										
	26	...	19	24	60	25	26							
	27	...	26	13	12									
	28	...	20	17	19	5	45							
	29	...	50	26	8	25	8							
	30	...	15	64	16	14	45	33	8	25				
Oct.	1	...	45	30	19									
	2	...	13											
	5	...	38	4	56	24								
	8	...	3	18	57	8	47	5	17	33				
	9	...	42	39										
	10	...	19	11	9	19	38	15	31	20	12	19	23	
	11	...	7	15	39	9	23	37						
	12	...	9	20	9	27	49							
	13	...	49	12	26	40	58	45						
	14	...	9	41	52									
	15	...	27	55										
	16	...	14											
	17	...	32											
	18	...	37	11	38									
	19	...	27	63										
	20	...	18											
	21	...	39	22										
	22	...	30											
	23	...	39											
	26	...	49											
	27	...	43											
	29	...	46											
Nov.	4	...	8	2										
	17	...	10	42										

The age and sex distribution of the cases in Lewisham is shown in the following table :—

Sex.	0-	5-	10-	20-	25-	35-	45-	55-	65+	Total.
Males	1	6	8	5	8	1	5	2	—	36
Females	2	7	16	4	8	14	7	6	—	64
Persons	3	13	24	9	16	15	12	8	—	100

Anthrax.

Five cases of anthrax were notified in London during 1929 but the diagnosis was subsequently revised in one of these cases. None of the four genuine cases proved fatal, three of the patients being treated in Guy's Hospital and the other in St. Andrew's Hospital. The infection in the last case was ascribed to a fur coat which the patient had recently purchased. In the other cases the patients were employed in handling skins or hides.

Plague, cholera and typhus fever.

No case of plague, cholera, or typhus fever occurred in London during 1929.

Cerebro-spinal fever.

One hundred and twenty-five cases of cerebro-spinal fever were notified during the period 1st January to 31st December, 1929, but the diagnosis was not confirmed in 25 of these. Of the remaining 100 genuine cases, 63 proved fatal. In addition, 38 fatal cases which were not notified were discovered through the medium of the Registrar General's death returns, making a total of 101 fatal cases during the year.

Poliomyelitis and polio-encephalitis.

Sixty-seven cases of poliomyelitis or polioencephalitis were notified during the period, 1st January to 31st December, 1929, of which 59 were regarded as genuine. Of these, 6 proved fatal. In addition, 2 fatal cases which had not been notified were recorded in the Registrar General's death returns, making a total of 8 fatal cases for the year.

As in previous years, special facilities were provided in the Metropolitan Asylums Board's Institution, Queen Mary's Hospital, Carshalton, for the residential treatment of children suffering from paralysis following poliomyelitis. At the end of 1928, there were 25 cases under treatment as compared with 47 at the end of 1927. During 1929, 33 children were admitted (including 2 re-admissions), 33 were discharged and there were 2 deaths, leaving 23 under treatment at the end of 1929.

One hundred and four cases of encephalitis lethargica were notified during the period 1st January to 31st December, 1929, but the diagnosis was not confirmed in 33 of these. Of the 71 genuine cases, 25 (35 per cent.) proved fatal. In addition, 32 fatal cases, which had never been notified, were recorded in the Registrar General's death returns.

Table of age incidence (actual cases including the fatal ones not notified).

Age periods.	Under 3.	3-5.	5-10.	10-20.	20-30.	30-40.	40-50.	50-60.	Over 60.	Total.
Cerebro-spinal fever...	69	17	15	17	8	5	6	—	1	138
Poliomyelitis and polioencephalitis...	24	16	7	11	1	1	1	—	—	61
Encephalitis lethargica ...	2	—	6	12	23	18	14	10	18	103

Notifications received in each registration year since 1916, excluding duplicate notifications and military cases. (See also page 19.)

Year.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.
Cerebro-spinal fever	390	218	197	154	103	86	65	93	93	83	93	70	121
Poliomyelitis and polioencephalitis	59	50	96	49	57	40	111	116	55	95	86	54	66
Encephalitis lethargica	Not notified until 1920			140	233	66	98	600	293	224	142	100	92

It was stated in last year's Annual Report that arrangements had been made with the Metropolitan Asylums Board to extend the accommodation at the Northern Hospital, Winchmore Hill, for cases of post-encephalitis lethargica, which had up to then been limited to the admission of children between 3 and 16 years of age, so as to provide for the treatment of adults suffering from the disease. As a result 50 beds were set aside for this purpose and between May and December, 1929, 57 adults were admitted with varying conditions associated with post-encephalitis lethargica. During this period 10 were discharged so that on 31st December, 1929, 47 remained under treatment.

The number of children treated in the special unit at the Northern Hospital is given in the Annual Report of the school medical officer. Unfortunately the provision made for adults has proved to be quite inadequate and there is a long list of patients waiting to be admitted but for whom accommodation cannot be provided until vacancies occur through discharges etc. The possibility of extending the provision of accommodation for these difficult cases has been under serious consideration and is still under review.

The deaths from influenza during 1929 numbered 3,118 compared with 590 in 1928.

There was a noteworthy similarity between the winter weather conditions of 1928-9 and 1894-5, and also in regard to the severity and time of occurrence of the influenza epidemics of these two years. This similarity is stressed by the fact that in the following winters in both instances there was an exceptional freedom from fatal influenza. The age-incidence of the mortality from influenza in 1929 was discussed in last year's report, Vol. III., p. 28.

The deaths in London from rheumatic fever in 1929 numbered 168 compared with 165 in 1928. There were 68 deaths among children under 15 years of age.

Cancer.

There were 6,865 deaths from cancer in 1929 compared with 6,773 in 1928 and 6,774 in 1927. The death-rate per 1,000 was 1.55. There was an increase of 30 in the male deaths and of 62 among females.

Tuberculosis.

Tuberculosis

The deaths from tuberculosis of the respiratory system in London during 1929 numbered 4,230, giving a death-rate of 0.96 per 1,000 living, the corresponding figures for 1928 being 3,985 and 0.89 respectively. There were 584 deaths from other forms of tuberculosis, as against 639 in 1928, the death-rate for 1929 being 0.13. The annual deaths and death-rates from phthisis in recent years are shown in the following table. It will be noticed that the death-rate is higher than in any of the four preceding years :—

Period.	Deaths.			Death-rates.		
	Males.	Females.	Total.	Males.	Females.	Total.
1919-21 ...	2,786	2,109	4,895	1.36	0.87	1.10
1922-24 ...	2,685	1,917	4,602	1.27	0.78	1.01
1925 ...	2,571	1,790	4,361	1.21	0.72	0.95
1926 ...	2,474	1,592	4,066	1.16	0.64	0.88
1927 ...	2,521	1,619	4,140	1.20	0.66	0.91
1928 ...	2,356	1,629	3,985	1.14	0.68	0.89
1929 ...	2,523	1,707	4,230	1.24	0.72	0.96

The number of primary notifications in metropolitan boroughs during 1929 (52 weeks), after correction of the figures within each metropolitan borough by the exclusion of cases notified as primary but subsequently found to have been previously notified, was 8,732, the corresponding figure for 1928 being 8,586. The following is an analysis of the notifications in London during 1929 (52 weeks).

Form of tuberculosis notified.	Sex.	Notifications on Form A. (Total of primary notifications received in London boroughs, other than elementary school cases, <i>infra</i> .)											
		0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65+	Total.
Pulmonary tuberculosis	M.	6	17	77	61	349	527	829	759	760	438	135	3,958
	F.	3	17	54	91	498	674	815	475	292	152	61	3,132
Other tuberculosis ...	M.	21	142	241	92	101	71	68	45	28	10	10	829
	F.	21	113	153	71	104	102	107	47	32	19	9	778
All forms of tuberculosis	M.	27	159	318	153	450	598	897	804	788	448	145	4,787
	F.	24	130	207	162	602	776	922	522	324	171	70	3,910

Form of tuberculosis notified.	Sex.	Notifications on Form B. (Primary notifications of cases discovered through medical inspection in elementary schools.)				Notifications on Form C. (Secondary notifications from institutions receiving cases.)	
		0-	5-	10+	Total.	Poor Law.	Other.
Pulmonary tuberculosis	M.	—	2	1	3	1,250	3,218
	F.	—	2	—	2	802	2,102
Other tuberculosis ...	M.	4	10	7	21	74	496
	F.	2	5	2	9	54	400
All forms of tuberculosis	M.	4	12	8	24	1,324	3,714
	F.	2	7	2	11	856	2,502

In addition to the primary cases notified on forms A and B shown in the above tables, a number of cases came to the knowledge of medical officers of health, otherwise than by notification. These figures include cases not notified before death :—

Form of tuberculosis notified.	Sex.	New cases of tuberculosis coming to knowledge otherwise than by notification on forms A and B.											
		0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65+	Total
Pulmonary tuberculosis...	M.	4	12	12	4	21	45	81	99	92	63	42	475
	F.	5	8	10	9	27	69	81	50	38	32	24	353
Other tuberculosis ...	M.	11	32	16	16	11	7	11	10	6	8	5	133
	F.	6	30	23	13	15	15	20	12	5	5	2	146
All forms of tuberculosis...	M.	15	44	28	20	32	52	92	109	98	71	47	608
	F.	11	38	33	22	42	84	101	62	43	37	26	499

The source of information as to the unnotified cases shown in the above table was as follows:—

Source of Information.	Number of cases.	
	Pulmonary.	Non-pulmonary
Death Returns { From local Registrars... ..	297	105
Transferable deaths from Registrar General...	113	62
Posthumous notifications	86	35
"Transfers" from other areas	282	68
Forms C and D	49	9
Other sources	1	—

The returns received under the Public Health (Tuberculosis) Regulations, 1924, from the medical officers of health of the metropolitan boroughs show that there were 32,117 cases of pulmonary tuberculosis (18,069 males and 14,048 females) and 12,730 cases of other forms of tuberculosis (6,638 males and 6,092 females) on the registers of the metropolitan boroughs at the end of 1929.

The high mortality from pulmonary tuberculosis observed in mental hospitals has been the subject of discussion from time to time and has been variously accounted for. The higher proportion of deaths in which the cause is verified by post-mortem examination has been suggested as partly accounting for the facts, but while cases thus come to light of deaths from undiagnosed phthisis, there are also cases in which a diagnosis of pulmonary tuberculosis is found, post-mortem, to be erroneous. During the war the mortality from pulmonary tuberculosis increased generally in mental hospitals, as also did, in a very marked manner, the mortality among patients of advanced age. The two adverse factors mainly concerned in this change were thought to be first, the reduction in the scale of diet, and secondly the reduction in staff, both resulting from war conditions. As the subject of the high tuberculosis mortality in these institutions is of some importance from the administrative point of view, the following notes on the relation of the incidence of tuberculosis among patients in the Council's mental hospitals to that in the London population generally may be of interest.

The incidence of tuberculosis among inmates of the Council's mental hospitals as compared with that in the general population of London may be considered from the point of view either of the attack-rate as shown by the number of cases at a given time, or of the death-rate in a given period.

Figures have been obtained showing the number of persons known to be tuberculous at the end of each of the three years 1925-1927 in the Council's mental hospitals, and similar figures for the London population were derived from returns based upon the tuberculosis registers of the metropolitan borough councils. The revision of these registers, which was required by the Ministry of Health's Order of 1924, was not yet fully completed at the end of last year (the latest period for which returns are available), and further the borough councils' summary returns relate to total cases on the register only, so that the age-distribution is not available for London as a whole; but the grouped ages of all registered cases had been abstracted for the

borough of Camberwell for the past three years and as comparison of the age-groups of new cases and of deaths in that area with the corresponding London figures showed reasonably close agreement it has been assumed that the London age-distribution of cases is generally similar to that of Camberwell.

The result of comparison of the known cases among mental patients and in the general population thus arrived at is shown in the following table, giving the number of cases which are known among mental patients and the number which would be expected if the incidence among them was the same as that in the general population :—

Sex.	Phthisis.		Other tuberculosis.	
	Actual cases 1925-7.	Expected cases (on London rates).	Actual cases 1925-27.	Expected cases (on London rates).
Males	290	258	44	27
Females	429	171	53	31

The figures appear to indicate no very marked excess in the percentage of male mental patients suffering from phthisis, but among female patients the number tuberculous is shown to be about two-and-a-half times that of the normal population.

Death-rates

There is less difficulty in arriving at similar comparisons of the mortality from tuberculosis, though the fact has to be borne in mind that more than eight years have elapsed since the last census of the population of London, a circumstance affecting the accuracy of the London rates. The figures are as follows :—

Sex.	Phthisis.		Other tuberculosis.	
	Actual deaths 1925-27.	Expected deaths (on London rates).	Actual deaths 1925-27.	Expected deaths (on London rates).
Males	108	43	16	2
Females	156	23	19	2

The deaths from pulmonary tuberculosis among male patients are shown to be about two-and-a-half times as great as the normal, while among female patients the rate is nearly seven times that of the corresponding London population. The figures for deaths are consistent with those for cases in the excess shown among females, but it might have been expected that with so marked an excess of deaths the excess of cases would have been greater than the figures show.

In considering the mortality from pulmonary tuberculosis among adults in different populations, it is essential at the same time to take into account the general death-rate of the population concerned. The question of the relation of the general death-rate and the phthisis death-rate among adults was discussed in the Annual Report for 1926 (Vol. III., pp. 20-28), where it was shown that the phthisis mortality varied very closely with the mortality from all causes whether different localities or different periods of time or different social groups or different occupational groups were considered, the conclusion being that phthisis mortality is determined by much the same causes as govern the general death-rate, nutrition being the most important factor.

In order, therefore, to interpret the phthisis death-rate of the mental hospitals populations the death-rate from all causes must be brought into account. The rates for the same periods as those for which tuberculosis death-rates have been given are as follows :—

Sex.	Actual deaths from all causes 1925-27.	Expected deaths from all causes (on London rates).
Males	1,830	562
Females	2,139	739

The general death-rate, therefore, among mental patients is about three times the normal so that when the phthisis deaths are stated as a percentage of the deaths from all causes the proportion of phthisis deaths among male mental patients is lower than would be expected from the normal relation, while among females it is more than twice as great. The percentages for 1925-7 are as follows:—

Sex.	Actual.	Expected.
Male	5.9 per cent.	7.6 per cent.
Female	7.3 „	3.1 „

Viewed therefore in the light of the deaths from all causes, the phthisis deaths among male mental patients is found to be lower than the normal, but the female deaths are in marked excess.

Closer examination of the data, available in greater detail for the four years 1911-14, shows that this conspicuous difference in relative sex incidence of phthisis mortality is largely, though not entirely, eliminated when deaths from general paralysis of the insane are omitted from both the County and the mental hospitals deaths. Deaths from this cause form, of course, an overwhelmingly greater proportion of the total deaths in mental cases than in the general population, and they are also about six times as frequent among males as among females.

The effect of excluding deaths from general paralysis of the insane will appear from the following figures, which show that the phthisis deaths as a percentage of deaths from all causes in the period 1911-14 (i) including and (ii) excluding general paralysis:

Sex.	(i.) Including general paralysis.		(ii.) Excluding general paralysis.	
	London.	Mental Hospitals.	London.	Mental Hospitals.
Males	15.9 per cent.	10.2 per cent.	16.1 per cent.	15.2 per cent.
Females	9.7 „	11.2 „	9.8 „	12.2 „

The exclusion of general paralysis brings the percentages for the mental patients into fairly close approximation to those for London as a whole, the male percentage now being in excess of the female.

It will be evident from what has been said that mere correction for differences in age and sex distribution does not render the rates for the mental hospitals population comparable with the normal. General paralysis is probably only one of a number of factors causing the divergence of the proportional sex-incidence shown, and certainly there are among female patients a not inconsiderable number whose mental condition is associated with some functions of sex, for which there is no equivalent among males.

Upon the general question of phthisis mortality in mental hospitals, it may be observed that experience shows that where no marked differences in administration are in question, the phthisis mortality of an institution is mainly governed by the phthisis mortality of the area *from which the patients are drawn*. The phthisis mortality of the Council's institutions, in which there is a high percentage of paying patients—i.e., patients of higher social class—appears to be lower than the average.

An examination of some of the death certificates of mental patients shows that the date of onset of phthisis is uncertain in a considerable proportion of the cases. In the early detection of pulmonary tuberculosis, much help can be obtained from the intelligent co-operation of the patient, a help which is not forthcoming in some of the mental cases, with the result that on the average the stage of the disease at detection may not be as early as in the normal case and this is an important

Vital statistics for the several metropolitan boroughs and the County of London in the year 1929. (Rates per 1,000 of civil population.)

Metropolitan boroughs. (Arranged in topographical order.)	Estimated civil population, 1929.	Births.	Deaths.	Infant mortal- ity (per 1,000 births).	Measles.	Scarlet fever.	Diph- theria.	Whoop- ing cough.	Ty- phoid fever.	Diarrhoea and Enteritis, age 0-2 (per 1,000 births).	Phthi- sis.	Pneu- monia.	Bron- chitis.	Cancer.	Maternal mortal- ity (per 1,000 births).	Notified cases of infectious disease. (a)					
																Scarlet fever.	Diph- theria.	Ty- phoid fever.	Erys- ipelas.	Cere- bro- spinal fever.	Acute pneu- monia.
<i>Western.</i>																					
Paddington ...	142,800	15.0	15.5	101	.01	—	.06	.50	.01	16.8	.78	1.62	.72	1.99	4.21	2.30	2.24	.13	.48	.04	2.67
Kensington ...	175,800	14.5	15.4	86	.01	.01	.06	.40	—	19.3	.68	1.46	1.30	1.60	6.29	3.02	1.84	.10	.43	.01	1.49
Hammersmith ...	136,900	15.8	13.7	62	.01	—	.04	.30	.01	8.8	.99	1.19	1.12	1.69	3.24	2.86	1.81	.03	.53	.02	1.68
Fulham ...	153,700	15.4	13.8	73	.07	.02	.07	.25	—	12.3	.91	1.22	.66	1.65	4.23	3.14	2.39	.01	.51	.03	2.25
Chelsea ...	62,680	11.7	15.7	71	.03	—	.05	.19	.02	10.9	.72	1.37	.69	2.14	9.51	2.38	2.24	.03	.56	.02	3.10
Westminster, City of	125,800	10.5	14.9	77	.01	—	.06	.17	—	8.8	.92	1.34	.84	1.76	2.20	1.70	1.34	.06	.38	.02	.39
<i>Northern.</i>																					
St. Marylebone ...	102,400	12.0	14.2	77	.04	.01	.02	.22	—	13.0	.87	1.50	.86	1.92	4.05	2.25	1.64	.11	.39	.03	.89
Hampstead ...	84,830	11.4	13.5	54	—	.02	.04	.14	—	6.2	.57	.74	.81	2.06	5.17	1.69	.78	.06	.25	.02	1.54
St. Pancras ...	203,900	15.6	15.4	82	.04	.02	.09	.37	.01	13.2	1.08	1.40	1.24	1.53	3.14	3.30	1.83	.10	.54	.02	2.29
Islington ...	319,800	17.6	15.0	72	.03	.03	.11	.40	.01	12.1	.99	1.59	1.05	1.52	3.37	3.62	3.14	.06	.47	.02	1.62
Stoke Newington ...	50,040	16.1	13.4	47	.02	.02	.04	.10	—	8.7	.86	1.08	.68	2.04	4.95	2.61	2.69	.10	.40	—	.56
Hackney ...	214,400	16.0	13.9	57	.02	.00	.13	.11	.00	10.5	.96	1.28	.95	1.59	4.67	4.00	3.13	.04	.30	.01	.51
<i>Central.</i>																					
Holborn ...	38,380	10.2	15.6	74	—	—	.05	.18	—	7.7	1.04	1.07	1.49	1.59	2.55	3.34	1.83	.13	.60	—	2.33
Finsbury ...	70,980	19.0	16.0	77	.03	.01	.08	.41	—	3.0	1.04	1.51	1.87	1.47	1.48	4.04	3.19	.08	.73	.01	2.16
London, City of (b)	10,980	7.7	14.5	60	—	—	.18	—	—	—	.27	1.46	.73	1.55	—	3.11	1.92	—	.27	—	1.00
<i>Eastern.</i>																					
Shoreditch ...	99,710	20.1	16.0	84	.17	.03	.10	.40	.03	10.5	.97	1.54	1.21	1.46	2.00	3.57	3.52	.04	.54	.06	1.80
Bethnal Green ...	110,500	18.7	13.7	64	.15	.04	.06	.25	.01	13.6	.99	1.87	1.01	1.29	4.84	5.14	3.14	.04	.78	.01	2.50
Stepney ...	241,800	17.4	13.9	90	.14	.01	.05	.34	.00	21.4	1.00	1.63	.85	1.20	3.09	4.84	2.90	.05	.72	.03	2.50
Poplar ...	160,000	19.2	14.2	75	.08	.02	.10	.27	.01	12.1	1.04	1.78	1.24	1.36	3.27	5.08	3.57	.03	.53	.03	4.60
<i>Southern.</i>																					
Southwark ...	178,500	18.1	15.8	82	.11	.02	.13	.27	.01	12.1	1.35	1.55	1.09	1.44	2.17	3.72	3.40	.03	.60	.06	2.73
Bermondsey ...	113,800	19.8	14.5	71	.01	.04	.05	.29	.01	7.5	1.05	1.80	1.13	1.29	2.22	5.15	4.08	.02	.40	.04	.97
Lambeth ...	294,400	15.7	14.9	68	.10	.02	.10	.20	.01	8.9	1.05	1.20	.83	1.71	3.46	3.85	3.01	.10	.48	.03	2.27
Battersea ...	161,800	16.2	14.2	63	.03	.02	.07	.27	.01	8.4	1.15	1.24	.99	1.50	1.91	3.26	3.10	.01	.43	.02	3.44
Wandsworth ...	346,700	13.3	13.3	62	.01	.02	.07	.18	.01	6.5	.90	.93	.82	1.50	4.97	2.68	2.24	.06	.45	.04	2.22
Camberwell ...	256,900	15.3	13.6	68	.02	.02	.06	.26	—	9.7	.93	1.30	.88	1.49	2.80	4.07	2.57	.05	.47	.02	1.03
Deptford ...	111,000	16.8	13.3	76	.05	.04	.03	.14	.01	9.1	.81	1.32	1.01	1.35	1.08	5.79	3.62	.05	.49	.04	1.54
Greenwich ...	99,900	16.2	13.9	71	.07	—	.16	.18	.01	8.6	1.11	1.30	.75	1.56	1.22	3.50	3.63	.05	.61	.01	1.52
Lewisham ...	207,900	15.7	11.6	44	.02	.02	.07	.10	.08	5.5	.74	.74	.82	1.44	5.21	4.06	2.00	.53	.34	.02	1.72
Woolwich ...	141,600	15.7	12.6	62	.01	.02	.12	.16	.01	9.1	1.01	.84	.85	1.50	6.06	3.76	3.32	.04	.56	.06	2.44
LONDON ...	4,417,900	15.8	14.2	71	.05	.02	.08	.26	.01	11.0	.96	1.33	.97	1.55	3.61	3.60	2.68	.08	.49	.03	1.98

(a) The distribution of the 1908 notifications of smallpox in London during 1929 is shown in the table on page 7. Six cases proved fatal, one each in Finsbury, Bethnal Green, Poplar, Woolwich and two in Stepney.

(b) Including Inner and Middle Temple.

Number of notifications of infectious disease in the County of London during the 52 weeks ended 28th December, 1929.

Metropolitan boroughs. (Arranged in topographical order.)	Anthrax.	Cerebro- spinal fever.	Continued fever.	Diphtheria (including membranous group.)	Dysentery.	Encephalitis lethargica.	Enteric fever.	Erysipelas.	Malaria.	Ophthalmia neonatorum.	Pneumonia.	Polio- encephalitis.	Polio- myelitis.	Puerperal fever.	Puerperal pyrexia.	Scarlet fever.	Smallpox.
<i>Western.</i>																	
Paddington ...	—	6	3	319	—	5	18	68	—	9	380	1	1	5	42	327	3
Kensington ...	—	2	—	323	2	5	17	75	2	22	261	—	1	13	41	529	5
Hammersmith ...	—	3	—	247	1	3	4	72	—	13	230	—	—	11	15	391	3
Fulham ...	—	5	—	366	2	5	2	78	—	31	345	1	4	22	51	481	—
Chelsea ...	—	1	—	140	1	—	2	35	4	5	194	—	1	—	6	149	—
Westminster, City of	—	2	1	168	7	—	8	48	—	11	49	—	1	10	12	213	2
<i>Northern.</i>																	
St. Marylebone ...	—	3	—	167	1	3	11	40	2	3	91	—	2	3	20	230	3
Hampstead... ..	—	2	—	66	3	—	5	21	—	8	130	—	2	2	21	143	—
St. Pancras... ..	—	4	—	373	3	4	20	110	1	37	466	—	2	23	71	672	87
Islington	—	6	1	1,003	6	6	18	149	2	69	518	—	4	37	82	1,153	70
Stoke Newington ...	—	—	—	134	—	—	5	20	—	16	28	—	1	5	5	130	11
Hackney	—	3	—	670	1	3	8	64	5	37	110	—	2	11	49	856	58
<i>Central</i>																	
Holborn	—	—	—	70	4	—	5	23	1	5	89	—	—	2	5	128	43
Finsbury	—	1	—	226	—	2	6	52	—	30	153	—	2	3	16	286	32
London, City of (b)	—	—	—	21	1	—	—	3	—	—	11	—	—	—	—	34	3
<i>Eastern.</i>																	
Shoreditch	—	6	—	350	4	2	4	54	—	26	179	—	2	5	17	355	246
Bethnal Green ...	—	1	1	346	7	1	4	86	1	23	275	—	—	13	10	566	262
Stepney	—	8	—	700	—	—	13	173	2	38	602	—	3	13	16	1,167	489
Poplar	1	5	—	569	1	13	5	84	—	57	734	—	1	11	13	810	158
<i>Southern.</i>																	
Southwark	1	11	—	605	2	2	6	107	3	28	486	—	5	14	39	662	153
Bermondsey	1	4	—	463	—	1	2	45	1	11	110	—	2	11	20	584	46
Lambeth	—	9	—	884	2	4	28	142	2	75	665	—	2	27	49	1,130	72
Battersea	—	3	2	500	—	5	2	69	2	44	555	—	2	4	25	526	2
Wandsworth	—	15	—	774	5	6	20	154	4	46	769	—	6	20	29	927	15
Camberwell	1	4	—	658	3	5	12	121	3	18	265	—	2	8	26	1,043	117
Deptford	—	4	—	401	—	3	5	54	—	14	171	1	3	3	6	641	19
Greenwich	—	1	—	362	—	4	5	61	1	15	151	—	3	4	11	349	1
Lewisham	—	4	—	414	—	6	110	71	1	20	356	1	4	19	28	842	8
Woolwich	1	8	—	469	—	4	6	79	1	17	344	—	4	13	33	531	5
London	5	121	8	11,788	56	92	351	2,158	38	728	8,717	4	62	312	758	15,855	1,508

factor in the relatively smaller excess of cases among mental patients as compared with the excess in deaths.

Conclusion.

Considered in the light of the death-rate from all causes the mortality from phthisis in the Council's mental hospitals does not differ materially from that of the general population.

ADMINISTRATION.

Common and
seamen's
lodging
houses.

The supervision of the 153 common lodging-houses licensed by the Council under the London County Council (General Powers) Act, 1902, entailed 7,975 day visits and 230 night visits by the inspectors. The supervision of 25 seamen's lodging houses licensed under the Merchant Shipping Act, 1894, entailed 796 visits by day and 50 by night.

A comprehensive report* on common lodging-houses, with special reference to the accommodation for women, was prepared in December, 1926, and is obtainable at the Council's publishers, P. S. King and Son, Limited, 14, Great Smith Street, Westminster, S.W.1.

Census of
homeless
persons.

A census of homeless persons in London was taken on the night of Friday, 15th February, 1929. The area covered extended over the whole of the county, except such of the outlying portions as are not usually the resort of such persons. The night was cold and snow had fallen earlier in the evening. No persons were found sheltering under arches or on staircases. In the streets 22 men, 8 women and 1 child were found, compared with 61 men and 17 women on the night of the census in 1928. In the common lodging-house, 14,648 persons were accommodated compared with 14,738 in 1928. In the free shelters and labour homes not licensed, 700 men, 110 women and 24 children were accommodated compared with 735 men, 103 women and 25 children in 1928. The number of persons in casual wards and in the Metropolitan Asylums Board hostel on the night in question was 860 (834 men and 26 women) the largest number recorded at any census since 1912. In the London Rowton Houses 5,038 men were accommodated and there were no vacant beds.

Verminous
lodgers in
common
lodging
houses.

Under Section 37 of the London County Council (General Powers) Act, 1907, the medical officer or any person provided with his authority in writing may examine the person or clothing of any inmate of a common lodging-house where they have reason to suspect that such person or clothing is verminous or in a foul and filthy condition. The exercise of these powers has undoubtedly contributed to the improvement noted with regard to verminous conditions in such houses. No formal action under this section was necessary.

House
refuse.

During the year enquiry was made into the systems of house refuse collection and disposal operating in Cologne and other continental cities, and as to how far it would be expedient for such systems to be adapted to London conditions by the metropolitan borough councils in association with the Council or otherwise.

In Cologne, the "replaceable container" system of collection has been adopted and has apparently given entire satisfaction. The containers are provided by and remain the property of the city authority, house owners being responsible for loss or damage. Electric trucks, with trailers, transport the containers to depots where the containers are cleansed by water under pressure. The refuse is loaded into large carriers and conveyed to the utilisation centre, where up-to-date plant for the economic disposal of the refuse has been provided for the city authority by the Musag Company of Cologne. Steam generated by incineration of screened "coarse refuse" is converted into electrical energy at a power station, and the clinker residue is used in the production of building and other materials; fine dust from the screening process is subjected to "smelting" and used in the manufacture of paving and other similar materials. The installation of the utilisation plant was not completed until August, 1928, and detailed information as to results, both practical

*Common Lodging Houses and Kindred Institutions. No. 2489. Price 1s. 6d.

and financial, on which a judgment of its value could be formed, is not likely to be forthcoming until the system has been in operation for an extended period. The whole question of refuse collection and disposal is under consideration by a committee appointed by the Minister of Health and, therefore, no useful purpose would be served by investigating further, at the present time, the adaptation to London conditions of any particular system. It is, however, interesting to note that the City of Westminster is investigating the possibilities of improved methods of collecting house refuse, and devoting considerable attention to the systems adopted in Cologne and elsewhere on the Continent. In these investigations a "dustless" system of loading is included, comprising the use of special storage bins and container vehicles fitted with dust preventing shutters.

Reference was made in the Annual Report for 1928, Vol. III., p. 31, to a comprehensive report, which had been prepared as to the number, distribution and adequacy of public conveniences. Some suggestions were made therein as to matters in connection with the existing public conveniences in London which required consideration, and as the provision of public conveniences in London was primarily a matter for the City Corporation and the several metropolitan borough councils, instructions were given for copies of the report to be sent to them for their observations on these suggestions. A copy was also sent to His Majesty's Office of Works.

From only five of the metropolitan borough councils have observations on the report been received, the replies in these cases indicating that additional provision was being made in certain localities. The Westminster City Council stated that the report dealt with many of the difficulties which the city council had already encountered, and on certain matters made recommendations which had been anticipated and adopted, e.g., increased free accommodation for women, keeping conveniences open day and night, and the provision of subway entrances adjoining the footways to conveniences under the roads. The city council instanced several localities in Westminster in which it had taken steps materially to improve the public accommodation.

His Majesty's First Commissioner of Works, stated that it had for many years been the practice of his department to afford local authorities every reasonable facility for the provision, on the boundaries of royal parks, of street conveniences with entrances both from the parks and the adjoining roads, so that they are available to the public after the parks are closed at night. He mentioned that at the royal parks 25 per cent. of the lavatory accommodation was free of charge, and that more directional signs were being placed in the parks.

Action has also been taken by the Council with a view to the provision of more accommodation on the Victoria-embankment, and at other places. Consideration has also been given to certain suggestions made in the report as regards conveniences in the Council's parks and open spaces, where the number of conveniences is being steadily increased, and additional conveniences are still being provided on sites in open spaces which are allocated by the Council to metropolitan borough councils for that purpose. The question of the provision in conveniences, especially in those in children's recreation grounds, of accommodation of a small pattern suitable for children, will be considered in connection with their future design.

Prolonged and careful consideration, extending over some years, has been given to the question of amending the by-laws made by the Council in 1900, 1903, 1911 and 1923, under section 202 of the Metropolis Management Act, 1855, and the Metropolis Management Acts Amendment (By-laws) Acts, 1889 and 1899, regarding the construction of drains, etc., and the deposit of plans and particulars of proposed drainage works.

Revised by-laws have been drafted, in which endeavour has been made to simplify and put into plain technical language the various requirements, to bring them into line with modern practice, and to alter the order and arrangement so as

to include under separate and distinctive headings a complete description of particular works ; and thereby to render it easier for any person concerned to ascertain the detailed requirements in so far as they relate to the work to be carried out.

Various suggestions have been submitted by the metropolitan borough councils, technical associations and other bodies concerned, who have been consulted, and it has been found practicable to include in a more or less modified form many of the suggestions made.

In addition to minor alterations, variations and additions made for the purpose of simplifying either the requirements or the wording, or both, alterations, etc., are embodied in the revised by-laws dealing with :—

- (i.) Inclusion of definitions of a sewage drain, etc.
- (ii.) Inlets to a surface water drain intercepted from a sewage drain.
- (iii.) The coating of all cast-iron pipes as a prevention against corrosion.
- (iv.) Permitting, with specified precautions, drain inlets within buildings where an external position is impossible.
- (v.) Defining the depth of water-seal in traps.
- (vi.) Requiring, where an intercepting trap is not provided between drain and sewer, an air-tight cover to any means of access, and the construction of a drain, if within or under a building, of cast-iron.
- (vii.) Provision for drain ventilation so as to afford a safe outlet for foul air.
- (viii.) Reduction of minimum diameter of drain ventilating pipes from 4 inches to 3 inches, and soil pipes and soil ventilating pipes from $3\frac{1}{2}$ inches to 3 inches.
- (ix.) Construction of soil pipes so as to be gas-tight.
- (x.) Requirements as to materials, form of construction and flushing of slop sinks.
- (xi.) Materials, form of construction and ventilation of bath, lavatory basin, bidet and sink waste pipes.
- (xii.) Provision against alterations, etc., or works being carried out in such a manner that any drainage work will not be in conformity with the by-laws.

In due course the revised by-laws were made by the Council and confirmed by the Ministry of Health.

Public
Abattoirs

The administration and effect of public abattoirs in the leading cities of Europe, and a number of the more important towns of Great Britain, as well as the desirability of establishing such abattoirs in London were once again under consideration during the year under review, the question having previously been considered from time to time between 1889 and 1910.

One of the principal reasons adduced for the establishment of a public abattoir is the better opportunity for the inspection of meat, which to be entirely effective would necessitate the closing of all private slaughterhouses with, in all probability, consequent payment of compensation.

The position as to inspection of private slaughterhouses has, however, been changed materially by the coming into operation of the Public Health (Meat) Regulations, 1924, under which notice of the time of slaughter has to be given to the local authority who can therefore arrange for an inspector to be present. Provision is also made for the inspection of the carcasses of animals slaughtered in emergency. These regulations are administered in London by the metropolitan borough councils.

The numbers of private slaughterhouses in London has steadily diminished. In 1873 there were about 1,500 ; in 1897 the number had fallen to 467 (587,000 animals slaughtered) ; in 1928 it was 109 (88,000 animals slaughtered). Moreover, conditions are changing in the meat trade in consequence of the development of the science of refrigeration. Nearly three-quarters of the meat delivered at the Central Meat Market, Smithfield, during recent years, has been American or Colonial. In addition it is averred that it is now cheaper to transport dead meat from the country to London than to send the animals alive.

The problem of improving the conditions under which meat was produced was undoubtedly very difficult of solution 30 or more years ago, but by the passage of time it is solving itself. The public abattoir at Islington of the City Corporation is capable of dealing with all the needs of the county, and it is to be enlarged and modernised. With the development of motor transport to convey meat quickly to the retailers' shops, a number of small public abattoirs is not necessary. The private slaughter-houses are disappearing fairly rapidly, and such slaughtering as goes on there is under proper supervision. In these circumstances, the Council did not consider it desirable that any action in the direction of establishing additional public abattoirs in London should be taken.

Housing and Town Planning, etc.

The Council on the 20th of December, 1927, decided to make a scheme under Part II. of the Housing Act, 1925, for the clearance of the Carlisle Street area, St. Marylebone. The scheme was duly submitted to the Minister of Health for confirmation, and a local enquiry was held on the 7th, 8th, 18th and 19th June, 1928. The Minister of Health confirmed the scheme with certain omissions and qualifications, by an Order dated 6th February, 1929, and entitled "The London County Council (Carlisle Street Improvement Scheme) Order, 1929."

In connection with the progress of housing in Greater London the question of overcrowding came under review. A prominent factor influencing the incidence of overcrowding is the necessity in many cases for residence in the vicinity of place of employment as well as the extra expense which would be incurred in travelling.

For many years there has been a steady decline in the size of individual families in London. In 1911 the average private family consisted of 4.153 persons, and in 1921, of 3.786 persons. With the decrease in the birth-rate and in the natural increase of population, the proportion of children has become steadily less. In 1891 the percentage to total population of children under 15 years of age was 32.6; in 1911 it was 28.8, and in 1921 had fallen still further to 26.4.

There has been a substantial diminution in overcrowding in the County of London since 1891, when information on the subject was first obtained in the census returns. Nearly all the overcrowding exists in tenements of one to four rooms. The ratio of occupants of such tenements living more than two to a room as shown in each of the four census returns has been as follows:—Year 1891, 35.6 per cent.; 1901, 29.6 per cent.; 1911, 27.6 per cent.; 1921, 22.7 per cent.

During the period 1921–28 it is estimated that the population of the County of London decreased by 55,000, and that the number of houses increased by 30,000. The estimated decrease of 55,000 in the population of the County of London resulted from an overflow of an estimated number of 258,000 persons from the County of London, mostly to the outer-London area. As during the same period the Council erected 22,622 houses outside the County of London, it may fairly be said that, out of the total overflow of 258,000 persons from the County, 101,800 persons (at an average of $4\frac{1}{2}$ persons a house) were provided with housing accommodation by the Council alone.

The fall in the birth-rate and in the natural increase of population has continued since 1921, and it is therefore probable that the average size of the family has continued to diminish as well as the proportion of children. This results in increasing the demand for housing accommodation even with a stationary population, but may also have the effect of reducing overcrowding.

While generally there was a diminution of overcrowding in the period 1911–21, there was a slight increase in the worst forms of overcrowding. The applications received by the Council for housing accommodation show that there is much overcrowding still existing, including many cases of serious overcrowding. Some of the serious cases are due to the growth in the size of the family without sufficient opportunity for expansion of accommodation, it being particularly difficult for families

with a number of children to obtain accommodation under present conditions ; whilst there is also a disinclination to move if the tenant thereby loses the protection of the Rent Restriction Acts.

The cases of overcrowding dealt with by the metropolitan borough councils under the Public Health Act by-laws are cases in which persons are living much in excess of two to a room. The figures as to action taken to abate overcrowding indicate the difficulties experienced under post-war conditions. While in pre-war years the number of cases of overcrowding found and the number remedied were substantially the same, in post-war years the number remedied was generally much lower than the number of cases discovered. The Council has taken special steps to assist the metropolitan borough councils in dealing with such cases by allocating to them one-half of the new accommodation which it provides on its suburban estates. When overcrowding has been relieved it is important that the accommodation rendered vacant should not again be allowed to become overcrowded. The Council has suggested to all the metropolitan borough councils more effective administrative action in this direction, and it is understood that most of them are taking all possible steps to prevent the re-overcrowding of dwellings from which the tenants have been removed to municipal dwellings. On the whole the figures indicate that, at any rate as regards overcrowding generally in London, there has been some improvement since 1921; but whether this applies to all parts of the county and to the various degrees of overcrowding it is not possible on the available information to form a definite conclusion.

Unfit houses
and under-
ground
rooms.

The closing and demolition of individual unfit houses (as distinct from the clearance and reconstruction of unhealthy areas) in the County of London is a duty of the metropolitan borough councils. The information available shows that the number of closing orders made by the metropolitan borough councils has fallen off very greatly since pre-war years. In the five years, 1910-14, 1,096 such orders were made, and in the five years 1923-27, only 194. It may safely be assumed that, as in the matter of the abatement of overcrowding, the housing conditions prevailing since the war have greatly hampered the sanitary authorities in dealing with such houses.

As regards the illegal occupation of underground rooms (namely, for sleeping purposes under certain conditions), which is also a matter dealt with by the metropolitan borough councils, the number of cases since the war in which such occupation has, through the action of the metropolitan borough councils, been discontinued shows a similar diminution as compared with pre-war years, and there is no doubt that in this matter a strict enforcement of the law is very difficult, if not impossible, under present conditions.

Thames
floods—
underground
rooms.

Consideration has been given during the year to the question whether, where basement rooms in low-lying areas are liable to floods do not comply with existing statutory requirements, steps should be taken to secure that they are no longer used as dwellings, and on the suggestions that authority should be sought from Parliament to amend the law relating to underground rooms, including a proposal for obtaining statutory authority to close the basement portion only of any house which is otherwise quite habitable.

Without any question, certain underground dwellings in London are the most insanitary houses to be found in the Metropolis. There are in fact no worse housing conditions existing anywhere than those to be found in the underground rooms, in respect of which it is proposed to acquire additional statutory powers to enable them to be dealt with.

The most insanitary areas do not, and never have provided such intense degrees of insanitariness as are to be found in the case of the underground rooms under consideration. In the nature of the case, when an insanitary area becomes the subject of an improvement scheme, numbers of houses have to be included, some in order to make the scheme complete and others in attenuating degrees of insanitari-

ness, the whole of the included houses representing a wide range in unhealthy conditions. On a moderate computation, not more than one fourth of the living rooms in an insanitary area are so grossly insanitary as the worst type of basement dwellings in London. If the worst basement dwellings are selected for clearance, one hundred per cent. of utterly insanitary rooms, quite unfit for human habitation, will, in consequence, pass out of use. Never is this so in the case of improvement schemes under which insanitary areas are cleared.

Closure of basement rooms, while thus securing 100 per cent. removal of the worst insanitary conditions in housing, is far less costly, either to the public or to the private owner, than clearance of insanitary areas. The displaced persons would certainly have to be provided for by additional housing accommodation, as in the case under an improvement scheme but, in so far as worse conditions are removed by this method and at a materially less cost, it does appear desirable that until the worst of the basement dwellings have been closed, procedure by this method should take precedence if necessary of clearance by improvement scheme. But in order that full advantage should be taken of this method of sanitary improvement in housing conditions, the necessary statutory powers should be obtained.

In actual practice it is certain, whether the statutory obligations exist or not, that closure of insanitary underground dwellings would not be possible except where alternative accommodation was provided.

The urgency of removing these worst insanitary dwellings by powers, such as those suggested, does not appear to have been appreciated by many of the authorities consulted, but it is scarcely credible that there could be any difference of opinion as to the need for dealing first with what must be recognised as the worst form of insanitary dwelling, the dark, damp, underground room where women and children spend their days.

Dealing with this matter in connection with Thames floods and basement rooms in June, 1928, I reported as follows to the Public Health Committee :—

“The basement rooms which sanitarily speaking are most objectionable are not those used merely as sleeping places, but those which are occupied mainly by women and children who spend the daylight hours in rooms which perforce are lighted by artificial means.

“Quite frequently in basement kitchens artificial lighting during the daytime is continuously necessary and in operation. Such rooms are notoriously not only dark but damp and ill-ventilated and no combination of conditions so injurious to health is to be found in domestic dwellings comparable with that which exists in underground rooms of this kind.

“Where such rooms so far fail to comply with statutory requirements as to be unfit for human habitation—as is extensively the case in many of the low-lying areas—they should be dealt with by closing order. Unfortunately, it does not appear that there are statutory powers to close only part of a house.”

So far as the relative cost of dealing with suitably selected underground dwellings by closure, or, alternatively, of dealing with insanitary areas by improvement schemes is concerned, it will readily be seen that procedure by closure is much less costly.

There are about 30,000 basement dwellings in London, which are considered unfit for human occupation. Not all of these are separately occupied and are housing some 100,000 persons.

In closing these unhealthy dwellings no cost of acquisition is entailed and, so far as the owners are concerned, their loss is less than when the whole of the property is demolished under an improvement scheme. Action on the lines suggested is, of course, without prejudice to action in respect of insanitary areas by improvement schemes. In a proper perspective, however, it will be seen to be more urgent and more fruitful in results than the more costly procedure.

COUNTY OF LONDON. Statistics of the administrative work carried out during the year 1929.

Sanitary Authority.	Cow-sheds.		Slaughter-houses.		Offensive Trades.		Smoke nuisances.				Common lodging houses.		Cleansing of persons and rooms.				Water supply.	Milk-shops.		Ice cream premises.		Restaurants and Eating Houses.	
	No. of inspections.		No. of inspections.		No. authorised.		Observations.	Intimations.	Complaints.	Notices.	Houses licensed.	Authorised lodgers.	Persons.		Rooms or premises.		Tenement houses extra supply.	No. on register.	No. of inspections.	No. on register.	No. of inspections.	No. of places.	No. of inspections.
	No. licensed.		No. licensed.		No. authorised.								Adults.	Children.	After infectious diseases.	For venial.							
City of London ...	—	—	—	—	—	—	143	—	13	—	1	477	91	981	all	—	—	273	279	38	22	718	360
Battersea ...	—	—	2	110	3	3	37	12	18	2	3	201	278	4,335	1,774	250	39	234	461	151	312	118	261
Bermondsey ...	—	—	—	—	14	55	94	23	22	4	3	1,195	73	—	1,768	578	13	268	537	117	274	119	531
Bethnal Green ...	11	44	2	208	9	101	8	—	—	—	5	366	620	1	1,513	400	—	254	585	123	301	191	503
Camberwell ...	1	11	2	194	10	38	184	8	29	—	5	438	39	3,276	4,203	344	8	381	1,555	198	294	190	245
Chelsea ...	—	—	2	35	—	—	10	—	2	—	2	172	15	893	310	198	—	71	100	27	37	70	95
Deptford ...	—	—	2	201	6	29	42	11	4	11	7	1,193	7	1,853	1,379	107	—	167	210	102	247	53	151
Finsbury ...	—	—	1	126	3	25	47	4	16	4	2	470	15	—	697	237	7	162	198	94	126	199	292
Fulham ...	—	—	2	144	—	—	302	5	9	—	2	84	13	—	1,396	151	3	151	75	87	259	39	739
Greenwich ...	1	3	3	31	3	22	48	7	28	1	2	90	9	757	809	32	—	133	138	114	120	66	78
Hackney ...	3	40	13	561	17	57	1,373	30	66	7	4	313	53	3,222	2,337	284	—	422	1,353	212	403	153	69
Hammersmith ...	—	—	6	444	2	26	119	13	43	—	1	274	182	2,539	972	29	32	96	1,172	130	300	160	568
Hampstead ...	—	—	1	51	—	—	3	—	3	—	—	—	1	884	—	33	12	64	174	72	126	61	85
Holborn ...	—	—	1	5	—	—	260	4	2	—	12	835	125	—	772	208	16	127	83	42	157	248	202
Islington ...	—	—	13	684	18	66	103	9	72	1	22	803	42	5,664	4,122	88	52	422	722	219	226	446	531
Kensington ...	—	—	5	309	—	—	625	5	7	—	6	284	210	3,282	1,641	158	61	153	731	110	173	141	1,306
Lambeth ...	1	12	6	616	4	48	41	41	41	—	3	473	—	—	9,999	968	56	601	3,006	205	718	248	371
Lewisham ...	1	4	8	773	—	—	88	5	—	2	—	—	—	—	1,721	95	—	126	311	169	290	116	336
Paddington ...	—	—	2	300	1	58	138	1	9	—	3	165	17	2	—	100	—	113	423	116	230	115	190
Poplar ...	4	29	7	33	9	12	28	16	16	4	5	342	65	327	2,240	81	17	116	273	89	453	716	1,555
St. Marylebone ...	1	19	1	75	3	60	441	—	9	—	4	739	3,480	2,496	1,128	404	4	107	350	68	130	326	1,586
St. Pancras ...	—	—	4	183	1	56	240	5	46	1	2	78	1,070	5,557	1,387	148	100	303	619	236	404	309	298
Shoreditch ...	2	17	1	20	2	12	440	26	10	2	4	282	—	—	—	135	—	288	895	91	219	194	322
Southwark ...	—	—	4	115	4	17	63	2	4	2	20	2,347	1,063	5,094	5,479	810	14	360	1,876	171	684	350	1,400
Stepney ...	19	84	1	1	54	325	220	42	129	14	21	2,961	330	—	2,719	186	7	395	910	250	480	344	565
Stoke Newington ...	—	—	4	60	—	—	16	5	6	—	—	—	—	1,309	761	190	17	62	94	35	43	33	60
Wandsworth ...	1	12	6	700	2	2	36	7	17	—	—	—	176	6	3,924	792	—	281	974	480	938	303	641
Westminster ...	—	—	—	—	—	—	854	12	52	—	6	1,750	332	701	942	48	5	312	366	54	143	764	531
Woolwich ...	7	57	7	26	—	—	158	—	17	—	9	317	58	1,867	1,403	245	1	94	466	107	271	110	257

NOTE.—In the columns above a dash signifies a nil return.
Common lodging houses licensed by the Council (i.e., excluding those in the City of London) number, 153; lodgers, 16,172; visits—day, 7,975, night, 230.
Seamen's lodging houses, licensed number, 25; Poplar, 4; Stepney, 21; lodgers, 896. Visits—day, 796; night, 50;
Prosecutions—*Offensive Trades*. Stepney, 1. *Smoke Nuisances*. Bermondsey, 5, 1 at 40s., 4 at 20s.; Hackney, 2. Order made for abatement and £2 2s. costs in each case. *Water Supply*. Battersea, 1; Hammersmith, 6; Islington, 1; Kensington, 2; St. Pancras, 2 Southwark, 3. *Ice Cream Premises*. Stoke Newington, 1.

Borough.	No. of houses.		No. of houses inspected.		No. of notices served.			No. of houses repaired or nuisances remedied under P.H. Act.	No. of houses repaired under Section 3 of Housing Act.		Under-ground rooms.		Over-crowding.		Houses let in lodgings.		No. of houses closed by owner.	No. of houses for the working classes.		Houses unfit for habitation.							
	In borough.	Occupied by the working classes.	Complaints or illness.	House to house.	Under P.H. Act.				By owners.	By L.A.	No. illegally occupied.	No. closed or otherwise remedied.	Instances found.	No. remedied.	No. on register.	No. of inspections.		Erected during year.	In course of erection.	No. made.	No. of houses.	Closing orders.		Demolition orders.			
					Intimation.	Statutory.	Under Housing Act.															Representations.	No. made.	No. determined.	No. made.	In pursuance of orders.	Voluntary.
City of London ...	1,842	896	147	159	165	53	—	148	148	—	—	—	—	—	60	180	—	—	—	—	—	—	—	—	9		
Battersea ...	27,928	25,039	5,253	1,071	3,723	1,504	37	3,359	426	—	—	—	25	25	60	957	—	30	15	—	—	—	—	—	10		
Bermondsey ...	18,202	18,052	5,557	4,313	2,872	680	5,196	2,872	3,804	4	2	2	1,180	348	220	440	1	51	12	1	134	1	—	14	12		
Bethnal Green ...	18,497	Prac.all	7,483	607	5,669	3,572	—	6,427	—	—	—	1	—	—	218	608	—	56	28	1	41	—	—	—	—		
Camberwell ...	42,577	34,060	4,844	970	5,733	1,933	34	4,428	—	—	4	4	165	26	240	220	—	flts 17	flts 147	—	—	—	—	—	29		
Chelsea ...	11,830	2,517	821	112	724	198	—	409	—	—	2	2	8	6	320	73	—	flts 172	flts 17	—	—	—	—	1	8		
	Approx.																tnmts										
Deptford ...	18,122	90 %	3,739	2,086	2,860	302	3	2,347	3	—	—	—	—	2	—	—	—	37	—	—	—	—	—	—	—		
Finsbury ...	10,889	Prac.all	2,023	1,273	3,243	522	—	3,243	—	—	—	—	10	10	861	3,704	—	—	—	6	6	—	—	—	—		
Fulham ...	24,320	—	4,284	216	1,946	542	767	2,106	722	1	3	3	26	24	36	151	—	—	—	—	—	—	—	—	—		
Greenwich ...	17,597	Mj'rity	868	92	1,019	178	—	1,553	—	—	—	—	9	3	92	93	—	316	50	1	88	—	—	18	6		
Hackney ...	35,355	14,560	6,746	407	5,601	1,310	—	5,400	—	—	5	5	133	39	153	8	—	flts 144	flts 127	4	392	1	—	—	30		
Hammersmith ...	20,050	13,500	7,574	86	4,080	1,383	8	3,344	4	—	13	12	134	89	2,495	—	—	358	20	13	25	25	10	3	—		
Hampstead ...	13,208	Approx. one-half	452	—	745	—	—	443	—	—	32	32	15	† 18	511	1,318	—	—	—	8	8	8	4	1	—		
Holborn ...	3,473	8,571	739	—	463	58	—	463	—	—	7	7	6	5	502	1,037	—	—	15	—	—	—	—	—	—		
		tnmts															tnmts										
Islington ...	45,900	28,700	8,371	1,290	4,758	550	23	5,492	23	—	7	7	21	21	1,008	1,302	—	15	—	1	8	—	—	—	—		
Kensington ...	34,714	9,275	2,863	675	2,356	545	94	2,287	16	2	21	21	41	38	3,355	8,339	—	flts 36	flts 540	—	—	3	—	—	—		
																	tnmts										
Lambeth ...	42,607	—	14,127	446	4,536	304	447	6,108	465	3	4	4	—	—	—	—	2	303	150	1	2	2	—	4	1		
Lewisham ...	52,000	—	2,390	459	1,691	477	—	1,691	—	—	1	—	33	10	4	16	—	—	—	—	—	—	—	—	—		
Paddington ...	17,000	9,100	2,390	6	1,473	452	411	1,403	350	—	—	—	*	2	1,406	6,904	—	—	—	—	—	—	—	—	1		
Poplar ...	23,248	23,000	7,618	1,211	4,769	1,725	—	4,453	—	—	—	—	64	6	126	250	—	87	116	—	—	—	—	—	—		
		approx.															flats	flats									
St. Marylebone ...	19,545	8,558	2,362	862	1,583	104	—	1,687	—	—	19	19	5	5	1,055	9,054	—	18	12	—	—	—	—	—	—		
		about															flats	flats									
St. Pancras ...	25,216	18,000	6,340	327	3,620	1,866	191	3,140	128	—	6	6	23	16	1,788	4,375	—	193	60	—	—	—	—	—	—		
Shoreditch ...	14,062	13,162	6,230	2,116	5,347	1,383	—	5,347	—	—	2	2	132	88	389	879	—	56	54	—	—	—	—	—	25		
Southwark ...	20,609	14,135	8,120	2,017	5,591	3,807	2,017	5,605	—	18	—	—	34	34	356	372	—	42	—	2	2	2	—	—	—		
Stepney ...	38,549	31,837	11,885	5,555	14,526	9,315	—	12,590	—	—	14	12	80	45	2,698	2,986	—	not known	—	1	73	—	—	—	—		
Stoke Newington ...	8,674	3,974	1,140	—	842	82	—	2,073	—	—	1	1	3	—	100	84	—	—	—	—	—	—	—	—	—		
Wandsworth ...	74,385	49,075	4,194	1,515	5,436	811	23	11,493	1	—	10	8	103	26	266	283	—	233	not known	1	130	2	—	—	17		
																	known										
Westminster ...	25,321	—	2,652	513	934	40	5	929	—	—	50	22	49	13	336	1,153	2	—	230	5	7	2	—	—	3		
Woolwich ...	30,032	25,400	3,681	1,885	2,551	914	—	2,419	—	—	5	5	77	16	—	49	—	663	25	7	7	10	2	4	31		

NOTE.—In many cases, it has been impossible to take effective action in the matter of overcrowding owing to the shortage of houses. Prosecutions—Houses Let in Lodgings: Paddington, 26; Islington, 1; Kensington, 6; Poplar, 2; St. Pancras, 31; Stepney, 4; Stoke Newington, 1. Overcrowding—Bethnal Green, 1; Camberwell, 1; Chelsea, 1; Deptford, 1; Hammersmith, 13; Southwark, 1; Stoke Newington, 1; Wandsworth, 2; Kensington, 3. Underground Rooms.—Islington, 2.

* Owing to existing social conditions official action was taken with regard to 6 cases only.

† Including cases found prior to 1929.

SANITARY INSPECTORS, 1929

District.	Population Census (1921).	Male.		Female.		Health visitors.	
		Whole time.	Part time.	Whole time.	Part time.	Whole time.	Part time.
City of London ...	13,709	23	1	1	—	—	—
Battersea ...	167,739	11	—	—	2*	8	2*
					(* Act both and Health	as Sanitary Visitors).	Inspectors
Bermondsey ...	119,452	14	—	—	—	8	—
Bethnal Green ...	117,238	11	—	—	—	12	—
Camberwell ...	267,198	12*	—	2	—	3	—
		(*Including 1 Food and Drug Inspec- tor and 1 Food In- spector).					
Chelsea ...	63,697	4	—	1	—	1*	—
						(* Excluding 3 Health Socie ty subsidised by Council)	Chelsea Visitors
Deptford ...	112,534	8	—	—	—	8	—
Finsbury ...	75,995	7	—	1	—	5	—
Fulham ...	157,938	10	—	1	—	6	—
Greenwich ...	100,450	5	—	1	—	10*	—
						(* Including 3 T.B. Visi- tors).	T.B. Visi- tors).
Hackney ...	222,142	19	—	2	—	16	—
Hammersmith ...	130,295	9	2	1	—	4	—
Hampstead... ..	86,153	6	—	1	—	3	—
Holborn ...	43,192	3	—	—	1*	1	1*
					(* Acts both and Health	as Sanitary Visitor).	Inspector
Islington ...	330,737	19	—	2	—	8	—
Kensington... ..	175,859	11*	—	5	—	9	—
		(* Including 1 Food In- spector).					
Lambeth ...	302,868	16	—	2	—	6	—
						(* Including 2 T.B. Visi- tors).	T.B. Visi- tors).
Lewisham ...	174,194	10	—	—	—	9	—
Paddington ...	144,261	9	—	2	—	2	—
Poplar ...	162,578	12*	—	1	—	12	—
		(* Including 2 Meat and Food In- spector).					
St. Marylebone ...	104,173	8	3	—	3	4	4
St. Pancras... ..	211,366	15*	—	1*	4*	19	4*
		(*Including 2 Food Inspec- tors and 1 Factory and Workshop Act Visitor).		(* Factory & Workshop Act.)	(* Act both and Health	as Sanitary I nspectors	Inspectors
Shoreditch ...	104,248	13	—	—	—	6	—
Southwark ...	184,404	12	—	1	—	10	—
Stepney ...	249,657	21	—	—	—	11	—
Stoke Newington ...	52,172	3	—	—	1	3	—
Wandsworth ...	328,307	16	—	—	—	8	—
Westminster, City of	141,578	12	—	1	—	7	1
Woolwich ...	140,389	11	—	1	2	7	2
Total County of London	4,484 523	330	6	27	13	206	14

*Milk and Dairies (Consolidation) Act, 1915.*Examination
of milk.

Samples of milk forwarded to London from places outside the county are taken and examined under the provisions of the Milk and Dairies (Consolidation) Act, 1915. In 1929, 2,370 samples from milk consigned to London railway termini from 25 counties were submitted for biological examination: 7 of these samples were taken from milk sent from Ireland. In the case of 2,084 samples, the biological

examination was completed, and of these, 158, or 7·5 per cent., yielded tubercle bacilli, as against 8·9 per cent in 1928.

In accordance with the provisions of the Act, information is sent, immediately upon discovery of a tubercle infected sample of milk, to the medical officer of health for the county concerned, who is responsible for the examination of the cows at the farm whence the sample emanated. From the copies of reports forwarded by the county medical officers of health, it would appear that 92 cows had been found to be affected with tuberculosis and were slaughtered under the Tuberculosis Order, 1925.

In the case of 261 samples, it was reported that the injected guinea pigs had succumbed to an acute intercurrent infection by some organisms other than tubercle. In the case of 81 of these samples the Lister Institute reported that, in their opinion, the deaths of the guinea pigs were caused by infection conveyed in the milk. The facts relating to these cases also were referred to the county medical officers of health for them to take such action as might appear necessary. Replies were received in respect of 52 of these 81 samples and, in 26 instances, conditions were found which might account for the early deaths of the guinea pigs.

Conditions which contravene the provisions of the Milk and Dairies Order, 1926, are sometimes observed by the inspectors while engaged in milk sampling. This applies more especially (1) to the temperature of the milk; (2) to the cleanliness and condition of the churns. Contraventions of the Order were noticed as regards (1) in respect of 25 churns and as regards (2) in respect of 18 churns. Details of these cases were transmitted to the authorities concerned.

In compliance with the instruction of the Mental Hospitals Committee, the cows at the mental hospitals have been inspected quarterly by the Council's veterinary surgeon. In addition, samples of milk have been taken twice during the year from the supplies given by the herds at each of the institutions under the direction of the Mental Hospitals Committee. In all, 81 samples were taken. Of these, 8 were found to be tubercle infected; in addition, in each of 4 cases, the guinea pig succumbed to an acute intercurrent infection and, in the remaining 69 cases, tubercle bacilli were not detected. The percentage of samples found to be tubercle infected of the total number of completed examinations made was 10·4. Each of the herds at the four institutions (viz., Long Grove, Claybury, Horton and Cane Hill) whence the 8 tuberculous samples emanated, was inspected. At Horton, 3 cows were found to be suffering from tuberculosis and slaughtered and at each of the other three institutions (Long Grove, Claybury and Cane Hill) 2 cows suffering from tuberculosis were slaughtered. The results of the routine inspections of the herds are shewn in the following table:—

No. of Visits.	No. of animals examined.			No of cows with T.B. (referred to above).	No. of cows with other unhealthy conditions. (Apart from T.B.).
	Cows.	Bulls.	Young Stock.		
45	2,721	9	77	9	38

The veterinary surgeon confers with the farm bailiffs when making the inspections and gives such advice as may be necessary. Improvements and alterations are being carried out in several places in the buildings which, when complete, will add to the comfort of the animals and simplify and assist cleansing operations. The farm stock generally is kept at a high standard.

The cows in the London sheds are inspected under the provisions of Section 27 of Part V. of the London County Council (General Powers) Act, 1904, and Part IV. of the Milk and Dairies Order, 1926. The veterinary surgeon makes a routine quarterly inspection of the cows at each cowshed. The results of his visits are shown below:—

Number of visits to cowsheds	...	...	...	...	281
Number of cows examined	...	...	...	...	7,626
Number of bulls examined	...	...	...	...	7

Number of cows presenting unhealthy conditions ... 100

As follows—

Giving tuberculous milk ...	4
(cows slaughtered voluntarily by owners)	
With atrophy of one or more quarters ...	40
With other defects ...	56

It is interesting to note that the number of licensed cowsheds in the county has diminished from 738 in 1888, the year of the Council's inception, to 52 in the year now under review. The existing premises are mostly situated in the metropolitan boroughs of Woolwich, Stepney and Bethnal Green, parts of Woolwich being of a more or less rural character, while in Stepney and Bethnal Green the sheds are necessary for the supply of milk to Jewish residents in accordance with the requirements of their religion.

Venereal Diseases.

In his annual report for the year 1916, Sir William Hamer, at that time County Medical Officer of Health, gave particulars of a scheme for the provision of the necessary facilities for the diagnosis and treatment of venereal disease which had been formulated as a result of conferences between representatives of the counties of London, Buckingham, Essex, Hertford, Kent, Middlesex and Surrey, and of the county boroughs of Croydon, East Ham and West Ham.

The Local Government Board, in due course, signified its approval of the scheme, which came into operation on 1st January, 1917, and is known as the London and Home Counties Scheme.

The number of new cases of venereal disease dealt with by the hospitals under the Scheme during 1929 was 15,985, of which 4,931 were syphilis, 10,774 gonorrhœa, and 280 soft chancre. Comparing these figures with those of the previous year, it will be observed that the total number of new cases dealt with is 416 less than in 1928.

The diminution in the number of new cases as compared with the previous year may be partly explained by the fact that one large treatment centre ceased to participate in the scheme after 31st March, 1928, but continued to treat patients suffering from these diseases.

Year.	Syphilis.	Gonorrhœa.	Soft chancre.	Non-venereal.	Total.
1928 ...	5,270	10,896	235	9,595	25,996
1929 ...	4,931	10,774	280	8,801	24,786
Increase + or decrease —	—339	—122	+45	—794	—1,210

The distribution of new cases of venereal disease between the sexes is shown in the following table, the figures for the preceding years being given for comparison:—

Year.	New cases.						Total venereal cases.	
	Syphilis.		Soft chancre.		Gonorrhœa.			
	M.	F.	M.	F.	M.	F.	M.	F.
1917... ..	4,427	3,351	199	11	3,830	1,207	8,456	4,569
1918... ..	3,764	3,002	116	13	4,844	1,940	8,724	4,955
1919... ..	6,394	3,391	463	18	10,441	2,440	17,298	5,849
1920... ..	6,988	3,579	766	25	10,669	2,427	18,423	6,031
1921... ..	5,088	3,100	458	13	8,573	2,136	14,119	5,249
1922... ..	4,207	2,600	309	12	8,233	2,402	12,749	5,014
1923... ..	4,497	2,631	311	4	9,043	2,520	13,851	5,155
1924... ..	4,174	2,452	301	4	8,565	2,785	13,040	5,241
1925... ..	3,556	2,346	268	11	8,464	2,857	12,288	5,214
1926... ..	3,725	2,013	301	2	8,825	2,858	12,851	4,873
1927... ..	3,886	2,209	203	7	9,637	2,859	13,726	5,075
1928... ..	3,433	1,837	229	6	8,249	2,647	11,911	4,490
1929... ..	3,303	1,628	276	4	8,271	2,503	11,850	4,135

With regard to the new cases of venereal disease, an attempt was made to ascertain whether the infection was of less or more than one year's standing in patients attending the clinics for the first time during the year 1929. The returns received from the treatment centres show that as regards syphilis in approximately 56 per cent. of the new patients, and in the case of gonorrhœa in 87 per cent., the infection had taken place within a year.

Importance is attached to the necessity of securing the regular attendance of patients at the clinics, more especially in the case of gonorrhœa, and efforts to secure the requisite provision of facilities for intermediate treatment at times other than during the hours when the medical officer attends are meeting with considerable success. A number of patients still fail to complete the full course of treatment considered necessary before final discharge, due in no small measure to the false impression that a cure has been effected on the disappearance of outward signs of the disease. The need for improving conditions likely to cause patients to discontinue attendance at the clinics or to transfer them from one clinic to another continues to receive careful attention.

In past years the ratio of attendances has been stated as so many attendances to each new case of V.D. admitted to the clinics during the year. The attendances included both V.D. and non-V.D. A more accurate method of gauging the attendances of such patients would be to count only the attendances of V.D. patients and not those of non-V.D. This is probably as good a method as can be found for obtaining an estimate comparable year by year of the efficiency of the work as measured by the continued attendance. Although the number of attendances of patients who attend for the first time towards the end of the year is not included, the loss is balanced by the addition of the later attendances of patients who entered the clinic for the first time in the previous year and who therefore, do not rank for inclusion among the "new cases" of the year under consideration.

For the year 1929, however, the figures arrived at by both the old and new method of calculation are given. The total attendances were 768,872, and the ratio of all attendances to each new V.D. case was 48. This figure is comparable with 46 for the year 1928, and 40 for 1927, and, therefore, shows a gradual advance over that for previous years. Under the new method of calculation the total attendances of V.D. patients were 707,119, and the ratio of attendances of V.D. patients to new V.D. cases was 44, as compared with 43 for the previous year.

Comparative figures for the thirteen years during which the scheme has been in force are shown in the following table :—

Year.	New cases.		Total.	Attendances.	In-patient days.
	Venereal.	Non-venereal.			
1917 ...	13,025	2,360	15,385	120,659	63,923
1918 ...	13,679	2,693	16,372	169,485	66,095
1919 ...	23,147	5,118	28,265	307,722	73,211
1920 ...	24,454	6,592	31,046	464,033	81,612
1921 ...	19,368	6,050	25,418	496,209	79,692
1922 ...	17,763	5,950	23,713	529,003	112,564
1923 ...	19,006	6,644	25,650	555,509	106,662
1924 ...	18,281	7,292	25,573	589,002	102,456
1925 ...	17,502	8,680	26,182	646,131	102,454
1926 ...	17,724	8,988	26,712	687,075	101,735
1927 ...	18,801	10,164	28,965	767,278	112,413
1928 ...	16,401	9,595	25,996	763,535	65,106
1929 ...	15,985	8,801	24,786	768,872	51,520

Attention is also drawn to the very large number of non-venereal patients who present themselves for examination. This appears to indicate quite clearly that the

general public is appreciating more and more the efforts which have been, and are being made to spread far and wide a knowledge of the serious nature and grave after-effects of the venereal diseases.

Pathology
and
bacteriology.

Another point worthy of note is the total number of examinations made of pathological specimens. Comparative figures for the twelve years are shown in the following table :—

Year.	Pathological examinations.	
	For treatment centres.	For private practitioners.
1917	13,988	3,649
1918	25,973	6,380
1919	51,554	10,464
1920	58,920	14,027
1921	66,134	18,472
1922	74,022	19,836
1923	69,784	24,403
1924	79,005	24,797
1925	106,064	26,346
1926	100,543	27,565
1927	107,512	27,046
1928	107,410	29,785
1929	114,840	32,605

The continued use made by medical practitioners of the facilities for the examination of pathological specimens is highly satisfactory.

Under the Scheme, medical practitioners who fulfil certain conditions are entitled to free supplies of the approved arsenobenzene preparations for the treatment of their private patients. The number of medical practitioners availing themselves of this service is now 473 compared with 108 at the end of 1917, the first year of the operation of the Scheme.

Venereal
disease ;
hostel
accommoda-
tion.

From the outset the necessity was recognised for accommodation where young women under treatment could be lodged during the period of infectivity. Certain hostels managed by or independently of hospitals have received grants in aid for this purpose, and experience has proved the value of these hostels for the more efficient treatment of certain cases and for preventing the spread of disease. During the year 1929, the number of patients dealt with at these institutions from the areas in the scheme was 249, the aggregate number of days in residence being 26,525. Comparative figures for 1928 were 235 and 23,377.

Rescue
homes.

The desirability of maintaining treatment and observation of girls and women for whom residence in hostels has been provided during the acute stages of venereal disease, engaged the attention of the Public Health Committee of the Council during the year 1928. As a result, arrangements were made with the authorities of certain Rescue Homes providing vocational training in domestic and other work, to receive young women and girls who had been certified by the medical officer of a clinic, that although requiring continued treatment and observation, they could reside in any institution without danger to other residents. These arrangements were completed in the autumn of 1928 but have, unfortunately, not been utilised to the extent anticipated despite several circular letters to V.D. clinics and hostels. During the year 1929 only four of the eleven beds available were occupied. The total number of days residence was 918.

The Council's Anti-Tuberculosis Scheme.

Tuberculosis
dispensary
service.

Detailed information has been furnished by the metropolitan borough councils as to the work of the tuberculosis dispensaries, including particulars as to the numbers of new cases and "contacts" examined, and the number of home visits, etc. The information is summarised in the table on pages 36 and 37.

After-
histories of
tuberculous
patients.

An investigation has been made into the after-histories after a period of five years, of adult and child patients treated in residential institutions during the year 1923.

Adults.—The number of adult cases investigated was 3,396, which included 245 surgical cases. The following table shows the result of the enquiry and also (in brackets) the corresponding figures ascertained from last year's enquiry into the 1922 cases :—

* Class.	Total.	Percentage alive five years after discharge.	Percentage dead.
A	414 (372)	78.9 (80.6)	21.1 (19.4)
B 1	284 (253)	63.0 (60.1)	37.0 (39.9)
B 2	1,669 (1,376)	32.5 (33.9)	67.5 (66.1)
B 3	784 (824)	6.9 (5.6)	93.1 (94.4)
Surgical	245 (192)	77.6 (71.9)	22.4 (28.1)

* The classification adopted is as follows :—

- A. Cases in which tubercle bacilli have not been demonstrated in the sputum ;
- B. Cases in which tubercle bacilli have been demonstrated in the sputum ;
- B.1 Early cases ;
- B.2 Moderately advanced cases ; and
- B.3 Advanced cases.

Particulars obtained in 1928 as to the fitness for work of the 1,293 surviving adult patients who were discharged from treatment in 1923 show that out of a total of 506, A. and B.1 cases, 69.4 per cent. were at work. The corresponding percentage for the A. and B.1 cases in the 1922 group was 65.0. The percentages at work in the other categories and also the corresponding figures for the 1922 group (shown in brackets) are as follows :—B.2, 47 (39) per cent. ; B.3, 31.5 (22) per cent. ; and surgical 63.1 (73) per cent. Of the total number of 1,293 in all categories, 57.5 (53.5) per cent. were at work, 5.7 (3.7) per cent. were fit for work but were unemployed, 35.8 (42.8) per cent. were unable to work (including cases receiving further residential treatment. It may be mentioned that the percentage fit for work but unemployed (viz., 5.7) is exactly the same as the percentage of insured workpeople in the general population of London out of employment during the year 1928.

Children.—The particulars obtained as to the after histories of children discharged in 1923 relate to 474, of which 196 are pulmonary and 278 non-pulmonary.

The mortality records are as follows. (The figures in brackets refer to last year's enquiry into the 1922 cases) :—

Class.	Total.	Percentage alive five years after discharge.	Percentage dead.
A	136 (225)	88.7 (95.5)	11.3 (4.5)
B.1	7 (16)	71.4 (62.5)	28.6 (37.5)
B.2	18 (27)	11.1 (37.0)	88.9 (63.0)
B.3	35 (39)	14.3 (7.7)	85.7 (92.3)
Surgical	278 (206)	89.9 (84.0)	10.1 (16.0)

The mortality rates of the non-pulmonary cases classified according to the location of the disease are as follows :—

	Total.	Percentage alive five years after discharge.	Percentage dead
Hip	62	88.7 (82.2)	11.3 (17.8)
Spine	38	73.7 (68.4)	26.3 (31.6)
Other bones	64	98.4 (90.0)	1.6 (10.0)
Glands... ..	100	93.0 (93.0)	7.0 (7.0)
Other parts	14	78.6 (66.7)	21.4 (33.3)

Of the 133 surviving pulmonary cases 41 were at school and 79 at work, and of 250 surviving non-pulmonary cases, 102 were at school and 116 at work.

Residential
treatment.

The following table indicates the number of applications from adults for residential treatment during each of the last five years :—

		Applications for first period of treatment.			Applications for further treatment.			Total applications.
		Ex-Service.	Civilian male.	Female.	Ex-Service.	Civilian male.	Female.	
1925	...	381	1,929	1,829	598	605	527	5,869
1926	...	128	2,262	1,864	478	693	582	6,007
1927	...	63	2,119	1,819	417	727	622	5,767
1928	...	33	2,125	1,839	345	760	633	5,735
1929	...	34	2,245	1,910	278	882	656	6,005

Of the 6,005 adult cases recommended during 1929 for residential treatment, 21 were subsequently withdrawn, 5,333 were accepted and 651 were not accepted. The 5,333 cases were disposed of as follows :—(a) 1,142 were passed for admission to “observation” beds in order to determine “diagnosis” or “suitability for sanatorium treatment”; (b) 4,191 were passed for admission direct to sanatoria or hospitals. Of the foregoing accepted cases, 319 for various reasons failed to enter institutions and 123 were awaiting vacancies at the end of the year.

The cases referred to “observation” hospitals were generally (1) patients in whom the diagnosis of tuberculosis was doubtful; (2) acute cases; and (3) patients with well-marked symptoms whose suitability for sanatorium treatment could only be satisfactorily determined after a period of observation in hospital.

During the year 1,144 patients were discharged from “observation beds” and their classification was as follows (the corresponding figures for 1928 are also given) :—

		1929.		1928.	
		Number.	Percentage.	Number.	Percentage.
<i>Pulmonary.</i>					
Group A ...	...	294	34.54	316	35.27
Group B1 ...	...	42	4.94	39	4.35
Group B2 ...	...	381	44.77	415	46.32
Group B3 ...	...	134	15.75	126	14.06
Total pulmonary cases		851		896	
Surgical cases ...	...	8		21	
Total diagnosed as tuberculous		859		917	

For definition of classification see footnote on page 33.

In the remaining 285 cases the diagnosis of tuberculosis was not confirmed. Of the 859 cases definitely diagnosed as tuberculous, 572 pulmonary cases were sent to sanatoria, 77 to institutions for advanced cases, 19 died in the “observation” hospitals, 6 cases were transferred to surgical institutions, and 185 were discharged home or arrangements made for them independently of the Council’s Tuberculosis Scheme.

The total number of adults admitted to institutions during 1929 was 5,249 as against 5,087 in 1928. At the commencement of the year 1,920 were under treatment, so that the total number of adults treated in 1929 was 7,169 as against 7,033 in 1928. The number under treatment on 31st December, 1929, was as follows (the corresponding figures for the previous year are shown in brackets) :—

	Ex-Service pensioners for tuberculosis.	Civilian adults.	Totals.
Voluntary institutions ...	70 (99)	645 (479)	715 (578)
Metropolitan Asylums Board ...	28 (26)	1,340 (1,316)	1,368 (1,342)
Total ...	98 (125)	1,985 (1,795)	2,083 (1,920)

The immediate results of the treatment of patients discharged on completion of treatment during 1929 and the two preceding years are indicated in the subjoined table. All percentages are shown in *italics*. The upper line of percentage figures under each classification heading indicates the percentage of cases falling within

each classification group, and the second line of percentage figures shows the percentage of cases falling under each division into which results of treatment are classified. For the purpose of this table patients of 15 years of age on admission are regarded as adults, owing to the "age" division of patients required for the purposes of the Ministry of Health, although treatment for them was arranged in institutions for children.

Immediate results of treatment.	CLASSIFICATION.																	
	A.			B1.			B2.			B3.			Surgical.			Totals.		
	1927	1928	1929	1927	1928	1929	1927	1928	1929	1927	1928	1929	1927	1928	1929	1927	1928	1929
Quiescent ..	181 46.6 27.4	275 52.6 36.9	278 48.9 40.6	73 18.8 28.8	84 16.1 38.2	108 19 51.2	51 13.2 2.2	86 16.4 3.8	91 15.9 3.9	— — —	— — —	— — —	83 21.4 21.7	78 14.9 21.6	92 16.2 22.7	388 100 8.4	523 100 11.4	569 100 12.3
Much improved	352 19.6 53.3	371 19.3 49.8	315 16.6 46	168 9.4 66.5	124 6.5 56.3	99 5.2 46.9	1,021 57 45	1,172 61.1 51.7	1,217 64.4 51.9	45 2.5 4.3	49 2.6 4.9	36 2 3.7	205 11.5 53.5	202 10.5 56	224 11.8 55.3	1,791 100 38.8	1,918 100 41.7	1,891 100 40.9
No material improvement	122 6.4 18.5	91 5.5 12.2	85 5 12.4	12 6 4.7	12 7 5.5	4 2 1.9	1,152 60.3 50.7	978 58.8 43.1	1,022 60.5 43.6	549 28.7 52.1	514 30.9 51.3	505 30 51.7	77 4 20.1	69 4.1 19.1	72 4.3 17.8	1,912 100 41.4	1,664 100 36.2	1,688 100 36.5
Died in institutions	5 9 8	8 1.6 1.1	7 1.5 1	— — —	— — —	— — —	46 8.7 2.1	30 6.1 1.4	13 2.7 6	460 86.9 43.6	440 89.8 43.8	436 92.2 44.6	18 3.5 4.7	12 2.5 3.3	17 3.6 4.2	529 100 11.4	490 100 10.7	473 100 10.3
Totals ..	660 14.3 100	745 16.2 100	685 14.8 100	253 5.5 100	220 4.8 100	211 4.6 100	2,270 49.1 100	2,266 49.3 100	2,343 50.7 100	1,054 22.8 100	1,003 21.8 100	977 21.1 100	383 8.3 100	361 7.9 100	405 8.8 100	4,620 100 100	4,595 100 100	4,621 100 100

With regard to children, the numbers recommended for treatment under the Council's Tuberculosis Scheme during each of the last five years were respectively 1,025 in 1925, 1,163 in 1926, 1,190 in 1927, 1,081 in 1928, 1,069 in 1929. In dealing with surgical cases, arrangements have been continued for the immediate admission to residential institutions of children suffering from tuberculosis of the hip, spine and other joints. At the end of the year, no child with either pulmonary or non-pulmonary tuberculosis was waiting for a bed in a hospital.

Of the 1,069 children (*i.e.*, patients under 16 years of age) referred to the Council in 1929, 1,026 were accepted for treatment, 43 were not accepted or were withdrawn; 47 of the accepted cases for various reasons failed to enter institutions after acceptance. There were 227 children under treatment in voluntary institutions and 632 in Metropolitan Asylums Board institutions on 1st January, 1929 (total 859) and 971 children were admitted during the year, making in 1929 the total number of children treated 1,830 as against 1,876 in 1928. The number of children under treatment on 31st December, 1929, was 858, distributed as follows:—

Metropolitan Asylums Board Institutions	...	...	...	645
Voluntary Institutions	...	...	...	213

The condition of the children under 15 years of age (on admission) who were discharged from residential institutions in 1929 is indicated in the following table. The figures in brackets are those for 1928:—

Immediate results of treatment.	Classification.				Surgical.	Totals.
	A.	B1.	B2.	B3.		
Quiescent ...	67 (66)	— (—)	1 (1)	— (—)	331 (344)	399 (411)
Much improved...	89 (82)	2 (1)	18 (15)	— (—)	147 (186)	256 (284)
No material improvement	20 (26)	— (—)	11 (15)	14 (10)	25 (23)	70 (74)
Died in institution ...	3 (1)	— (—)	1 (—)	3 (14)	26 (16)	33 (31)
Total ...	179 (175)	2 (1)	31 (31)	17 (24)	529 (569)	758 (800)

TUBERCULOSIS DISPENSARIES—ANALYSIS OF RETURNS, JAN.-DEC., 1929.

Borough	On Dispensary Register, 1-1-29.		Transferred during 1929 from other areas and lost sight of cases re- turned	Examined for first time during 1929. (a) New cases excluding contacts. (b) Contacts (printed in italics).										Total number (includ- ing con- tacts) under dispen- sary super- vision during 1929.	Removed from Dispensary Register during 1929.		On Dispensary Register on 31-12-29.		Total attend- ances.	Visits to homes for dispensary purposes by		No. of speci- mens of sputum ex- amined.
	Diag- nosis com- pleted.	Under obser- vation.		Pulmonary.		Non- Pulmonary.		Doubtfully Tuberculous.		Non- Tuberculous.		Total.			(a) Cured. (b) Diag- nosis not con- firmed or non- T.B. (printed in italics).	(a) Trans- ferred to other areas or lost sight of. (b) Died (printed in italics).	Diag- nosis com- pleted.	Under Obser- vation.		Tuber- culosis Officer.	Dispen- sary Nurse.	
				Adults.	Child- ren.	Adults.	Child- ren.	Adults.	Child- ren.	Adults.	Child- ren.											
Battersea ...	934	65	28	183 4	4 —	18	13 —	71 5	37 8	267 63	85 112	539 72	139 120	1,897 645	36 147	122 147	906	41	3,967	130	4,531	721
Bermondsey ...	1,081	26	15	133 11	5 —	17	10 —	22 1	10 9	254 171	104 266	426 191	129 275	2,143 928	61 93	56 93	984	21	3,295	1,077	4,826	1,003
Bethnal Green	638	5	11	93 6	2 —	8	8 3	34 4	5 3	259 121	137 152	394 131	152 153	1,489 695	6 66	61 66	656	5	4,094	142	2,287	723
Camberwell ...	2,036	24	25	174 64	1 10	16	18 6	73 37	11 6	299 248	156 386	562 357	186 408	3,598 1,188	7 155	86 155	2,140	22	4,678	499	5,934	948
Chelsea ...	193	11	22	53 —	2 —	—	5 —	8 2	1 —	212 56	238 80	273 58	246 80	883 592	5 32	44 32	205	5	3,369	47	3,265	294
Deptford ...	518	48	84	114 5	11 1	7	26 —	118 30	83 40	61 30	45 28	300 65	165 69	1,249 438	29 64	95 —	567	56	2,865	94	2,837	692
Finsbury ...	411	10	48	58 29	6 5	7	4 4	6 1	— 1	83 92	52 99	154 123	62 109	917 330	— 46	54 46	475	12	3,950	331	3,418	469
Fulham ...	846	31	120	157 2	7 —	17	32 6	154 3	76 6	201 120	196 144	529 126	311 156	2,119 896	20 109	179 109	887	28	3,551	416	4,304	694
Greenwich ...	712	38	16	72 28	6 6	9	3 —	6 2	1 6	83 152	75 166	170 185	88 178	1,387 523	— 80	14 80	764	6	4,710	197	3,046	183
Hackney ...	1,162	17	65	182 8	9 —	17	11 4	25 12	11 4	285 241	194 208	509 261	225 216	2,455 967	20 139	161 139	1,156	12	6,756	277	3,573	1,151
Hammersmith	801	17	22	123 9	5 1	20	7 3	6 2	2 —	178 74	76 85	327 85	90 89	1,431 427	36 92	73 92	793	10	2,071	134	2,591	220
Hampstead ...	160	23	49	44 3	— —	8	2 —	29 4	4 2	48 24	19 22	129 31	25 24	441 158	32 21	48 21	168	14	1,020	3	1,149	100
Holborn ...	162	1	6	43 —	1 —	4	6 2	10 4	— —	13 28	4 56	70 32	11 58	340 115	— 24	16 24	183	2	860	30	1,675	168
Islington ...	1,320	19	125	233 55	6 8	23	16 4	24 3	8 1	246 192	93 221	526 252	123 234	2,599 757	4 757	252 195	1,370	21	8,533	412	2,824	998
Kensington ...	775	26	88	101 4	5 —	16	14 —	88 3	14 1	129 199	62 149	334 206	95 150	1,674 649	73 60	78 60	804	10	2,972	74	2,033	463
Lambeth ...	1,613	99	11	324 25	9 3	34	22 3	145 31	13 27	324 246	124 255	827 305	168 286	3,309 1,120	47 195	312 195	1,569	66	8,414	600	5,814	1,444
Lewisham ...	944	6	59	153 4	3 1	21	10 —	12 1	2 —	178 62	103 111	364 67	118 112	1,670 484	60 109	84 109	939	3	2,816	235	2,040	188
Paddington ...	1,173	36	40	130 6	4 2	19	36 6	128 14	80 15	294 137	319 135	571 153	439 159	2,576 1,142	— 73	82 73	1,262	17	10,186	503	4,816	785
Poplar ...	916	30	8	129 23	8 —	10	14 5	16 5	11 6	270 159	223 114	425 170	256 170	1,919 770	143 113	87 113	773	33	4,542	161	7,173	1,438
St. Marylebone	347	89	218	95 1	4 2	21	6 —	103 13	42 31	31 18	17 25	17 33	69 58	1,064 1,615	24 6	173 226	412	88	2,665	129	1,739	266
St. Pancras ...	725	124	66	182 9	4 —	21	24 —	76 10	17 7	97 63	73 117	376 82	118 124	1,615 401	6 113	226 113	757	112	3,825	160	3,946	805
Shoreditch ...	554	14	93	90 35	11 3	7	7 2	2 5	— 2	215 154	101 144	314 193	119 152	1,439 618	3 72	100 72	635	11	6,017	347	5,015	810
Southwark ...	455	94	16	162 5	9 1	26	27 1	56 1	18 5	102 166	15 199	346 172	69 206	1,358 486	37 139	80 139	568	48	4,656	44	2,811	420
Stepney ...	1,667	88	30	211 13	16 4	15	23 4	111 23	26 11	270 393	136 478	607 439	201 497	3,520 1,421	56 129	162 129	1,652	100	7,205	229	4,929	1,146
Stoke Newing- ton	222	3	13	44 2	1 —	7	3 —	20 2	— —	59 62	38 59	130 66	42 59	535 232	11 28	43 28	214	7	1,208	92	706	343
Wandsworth ...	1,266	47	37	310 12	3 1	17	22 —	97 —	133 —	114 108	777 217	538 120	935 218	3,161 1,514	5 180	61 180	1,379	22	5,128	201	5,236	582
Westminster ...	674	1	30	177 2	7 1	26	26 —	4 —	1 —	65 25	44 82	272 27	78 84	1,166 269	11 71	172 71	638	5	2,312	97	3,257	154
Woolwich ...	982	15	11	187 3	14 1	19	30 1	52 —	36 4	374 176	281 189	632 179	361 195	2,375 1,131	54 114	63 114	1,010	3	4,996	472	4,988	755
TOTAL ...	23,287	1,007	1,356	3,957 368	163 50	430 24	428 57	1,496 223	642 192	5,011 3,506	3,787 4,345	10,894 4,121	5,020 4,644	50,329	786 19,178	2,984 2,735	23,866	780	120,661	7,193	100,763	17,963

In addition to the foregoing arrangements for residential treatment of tuberculous children the Council has established seven open-air day schools with accommodation for 515 children suffering from pulmonary tuberculosis or from tuberculous glands with no open wounds who do not appear to require treatment in residential institutions. Of these seven schools, one (Grove Hill-road School, Camberwell) was closed in August, 1929. This school only accommodated twenty-five children, and it was found possible to accommodate all the children in other open-air schools for tuberculous children. The work of these schools is dealt with in the section of this report dealing with the school medical service.

Tuberculosis
Care
Committees.

The valuable work of the tuberculosis care committees in arranging assistance for tuberculous patients and their families cannot be summarised statistically, but the effectiveness of the tuberculosis scheme is in no small measure indebted to their co-operation. The scope of activity of the committees has widened considerably since the inception of the scheme and the quality of the work which involves close co-operation with the various social agencies, and public officials in the respective boroughs is excellent.

Handicraft
classes for
dispensary
patients.

Among the activities of the Tuberculosis Care Committees in several boroughs is included the organisation of handicraft classes for dispensary patients, mainly those who are unfit for ordinary employment. At the beginning of the year such classes were in operation in nine boroughs and classes were established in two additional boroughs during the year, making a total of eleven classes.

Employment.

Assistance to patients in obtaining employment following residential treatment is a valuable feature of the activities of the Tuberculosis Care Committees.

In view of the importance of this question the Metropolitan Asylums Board last year adopted a scheme which provides for the training for nursing and domestic service of selected patients sent by the Council to one of the Board's institutions. Nine posts for nurses and nine for domestic servants are to be reserved for trainees who complete satisfactorily the course of training.

During the past year eleven London patients have been accepted for training at Godalming under the Scheme, eight as nurses and three as domestics. Of the eight nurse trainees one was discharged as unsuitable for employment as a nurse, one left at her own wish, one was sent away for further treatment, while the remaining five remain on the staff and are fit for work, including two who are now accepted for the permanent staff. None of the three domestic trainees remains; one having been discharged as unsuitable for employment, another for a breach of discipline, and the third having left at her own request.

The medical superintendent states that throughout practically the whole time the scheme has been in operation the only restriction to the expansion of the number of ex-patients employed has been the smallness of the supply of medically suitable cases and not a deficiency of vacancies. It would be possible to take six more ex-patients on the nursing and nine on the domestic side.

In the light of a year's experience of the scheme it would appear that the number of medically suitable cases under the present scheme is never likely to be very large. It is possible that patients would be more likely to continue in employment in institutions nearer London. The transfer of a number of institutions in semi-urban surroundings under the Local Government Act, 1929, may make it possible to absorb a larger number of suitable patients under conditions more acceptable to them than at Godalming.

During the year, Burrow Hill Colony which belongs to the National Association for the Prevention of Tuberculosis was reorganised into an institution for the treatment and training in gardening and clerical work of youths between 14 and 19 years of age. The scheme requires that youths suffering from tuberculosis, who will need to remain for at least a year, should be sent to the colony. The courses of instruction have received the approval of the Board of Agriculture and the Board of Education.

respectively. The Council has arranged to use 25 of the beds. In addition it has adopted a scheme for absorption in its Parks Department as trainees of not more than five youths a year. The first year of the working of the scheme had not been completed at the close of the year now under review.

With the co-operation of the Invalid Children's Aid Association the scheme for boarding out children living in contact with cases of advanced pulmonary tuberculosis has been continued, and, in a few cases, where it was not possible to make other arrangements, children have been provided for in order to enable their mothers to accept institutional treatment. The benefit derived by the children from being boarded out in the country and the relief thereby afforded to the home is much appreciated; at the same time the opposition of many parents to parting with their children considerably limits the scope of the scheme. During 1929, 186 applications were received, and 170 children accepted, the remaining 16 being withdrawn or unsuitable. At the end of the year 70 children were being maintained under this scheme. Beds were provided in institutions for such of those tuberculous children as required medical supervision and whose homes were unfavourable for their return after residential treatment under the Tuberculosis Scheme. Seventeen children were dealt with in this way during 1929. Arrangements were also made for providing surgical appliances for children after discharge from institutional treatment, and for supplying clothing in certain cases to children sent away under the Tuberculosis and Contact Schemes. Seventy-five children were provided with surgical appliances and 72 children with clothing during 1929.

Boarding out of contacts and supply of surgical appliances, etc.

Report on the work of the Bacteriological Laboratory.

The following is a summary of the examinations conducted during 1929.

I. *Throat swabbings*.—(a) *For diphtheria bacilli*. Cultures from 5,550 throat and nose swabbings, with a small number from cases of ear discharge, (including 426 re-examinations), from 5,132 individuals, chiefly school children, yielded 707 positive results for the presence of the diphtheria bacillus, including 206 re-examinations, i.e., net 501, or 9.7 per cent. of all those originally swabbed were found to be carrying morphological diphtheria bacilli, including four cases of ear discharge, in which the diphtheria bacillus was obtained. In eight chronic carriers the diphtheria bacillus was isolated for virulence test, and was found virulent in four.

(b) *For streptococcus haemolyticus*.—35 cultures from the throats of 24 maternity nurses were examined and the streptococcus was isolated from five of the nurses.

II. *Cerebrospinal fluids*.—103 specimens were examined, including 48 from Fulham Hospital, 32 from St. James' Hospital (Balham), 17 from Highgate Hospital, and 6 from St. Pancras Hospital. From the results of examination or final diagnosis of the cases, the specimens of fluid are grouped under the following headings:—

(i) *Meningitis* (27).—(a) *Tuberculous* (17). Diagnosis made by tubercle bacilli being found in 9, or by character of the lymphocyte cell content in 6 specimens. In two fluids the changes did not suggest tuberculous meningitis, but the condition was found at post mortem examination. (b) *Meningococcal* (10). Diagnosis made by obtaining the meningococcus in films from cell deposit and in culture in 4; in films only in 6. (c) *Pneumococcal* (3). (d) *Streptococcal* (4) *Staphylococcal* (1) *secondary to otitis media*. (e) *Causal organism* not determined in (2).

(ii) *Encephalitis* (8) including one case following vaccination, in which the patient recovered.

(iii) *Gross cerebral lesions* (14)—(a) *Hæmorrhage* (7). (b) *Thrombosis* (3). (c) *Tumour* (3). (d) *Hydrocephalus* (1).

(iv) *General paralysis*.—Cerebral neurosyphilis (5).

(v) *Spinal disease* (10). Spinal cord—Sclerosis (2). Neurosyphilis (4). Vertebrae and joints (2). Neurasthenia (2).

(vi) *Epilepsy* (2). Mental deficiency (1).

(vii) *Meningismus* (19).—in pneumonia and bronchitis (7), septicaemia (4), osteomyelitis (2), influenza (2), vomiting and convulsions (1), nephritis (1), diabetes (1), chorea (1).

(viii) *Sinusitis* (12). Inflammation of the middle ear and mastoid (11) with *meningitis* (5) (included under head of meningitis); cerebral or cerebellar abscess (2); sinus thrombosis (2); recovery (2); frontal sinus (1).

III. *Ringworm*.—1,132 specimens of hair were examined and 402, or 35.6 per cent., were found to be infected; 342 with small spore fungus, 52 with large spore, and 8 with favus.

IV. *Miscellaneous examinations* included 11 swabs or smears from the vagina (gonococcus identified in one). Six specimens of urine for chemical and microscopical tests; three specimens of faeces, in which *B. dysenteriae* were not found; one specimen of sputum (no tubercle bacilli found). Smears from case of conjunctivitis, in which Koch-Weeks bacillus was identified.

V. *Special investigations*.—(a) *Milk*.—Six samples from supplies to school centres were examined for numerical bacterial content.

(b) *Disinfectants*.—Bactericidal tests with preparations of lysol and cyllin in various dilutions were applied to *B. coli communis*, *Staphylococcus aureus* and streptococcus.

(c) *Water*.—(i) *Water supplies*.—Supplies at the County Hall (from nine separate points), and a control from the main at Critchley-street, and also the tap supply for a ward at Colney Hatch Mental Hospital, were examined bacteriologically and reported upon.

(ii) *Swimming baths*.—Samples from 27 swimming baths during the summer months of 1929 were examined bacteriologically, quantitatively by count of colonies, and qualitatively for presence of coliform organisms:—

<i>Bath.</i>	<i>Highest count Number of colonies in 1 c.c.</i>	<i>Lowest.</i>	<i>Coliform organisms.</i>
Tooting	500 (August)	5 (June)	present in 1 c.c.
Plumstead	one count of only	140 (July)	„ 1/10 c.c.
Victoria Park	600 (July)	50 (June)	„ „
Southwark	90,000 (July)	10 (June)	„ „
Royal Victoria Gardens (N. Woolwich)	3,500 (July)	20 (June)	not in 10 c.c.
Millwall	200 (Sept.)	12 (October)	(i) present in 5 c.c. (ii) not in 10 c.c.
Eltham	13,000 (Sept.)	6 (June)	(i) present in 1/10 c.c.
Brockwell	300 (August)	6 (June)	(i) „ 1 c.c. (ii) „ 5 c.c.

At the time samples were taken, none of the above baths was provided with filtration and disinfecting plant, but disinfectants, chloride of lime or copper sulphate, were occasionally added to the water during the summer months. Filtration and disinfecting plants have since been installed at Southwark Park and Royal Victoria Gardens and are being provided at Millwall and Eltham.

Filtration plants have been in use at the Peckham Rye and Highbury baths for the past five years. Samples taken yielded the following results:—

	<i>Count in 1 c.c.</i>	<i>Coliform organisms.</i>
Peckham Rye	8 colonies (May 29)	present in 5 c.c.
Highbury	2 „ (June 25)	not in 10 c.c.

Material used.—For the bacteriological work during the year, a total of 7,000 tubes of serum, and approximately 22,500 c.c. of various nutrient media were prepared in the laboratory.

Consultation visits.—At the request of the borough medical officers of health, visits were paid to three private patients of medical practitioners, to assist in diagnosis during 1929. The cases were respectively, cerebral hæmorrhage, tuberculous meningitis and paratyphoid fever.

*Midwives Acts, 1902 to 1926, Nursing Homes Registration Act, 1927,
and Children Act, 1908.*

There are approximately 5,000 certified midwives with London addresses of Midwives. whom 828 gave notice of intention to practise within the county during the year, compared with 854 in 1928, the remainder acting mostly as general or monthly nurses under medical supervision. Practising midwives, other than those who work entirely in voluntary or poor law hospitals under medical supervision, are subject to inspection by the Council's officers with a view to ensuring that a proper standard of efficiency is maintained. It may be noted that E.27 of the Rules of the Central Midwives Board provides that the said Rules, other than 22 (2) shall not apply to certified midwives exercising their calling in poor law institutions "under the supervision of a duly appointed medical officer," which is interpreted by the Central Midwives Board as meaning "a resident medical officer." The work of inspection is carried out by four women assistant medical officers who supervise the work of the midwives generally, give advice in regard to any difficulties that may arise in connection with their work and pay special visits where cases of a septic nature or persistent high temperature, inflammation of the eyes or blisters on the child occur: 2,285 visits were paid this year compared with 2,115 in 1928.

Ninety-five infringements of the Rules of the Central Midwives Board were reported during the year, the same number as during 1928. Of these, 65 were slight and a verbal caution was deemed to be sufficient; 31 cases of a more serious nature were dealt with by a written caution, and 5 midwives were interviewed by the Committee and personally cautioned. Three midwives were reported to the Central Midwives Board. In one case the charges were not proved; in another case the Board directed that special observation should be kept on the midwife and reports submitted to the Board at the end of periods of three, six, nine and twelve months. This midwife's name was ultimately removed from the roll. In the third case the Board asked for reports in three, six and nine months.

The Midwives Act, 1926, requires that in the case of midwives suspended from practice in order to prevent the spread of infection the local supervising authority must compensate such midwife for loss of practice by the payment of such amount as is reasonable in the circumstances of the case, provided that the midwife was not herself in default: 18 midwives were suspended from practice during the year in order to prevent the spread of infection, and in 8 cases compensation was authorised.

The Midwives and Maternity Homes Act, 1926, amended section 1 (2) of the Midwives Act, 1902, so as to make it an offence for any uncertified person to attend women in child-birth, except under the direction and personal supervision of a registered medical practitioner, unless the case was one of sudden or urgent necessity. During the year 16 enquiries were made into such cases, compared with 7 in 1928. In 9 cases no further action was taken; in 6 a verbal or written caution was administered. The remaining person was prosecuted and fined £10 or one month's imprisonment for conducting a nursing home and £5 or 21 days' for acting as a midwife.

The Births and Deaths Registration Act, 1926, requires that the birth of every still-born child shall be registered by the registrar in a register of still-births, containing the heads of information prescribed by the first schedule of that Act. During the year there were 413 still-births reported by midwives in their practice, compared with 582 in 1923, 594 in 1924, 510 in 1925, 513 in 1926, 486 in 1927, and 473 in 1928. Of the cases reported this year, 230 were male and 180 female, while in 3 cases the sex was not stated: 217 were reported as macerated, 192 not macerated, and in 4 the condition was not stated.

During the year 311 cases of puerperal fever were reported, compared with 294 in 1928. Of these cases 62 proved fatal, compared with 55 in 1928, a case mortality

Infringe-
ments of
C. M. B.
rules.

Suspension
of midwives.

Uncertified
persons.

Still-births.

Puerperal
fever.

of nearly 19.9 per cent. compared with 18.7 per cent. in 1928. In addition, the Registrar General recorded 39 deaths from puerperal sepsis which were not certified as fever, compared with 33 the previous year. The distribution of notified cases, with the mode of delivery, was as follows, deaths being shown in brackets :—Medical practitioners, 75 (16); Certified midwives, 91 (18); Medical practitioner and certified midwife, 5 (1); Hospitals and poor law institutions, 87 (18); Medical students, 12 (2); Cases of miscarriage or abortion where no attendant was engaged, 39 (7); Not ascertained, 2 (—). Total, 311 (62).

Puerperal
pyrexia.

In July, 1926, the Ministry of Health made Regulations requiring the notification of puerperal pyrexia which is defined by the Regulations to be "any febrile condition (other than a condition which is required to be notified as puerperal fever under the Infectious Diseases (Notification) Acts) occurring in a woman within 21 days after child-birth or miscarriage in which a temperature of 100.4° Fahrenheit (38° centigrade) or more has been sustained during a period of 24 hours or has recurred during that period."

The Regulations were amended in 1928 and now require a medical practitioner to notify any such case on the approved form and transmit the notification to the medical officer of health of the district in which the patient is actually living at the time of notification. In addition, any notification of a case in a London hospital must specify the place from which and the date at which the patient was brought to the hospital and shall be sent to the medical officer of health of the district in which the said place is situated: 781 notifications of puerperal pyrexia were received during 1929, compared with 787 in 1928; 54 of these cases proved fatal and were distributed as follows, the deaths are shown in brackets :—Medical practitioners, 158 (17); Certified midwives, 170 (12); Hospitals and Poor Law institutions, 357 (18); Medical students, 16 (—); cases of miscarriage or abortion where no attendant was engaged, 74 (7); Uncertified woman, 1 (—); No information, 5 (—). Total, 781 (54).

Thirty-seven of the cases, with 10 deaths, were subsequently notified as puerperal fever, and are therefore shown in both tables.

Medical aid.

The Rules of the Central Midwives Board indicate the emergencies for which a midwife must advise in writing that medical aid be obtained, and for which such help must be secured. A notice in the approved form is sent to the doctor, and to the Council. In the year now under review, 6,833 such notices were received, compared with 6,984 in 1928. The estimated number of confinements conducted by midwives in independent practice during the year was 30,000. This appears to indicate that medical aid was necessary in about 22.8 per cent. of the cases, compared with 21.8 per cent. during 1928.

Ophthalmia
neonatorum.

In 1926, regulations came into force rendering it no longer necessary for a midwife to notify a case of this disease to the local sanitary authority, this duty being assigned to the medical practitioner only. This, however, did not relieve the midwife of the necessity of sending a copy of her medical aid notice in all such cases to the Council. The Ministry of Health issued a memorandum in connection with the regulations, suggesting that the Council should consider whether it should not refrain from exercising the power of recovery from the patient's representative of the fee paid to a medical practitioner summoned by a midwife in a case of ophthalmia neonatorum, and the Council agreed to adopt the suggestion. The number of such cases during the year was 754, and the amount paid to medical practitioners in respect of such cases was £612 17s. 6d.

Inflammation
of the eyes—
Notices.

During the year 1,333 notices were received indicating that medical aid had been summoned for inflammation of the eyes of infants, compared with 1,421 in 1928; 42 other cases arose in which either medical aid was not called in by the midwife or she failed to notify the Council that she had done so. Of these 1,375 cases, 415 proved to be ophthalmia neonatorum, compared with 444 in 1928;

317 other cases that did not occur in midwives' practices were also notified, making a grand total of 732 such cases during the year, the percentage occurring in the practice of midwives being 56.7 per cent., compared with 61 per cent. in 1928. All the midwives' cases were investigated, and it was found that 407 were completely cured, 2 died and 3 could not be traced owing to the removal of the parents. Impairment of the vision of one eye occurred in 2 cases, and impairment of vision of both eyes in another case; 47 cases became in-patients at St. Margaret's Hospital, compared with 68 during 1928.

For some years it has been the practice of the Council to arrange classes and demonstrations for the post-graduate instruction of midwives. The demonstrations at institutions were well attended, and the lectures appeared to give great satisfaction. Ante-natal cards are being furnished to institutions at which there are pupils, with a view to improvement in their midwifery work. Instruction of midwives.

The report of the Departmental Committee which was appointed in May, 1928, by the Minister of Health "to consider the working of the Midwives Acts, 1920-1926, with particular reference to the training of midwives (including its relation to the instruction of medical students in midwifery) and the conditions under which midwives are employed" was published during the year.

The report received the careful attention of the Midwives Acts Committee and the effect which the recommendations of the Departmental Committee might have upon midwifery services in London was considered. Many of the most important recommendations of the Departmental Committee will, however, require Parliamentary sanction, and it is understood that the Ministry of Health is considering the various aspects of the report. The Council, therefore, have requested the Ministry of Health to keep them informed of any proposed legislation in the matter so far as London is concerned.

During the year 79 cases of pemphigus neonatorum occurred, compared with 125 during the previous year. Pemphigus neonatorum.

The arrangement made at the suggestion of the Ministry of Health whereby confidential reports are made on maternal deaths by medical officers of the Council and are exchanged with the borough medical officers of health as described in my last report, was continued during the year. Maternal mortality.

The Midwives Act, 1918, gave to the Council the duty of paying the medical practitioners' fees when called in by midwives in cases of emergency. Later the Ministry of Health laid down a scale to which local authorities must adhere. The Midwives Act, 1926, fixed a limit of time, namely, two months from the date of the first visit, within which a medical practitioner must submit his claim. In pursuance of this provision 58 claims amounting to £52 7s. were refused during 1929: 3,904 claims were submitted during the year 1929, compared with 3,737 in 1928, the total amount involved being £4,290 8s. 6d., compared with £4,131 15s. in 1928. About 25 per cent. of this amount will, it is believed, in due course be recoverable from patients. Payment of medical fees.

The Nursing Homes Registration Act, 1927, came into force on 1st July, 1928. This Act repealed Part II of the Midwives and Maternity Homes Act, 1926, and also so much of any local Acts as provide for the registration of maternity homes. The Annual Report for 1928 (Vol. III, pp. 53-54) indicated fully the powers of the Council under this Act. Three part-time assistant medical officers carry out the work of the inspection and re-inspection of premises used as general nursing homes. The premises used mainly for the reception of maternity patients are inspected by the medical officers engaged in the supervision of midwives in the county of London thus avoiding duplicate inspections. Enquiries with regard to unregistered premises suspected of being used as nursing homes, are carried out by inspectors attached to this department; these inspectors who are qualified sanitary inspectors also inspect all premises in respect of which applications are received for registration as Nursing homes.

nursing homes with a view to obtaining detailed information as to the sanitary conditions and general maintenance of the premises.

At the beginning of 1929 there were 199 registered nursing homes. During the year 1929, 132 other homes have been registered and 53 registrations have been cancelled at the request of the keepers of the homes. On 31st December, 1929, there were 278 premises on the register of nursing homes.

During 1929 the Council granted 118 exemptions from the provisions of the Nursing Homes Registration Act, 1927, in respect of premises not conducted for profit. These exemptions are all for a period which will expire on 30th June, 1930, after which the exemption may be renewed at the discretion of the Council from year to year.

The improvement noted in the report for 1928 in the cleanliness, general orderliness and in the staff of the homes has continued. It was found necessary to institute legal proceedings against one keeper in respect of failure to exhibit the certificate of registration in a conspicuous position, and also in respect of obstruction of the Council's inspector in the execution of his duties under the Act. The Magistrate found in favour of the Council and, on the defendant giving an undertaking to comply with the law in future, dismissed the summonses under the Probation of Offenders Act on payment of £5 5s. costs.

It was noted that a number of premises were being used for the accommodation of certified mental patients. Such premises are under regular supervision by officers of the Board of Control and, in order to avoid unnecessary dual inspections of such premises, it was decided that, provided the premises used for the accommodation of patients in "single care" were not used for the accommodation of any other type of patient, it would be unnecessary for the owners of such premises to make application for the registration of their houses as nursing homes. Arrangements have been made to keep the Board of Control informed of all premises throughout London which appear to be used for the accommodation of mental cases whether certified or not.

It was stated in the report for 1928 that by-laws with respect to nursing homes in the county of London had been prepared in accordance with model by-laws issued by the Ministry of Health. The new by-laws were approved by the Minister of Health on 1st March, 1929. Little difficulty has been experienced in securing compliance with the by-laws throughout the county.

Children Act,
1908.

The annual report for the year 1921 indicated fully the powers of the Council under the Children Act, 1908, Part I, with regard to infant life protection. Fourteen qualified nurses carry out the work of inspection and act as visitors under the Act. Further inquiries with regard to unnotified keeping of nurse infants and other irregularities are made by male inspectors attached to the department. At the end of 1929 there were 1,908 homes under inspection, the number of nurse infants therein being 2,690.

Nurse infants who are kept under unsatisfactory conditions, which fall within the purview of section 5 of the Act, may be removed to a place of safety. In London, poor law institutions are used for this purpose. During 1929 it was necessary to remove 18 nurse infants compared with 5 in 1928. Four children were removed from one foster-mother and 7 from another. The Act permits local authorities to grant total or partial exemption from inspection where circumstances appear to warrant such a course, but no application for exemption was made during 1929.

The homes where nurse infants are kept are visited in order to ascertain whether the sanitary condition of the premises is satisfactory: 761 reports were made during 1929 compared with 804 in 1928. In 462 cases the premises were found to be satisfactory compared with 491 in 1928. In 102 homes sanitary defects were discovered compared with 113 in 1928, while overcrowding was found in 100 homes

compared with 76 in 1928. Overcrowding and sanitary defects were found in 14 homes compared with 15 in 1928. In 83 cases no action could be taken under the provisions of this Act owing to the removal of the nurse infant prior to the visit of the inspector. Special inquiries were also made in 370 cases with regard to the condition of the premises, and the necessary action was taken in the matter. In the event of a serious sanitary defect being reported the attention of the local borough council is drawn thereto, and in some cases it has been found possible by rearrangement of the accommodation to secure improvement. In others it has not been possible, and the foster-parent has been urged to return the child in her charge to the parent or to obtain other and more suitable accommodation. Difficulty is accentuated by the lack of suitable house accommodation.

Foster-mothers are advised to attend local infant welfare centres with the children in their charge. In the event of a nurse infant being weak or ailing the visitor carefully watches the case and sees that the treatment advised is duly carried out. If doubt exists in the visitor's mind with regard to the progress of the nurse infant one of the Council's medical officers attends and examines the child. During the year, 27 nurse infants died compared with 33 in 1928. In 8 cases inquests were held compared with 7 in the previous year; a verdict of death from natural causes was recorded in 6 cases compared with 4 in the previous year, and in 2 cases accidental death (the same number as in 1928). In none of the cases was blame attached to the foster-mother.

The Adoption of Children Act, 1926, provides for the legal adoption of infants. A Court upon the hearing of an application for an adoption order may appoint some public body to act as guardian *ad litem*, with the duty of safeguarding the interests of the infant before the Court, and, where the body so appointed is the local authority, may authorise the authority to incur any necessary expenditure. Adoption of Children Act, 1926

The Council at the request of the Home Secretary has agreed to act as guardian *ad litem* of children who are the subject of applications for adoption orders in London. The Council's medical officer deals with those children who have been or are nurse-infants under supervision of the Public Health Department. During the year 1929 the total number of applications dealt with by this department was 49. The result of the hearings was as follows:—43 full adoption orders and 2 interim adoption orders made; 2 applications refused, and 2 withdrawn.

It is understood that the work of the Council's officers has been of assistance both to the Courts and to the petitioners. Although the Court may authorise the public body, acting as guardian *ad litem*, to incur any necessary expenditure, the Council has decided not to make application to Court for payment, as the expenses are trivial.

Mental Deficiency Acts, 1913-27.

On 31st December, 1929, there were being dealt with by the Council 5,560 cases. Of these, 3,191 were in institutions; 74 under guardianship; 2,276 under supervision; and 19 in places of safety awaiting action. During the year the mental Hospitals Department was notified of 772 cases, the sources being indicated in the following statement:— Cases dealt with by the Council.

Delinquent cases.	Number.	Other cases.	Number.
Charged before a court of criminal jurisdiction (Sec. 8).	69	London Assn. for Mental Welfare	90
Prison cases (Sec. 9)	6	Education Authority	333
Industrial Schools (Sec. 9)	9	Poor Law Authority	67
		Miscellaneous sources	198

Other cases came to the notice of the Public Health Department, but some of these proved to be not defective, and others not subject to be dealt with by the Council for various reasons.

During the year, 941 cases were medically examined, with the following results :—

Type.	Idiot.	Imbecile.	Feeble-minded.	Moral defective.	Not defective.
Males... ..	7	131	326	1	20
Females	19	89	308	—	40
Total	26	220	634	1	60

The period of life at which the cases examined during 1929 were brought to notice were :—

Age group.	Males.			Females.		
	Under 7	7-16	over 16	under 7	7-16	over 16
<i>Grade of defect—</i>						
Idiot	2	5	—	8	10	1
Imbecile	34	84	13	24	60	5
Feeble-minded	16	141	169	5	151	152
Moral defective	—	—	1	—	—	—

Practically all the feeble-minded in the age group 7-16 and a proportion of those over 16, are cases for consideration by the Education Committee, with a view to notification relative to supervision, guardianship, or institutional care on leaving special schools for the mentally defective. Fifty-one out of the sixty persons examined and deemed not to be mentally defective were over the age of 16 years. It will be noted that by far the greater number of those children who require to be dealt with before attaining the age of seven years are of the lower mental grades.

In 687 of the cases, the necessary inquiries into the family history had been sufficiently completed during the year to enable the subject to be assigned to a particular clinical type as well as class or grade of defect, the results being as follows :—

Clinical type of defect.	Grade of defect.				
	Idiot.	Imbecile.	Feeble-minded.	Moral defective.	Total.
Simple primary amentia	7	114	403	1	525
Mongolism	3	37	4	—	44
Cretinism	1	2	—	—	3
Hydrocephaly	1	3	3	—	7
Microcephaly	1	7	2	—	10
Post-encephalitic	1	1	10	—	12
Plegic	7	19	15	—	41
Plegic and epileptic	1	3	4	—	8
Epileptic	3	18	10	—	31
Traumatic	1	4	1	—	6
	26	208	452	1	687

In this connection, it is interesting to note the higher proportion of cases of secondary amentia in those of lower mental status. Of the idiots, approximately 27 per cent. are instances of primary amentia, and in 73 per cent. the deficiency is due to conditions arising in the course of the pre- or post-natal life of the individual. Even if mongolism be regarded as due to inherited factors, a point on which there is no decided agreement, the figures would still show the same variation, the proportion of primary amentia in the different grades being :—Idiots 38 per cent., Imbeciles 72 per cent., Feeble-minded 90 per cent. The matter is of interest, in that amentia of the secondary type is generally held not to be hereditary.

Dr. Shrubsall, who has analysed the family histories of 1,360 cases, medically examined in the years 1928 and 1929, and for whom full family histories were available, finds that in only 129 or approximately 9.5 per cent., was there a brother or sister who was also mentally defective.

Grades of defect	Number of siblings also mentally defective.					
	none.	1	2	3	4	5
Imbecile	410	18	4	2	1	—
Idiot	44	2	—	—	—	—
Feeble-minded	772	66	27	7	1	1
Morally defective ...	5	—	—	—	—	—

All but seven of the cases in which more than one member of the sibship was defective were instances of simple primary amentia, many of whom would come under the category described by the investigators of the Wood Committee as belonging to the sub-cultural class.

There are eight occupation centres provided by the London Association for Mental Welfare and the Central Association where children are received who are unable to benefit by the education provided at the special schools for the mentally defective. A medical examination of the pupils at all the centres was carried out by the school doctors who, during last year, examined 154 children of ages ranging from 6 to 16. Of these children 89 were boys and 65 girls. At a large percentage of the examinations the parent of the child was present. In clothing, cleanliness, and nutrition, the children were up to the standard of the elementary schools. The following table summarises the defects which required treatment and compares the frequency of such defects with those found in the elementary schools as a whole during the year:—

Occupation centres for children unfit for special schools.

Defects.	Children at the centres.		Children at elementary schools.
	Number.	Percentage.	Percentage.
Teeth	40	26.0	30.4
Vision	7	4.5	10.9
Nose and throat	3	1.9	5.7
Eye diseases including squint	13	8.4	1.2
Discharging ears	3	1.9	0.7
Skin disease	1	0.6	0.6
Rickets and deformities	3	1.9	0.5
Other defects	6	3.9	3.6

In addition to the above, 53 defects (not serious enough to require treatment), were noted, and 3 children were reported to be inarticulate.

With regard to vision, the test depends upon the child saying what he can see at a measured distance, and in many cases no intelligible answer was forthcoming, so that the figures for the ineducable children in the occupation centres almost certainly do not represent the total amount of defect that exists.

The most noteworthy difference between these children and those in elementary schools is in the number of cases of "squints" and "deformities," as also of "other defects," including three cases of enuresis. All of these defects are frequently associated with mental defect, and lack of self-control. Generally, the children appeared to be clean, well cared for, and in fairly good condition physically.

The employment of guides has been allowed when necessary, to convey the children to and from the centres, and the Council has made a grant for this purpose.

Dr. Fairfield has tabulated the data available as to the after-careers of children, who had been deemed ineducable during school ages, recorded by the London

Imbeciles in regular employment.

Association for Mental Welfare. Out of 1,155 such imbeciles now under supervision, 41 were found to be in more or less regular employment. Thirteen of them were either helping in a family business or, as an act of kindness on the part of a sympathetic employer, were engaged in some simple task within their capacity. The remaining twenty-eight appeared to be maintaining a place in the labour market on their merits, and are mainly engaged in heavy unskilled work, such as coal delivery, portering, washing up in coffee-shops, in factory work at juvenile wages, or assisting street hawkers. Fifteen of them earn between 10s. and 30s. a week in food and wages, and thirteen earn 30s. to 35s. or the equivalent.

It should be noted that examples of undoubted imbeciles (with mental ages of 5 or less) earning even higher wages have, before now, come to notice. For instance, an imbecile earned high wages on piece work packing shells, having only one size shells to place in one size containers. Had there been a choice he could not have done the task. As it was, he converted himself into a machine, and was impervious to distraction, having a one-track mind. For certain kinds of monotonous work lack of intelligence may actually be an asset.

Only a very few (6) are in positions really indicating any initiative or intellectual capacity beyond that of the grade to which they had been allotted. One boy runs his own pea-nut stall with the help of an imbecile brother, and makes a good thing of it; a girl is in resident domestic service at 10s. weekly; a glass-blower earns 30s. weekly, and is reported to go to dances; one lad has charge of a stationer's barrow; a man has been eight years in a nursery garden; a girl said to be "of nice appearance," is cooking and cleaning in a coffee shop.

The school record of these low grade wage-earners is of some interest. Omitting one middle-aged man whose school days were over before the special school era, it was found that only 4 of the 27 remaining cases had been refused a trial in a special school. One of these was a badly neglected lad, with a deaf and mentally deficient mother, who, when certified imbecile at the age of eight, was burdened with congenital syphilis, severe rickets, impaired vision, double offensive otorrhœa, and chronic bronchitis; he now earns 12s. weekly at a wharf, and by helping street newsvendors. Another of the four was a highly neurotic and timid girl seen on twelve occasions by nine doctors, who frequently endeavoured to secure trials in school for her. She proved too infantile and unstable ever to become the occupant of a class-room, and had to be excluded after a short stay so that it is surprising to find her capable of regular, if rough, work at scrubbing out shops. Of the remaining two, one was found to have a mental age of barely four when examined for the first time at 15. He is now earning £1 per week staining wood and his remarkable mental improvement may be due to the cessation of fits from which he suffered in childhood; the other boy had a mental age of $3\frac{1}{2}$ when seen at 9; he had a definite history of severe head injury in infancy.

Of the 23 children admitted to special schools and excluded, it cannot be said that the trials given were hasty or inadequate, inasmuch as 1 was excluded at 16, 1 at 15, 6 at 14, 1 at 13, 3 at 12, 5 at 11, 4 at 10, and 2 at 9. In nearly every case, the child had been seen by many different doctors and the reports had been uniformly unsatisfactory. Only in 5 cases (2 of these with a history of epilepsy and 1 of head injury) does there seem to have been a real "jump" in mental condition since childhood. The great majority are genuine "border-line cases," with intelligence quotients of 40 to 50. The most interesting point common to all these 23 excluded children, is that, with one exception, they had made no progress whatever during their school life. None knew more than his letters, if that; they could not count their fingers nor add units, nor had they progressed beyond very poor examples of rudimentary hand-work. After exclusion from school, some, in fact, definitely improved in conduct and attainments.

The question of family background is of much importance to these very helpless people. Practically all these employed imbeciles have some kindly and stable relative in the home to "mother" them, and to shield them from full adult responsibility in the management of their lives.

This brief study brings out some interesting points. It shows the accuracy of prognosis in childhood by means of intelligence tests and school observation, for it appears that, of those certified imbecile, 97 per cent. are never fit for industrial employment of any kind. Only 2 per cent. are able to contribute in any substantial way to their own support. The notes further illustrate the point that social adaptability depends not only on intelligence, but on general stability, good temper, obedience, cleanly personal habits, self control of sex-instincts—qualities much more susceptible to training, and also to variation, at different periods of life.

It may further be suggested that the exclusion of the really low grade imbecile from special schools is no hardship and operates equitably. Children of this grade have more to gain from the "socialising" training of the Occupation Centre type than by any more formal education. Experience tends to confirm the opinion expressed in the Wood Report that an intelligence quotient of 55 should, generally speaking, be the lower limit for the special school child, and that those below that level should be relegated to occupation centres in their own interests, and in that of the higher grade child.

It should be added that the progress notes of the employed imbeciles give abundant proof of the value of skilled supervision of defectives in the community. Only by bringing the defectives into touch with sympathetic employers and by giving wise advice on home management, are these satisfactory adjustments possible.

Dr. Fairfield has made a survey of all female cases notified from London police courts and prisons in the five years 1925-1929. Seventy-eight such notifications were received. Of these 20 were considered by the prison doctor and the Council's certifying officers to be not defective, while 58 were certifiable under the Mental Deficiency Acts. Twenty-three out of the 58 girls had arrived in London within the year and a few more were country-reared. The ages of these women at the time of arrest were as follows :

Women
delinquent
defectives,
1925-1929.

Age groups in years.			Under 20	20-	30-	40-	50-	60-	70-
Cases	...	...	25	23	6	2	1	1	—

The fact that almost five-sixths of the whole were under 30 years of age shows that ascertainment is acting at effective ages ; it is, of course, most important in the women's interests to put them under suitable care before they become confirmed in criminal habits and while there is yet opportunity for training. In the case of older women of degraded life, it is often difficult to estimate whether lack of response is due to a defect present before the age of 18 years as required by the Acts.

The home background of these cases was investigated wherever possible either by a visit from a trained social worker or by correspondence if the girl came from the country. In eight instances the girls had been reared in an orphanage, 16 came from definitely bad (not merely poor or ignorant) homes, 29 were from apparently good homes and information was insufficient for classification in five cases.

The school records were ascertained in every case either from the teachers or from relatives. It was possible to group them into two divisions, *i.e.*, whether they had or had not been recognised as defective in childhood by the school authorities. The first group comprised 21 girls, 14 being Londoners and 7 country-reared. Of the Londoners 2 were educated before special schools came into being, but of the 12 younger ones 10 had been in special schools, 1 in an industrial school, and 1

had been recognised as morally though not educationally defective. Of the 7 provincial girls admittedly known to their teachers as defective, only 2 had enjoyed the benefit of a special school education.

Of the 37 girls not recognised as defective, no less than 14, including some who had never learnt a letter, had failed to acquire Standard II attainments. Two country-bred women had never been to school. Twenty-three were found to be above Standard II in reading, and might reasonably have escaped notice as far as their educational attainments were concerned.

The interesting feature of these figures is the small number, 12, of ex-special-school girls who have come to notice through the police.

Considering the group as a whole previous occupations were limited to low class domestic service, factory work and odd jobs. Industrial inefficiency was very marked and was sometimes the determining factor which brought offenders into the hands of the police. They had been leading a "harried existence," constantly losing jobs for reasons over which they had little real control, constantly at logger-heads with relatives for being unable to keep work.

Nineteen had lived promiscuously of whom 6 had had no employment at any time but had lived by prostitution and pilfering. Six of the women had suffered from venereal disease.

Of the 50 unmarried girls, nine had borne children. Of these, 6 had had one child each, 1 two children and two had had 3 children each. The 8 married women had borne 20 children, three of them were childless and the remaining five women had families of 1, 3, 4, 5 and 7, respectively. Of the 34 children eight were dead, 2 only were known to be defective, 2 more were probably in this category although information on this point was incomplete because many of the children were in the care of guardians or relatives at a distance. Of the 32 London cases, however, it is possible to say definitely that they had only 2 defective among their offspring, who had attained school age. Information about family histories was insufficient to justify an opinion as to how many of the parents of the 58 prisoners were themselves defective. In at least twenty instances there was evidence of grave social incapacity and moral failure on the part of one or both parents. Careful enquiry was made as to the mental status of brothers and sisters of the defectives, but only 3 of the whole number had a sibling who had been certified or provided sufficient evidence to justify a diagnosis of deficiency.

The following table shows the nature of the offences with which the women were charged and the relation between offence and mental age of the culprit :—

Mental Age with relation to nature of offence.

Mental age in years.	6	7	8	9	10	11	12	Total.
Larceny	—	—	8	6	2	3	1	20
Wandering, begging, etc. ...	2	4	1	7	2	1	—	17
Violence to person or property ...	1	—	—	3	1	—	1	6
Indecency, etc.	—	—	1	2	—	—	1	4
Attempted suicide... ..	1	—	—	—	—	—	3	4
Cruelty to children	—	1	2	—	—	—	—	3
Attempted murder	—	—	—	—	1	—	—	1
Infanticide	—	—	—	1	—	—	—	1
Manslaughter	—	—	1	—	—	—	—	1
Murder	—	—	—	—	—	1	—	1
	4	5	13	19	6	5	6	58

It will be noted that those with a mental age of 6 and 7 years were relatively few. They were almost without exception country cases or elderly women who had escaped the care of the Mental Deficiency Acts. The ten and eleven year old groups were undoubtedly feeble-minded and mainly owed their high rating to the

fact that they scored unduly high on verbal tests. The 12-year-old group comprises most of those subsequently transferred to mental hospitals; there was one victim of encephalitis lethargica in the series. A long history of irrational, violent and incorrigible conduct, without adequate motivation, and not amenable to training, rewards, or punishment, had formed the basis of diagnosis in their cases. Every effort was, of course, made to exclude any cause for their irresponsible behaviour other than innate mental abnormality.

The disposal of the women certified is at the discretion of the magistrates who almost invariably, however, accept the suggestion of the Council's officers.

Disposal of cases.

Country cases discharged to other local authorities	...	...	4
Guardianship of parent	...	...	1
Probation	...	...	4
Sent to prison	...	...	2
Bound over	...	...	1
Ordered institutional care under Mental Deficiency Acts, now:—			
Transferred to asylums	...	...	5
Sent to State criminal institution	...	...	5
On licence	...	...	2
On trial in hostel	...	...	2
To guardianship	...	...	1
Escaped	...	...	3
Died	...	...	1
Temporarily in Poor Law infirmaries or hospitals	...	...	3
Still in institutions for the mentally defective	...	24	
		—	46
			58

Blind Persons Act.

During the year 157 persons over school age were seen and certificates furnished in the undermentioned cases:—

	<i>M.</i>	<i>F.</i>
Training of the blind	74	26
Application for grant	—	1
Blind register	1	1
Home workers' scheme	2	1
Homes for the blind	—	7
	77	36

Twenty-three males and 19 females were rejected either because they were not certifiable as blind within the meaning of the Act, or were physically or mentally unfit for training. One case was referred for re-examination which will take place in 1930, and in another case the application was withdrawn. Advice was given as to the trades in which applicants for training should severally be placed, having regard to the prospects of future employment.

Work of the Chemical Branch.

The work of this branch is carried out at four laboratories, viz., the central laboratory at County Hall, the laboratories at the Northern and Southern Outfalls and at the Greenwich power station.

A large proportion of the work performed at the central laboratory consists of the examination of samples of stores supplied under contract to the Council's many depots and stations. Specifications have been revised so as to bring them closely into touch with modern conditions and requirements and to ensure that the goods demanded shall, as nearly as possible, be in accord with the specification.

The total number of samples examined in this laboratory during the year amounted to 5,773, and the following table shows their number and description:—

Air	259	Oils, lubricating	216	} 243
Building materials	101	„ various	27	
Cement	266	Paints, colours and varnishes		290
Coals (ash tests, etc.)	4	Petroleum and paraffin		184
Disinfectants	21	Soaps, shampoos, etc.		87
Drugs and medical stores	27	Tobacco and snuff		2
Driers	11	Rubber goods		7
Feeding stuffs	227	Rainwater		108
Fertilisers	53	River Water		333
Foods, groceries, etc.	613	Ordinary water		11
Gas—		Boiler water		828
Cleaners	16	Other waters		20
Flue	89	Water softening plant		156
Greases	15	Water in Bathing lakes, etc.—		
Insecticides	5	Water	24	} 39
Meals (school)	8	Deposit	15	
Metals	36	Water (in-leakage at County Hall)		22
Milks	1,570	Sewage and effluent		3
„ condensed	5	Waxes		3
Miscellaneous	103			

Building materials.

Various materials intended for partitions, doors, etc., have been examined for fire-resisting properties by the methods to which reference has been made in previous reports. The general question of standardisation of such materials and tests is now under consideration by a committee of the British Engineering Standards Association, on which the chemist, with other officers, represents the Council.

Testing of reflectors.

Some chromium-plated reflectors for use in directing longitudinally the light of the lamps in the Thames subway tunnels were submitted for examination. When exposed for 1,000 hours to a moist atmosphere artificially polluted with carbon dioxide and sulphur dioxide in amounts vastly greater than would occur in any tunnel, very little discolouration was observed, but it was found that the surface layer was lifted in places from the copper beneath, which was corroded. These failures were associated with faults in the surface due to no visible lack of continuity of the film, but to variations of thickness of the deposited layer and of the consolidation produced, it was presumed, by burnishing.

It does not appear that any other material, except, perhaps, a rustless steel, would behave better than or as well as chromium-plated metal, which seems to stand well the ordinary laboratory atmosphere and cleans up well with a damp cloth. A more drastic treatment seems likely to scratch the surface.

Water softening.

An interesting problem in water softening has been successfully dealt with at one of the Council's pumping stations where it is necessary to use river water for "make-up" for boilers. The dry weather led to very great variations in salinity (and incidentally in hardness) from about 23 parts per 100,000, due to normal Thames water up to as much as 134 parts due mainly to about 18 per cent. of sea water, which introduces large quantities of magnesium and calcium salts. By systematic examination of raw water as impounded and the recommendation of mixtures of softening reagents adapted to the varying nature of the water, an average reduction of hardness throughout the year of 78 per cent. was effected.

A water of varying hardness would seem specially appropriate for softening by the base-exchange process at least as a finishing treatment after chemical softening. The great sodium content of tidal waters, however, seems to militate against the successful use of this process. The chemist has discussed this matter with the Director of Chemical Research Laboratory of the Department of Scientific and Industrial Research, who is conducting an investigation on the base-exchange process.

An examination of the portion of the river Lee between Tottenham lock and River Lee. Homerton was made in July, when the reach above Lee bridge was found to be in a very unpleasant condition which was most marked in the neighbourhood of Tottenham lock. Although some of this reach is outside the county of London, it is much used by boating clubs and others. Below Lee bridge, the river was not offensive, although the water was very highly coloured and analysis showed that it was not very much diluted sewage effluent. Several bathing parties were observed. Towards the end of November, the condition had appreciably improved but was not good. It is understood that the problem is being considered by the Ministry of Health.

An examination of the river Wandle was made on 15th July. The general River Wandle. impression formed was that the river is badly polluted before it reaches the county of London; that its water is an unsuitable medium for the growth of watercress; that the Wandle valley effluent is an important source of pollution entering the river within the county and that the widespread use of the river as a receptacle for refuse of all kinds adds considerably to its present unpleasant state. The water level was naturally, having regard to the season, very low at all places. The use of the water for cooling purposes at the Southern Railway power station at Earlsfield by raising its temperature accelerates all bio-chemical changes: as re-aeration also occurs, the net result of this diversion may be good. No real improvement can be expected unless the contributions, direct and indirect, from places in the upper part of the valley outside the county are diverted or purified.

During the summer the Council's outdoor baths were very much used. In Swimming those which were not fitted with filtration plant much difficulty was experienced baths. in keeping the water in good condition. It appears impossible owing, not only to actual soiling of the water, but to the separation of calcium carbonate as a result of photo-synthesis, to keep water in such baths reasonably transparent for long periods. Experiments made in the laboratory, as well as practical experience at the baths, show that the green growths which spring up in water exposed to daylight are in some cases very resistant to the chemicals added with a view to their destruction. This difficulty has been found by many observers, who have sought to keep open reservoirs and conduits in good condition.

The chemical work at the laboratory at the Greenwich power station is con- Greenwich power station. cerned with the scientific control of the station and consists of systematic examinations of coal and other fuel used both here and at pumping stations, etc., boiler and condenser waters. Investigations of problems arising out of the working of the station, such as corrosion, temperature and composition of flue gases, deaerating and water-softening plants, examination of chemicals and materials used on works, boiler scales and deposits, etc., are also undertaken. Some of these investigations are in part made at the County Hall laboratory.

The very dry weather experienced during the first nine months of 1929, led to River Thames. a greatly decreased fresh-water flow of the Thames. The systematic examination of the river by the chemical staff showed that this had a prejudicial effect on the condition of the water, more especially in the vicinity of the outfalls. The proportion of sea-water found at Crossness at the beginning of October amounted to 60 per cent. at high water. Such a great concentration of sea-water indicates how much the removal of sewage effluent from the river is retarded during seasons of drought. The improvement of the effluent which will result from the installation of successive purification units, one of which is now being erected, should do much to counteract the unfavourable effects of drought.

The condition of the upper part of the tideway of the Thames was examined periodically during the summer, by means of a vessel placed at the disposal of the medical officer by the Metropolitan Asylums Board. It was found that instead of progressively improving as the upper limit of the tide was reached at Teddington,

which has been the case in former years when such examination has been made, there was a progressive deterioration from Putney to Isleworth, due to the effect of pollution from sources other than those affecting the lower reaches.

During the last ten years districts in the Thames valley, which had been thinly populated, have been developed either industrially or as residential suburbs, and, in consequence, the volume of sewage effluent reaching the river either directly or via its tributaries has increased, probably without adequate increase of means of treatment. The effects of such increase would naturally be more evident in a season like the summer of 1929 than in some other recent summers, and the condition recently observed is attributable to the combination of the two causes, a greater volume of pollution and a less volume of good river water from the upper reaches.

It is also obvious that an effect of low fresh water flow is to allow the travel upwards of water which has passed the Council's outfalls, and is to some extent charged with effluent from these places; but the point must be made that the progressive improvement which would be observed on travelling up-stream if this were the only cause, has not been observed and the facts point to appreciable local pollution. Not only has the upper tideway been found to be poorly aerated, but positive evidence, chemical and bacteriological, of pollution has been more marked in these regions than in some places nearer the Council's outfalls.

River sub-
way tunnels.

In connection with improvements in ventilation of the river subway tunnels at Blackwall and Rotherhithe, a systematic examination of the air has been made over a long period. Determinations of carbon monoxide, of black dust (soot) by Owen's air filter and of humidity by a recording hygrometer have been made in this investigation. Some determinations of sulphur dioxide were also made by Mr. B. A. Ellis, M.A., A.I.C., of the Government Laboratory, by the kind permission of Sir Robert Robertson, K.B.E.

It appears that conditions in the tunnels are more variable in summer than in winter owing to the fact that their natural ventilation is greatly affected by the temperature of the open air. Where this is higher than the temperature of the air in the tunnel, the cooler polluted air below does not rise through the shafts. Under these conditions, the humidity of the tunnel air also becomes greater than that of the outside air. As standards of maximum pollution that should be permitted under normal traffic conditions, it was recommended that the carbon monoxide content of the tunnel air should not be allowed to exceed two parts per 10,000, and the suspended matter six units on Owen's fog shade scale (*i.e.*, 1.92 milligrammes suspended matter per cubic meter of air). As a result of the series of experiments, it appeared that, generally speaking, in neither tunnel was the proportion of carbon monoxide excessive under normal conditions. Rotherhithe was worse than Blackwall, but only comparatively few samples in either case exceeded the suggested limiting figure. The results of the Owen's air filter showed that normally, as regards suspended matter, the worst conditions occur about 10 a.m. on weekdays, and from the hygrometer figures it appeared that the fogs occurring in the tunnels were "smoke fogs" and not "water vapour" fogs. The conclusion was also reached that these smoke fogs might become the limiting factor for safety as soon as or sooner than the carbon monoxide content, as the suggested maximum suspended matter figure was frequently exceeded. The additions made to the ventilating plant at Blackwall while this investigation was in progress considerably improved the atmospheric conditions, particularly at the south end; but it appeared that still further improvement in ventilation was necessary in both tunnels. It was also recommended that an alternative source of power supply should be provided for the ventilating fans at each tunnel, for on the occasion of two current failures at Rotherhithe, the tunnel air was found to be extremely bad.

Biological
treatment of
sewage.

A series of comparative experiments on the treatment in two forms of double channel plant of the effluent obtained by sedimenting sewage have shown that the

plant with interchanging septa devised by Colonel Butler and Mr. Tabor will produce a better final effluent than the two-tier plant previously experimented with. The modification was introduced to avoid the use of long two-tier channels, where the effect of a prolonged travel of the mixture of activated sludge and sewage might be unfavourable or of the still longer single channels such as are used at Sheffield.

The new inter-communicating septum, in addition to making possible the extended application of the two-tier channel, introduced other conditions which, it was seen on theoretical considerations, were likely to improve the results of treatment. The small scale plant consisting of three two-tier treatment channels with appropriate sedimentation and re-activation tanks which has been in use in the research carried out at the Southern Outfall for many years has been adapted for a comparative trial of the new type of double channel, one channel having been fitted with a flow-transposing septum of the new type, and one of the other channels worked in the usual way, each receiving the same amount of uniform mixture of sedimented sewage and activated sludge so that all experiments have been strictly comparable.

Both new and old types of channels have been subjected in the course of the experiments to widely varying conditions, always varied similarly in both systems. The results in both cases have been satisfactory up to the maximum flow for which the plant was constructed, yielding inoffensive, stable effluents such as might at all times be discharged with safety into the river at the outfalls. The main object of the series of experiments was, however, to study the comparative efficiency of the two plants. From the beginning it was observed that more rapid and better mixing of activated sludge and effluent was effected in the new design than in the unmodified two-tier channel. As intimate mixture and rapid and frequent change of liquid at the liquid and air interface were the two chief aims, it was realised that this rapid admixture and the eddying which was also observed were favourable circumstances which should lead to improved results.

Under all the varied conditions of treatment which were tested, whether a reduction of the time of treatment or variations in the proportion of free "humus" (activated sludge) or the supplementary use under all these conditions of additional air introduced into the lower channel by blowing, there was uniformly a superiority of results in the new type of channel. When the supplemental air supply was used this amounted to from 20 per cent. to 50 per cent. in the quality of the effluent and from 8 per cent. to 18 per cent. under the less favourable condition of absence of air blowing.

How far this improvement of the effluent can be taken as an indication of the possibility of treating a larger volume in any given unit of plant in the same time has not yet been fully determined, nor could any figures so obtained be applied for determining the ultimate capacity of the large plant to be erected.

At the outfall laboratories, systematic daily examinations of the sewage reaching the outfalls and the resulting effluent and sludge, as well as of the water of the river Thames at both high and low tides have been continued. The systematic analyses of samples in connection with the working of the outfalls have also been made at these laboratories in addition to the research work undertaken in connection with the biological treatment of sewage. The condition of the water of the river Thames during June rendered it necessary that resort should be had to the use of chemical precipitants in the treatment of the sewage at both outfalls. This treatment was commenced on the 26th July and ceased on the 16th October, when the reduction of temperature and increased flow of the river had improved its condition.

In addition to experiments with the modified two-tier channels for treatment of sewage with activated sludge, some work has been done on digestion of ordinary sewage sludge such as is sent to sea. It was found that the behaviour, on digestion, of sludge from the Council's works was similar to that observed at other places in this

Outfalls.

Sludge digestion.

country and in Germany and the United States. After a rather long preliminary period, gas formation began and although not at first combustible, the gas, after a time, contained a large proportion of combustible constituents, the calorific value of gas obtained during this period being about 750 British thermal units per cubic foot, some samples reaching 800 British thermal units.

The production of carbon dioxide during the early stages of digestion can be greatly reduced by the addition of air-slaked lime to the fresh sludge. The production of gas goes down to inappreciable amounts in cold weather. During the acid stage of digestion much separation of solid matter takes place, but as the separated matter cannot be relied upon either to settle to the bottom or rise to the surface no practical means of dewatering has yet been based on this observation. These experiments were on a very small scale but the results are sufficiently promising to show the desirability of further investigation on a works scale.

Fertilisers
and feeding
stuffs.

During the year, 272 samples of fertilisers and feeding stuffs for cattle and poultry have been examined in connection with the provisions of the Fertilisers and Feeding Stuffs Act, 1926, by the chemist who is agricultural analyst for those parts of the county which do not come within the purview of the City Corporation or the Port Sanitary Authority. These samples may be tabulated as under:—

<i>Samples of feeding stuffs</i> ...	...	...	...	...	...	219
Incorrect guarantees	...	...	...	...	...	62
<i>Samples of fertilisers</i> ...	...	...	...	...	...	53
Incorrect guarantees	...	...	...	...	...	9
Total : Samples	...	...	...	...	...	272
Incorrect guarantees	...	...	...	...	...	71

It is clear that, apart from cases of careless manufacture, many sellers and some makers of these materials do not realise the importance of stating the amounts of specified ingredients in the form prescribed, which allows variation within reasonable limits, but are inclined to fix their own limits. Further, there is considerable evidence (in cases where, apparently, manufacturers of these products have them analysed from time to time) of inexpertness in basing a guarantee on the analyses. In some cases, it appears that the composition of a material made of several ingredients is calculated merely from the supposed composition of these ingredients, leading to percentages, *e.g.*, of oil and albuminoids being guaranteed which are not found in the manufactured article. These facts show to what a great extent the 1906 Act had become disregarded, as most of these points were in that Act and should have been familiar to sellers.

The form of limit allowed, *i.e.*, $\pm 1/N$ of the amount of the constituent mentioned in the statutory statement ($N=5, 6, 8, 10$ or 20 —according to the material) has the curious result that, at times, it is necessary to describe a material as not complying with the statutory statement when, in fact, it contains more of a desired or less of an undesirable constituent than the upper or the lower limit respectively allows. The reason of the limits being fixed so as to affect both excesses and deficits is that under the first (1893) Act, materials were sometimes guaranteed to contain say, only 1 per cent. of the constituent for which they were bought, and an accompanying statement expressed the seller's belief that they contained, say, 26 per cent. which they usually did. The safeguards against vexatious or misinformed prosecution are so full under the present Act that no fear of this kind need arise.

Occasionally statements given in accordance with the statute are given in such a form as to be almost incapable of fulfilment. For example, the composition of a fish meal was so given that, to comply, it would have to contain less than 4 per cent. of water, which is unlikely.

A committee is, it is understood, considering several questions of this kind, with a view to modification of the regulations.

In addition to the maintenance of deposit gauges in six open spaces in the county, ^{Atmospheric pollution.} undertaken by the Council as a contributing body of the Research on Atmospheric Pollution, conducted by the department of Scientific and Industrial Research, observations of visibility have been continued from the flèche at County Hall. An examination of the relation of the horizontal range of visibility to the fog shade indicated on the Owens' recording filter shows that the mean monthly distance of the farthest visible objects falls off rapidly until a mean monthly fog shade of 1 ($=0.02$ m.g. suspended carbon per cubic metre) is reached when the limit of visibility is about a mile. Greater amounts of soot have a lessened effect on visibility, and it is clear that some such point must be reached since the possible range becomes very small and there are no degrees of invisibility. A real but less marked correlation was observed between the total deposit collected in a gauge near County Hall and the sulphate in that deposit and the visibility in the direction of the gauge.

CHAPTER II.

REPORT OF THE SCHOOL MEDICAL OFFICER FOR THE YEAR 1929.

By F. N. KAY MENZIES, M.D., F.R.C.P. (Edin.), D.P.H., F.R.S.E., County Medical Officer of Health and School Medical Officer.

In reviewing the work of the school medical service one is struck by the immensity of the task. The London County Council is responsible for the education, if all branches of educational effort be included, of nearly a million persons. Success in this gigantic task can only be secured by an active co-operation of many agents. An important one is that which has as its aim the improvement of the health of those who come within the sphere of the educational machine.

As regards the child, the work of the health service begins before its birth, when the infant welfare centres and schools for mothers, mostly under the supervision of the borough councils, give advice and assistance to the expectant mother. After the birth, this help is continued to the age of five years, when the child comes within the purview of the education authority. Here the supervision of its physical needs is undertaken by the Council's own school medical service, and continued throughout the years of school life and early employment. Candidates for scholarships and higher education awards have continued medical supervision to a higher age.

It is interesting to compare the benefits accruing to the school child of to-day with the few advantages possessed by the child contemporaries of middle aged people now living. A generation earlier, say, 1841-50, conditions were very much worse, and it was no uncommon thing for a baby to be born in a domestic workroom where perhaps two or three men were carrying on their customary daily tasks throughout the confinement.

Education among the poorest classes was unknown. Mayhew (London Labour and the London Poor, 1851) records that among the costermongers, to mention one class only, it was the custom for boys to accompany their fathers on their rounds at a very early age, and when fourteen years had been attained, they customarily contracted alliances with girls of the same age or younger, and started business for themselves, their average combined earnings being 15s. a week. From such a union it could not be expected that the children would have any great hold upon life.

The first real statutory provision for improving the state of children was Talfourd's Act of 1839, followed by the Chimney Sweepers' Act of 1840, but what should be called the children's charter was the Education Act of 1870, though compulsory attendance at school was not enforced by Statute until 1876. William Edward Forster "builted better than he knew" in designing this Code, and only now, after more than fifty years, are its ultimate benefits beginning to be realised. This is not the place to describe the sequence of Education Acts to the number of a score or more which have followed the Act of 1870, but this Act in itself was of the greatest importance in that it was the foundation of all later statutes which together have brought into being the mighty organisation now existing for the amelioration of the life of the child.

The question of environment is one of the difficult problems which both health and education authorities have ever before them, and here again the outlook is hopeful. If health administration during the next twenty years, shows a record of progress as rapid as that of the past twenty years, the problem of environment should have solved itself. Moreover, in London especially, the environment of the child of to-day is incomparably better than at the time of Dickens. Owing largely to the action of the Council, slum areas are being transformed, and recently proposed

legislation promises a further advance in this direction. The responsibilities of parenthood are becoming increasingly realised, and the efforts of parents to care for their children are aided by the co-operation of maternity and child welfare centres, health visitors and kindred agencies. Education has obtained a hold and the third generation of scholars is just beginning to come within the purview of the school authority. The science of teaching has altered, and school life is welcomed. The outlook of the child has been broadened in every way, and this has had a not inconsiderable reflex action on the parents with a direct resultant effect in the improvement of the home environment. One has only to study the public library records of the classes of books now in demand to realise the vast improvement in general intelligence which is the "Open Sesame" from the prison of environment.

There is real romance in this story of the emancipation of the London child, wherein the Council acts as fairy godmother. Everywhere the young life is aided by willing hands. Administrators, teachers, doctors, nurses, organisers, and care committees all unite in the endeavour to guide the child along the way of life that leads to useful citizenship. Even the physically defective, the blind, the deaf, the feeble-minded child is afforded every possible opportunity to reduce his handicap in competition with his more fortunate brother in the struggle for existence. Milk or cod liver oil is prescribed and supplied for the anæmic, cheap food for the hungry, curative treatment for defects of the nose and throat, eyes and teeth, and for minor ailments, convalescent treatment for the tuberculous and the physically exhausted, and residential treatment for the seriously defective child. Voluntary agencies are associated with the school organisation in the supply of clothing, boots and spectacles where they are needed. School life is no longer a contest between an endeavour to impart knowledge, and dull incomprehension. Effort is made to cultivate intuition and natural intelligence instead of the learning by rote of dry facts, so much in vogue even forty years ago. The lighter-side of life is not neglected, for organised games and healthy entertainments are provided for the intervals of school work. School journeys, and visits to places of interest aid in the acquisition of knowledge and the cultivation of powers of observation. Athletic sports, cricket, football, netball and hockey, teach comradeship and team work, and elementary schools now have traditions and heroic ideals in the same way as the older public schools. Such a school fellowship may well be the foundation of a life-long trust, a memory, and an incentive.

Staff.

In view of the approaching transfer, under the Local Government Act, 1929, of duties enormously increasing the responsibilities of the Council, changes have taken place in the arrangements of the Council's medical department, and the school medical service has to some extent been affected thereby.

From 1st October, 1929, a reorganisation of the public health department was made upon the basis of three branches (i) special hospitals including control of the acute infectious diseases; (ii) general hospitals and district medical work which will be transferred from the poor law guardians; and (iii) general public health administration including housing and the school medical service. Three principal medical officers were appointed upon the above-mentioned date to take charge of the three branches, viz. (i) special hospitals, etc., Dr. J. A. H. Brincker, formerly senior medical officer in the service; (ii) general hospitals and poor law medical administration, etc., Dr. W. Brander, formerly medical superintendent of the Hackney hospital and chief medical officer of the Hackney Union; and (iii) general public health administration, Dr. W. A. Daley, former medical officer of health and school medical officer of the City and County of Kingston-upon-Hull, and port medical officer of the Hull and Goole Port Sanitary Authority. With the exception of the administrative work in connection with infectious disease in

schools which continues to be directed by Dr. Brincker, who is assisted by a principal assistant medical officer (Dr. J. G. Forbes), the work of the school medical service falls entirely in the branch directed by Dr. Daley and is organised in two main sections. One of these sections (senior medical officer, Dr. C. J. Thomas) embraces the medical inspection of school children, the medical and dental treatment and cleansing of school children, open-air schools and general school hygiene. For purposes of routine medical inspection, etc., London is divided into five divisions north-west (divisional medical officer, Dr. A. W. Sikes); north-east (divisional medical officer, Dr. F. C. Lewis); east (divisional medical officer, Dr. G. Chaikin), south-east (divisional medical officer, Dr. H. K. Kidner); south-west (divisional medical officer, Dr. E. E. Argles). In order to bring these divisions into line with those contemplated under the scheme for general hospital administration their boundaries will be modified from 1st April, 1930, and the divisions will be renamed.

The remaining staff in this branch of the school medical work includes one principal assistant medical officer for aural work (Dr. A. G. Wells); four part-time assistant aurists; one part-time consulting dental surgeon (Dr. A. Livingston); one part-time principal assistant medical officer (Dr. B. Tchaykovsky); one divisional medical officer for ophthalmic work, nursery schools, etc. (Dr. E. M. McVail); 22 whole-time assistant medical officers; 11 assistant medical officers giving six sessions a week; 44 assistant medical officers giving three sessions a week; additional temporary medical assistance for 129 sessions a week; 10 medical officers (part-time) at open-air schools, etc.; 264 surgeons and anaesthetists at treatment centres; and 92 dentists at treatment centres, of whom 64 are employed as inspecting dentists in the schools.

Miss H. L. Pearse, who had been superintendent of the school nursing service since March, 1907, left the service on October 11th, 1929, having reached the age limit for retirement. The superintendence of the school nursing staff thereupon devolved upon Miss D. E. Bannon who was appointed the Council's matron-in-chief as from 1st October, 1929. Her duties will also include the supervision and organisation of the nursing staff at the hospitals and infirmaries which will be transferred under the Local Government Act, 1929. The school nursing service comprises six assistant superintendents, 93 school nursing sisters and 260 nurses.

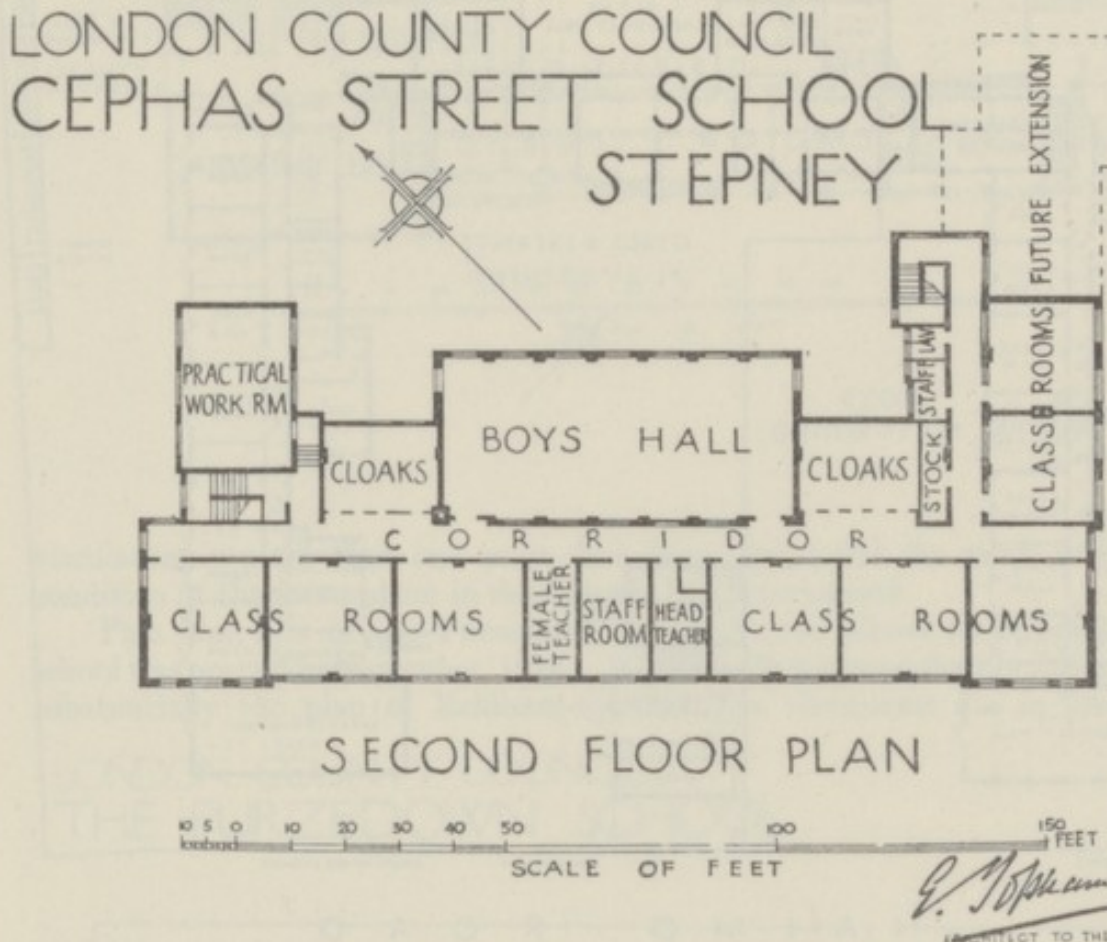
The other section concerned with the school medical service (Dr. Shrubsall, senior medical officer) includes the medical examination at the County Hall of scholarship candidates, school teachers, etc., and the medical work in special schools and reformatories. Dr. Shrubsall also deals with the work under the Mental Deficiency Acts and the Blind Persons Act. In this section are included the services of a part-time consulting surgeon for aural disease (Dr. P. M. Yearsley); a part-time consulting surgeon for orthopædics (Mr. K. J. Acton-Davis); a part-time ophthalmic consultant (Mr. N. Bishop Harman); two divisional medical officers (Drs. J. L. Fairfield and A. C. Williams); and an assistant medical officer who is attached for half his time to Ponton-road place of detention.

School Buildings.

Recent developments in school planning.

In his report for the year 1928, the Chief Medical Officer of the Board of Education states, "Every school should be in practice an open-air school. At the present time 80 per cent. of the plans (of all schools) submitted to the Board for approval include proposals for throwing open to the outside air whole portions of the classroom." Recently the medical department of the Council was afforded a special opportunity for comparing the working conditions in some of the lately erected schools of the Council. The architect to the Council has prepared for reproduction in this report ground plans of four of the schools visited. These plans illustrate very strikingly the rapid evolution of school planning in the direction of open-air conditions.

Plan No. 1 is of Cephas-street school. This east-end school was opened in October, 1928. It is a three-story building in which the classrooms are placed upon one side and the school halls, cloakrooms, etc., upon the other side of a closed central corridor. The classrooms on the ground floor are provided, on the side opposite to the corridor, with folding doors, which open upon the playground and render it possible to throw this side open completely. The arrangement is repeated on the top floor (boys' department) where the folding doors open upon a narrow balcony. In actual practice it has been found that the folding doors in the boys' department are not used in very windy weather, for the reason that papers were blown about in the classrooms, a practical difficulty which it is not easy to overcome. The corridor, being of central type, abuts upon the open-air at the extreme ends,



and it is found that owing to blustering weather the windows at the ends are often closed.

Another recently-erected school is Wellington-road, a two-storey building also in the east-end and opened in October, 1928. This school presents an advance in the planning over that of Cephas-street as the corridor instead of being entirely central abuts directly on the open-air in part of its course. Otherwise the general type of plan (not reproduced) is similar to that of Cephas-street, the classrooms being provided with folding doors throughout on the side opposite the corridor. The nuisance of the blowing about of papers was also experienced here, but the corridor being not wholly of the central type was more easily ventilated and the air was found to be fresh.

Plan No. 2 is of Haimo-road school. This school is on the new housing estate at Eltham. The infants' department was opened in February, 1925, and the boys' and girls' departments in August, 1926. This school is a single-storey building with the three departments arranged along the sides of an open rectangle. In the girls' department the corridor is of central type as in Cephas-street, but in the other depart-

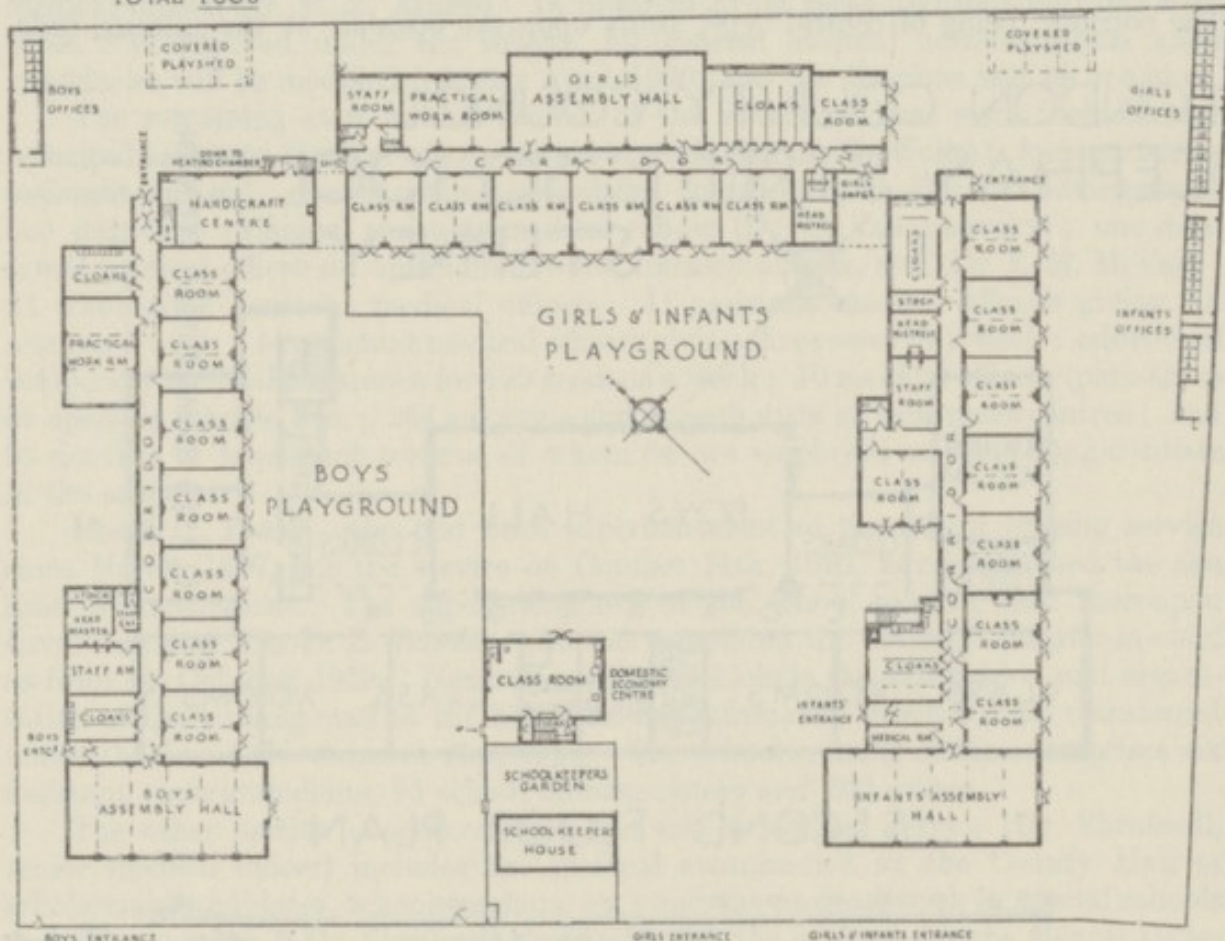
ments the corridor is lateral. Folding doors to the classrooms open towards the playground on the inside of the rectangle. Being on the ground floor throughout and some shelter being afforded, the nuisance of disturbed papers was here less apparent,

L.C.C. HAIMO ROAD ELEMENTARY SCHOOL.

ACCOMMODATION:-

ELTHAM.

BOYS	312
GIRLS	312
INFANTS	384
TOTAL	1008



H A I M O R O A D

GROUND FLOOR PLAN.

SCALE 10 FEET TO 1 INCH

E. J. M. J. M. J. M.

DESIGNED BY THE COUNCIL

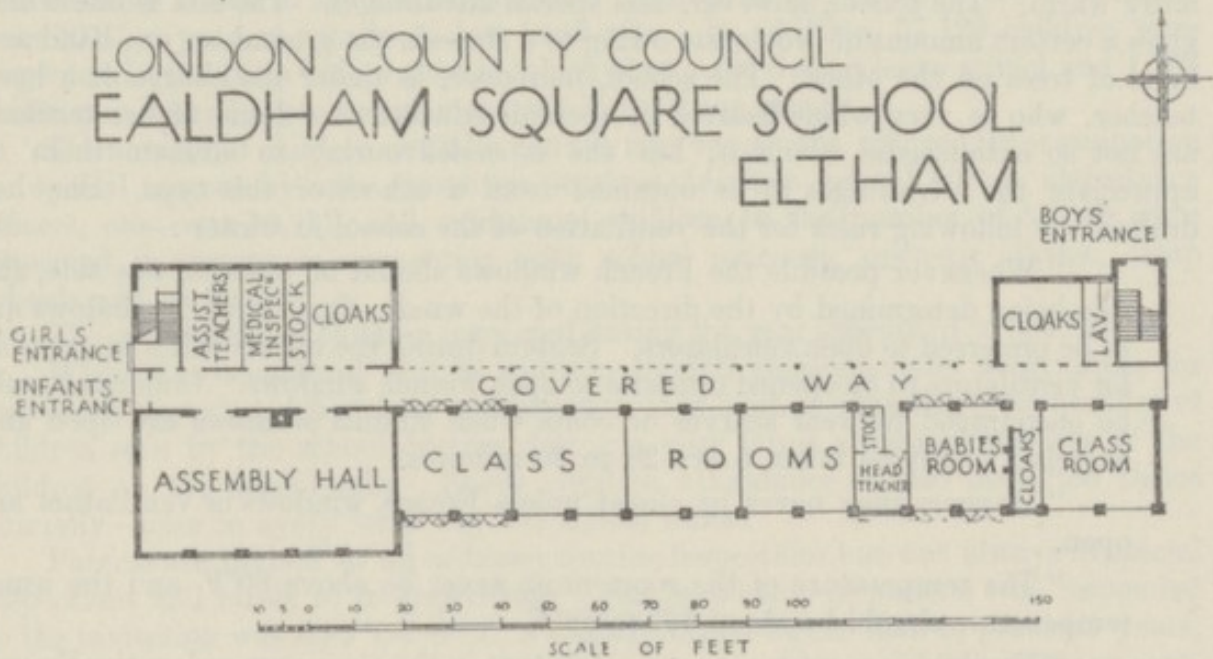
and in the girls' department the corridor, though central, was lit, and capable of ventilation, from above.

Plan No. 3 shows Ealdham-square school, opened in January, 1929, which is also on the Eltham housing estate. This is a three-storey school in which the classrooms have, on one side, folding doors capable of being thrown completely open, abutting upon the playground in the infants' department but upon narrow balconies in the two senior departments. On the other side, instead of a closed corridor, the classrooms open upon a covered way completely open to the weather on one side. This method of planning represents a big advance towards open-air conditions, as the classrooms are all completely in contact with the open air on two opposite sides.

Careful enquiries elicited that the standard of health of the children and staff was high, but a certain amount of discomfort was experienced in bad weather. On the day of a special inspection made in November, it was found that the covered way

was receiving the full force of windy gusts, especially upon the third storey, and it was impossible to pass from one classroom to another without being exposed to driving rain. On account of the weather the doors, windows and some of the

LONDON COUNTY COUNCIL
EALDHAM SQUARE SCHOOL
ELTHAM



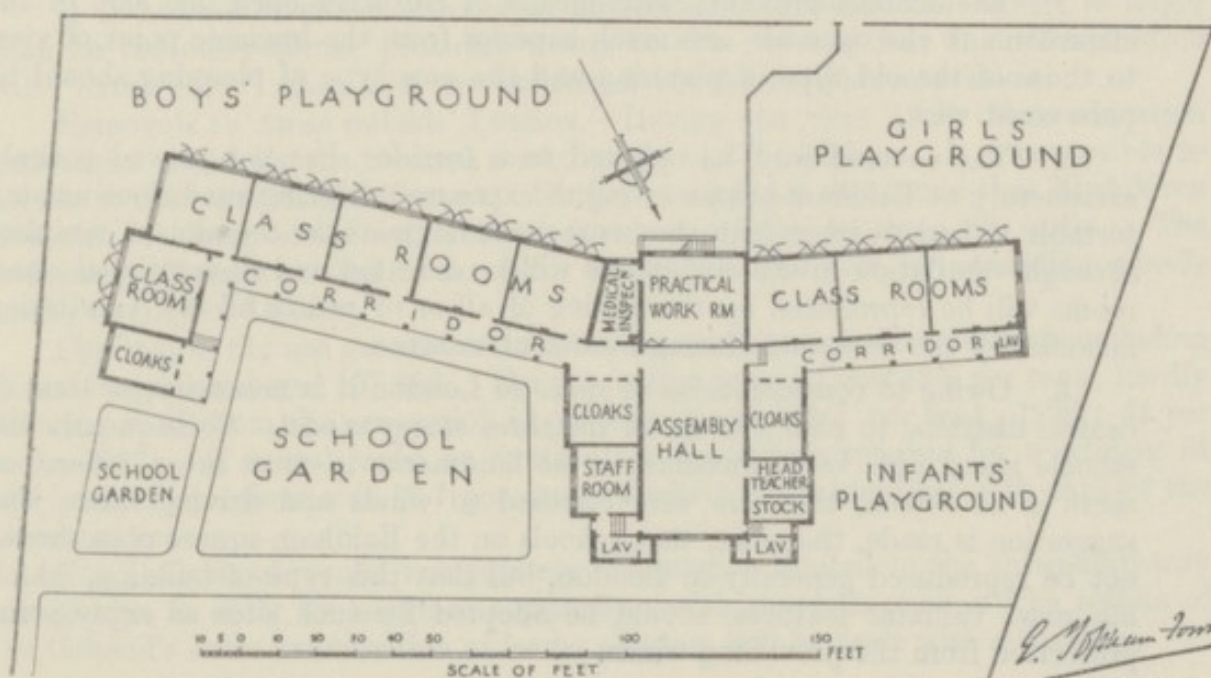
E. M. Phelps Forest:

ARCHITECT TO THE COUNCIL

ventilators in more than one room had been closed and the result was that the condition of the atmosphere in these rooms had deteriorated.

Plan No. 4 is of the Furzedown demonstration school at Streatham. This school was opened in November, 1928. It is entirely a ground floor building following substantially the plan of Ealdham-square. The classrooms are in linear series,

LONDON COUNTY COUNCIL
THE FURZEDOWN SCHOOL



E. M. Johnson
SECRETARY TO THE COUNCIL

14. CITING TO THE COUNCIL

opening by folding doors on both sides, while on one side there is a continuous open verandah or covered way. The conditions found at this school were very nearly ideal and no complaints were encountered. The classrooms were bright, airy and pleasantly warm. The school, however, has special advantages. The site is one which gives a certain amount of protection owing to a slope in the ground on one hand and belts of trees on the other. The school, moreover, is under the charge of a head teacher, who is very whole-hearted in open-air education. Some of her teachers are not so enthusiastic about it, but she is endeavouring to educate them to appreciate the advantages to be obtained from a school of this type. She has drafted the following rules for the ventilation of the school in winter :—

“ Whenever possible the French windows should be open on one side, the side being determined by the direction of the wind. Open French windows are to be preferred to open ventilators. Seldom during the winter will it be possible for ventilators to be opened opposite to open French windows. Children should be encouraged to wear scarves or coats when French windows are open and exercises might be taken every 20 to 30 minutes.

“ Hoppers may never be closed unless French windows or ventilators are open.

“ The temperature of the room must never be above 60°F. and the usual temperature should be about 56° to 58°F.

“ No child may ever wear a scarf or coat in the classroom unless the French windows are open but scarves or coats should be kept in the classroom to be worn whenever going on to the open corridor.

“ Should the difference between the inside and outside temperatures be considerable, exercises for half a minute must be given with at least one French window open before the children are sent on to the open corridor.

“ Classes should not be kept waiting outside the classroom in cold weather.”

Generally provision has been made for ventilation when the folding doors cannot be thrown open, by hopper openings in the doors themselves and revolving fanlights above the doors. Furthermore, whenever possible, closed corridors are kept low, so that the classrooms ventilate into the open air above them on the side opposite to the folding doors, thus ensuring cross ventilation.

The conclusions drawn as a result of visits of inspection to the schools are as follows :—

1. The schools provided with means of throwing open one side of the classrooms to the open air are much superior from the hygienic point of view to those of the old type of planning and the new type of planning should be persevered with.

2. The covered way, as opposed to a corridor, has not proved entirely satisfactory at Ealdham-square owing to exposure rendering conditions uncomfortable in bad weather with the consequent danger that the aim of complete through ventilation in the classrooms will be defeated and ill-ventilated classrooms will be reproduced by the closing of all or of nearly all the ventilation facilities by the occupants during inclement weather.

3. Owing to considerations of space in London it is necessary, at least in central districts, to plan schools on the three storey model. Consequently the schools stand out very prominently as landmarks in most areas, where, as there is no screen, they are very exposed to winds and driving rain. The suggestion is made, therefore, that schools on the Ealdham-square plan should not be reproduced generally in London, but that this type of building, which has most valuable features, should be adopted for such sites as enjoy some protection from the prevailing winds.

The Results of Medical Inspection.

The number of children medically inspected in the three statutory age groups in the elementary schools during 1929 was 189,144, being 18,110 less than in 1928. The decrease is due to the small number of children at age 12 who were born in the year 1917, a year of extremely low birth-rate. In addition, 57,129 children were inspected in the term before that in which they were due to leave school and 1,763 children in special schools were inspected in their age groups. Age group inspections.

The number of children not falling in the four age groups, referred for examination for special reasons by care committee workers, teachers, school nurses, attendance officers, etc., was 36,977, and additional children to the number of 54,035 were inspected in groups in connection with school journeys, open-air classes, camp schools and so forth. Special inspections.

The grand total of children inspected during the year amounted to 339,048. Total inspections.

When it is considered that in addition 185,989 children under observation for previously recorded defect were re-inspected, it is evident that the total number of children seen by the school doctors during a year forms a high percentage of the children on the school rolls. Every child in attendance is also inspected thrice annually—once in every term—by the school nurse.

Parents are invited to all ordinary routine inspections but not always to special inspections and rarely to re-inspections. The proportion of parents who responded to the invitation was 65·9 per cent., a slightly higher figure than in previous years. Only 32·9 per cent. of parents attended the inspection of leaver boys but 88 per cent. attended in the case of entrant infants. This very high proportion of parents now attending the inspection of the entrant child is a most important fact, for no general health propaganda can compare in its effect with the intimate discussion by the parent with the doctor of health questions, with the child present as an object-lesson of more absorbing interest to the mother than any other could possibly be. Refusals to allow examination are few in number. Attendance of parents.

Refusals of parents to submit children for medical inspection.—During the year 1929, the parents of 108 children refused to allow them to be examined by the Council's assistant medical officers. The figure for the year 1928 was 156. Of these children, 44 were boys and 64 were girls who were divided amongst the divisions as follows:—E, 6; N.E., 2; N.W., 41; S.E., 25; S.W., 35. Eight of these objections were subsequently withdrawn and in eight cases either medical record cards were filled in by a private medical practitioner or medical certificates as to physical fitness were produced. Refusals.

It is noticed that the number of objections received in the winter is larger than for the other terms, probably owing to the parents' fear that the children will "catch cold" when they are undressed for the medical inspection.

Removals to areas outside London.—During the year 1929 other education authorities asked for the medical record cards of 375 children. It was possible to accede to the requests in 242 cases. Of the remainder it was found that 30 children had not yet been examined, while it was not possible to trace 88 cards. The remaining 15 cases related to the cards of children who were not attending schools in the County of London. Requests for medical cards.

Children in the age groups referred for treatment for various ailments including dental caries numbered 107,386. The proportion referred was 43·6 per cent., hardly differing at all from the proportion in previous years (43·2 per cent., 1928: 44 per cent., 1927). If dental caries be omitted the proportion referred for treatment at age group inspections was 18·7 per cent., a result again identical with that of the previous year. Children referred for treatment.

The analysis of results immediately following is limited to the three statutory age groups in order to facilitate comparison with previous years. The results of the Council's extra examination of leaver children will be dealt with separately. Analysis of results.

Nutritional condition.

In 1925 of the children in the three age groups 6.3 per cent. were found to be under-nourished. In 1926 the percentage was 6.2, in the successive years 1927-9 it was 5.3, 5.1 and 5.2. The nutritional state of the children has for the past three years therefore remained steady as a whole, although the result in the year 1929 is better than appears in this comparison owing to the fact that the 12-year-old age group, which invariably shews a smaller percentage of under-nourished children than the 8-years-old group, was smaller this year than usual. In each age group girls continue to be returned as better nourished than boys. The worst age group in this respect continues to be the 8-years-old group, amongst whom 6.7 per cent. of the boys and 5.2 per cent. of the girls were under-nourished.

Cleanliness.

The index which has for many years been taken in London for comparison in regard to the state of personal hygiene, is the condition of the hair of the 12-year-old girls. In 1913 only 67.2 per cent. of the older girls were completely free from signs of verminous infestation. In 1916 and 1917 the percentage had risen in the girls to 70, in 1920 to 75, in 1923 it had climbed to 80, in 1926 to 88.1. In 1927 the percentage was 89.5 and in 1928 for the first time the 90 per cent. mark was passed, the percentage being actually 91.5. This percentage has been maintained exactly in 1929.

The improvement in this one respect is to be taken, of course, merely as an index of all-round general improvement in personal hygiene and care. Infestation with body vermin, which in the early days of medical inspection was found in 3 to 4 per cent. of elementary school children, has now practically disappeared, being found in 178 children out of 189,144 examined in 1929, or in less than one in a thousand. Sir William Hamer, when he was school medical officer, in the course of his epidemiological researches caused a record to be kept over many years of the condition of the bodies of school children in regard to flea-bites. At his request the results were lately overhauled and provide convincing collateral testimony to the great improvement which has taken place in the care and cleanliness of the children since the institution of the school medical service. In the 14 years to 1922 the proportion of badly flea-bitten children fell from 30 per cent. to 7 per cent., in 1925 to 4.7 per cent., and in 1926 (the last year for which these records were preserved) to 3.7 per cent.

Dental decay.

The heaviest burden by far upon the school medical service is the condition of the children's teeth and this is in its sheer bulk the greatest menace that exists to the national health. It is probable that very many remote sequelae of a most serious nature, not at first sight obviously connected with the teeth, are due primarily to dental decay with its accompanying oral sepsis.

The condition of the teeth of the entrant infants continues to give cause for great concern. In 1929, of the entrant infant boys 46.7 per cent. showed obvious dental decay and of the entrant infant girls 47.7 per cent. compared with 47 and 48 per cent. in 1928.

Owing to the extended (but not yet completed) provision made for the dental treatment of children during school life the dental condition of the older children has greatly improved in recent years. In 1929, of 12 year old boys 27.1 per cent. and of 12 year old girls 24.4 per cent. were found by the school doctors with obvious dental caries compared with 28.3 per cent. and 26.6 per cent. in 1928 and 29.4 per cent. and 27.7 per cent. in 1927. Each year therefore marks a slight but definite progress. Altogether since 1913 the sum of improvement is very considerable indeed for in that year 50 per cent. of 12 year old boys and 47.6 per cent. of 12 year old girls had obvious dental decay. Improvement in the degree of dental caries is still more striking. 15.8 per cent. of entrant infants are marked with severe dental caries (four or more teeth decayed). In 12 year old boys, although 27.1 per cent. are returned with dental caries, in only 2.5 per cent. is the defect severe, and in girls with 24.4 per cent. of caries only 1.6 per cent. is recorded as severe. Even when

school children are kept under annual inspection and treatment of dental conditions by qualified dentists a recent special investigation shows that six months subsequently to the final treatment when the mouth has been put in perfect order, new points of caries will have arisen in a considerable number.

In the statutory age groups 13,212 children were in 1929 referred for treatment for enlarged tonsils and adenoid growths. This number forms 7 per cent. of those examined and is greater in proportion than in the previous year when the figure was 6.5 per cent. This increase is disconcerting seeing that instructed public opinion will no longer tolerate the older methods of dealing with these conditions, and demands that the children operated upon shall be treated as in-patients instead of being operated on in out-patient departments which was the earlier practice. For this reason a very great strain has been placed upon the remedial facilities which no longer suffice for the needs of the county. The entrant infants provide by far the greatest quota of children referred for operation for unhealthy throat conditions, viz., 10.6 per cent. of entrant boys and 9.3 per cent. of entrant girls, compared with 5.9 per cent. of 8 year old boys and girls and 3.4 per cent. of 12 year old boys and 3.9 per cent. of 12 year old girls.

Enlarged
tonsils and
adenoid
growths.

In 1929, otorrhœa (running ears) was found in 1,930 children, or 1.0 per cent. This is a slightly lower percentage than in recent years as the percentage in 1928 was 1.1 per cent. and in 1927, 1.3 per cent. Here again the entrant infants contributed a higher proportion than the older age groups. Defects of hearing were reported in 696 children, or 0.4 per cent., compared with 803 in 1928 and 868 in 1927.

Otorrhœa
and hardness
of hearing.

While otorrhœa tends to become less frequent as the children pass upwards through the school, defect of hearing which is commonly a permanent result of otorrhœa tends to increase. While the number of children found with defective hearing at the older ages is only slightly increased, the study of individual cases shows that often a very marked increase in the severity of hardness of hearing in the individual takes place. This happens generally about the 12th to 13th years.

47.8 per cent. of boys and 49.5 per cent. of girls in the 8 year old group failed to pass the vision test in 1929. In 1926 the figures were 51.9 per cent. and 54.7 per cent. respectively, in 1927 they were 51.1 per cent. and 52.9 per cent., and in 1928, 46.6 per cent. of boys and 48.9 per cent. of girls. At age 12, of boys 40.7 per cent. and of girls 44.3 per cent. failed to pass the vision test in 1929, compared with 41.2 per cent. of boys and 44.9 per cent. of girls in 1928.

Defect of
vision.

The greater incidence of visual defect upon girls is always apparent. Formerly it was thought that this was due to the greater use made by girls of their eyes in such tasks as sewing, but the recent researches made by the school medical service go to show that this influence is probably less than was estimated and that differences in the developmental history of the eyes in the two sexes are a greater factor. Although practically one half of the children are unable to pass the vision test, less alarm may be felt on this score if it be considered that much of the defect in young children is purely developmental and tends to be corrected as growth proceeds. In many also the defect in the vision is but slight.

Heart defect (functional or organic) was reported in 4,138 children, 2.2 per cent. of those inspected, which is the identical percentage shown in the previous year. Older girls continue to present signs of heart strain in excess of older boys (2.9 per cent. as compared with 2.1 per cent.).

Heart trouble
and anæmia.

It was formerly the custom to term "functional" all heart defect which was not accompanied by the signs of valvular lesion. It is now, however, better understood that there are defects of the heart muscle (myocarditis, etc.), in earlier years placed in the "functional" class, which are every whit as "organic" as valvular lesions, and even more attention is paid to hearts which betray the symptoms and signs of muscular trouble than to those with well compensated valvular defect.

Anæmia was recorded in 2,628 children or 1.4 per cent. only. There has been a

rapid decline during the last few years in children suffering from anaemia. In 1926 the figure was 2·4 per cent., in 1927, 2 per cent., and in 1928, 1·7 per cent.

It may be fairly claimed that this is one of the results of the campaign for the establishment of open-air conditions inside and outside the schools.

Defects of the lungs.

Lung defects were reported in 4,603 children being 2·4 per cent. Here again there has been a steady decline each year since 1926 when 3·4 per cent. was reported. Lung complaints, mainly bronchitic in character, continue to be much heavier in their incidence upon the entrant infants than upon the older children.

Tuberculosis.

Fewer children in the age groups this year were found to suffer from tuberculosis in any form than ever before. Pulmonary tuberculosis, definite or suspected, was reported in only 70 children in the age groups and other forms of tuberculosis in 73 children. All forms of tuberculosis together, therefore, fall far below the proportion of one in a thousand.

Nervous diseases.

Epilepsy was noted in 73 (97) children, chorea in 178 (204) and paralysis in 122 (144). (The figures for 1928 are shown in brackets). In all three conditions there was a distinct drop this year in incidence, including chorea which in the previous year showed an increase in the number of cases.

Rickets.

Rickety deformities were noted in 1,097 children (0·6 per cent.), mainly younger entrants, the entrant boys shewing twice as much rickety deformity as the entrant girls, (1·2 per cent. compared with 0·6 per cent.).

Other deformities.

Deformities from other causes were noted in 2,245 children (1·2 per cent.), again an improvement as compared with previous years. 711 of them had spinal deformities, the older girls contributing a quota (230) nearly twice as high as any other group.

The condition of the entrant infants.

Although the infants are found to be well nourished on entering the schools and compare favourably with other groups both in this respect and in that of personal hygiene, they present already a very high degree of decay of the deciduous teeth; 46·7 per cent of boys and 47·7 per cent. of girls have already dental decay while 15·7 per cent. have serious dental decay compared with 7·4 per cent. of the 8 year old group, and only 2 per cent. of the 12 year old group: 10·6 per cent. of entrant boys and 9·3 per cent. of entrant girls are referred for treatment for enlarged tonsils and adenoid growths compared with 5·9 per cent. of children at age 8 and much lower percentages at the later ages.

Other conditions in which the entrant infants suffer to a much greater degree than the older children are otorrhœa, lung troubles, external eye disease, and of course, rickety deformities.

The health of the leaving child.

The Council has instituted a fourth age group examination which takes place in the term prior to that in which the children are due to leave school. The results of this inspection are available at the after-care conference and are of assistance in the choice of occupation. This examination is also valuable as it gives a final verdict upon the net result of the work of the school medical service.

The leaving children examined numbered 28,574 boys and 28,555 girls. Again the leavers were found better nourished than any other group, only 3·9 per cent. of boys and 3·3 per cent. of girls being returned as under-nourished compared with 6 per cent. of 12-year-old boys and 4·9 per cent. of 12-year-old girls.

The highest standard of personal hygiene was also found in this group, 93·6 per cent. of the girls and 97·3 per cent. of the boys being found scrupulously clean at medical examination.

The dental condition of the leaver girls was rather worse than that of the 12-year-old girls, only 73·3 per cent. being free from caries compared with 75·6 in 12-year-old girls. This points to the necessity generally of carrying on dental inspection in the schools beyond the 11-year-old age group where at present it stops.

Visual acuity greatly improves between ages 12 and 14, especially in girls, 60·1 per cent. of whom passed the vision test as compared with 55·7 of 12-year-old girls. (If the pupil possesses spectacles the visual acuity is tested with the spectacles on.)

The percentage of leavers referred for tonsillar and adenoidal growths was 2.5 in boys and 3.3 in girls compared with 7 per cent. of children in the three earlier age groups.

Otorrhœa was present in 0.8 per cent. of boys and 0.6 per cent. of girls, being a lower percentage than at any other age.

Hearing defect was recorded in 0.4 per cent. being the same percentage as at age 12.

Heart defect was recorded in 1.6 per cent. of boys and 2.2 per cent. of girls compared with 2.1 per cent. and 2.9 per cent. per cent. at age 12.

Anæmia was recorded in 1.0 per cent. of boys and 1.1 per cent. of girls compared with 1.5 per cent. and 1.3 per cent. at age 12.

Apart, therefore, from the falling back in the condition of the girls' teeth, there was a marked improvement again this year in the leaver children compared with the 12-year-old children. It is highly desirable that a routine dental inspection should be introduced at age 13 when the arrangements in connection with the raising of the school age to 15 are made.

While the routine inspections comprise all children whether well or ailing, children specially examined are those who are brought before the doctor because the members of care committees, teachers or school nurses are specially concerned about their health. Special inspections.

In 1929 amongst the 36,977 children so examined, 599 were noted for treatment or observation for scabies as compared with only 97 amongst the 248,036 children examined in the age groups, 415 with defective hearing compared with 607, and 948 with otorrhœa compared with 2,003. There were also 239 with tuberculosis compared with 127. Epilepsy and chorea are other conditions far more often brought to light at special than in routine inspections. There were 190 children with epilepsy compared with 67 and 470 with chorea compared with 176 in the routine examinations.

In taking stock of the health of the school child it is found that a large amount of preventable disease and suffering exists, but the general condition of the children improves greatly during school life and the child leaving is much healthier than the child entering school. The general tendency is towards betterment and alleviation; although there are no sudden alterations from year to year there is evidence of steady progress. When all the years since the school medical service was instituted are considered together, the progress is seen to be truly remarkable. Summary of results.

The nutritional state of the children, the condition of the older children's teeth and the standard of personal hygiene have been improved to a very considerable extent. Favus has completely disappeared and ringworm reduced to one-tenth its former prevalence. Particularly noteworthy during recent years is the steady diminution in the incidence of such conditions as otorrhœa, anæmia, grave nervous diseases and tuberculosis. All this has been achieved by a variety of agencies and influences, in which the teacher, the voluntary worker, the attendance officer, the school nurse, the school dentist and the school doctor have each played important parts.

Much is due to the greatly increased sense of parental responsibility and pride, and much to the better understanding of the importance of hygiene inside and outside the school, including a better appreciation of food values and of the importance of cleanliness and, above all perhaps, of the advantages which spring from properly ventilated rooms and life in the open air.

In previous reports the physical condition of the canal boat children who are educated at the "barge class" held in connection with St. Michael's School, Star-street, Paddington, was fully reported upon. This class is still carried on and there are special arrangements for attending to the physical needs of the children. In view of the attention being paid to canal boat children and the proposals in Canal boat children.

regard to them now before the Legislature, details of the medical inspections at the class during 1929 are given here :—

Seventeen children (6 entrants; 5, age 8; 1, age 12; and 5 leavers) were examined in detail (no special cases). There was very little difference between these children and those in elementary schools as regards the condition of clothing, nutrition, cleanliness and dental condition, except that 2 girls were noted to have dirty heads; 5 children were found to require dental treatment. Other defects noted for treatment were enlarged tonsils or adenoids—2 cases; otorrhœa—2 cases; minor epilepsy—1 case, and 1 child with lung trouble was noted to be kept under observation. The numbers of course are too small to form a true basis of comparison, but apart from the cases of otorrhœa there does not appear to be any higher incidence of disease or defect among these children than among ordinary elementary school children. In fact the proportion requiring treatment is less than in elementary schools.

The school nurse paid 9 visits during the year and made 183 individual examinations. Verminous conditions were reported in 17 instances, and in 59 examinations nits were found. A large proportion of the uncleanness refers to a small number of children found to be dirty repeatedly.

The health of
the Jewish
child.

Previous reports have referred to the effect upon the Jewish child of the special education at the Jewish evening schools (Talmud Torahs). The Jewish Health Organisation of Great Britain has taken up the question with great energy.

In the annual report of the Organisation for the year 1928–29 are set out the efforts made by its officers and helpers not only in research but also in practical steps to ameliorate the conditions of the Jewish child. The interesting pioneer establishment of a Child Guidance Clinic by the Organisation is dealt with in another section of this report.

In regard to school supervision the Organisation reports, “It is futile to speak of the effects of environment on the character, outlook and loyalty of the child when school conditions are not up to the minimum standard of sanitation. But the constant improvement in the general schools inevitably invites comparison with the drab and squalid surroundings associated with Jewish learning and the contrast is damaging to the Jewish consciousness of the child.”

Dr. H. Fisher was appointed by the Council of the Organisation to inspect the children of the Talmud Torahs and his report which follows was forwarded to me by the Organisation.

“It is essential to remember in dealing with the Talmud Torah Schools that they are voluntary religious institutions, lacking finance, and run in the majority of cases, as I am informed, at a pecuniary loss. This report deals with ten schools visited by me from February 21st to July 18th, 1929.

With one exception the classes are conducted in premises which have not been specially built as schools, and naturally the hygienic conditions cannot be the same as in a properly constructed school. One Talmud Torah was once condemned by the L.C.C. but was subsequently allowed to continue. Considering the circumstances, therefore, I think that the respective school committees deserve every praise for being able to maintain even the present conditions, although, of course, these leave much room for improvement.

One school is going to be rebuilt and two schools are having fairly extensive alterations.

The general cleanliness of the schools is satisfactory in 5 schools, good in 3 schools and poor in 2 schools.

The amount of ventilation in them depends on the degree the windows are kept open. Open windows in certain districts permit too much noise from outside, and the windows are probably often kept shut for this reason as well as on account of

Wherever necessary, I gave a few words of hygienic advice, mostly on personal cleanliness, to the pupils privately.

Only such cases where the treatment suggested by the L.C.C. medical officers has not been carried out and cases without any previous apparent medical record or with defects arisen subsequently to the day school medical examination, have been noted in the above classification.

More detailed information can be had from my reports of each school."

Medical Inspections in Secondary and Trade Schools.

All pupils in the secondary and trade schools are examined in detail at the ages of 12 and 15 years, while the record of each pupil is reviewed at other ages and a medical examination carried out if this is considered advisable. Including examinations in training colleges, 11,795 pupils were examined in detail in 1929. Amongst them were included 1,352 boys at age 12 and 2,020 boys at age 15. Amongst girls there were 863 at age 12 and 1,688 at age 15.

In comparison with the children of the elementary schools, the secondary school pupils, as might be expected, show superiority although the disparity yearly grows less. In one instance, only, that of a girl of fifteen, gross uncleanness of person was found.

The condition of the teeth of secondary school pupils at age 12 is superior to that of the elementary school children. 79.8 per cent. of secondary school boys at this age have sound dentures as against 72.9 per cent. of elementary school boys. Amongst girls the percentage is 81 compared with 75.6 amongst the elementary school girls of the same age. 74.8 per cent. of secondary school boys at age 12 pass the vision test compared with 59.3 per cent. of elementary school boys. In girls the figures are 67.4 per cent. against 55.7 per cent. The percentage of boys of 12 in secondary schools with ear disease is 0.7 and of girls 0.6. Defective hearing is present in 1.1 per cent. of boys but only 0.6 of girls.

Comparing the conditions of the twelve-year-old and fifteen-year-old groups in secondary schools it is found that while the condition of the teeth is stationary in girls, the fifteen-year-old boys show a distinct falling off, sound dentures fall from 79.8 per cent. to 72.6 per cent. and severe caries increases from 0.7 per cent. at the earlier to 2.2 per cent. at the later age. At age 15 fewer boys can pass the vision test, 71.6 per cent. as against 74.8 per cent., while 16.2 per cent. of boys are wearing spectacles at fifteen as compared with 12 per cent. at age 12. In girls 19.1 per cent. are wearing spectacles at 15 as against 16.2 per cent. at 12. Severe vision defect increases from 13.9 per cent. of boys at 12, to 17.8 per cent. at 15. In girls the increase of severe vision defect is from 16.5 per cent. to 17.2 per cent.

Anæmia increases in boys from 1.5 per cent. to 1.9 and in girls from 1.4 per cent. to 2.4 per cent.

The question
of over-
pressure.

The fact that definite deterioration in health takes place during the period of secondary education must give all concerned with the adolescent age "furiously to think." The age is one of rapid growth physically and mentally. More than this it is an age of change in which vital organs are taking on new shape and new function. Not only are the physical characteristics of the body rapidly altering but also its chemical and physiological mechanism. New energy is provided but the calls upon this energy are superabundant. During this time of most active growth and most active change it is unfortunately necessary to impose the heaviest tasks in preparation for adult life.

It is not to be wondered at that the cry of "over-pressure" is raised from time to time not only in this country but also abroad. The Minister of Instruction of the French Republic has just appointed a commission to study the question of over-pressure. Occasion was taken when the question was raised anew recently in this country to invite the assistant medical officers to give the results of their experience

in the schools in regard to over-pressure generally in relation to examinations. The responses varied largely with the type of educational institution that the medical officer visited. In the elementary schools other than central schools there is no doubt in all the officers' minds that no over-pressure can be detected. In the secondary schools, however, there are many individual children who are considered to suffer from over-pressure and the adverse influences most frequently contributing to this result are held to be home-work and long distance travel to school.

Dr. Edith Robinson says : " I have noticed in the central and secondary schools a few cases of girls who might be classed as suffering from over-pressure. These are generally of a definite type physically, *i.e.*, anæmic, thin, nervous, over-anxious about their school work, usually very intelligent and conscientious. They are usually at the age of puberty and have on occasions complained of too much home-work, allowing no time for relaxation."

Dr. Agnes Parson states : " In the secondary schools it is not uncommon for a scholar to be brought to my notice for nervousness and debility, and I find that thin girls often spend long hours over their home-work, going to bed later because they cannot get through their home-work in the time that is supposed to be spent on it. In my opinion it is the debilitated child, possibly growing rapidly and possibly not being well fed at home, who finds the home-work trying, and it is always the home-work that seems to make these children suffer."

Dr. E. E. Argles states : " There is pressure only in regard to home-work in both central and secondary schools as evidenced by the frequent remarks of both parents and pupils. This has become accentuated when children have travelled long distances to school. To my mind it is not a good practice to set home-work for a class as a whole. The boys do not work at the same rate at school, why should they at home ? "

Dr. H. R. Kidner says : " At the — County (Boys) school my impression is that too much home-work is given. On enquiry into the hour for going to bed and finding it usually late the explanation given is that the home-work could not be finished. In girls' schools I am sure that considerable pressure exists. I have arranged with the headmistress of the secondary school where my own girl (12) attends for the home-work to be halved, and I have already found an improvement."

Dr. C. E. Thornton writes : " The system of compelling the children to work for a considerable period each evening at home must result in overstrain. In the first place the work has to be done when the child is already " tired." A large proportion of secondary school children have long journeys to and from school. By the time they reach home they have already done a hard day's work. A period of quiescence (or at least relaxation of effort) followed by sleep is what physiology obviously demands, but these children have to settle down to a period of renewed mental exertion, their tissues filled with the fatigue products of the day's work and the tide of activity of their brain cells already beginning its normal and rhythmic ebb. The amount " set " is in general excessive. Information collected from parents and personal friends and from the teachers themselves renders any reasonable doubt of the fact impossible. In the third place home-work has often to be done under unsuitable conditions. A corner of the family table ; poor light with resultant eye strain ; distracting conversation."

It is clear that school authorities who take it upon themselves to set work which is not done under their immediate supervision take upon themselves a very heavy responsibility. It is their duty to consider the result not merely upon scholastic advancement but upon health and physique in every individual case, and in every individual case it is their duty to ensure that in the 24 hours, there is not only time for work, for meals, for physical exercises and for sufficient sleep, but also for healthful relaxations and recreation. In the words of Lord Grey of Fallodon, for healthy development, " they want spaces of free and undisturbed time."

Rate-aided
secondary
schools.

The nature of the medical services rendered in the rate-aided secondary schools of London came under review by the Council during the year. There were 52 aided secondary schools. In 10 of these the medical inspection of scholarship holders and fee payers was carried out by the Council's doctors. In 22 of the schools the medical inspection of scholarship holders and fee payers was carried out by doctors appointed by the governors. In 9 schools the medical inspection of scholarship holders was carried out by the Council's doctors and of fee payers by doctors appointed by the governors. In 11 schools the medical inspection of scholarship holders was carried out by the Council's doctors while there was no medical inspection of fee payers.

The Council considered it desirable that all pupils (fee payers and scholars) should be medically inspected, and the governors of 11 schools where no medical inspection of fee payers was held were informed that the Council would be prepared to undertake the work if the governors so desired. It was further considered undesirable that there should be two doctors attending the same school, one for the inspection of the Council's scholars and the other for fee payers. From the point of view of co-ordination of the school medical service it would be preferable that this work should be carried out entirely by the Council's school medical staff. In view of the fact, however, that the governors would probably be reluctant to agree to this arrangement if it involved the dismissal of a doctor already appointed by them, the Council decided that the governors of the 9 schools where the dual arrangement existed should be asked whether they preferred that the whole of the medical inspection should be carried out by the governors' school doctors or by the Council's school medical staff, provided that, where the medical examination of scholarship holders was carried out by the governors' doctors, the medical record cards should be forwarded to the Council's school medical officer at the end of each term.

Medical
treatment of
secondary
school pupils.

It was further decided that in all secondary schools arrangements should be made where necessary for the medical treatment of pupils under the Council's scheme provided (i) the parents could not afford to make private arrangements and (ii) payment in full was made therefor. (The scale of charges is shown on page 22).

Following Up.

Care
committee
organisation.

The following up of children found defective at medical inspections and the physical care of school children generally is entrusted by the Council to the school care committees, of which the number is now 934. The number of voluntary workers who are full members of a care committee is 5,905. Miss T. M. Morton, who has been since August, 1914, the principal organiser of care committees, has resigned, and will vacate her position on March 31st, 1930. Meanwhile the care committee work is being directed by the two principal assistant organisers, viz.: Miss H. E. Nussey on the education officer's side and Miss D. M. Deverell on the school medical officer's side. The paid staff of the care organisation includes, in addition, 12 district organisers, 5 divisional treatment organisers and 122 assistant organisers.

The re-inspection by the school medical staff of children previously noted as defective makes it possible to compile a statistical record of following up. During 1929 the total number of re-inspections was 196,359, a decrease of 8,271 upon the previous year. 129,027 of these were first re-inspections and 67,332 second re-inspections of cases not completely cleared up at the primary re-inspection (which generally takes place about four to six months after the child first comes under notice as defective). Combining the results of first and second re-inspections it is found that 79.2 per cent. of children found ailing were finally treated or discharged. This result is still better than that in the previous year, which was the best result obtained up to that time.

As in past years the greatest amount of leakage took place in regard to dental treatment. The dental chair still holds terrors that are not approached even by those of the operation for tonsils and adenoids.

1st Re-inspections, 1929.

	Treated.						Not treated.		
	By doctor.		Under Council's scheme.		At other hospitals.		Treatment not now necessary.	Improved (observation only required)	Treatment still needed.
	Cured.	Not cured.	Cured.	Not cured.	Cured.	Not cured.			
Refraction 21,004 ...	134	95	5,709	2,367	592	398	1,624	3,400	6,685
	·6	·5	27·2	11·3	2·8	1·9	7·7	16·2	31·8
Minor ailments ...	166	42	2,554	804	536	308	2,666	1,272	1,772
10,120	1·6	·4	25·2	8·0	5·3	3·0	26·4	12·6	17·5
Nose and throat ...	71	10	5,887	290	1,220	126	2,126	2,226	7,703
19,659	·4	·1	29·9	1·5	6·2	·6	10·8	11·3	39·2
Teeth, 65,067 ...	1,414	401	24,450	815	986	177	5,406	804	30,614
	2·2	·6	37·6	1·3	1·5	·3	8·3	1·2	47·0
Other ailments ...	319	123	95	213	1,926	1,724	3,462	3,507	1,808
13,177	2·4	·9	·7	1·6	14·6	13·1	26·3	26·6	13·7
Total 129,027 ...	2,104	671	38,695	4,489	5,260	2,733	15,284	11,209	48,582
	1·6	·5	30·0	3·5	4·1	2·1	11·8	8·7	37·7

2nd Re-inspections, 1929.

	Treated.						Not treated.		
	By doctor.		Under Council's scheme.		At other hospitals.		Treatment not now necessary.	Improved (observation only required)	Treatment still needed.
	Cured.	Not cured.	Cured.	Not cured.	Cured.	Not cured.			
Refraction 12,669 ...	68	36	2,648	1,291	314	268	1,248	2,476	4,320
	·5	·3	20·9	10·2	2·5	2·1	9·9	19·5	34·1
Minor ailments ...	41	31	956	410	211	157	1,236	787	1,106
4,945	·8	·6	19·4	8·3	4·3	3·2	25·1	15·9	22·4
Nose and throat ...	22	4	2,709	123	752	77	1,992	1,461	4,622
11,762	·2	·0	23·0	1·0	6·4	·7	16·9	12·4	39·2
Teeth 30,805 ...	713	214	9,414	362	456	112	3,546	431	15,557
	2·3	·7	30·5	1·2	1·5	·4	11·5	1·4	50·5
Other ailments ...	77	63	45	168	826	978	1,886	2,110	1,008
7,161	1·1	·9	·6	2·3	11·5	13·6	26·3	29·5	14·1
Total 67,332 ...	921	348	15,772	2,354	2,559	1,592	9,908	7,265	26,613
	1·4	·5	23·4	3·5	3·8	2·4	14·7	10·8	39·5

When there is persistent neglect to obtain treatment the facts are reported to the N.S.P.C.C. and in certain cases the society takes the matter into court, under section 12 of the Children Act : 989 cases (representing 1,156 defects) were referred to the society during 1929. These included dental defects, 535 ; defects of vision, 351 ; and nose and throat defects, 136.

Owing to the prevalence of ear disease after infectious disease, a special arrangement has been made whereby all children, irrespective of age, suffering from ear disease while in the Metropolitan Asylums Board's hospitals are reported for following up, and 345 cases were reported under this arrangement during the year. Those under school age are referred to the borough medical officer of health for following up by the health visitors, whilst those of school age are kept under observation by the school medical staff : 29 were found on first examination to be suffering from ear discharge and of these 15 were reported free after a further six months. All the cases are kept under supervision until there have been two consecutive negative reports at intervals of six months.

It will be an astonishing idea to a great number of people that the housing shortage which has existed since the war could be of benefit in any sense. Yet it is undoubtedly the fact that to the poorer children of London among the great

Cases referred to N.S.P.C.C.

Aural disease after scarlet fever, etc.

Effect of the housing shortage on following up.

disadvantages of inadequate housing one real benefit has arisen. Those who lived or worked among the poor before the war will remember how each quarter day there were to be seen numerous folk in the meaner streets about nightfall with their household effects piled on hand barrows "flitting" from one domicile to another. A common method of avoiding any distasteful responsibility was to slip away leaving no trace behind. Between inspection and re-inspection in some poorer schools quite half the children would disappear. In these circumstances steady, constructive work and efficient following up was impossible, the leakage between inspection and treatment was very high and could not be prevented.

The housing shortage has produced a great change in this respect, the present generation of children has experienced a school life of continuous supervision and the care committees have at length been enabled to stop the leak between inspection and treatment. The benefits of this success are reflected in the results of medical inspection in the schools.

Reports of
care
committees.

The education officer has summarised the annual reports of a large number of care committees for the year ended March, 1929, and the part of the summary dealing with the medical aspects of their work is reproduced here. In the words of the Bethnal Green summary "no busy person can fail to sympathise with the plea that there is not time to get through all the work properly, let alone writing about it."

"The reports practically all comment on the growing appreciation of the parents as shown by their action after medical inspection in applying for appointments at the treatment centres without stimulus from the care committee. 'The parents are eager for treatment' (St. Pancras), 'an attitude that speaks wonders for the work of the school doctors, nurses, teachers and care committee visitors.' Comments are made, too, by St. Pancras on 'the surprisingly few applications for remission of medical charges.' Even in the dental work 'parents are, it seems, slowly awaking to the importance of treatment—the fact that so many children now attend the clinic when advised is undoubtedly due to energy and persistence on the part of members of the committee' (Greenwich). 'There has of late been a far greater response to advice given—we must most definitely record a very great progress in this branch in spite of depressing lists of names of children wanting attention after every dental inspection' (Camberwell).

"In the matter of the provision of spectacles, the problem is also noted as less, parents being more alive to the handicap that short sight is to their children's school work. The teachers great help in seeing that the children wear the spectacles is frequently mentioned with appreciation.

"There are, of course, still real difficulties in ensuring attendance at treatment centres, and it has been suggested by one association that paid helpers should be appointed to take the children. In other reports, however, this course has been deprecated as it is felt that the mother only can give the doctor the information he needs and that there is an educational value to her of hearing his advice. The steady increase in the number of treatment centres is welcomed, as 'a long journey is a real stumbling-block to busy mothers' (Wandsworth). Also 'there is an undoubted correlation between the visiting strength of a committee and the percentage of successful cases' (Bethnal Green). Hampstead remarks with truth that the following up of medical and dental cases is uphill work still, and demands the greatest patience and perseverance on the part of those who undertake it. 'But it is worth doing, and is already beginning to bear fruit in an improved standard of health among the children.' Wandsworth says, 'In the medical work the members of care committees achieve wonderful results. Gradually they are winning the parents on to the side of health and hygiene. The innumerable disappointments on the non-use of vouchers are faced with a steady 'try, try again,' and in the end the children receive treatment. Diplomacy and patience may be required to meet ignorant objections, but in some schools the recommendations of the school doctors

at medical inspections are all satisfactorily carried out.' A report from Camberwell probably voices the feeling of many care committees. 'We cannot close without saying how good most of the mothers have been, they have turned up well to the various medical inspections and have usually been far-seeing where their children are concerned, and glad to co-operate with us in every way. Naturally, there have been exceptions, and we have had our difficult times, but, on the whole, it has been a happy, busy year, and one which has been intensely worth while.' "

Chronic Invalidity.

The school attendance department reports each month the names of all children who have become chronic invalids, absence from school entirely on account of health for three months and upwards being taken as the criterion of chronic invalidity. Each year the number of sick children remaining on the list in the month of November is analysed in the medical department, and the result gives, in effect, a census of chronic invalidity.

The following tables show the number of children who had been out of school for three months or more in November, 1929, and comparative figures for three previous years. The numbers remain fairly constant, but it may be noticed that the proportion of the total suffering from nervous disorders and anæmia and debility has steadily declined.

The number of children absent on account of rheumatism and associated conditions, including heart disease, forms a very high proportion of the whole (30·8 per cent., and the figures bring out in a startling manner how largely this group of conditions looms in the production of chronic ill-health in childhood (and, of course, afterwards).

Amongst "other ailments," there were 141 children with lung disease other than tuberculosis, 48 children with epilepsy, 37 with ear diseases, 24 with encephalitis lethargica and 33 with infant paralysis.

CASES OUT OF SCHOOL FOR THREE MONTHS, NOVEMBER, 1929.
COMPARED WITH THREE PREVIOUS YEARS.

	Cases.				Percentage of total.			
	1926.	1927.	1928.	1929.	1926.	1927.	1928.	1929.
Rheumatism, heart disease and chorea	537	508	681	680	23·98	25·32	30·95	30·77
Nervous disorders	249	207	199	148	11·12	10·32	9·05	6·70
Tuberculosis (pulmonary and other) ...	268	234	216	264	11·97	11·66	9·82	11·95
Anæmia and debility	169	135	141	105	7·55	6·73	6·40	4·75
Ringworm	27	27	17	22	1·21	1·35	·77	0·99
Skin complaints (excluding ringworm)	62	63	56	58	2·77	3·14	2·55	2·62
Eye	92	76	62	84	4·11	3·79	2·82	3·80
Infectious diseases	103	100	106	85	4·60	4·98	4·82	3·85
Other defects	732	656	722	764	32·69	32·71	32·82	34·57
	2,239	2,006	2,200	2,210	100·00	100·00	100·00	100·00

Dr. Margaret M. Hogarth has investigated the chronic absences attributed to rheumatic diseases from the point of view of institutional treatment. Out of 680 children, 257 were in-patients of some form of institution, viz., London general hospitals, 65; poor law hospitals, 36; convalescent homes, 71; Metropolitan Asylums Board country hospitals, 85.

Employment of School Children.

The applications during the year 1929 for medical certificates in connection with the employment of school children out of school hours under the by-laws number 4,155, of which only 45 were for girls, as compared with 4,518 in 1928.

The nature of the work for which certificates were granted was for boys (girls in brackets)—Delivery of milk 220 (2); delivery of newspapers, 2,533 (31); carrying

or delivery of goods or parcels, 503 (11) ; in or in connection with a shop, 297 (3) ; in a coal yard, 4 ; industrial work at home, 1 ; house work away from home, 31 ; as a messenger, 47 (1) ; not stated, 29. 145 boys and two girls were granted certificates in respect of two or more occupations.

Certificates were refused on medical grounds in the cases of 87 boys and one girl. In 210 cases the certificates were granted subject to medical treatment being obtained and in 148 additional cases other conditions were imposed. In 18 cases the provisional certificates were withdrawn on account of the non-compliance with the conditions under which the certificate was issued.

The number of children examined under the regulations governing the employment of children in entertainments was 184. Girls outnumbered boys by 164 to 20.

Four children, all girls, were rejected on medical grounds, two with scabies, one with bronchial catarrh and one for instability and backwardness. Twenty-five girls and five boys were referred for treatment in the first instance and given certificates of fitness at a subsequent medical examination. The conditions for which they were referred were—Boys : visual defect 3, personal hygiene 1, general condition 1 ; Girls : dental decay 10, heart 1, throat 2, personal hygiene 2, visual defect 7, scabies 1, bronchial catarrh 1, otorrhœa 1.

Medical Treatment.

The end of the year 1929 marks the completion of eighteen years' administration of the medical treatment scheme as at present constituted. Having regard to the vast increase of work to be assumed as from 1st April, 1930, it may be convenient, without anticipating any change of policy, here to give a brief résumé of what has been already accomplished.

The scheme began tentatively in January, 1910, when arrangements were made with six hospitals for the treatment of some 26,000 children a year, but at this time there was no dental treatment. First appointments were made from the head office, the hospital assuming the whole of the responsibility for the completion of treatment. There was no following-up, and the claim of the hospital for the capitation payment was the only source of information as to whether a child had been treated or not. The difficulty of the position caused the London Hospital in February, 1911, to ask the Council for an officer to visit the hospital to regulate the attendance of the children. This duty was undertaken by one of the organisers of children's care work. The arrangement was so successful that it was extended to other hospitals.

The 1st of January, 1912, marked the inauguration of a new era in medical treatment, when the whole of the school medical work, including the arrangements for the attendance of children and the supervision of treatment, was placed under the direction of the county medical officer. During the years 1912 and 1913, the system begun at the London Hospital in 1911 was continued under the direction of the medical officer and was extended to cover all the treatment arrangements of the Council. In the course of development it has resulted that the school care committees advised by the Council's organisers are in a position to note the course of treatment step by step to a successful conclusion. The immense benefit that this arrangement has been to the harmonious working of the treatment scheme is reflected in the very high percentage of treated cases.

Almost at the inception of the treatment scheme it was found that the London hospitals were quite overwhelmed by the mass of work involved in the treatment of defects revealed by school medical inspection and it was decided to supplement their aid by the establishment of school treatment centres, institutions founded and managed by local voluntary committees for the treatment of children's ailments only. The Board of Education looked upon the proposal with some misgiving, but after a conference in May, 1912, with members of the Council and representatives of local committees of medical practitioners it was found possible to devise conditions of agreement which met the approval of the Board. From the point of

view of adaptability to local needs, topographical position and complete supervision by the school medical officer the treatment centres have more than justified their establishment, and in relation to the Council's scheme now outnumber the hospitals by four and a half to one, whilst the cases treated are in the proportion of eight to one.

An important part of the scheme from the beginning was the inclusion of the services of local nursing associations for the supply of nurses whose duties include the nurse treatment of minor ailments and home visits after operations for the removal of enlarged tonsils, adenoids and similar defects. Now some sixteen associations do this work at 30 centres, supplying the equivalent of the whole-time services of 57 nurses at £170 per annum each.

At first the scope of the scheme was limited to the treatment for refraction errors and eye disease, aural defects, ringworm, minor ailments and teeth, but it has since been extended to include the provision of instruction for stammerers. More recently, by a special arrangement with the Metropolitan Asylums Board, the scheme has included the residential treatment of severe rheumatism in children, infective ophthalmia, interstitial keratitis, and the more severe aural defects requiring operation, such as mastoid disease.

The Council is bound by law to make a charge for treatment. After trial of the difficult method of assessment and recovery of cost according to means the Council abandoned it in favour of a simpler plan. The charge to the parent now made is fixed at 2s. for a major ailment, and, after a fortnight's free treatment, 1s. for a minor ailment. No charge is made for the prescription of spectacles, which is held to be of the nature of "further inspection." Concessions are allowed whereby for slight treatment of dental cases a charge of 1s. only is made, and the school care committees are empowered to remit the fee altogether in any case on appeal on the ground of necessity. The average cost per case has been worked out as follows for the current year. Refraction and eye disease, 6s. 3d.; ear, nose and throat defect, 16s. 11d.; minor ailment, 7s. 9d.; dental defect, 7s. 2d.; X-ray treatment of ringworm, 25s. 8d. Notices setting out these costs are exhibited in the centres for the information of parents who desire to pay in full. Scholarship holders in secondary schools are treated on the same terms as elementary school children, but fee-paying pupils in these schools are required to pay the full charge as set out on the exhibited notice.

At the end of the year 1929 there were 16 hospitals and 71 centres included in the Council's medical treatment scheme, in addition to the dental centre at Bushy camp school. The provision made for the several ailments and the numbers treated during the year were as follows:—

<i>Ailment.</i>					<i>Provision made in 1929.</i>	<i>Number treated 1929.</i>	<i>Number treated 1928</i>
Defective vision	...	...	...	...	41,160	41,620	40,984
Ear, nose and throat disease...	...	...	...	...	18,140	19,903	20,162
Ringworm	...	...	...	...	808	480	516
Minor ailments	...	...	...	...	75,570	98,023	97,918
Dental defects	...	...	...	...	140,910	128,711	129,255
					276,588	288,737	288,835

Further particulars under the headings of the several ailments are as follows:—

(a) *Minor ailments.*—98,023 children received minor ailment treatment during the year or 105 more than in 1928. The actual number of attendances was 1,439,246. By the courtesy of the Metropolitan Asylums Board residential treatment at White Oak, Swanley, Kent, has been provided for cases of trachoma, various forms of discharging conjunctivitis and blepharitis, and interstitial keratitis. The children are nominated by the school medical officer, and on arrival at White Oak are allocated to separate cottages according to the

nature of the affection from which they are suffering. There is accommodation for 378 children on a site of 49 acres. During 1929 the children received on behalf of the Council numbered 127, including 27 cases of trachoma, and 17 of interstitial keratitis.

(b) *Ringworm*.—Again there is a decline in the number of ringworm cases treated, only 480 as against 516 in 1928. This decline is eloquent testimony to the improvement in personal hygiene, and the efficacy of X-ray treatment, when it is remembered that only twenty years ago the number of school children absent from this cause at any one time averaged 2,000.

(c) *Visual defects*.—41,620 children were dealt with under the Council's scheme for refraction and minor eye diseases, an increase of 636 on the previous year's figures. Spectacles were prescribed in 29,212 instances and 26,993 children obtained them, a percentage of 92·4, the highest yet recorded. In this connection much good work is done by the London Central Spectacles Committee, a voluntary association with 23 local branches throughout the county. The parents are assisted by way of grant or loan through the school care committees supported by the local branch of the Central Spectacles Committee. The funds are raised locally by voluntary contributions, and the proceeds of local functions inaugurated for the purpose. Many London schools are self-supporting, and of the local branches of the Central Spectacles Association there is an average of less than four annually needing help from the Central Fund.

(d) *Nasal and aural defects*.—During 1929 the children treated under the scheme for these defects numbered 19,903 or 259 fewer than in the preceding year. Of the 14,904 children receiving operative treatment 13,216 were detained at the Centre for two nights as in-patients. There is still further need for in-patient accommodation especially in the East End and the question of utilising for the purpose vacant beds in some of the institutions to be transferred under the provisions of the Local Government Act, 1929, is now under consideration.

Dr. A. G. Wells has submitted the following report:—"The amount of work done by the aural staff during the year under review is much about the same as that done during 1928, the number of sessions given to the work being the same, namely, 635. The following tables give particulars of the work done:—

PARTICULARS OF ALL CASES.

Division.	Total examinations made.		No. of cases examined.		No. of new cases.		No. of cases cured.		No. of cases relapsed.		No. of relapsed cases.		Discharged 1st visit.
	Patients.	Ears.	Patients.	Ears.	Patients.	Ears.	Patients.	Ears.	Patients.	Ears.	Patients.	Ears.	
N.W. ...	1,986	2,494	459	590	330	434	222	291	34	43	59	68	43
S.W. ...	2,922	3,484	682	821	492	598	444	512	69	88	103	113	61
E. ...	2,199	2,596	560	665	484	555	338	387	83	100	129	133	86
N.E. ...	2,762	3,140	576	592	475	466	331	374	54	56	126	147	55
S.E. ...	4,045	4,767	740	733	589	553	467	469	52	52	81	84	106
Totals ...	13,914	16,481	3,017	3,401	2,370	2,606	1,802	2,033	292	339	498	545	351

DEAF CASES.

Division.	Total examinations made.		No. of cases examined.		No. of new cases.		No. of cases cured.	
	Patients.	Ears.	Patients.	Ears.	Patients.	Ears.	Patients.	Ears.
N.W. ...	57	83	12	18	9	12	3	5
S.W. ...	222	433	37	71	26	49	19	37
E. ...	105	200	26	50	16	32	15	21
N.E. ...	70	140	17	34	18	36	6	11
S.E. ...	220	412	54	102	45	83	28	52
Totals ...	674	1,268	146	275	114	212	69	126

Aural report
for the year
1929.
Dr. A. G.
Wells.

Division.	No. of cases improved.		No. of cases unrelieved.		No. of cases lapsed.		No. of relapsed cases.	
	Patients.	Ears.	Patients.	Ears.	Patients.	Ears.	Patients.	Ears.
N.W. ...	5	6	1	1	—	—	—	—
S.W. ...	2	4	—	—	3	6	—	—
E. ...	3	6	1	2	4	8	—	—
N.E. ...	3	7	1	2	11	20	4	8
S.E. ...	8	16	6	12	1	1	2	4
Totals ...	21	39	9	17	19	35	6	12

ANALYSIS OF OTORRHOEA CASES.

Cause of suppuration.	Total ears.	Cured.	Referred for mastoid operation.	Lapsed.	Still under treatment.
Acute otitis med. supp. ...	88	64	6	339	580
Chronic ot. med. supp. due to—					
I. Tympanic conditions					
(a) Tympanic sepsis ...	1,411	988	33		
(b) T.S. + granulations ...	174	72	19		
(c) T.S. + polypi ...	77	37	13		
(d) T.S. + caries ...	7	1	2		
(e) T.S. + other conditions ...	14	12	—		
II. Tympanic conditions +					
(a) Tonsils and adenoids ...	328	197	1		
(b) Nose conditions ...	83	65	3		
(c) Mouth conditions ...	—	—	—		
III. Tympanic conditions +					
(a) Attic disease ...	134	61	24		
(b) Mastoid disease (no operation yet)	163	21	71		
(c) Mastoid disease (previous operation done)	347	213	20		
IV. Tympanic conditions +					
(a) External otitis ...	30	20	1		
(b) Stricture of meatus ...	4	4	—		
External otitis ...	51	45	—		
Cause undetermined ...	3	2	—		
Total ...	2,914	1,802	193	339	580

The last table gives a complete analysis of all the cases of otorrhœa dealt with by the aurists in all divisions of London. It also gives the cause of suppuration in each case; the cause of chronicity; the number of cases "cured"; the number referred to hospital for a mastoid operation; the number of "lapsed" cases, *i.e.*, those who left school while treatment was in progress, or who for various reasons escaped supervision; and the number of cases still under treatment at the end of the year. From these figures it will be seen that the percentage of "cured" cases, after deducting those that "lapsed," is 69.9 per cent., or including the "cured" cases operated on for mastoid disease (see later), 77.7 per cent. These figures show an improvement on those of 1928, which were 66 per cent. and 71.7 per cent., respectively.

The following are the details of the work done at the after-care clinic at Kentish Town in connection with the mastoid operation cases :—

1929 CASES.	<i>Patients.</i>	<i>Ears.</i>
Discharged from Downs Hospital requiring no further treatment	8	11
Treated at L.C.C. clinic and discharged cured	6	6
Still having treatment at L.C.C. clinics at end of 1929	10	10
Treated at Kentish Town and discharged cured	111	116
Still having treatment at Kentish Town at end of 1929	48	51
Treated at Kentish Town and since lapsed	4	4
Referred back to Downs Hospital for further operation	5	6
Not yet attended since discharged from Downs Hospital	2	2
	194	206
1928 CASES CONTINUING INTO 1929—		
Discharged cured	56	64
Referred back to Downs Hospital for further operation	4	5
Discharged cured in L.C.C. clinics	2	2
Lapsed	6	7
Still under treatment at end of 1929	5	6
	73	84

In addition to mastoid operation cases, certain cases were treated at Kentish Town which were not operated on. The details are as follows :—

CASES NOT OPERATED ON, 1929—

1929 CASES—

	<i>Patients.</i>	<i>Ears.</i>
Treated and discharged cured	60	73
Still having treatment at end of 1929	16	20

1928 CASES—

Treated and discharged cured in 1929	18	22
	94	115

Diastolisation

The number of cases treated by diastolisation was comparatively few, but the opinion already formed of this method of treatment has been confirmed by the further experience gained, and it would be well worth while to adopt it on a larger scale. If this treatment were used sufficiently early, many morbid conditions might be prevented from developing. Many of the defects are intimately associated with abnormal conditions of the nasal cavities, and by treating these in the early stages many cases of otorrhœa, adenoids, etc., would be prevented. However, to make this worth while, a scheme of sufficient magnitude would be required.

Report of the
consulting
dental
surgeon, Dr.
Alexander
Livingston.

(e) *Dental defects.*—The table on page 97 of this Annual Report shows the statistics for the dental services to school children for the year 1929. The 64 inspecting dental surgeons examined nearly a quarter of a million children, and of these 67·9 per cent. were found to require treatment. This is an improvement of 1 per cent. upon the figure for 1928, which showed 68·9 per cent. The improvement is not large, but grows with the tale of years as the Council's dental schemes become more fully operative and matured.

As is to be expected, the regional dental healthiness varies, although the cause of the variation is difficult to find, for districts where there is much unemployment and where housing is bad and deficient show marked healthiness. The average diet probably plays a most important part, for the striking similarity of the percentages throughout the East End, with its large foreign population consuming much oil, fats and vegetables, contrasts markedly with districts where soft, sticky starches are more important items in feeding.

The number of new cases does not show any startling increase over the year 1928. Only one new centre was opened and this rather late in the year. Accom-

modation and convenience are in very many centres now severely over-taxed, and more centres are needed.

Extractions of temporary teeth show a disproportionately large increase, which confirms the opinion based on the observation of many facts, that the teeth of the youngest children are becoming worse, not better. This problem has been specially investigated (*vide infra*). By way of contrast it is pleasant to record a decrease in the extraction of permanent teeth and the resultant mutilation of the mouth. Very many more of these teeth are being saved by filling methods, many more than might be expected considering the increase in the numbers treated. This year, taking all the averages, there were 892 fillings for every 1,000 children treated. Anæsthetic administration showed an increase proportionate to the whole extraction treatment carried out. The grand total of all dental operations is now more than half a million yearly.

To sum up:—The dental surgeons are compelled to extract more temporary teeth, for in these teeth an increasing amount of disease is found, but they are saving very many more of the permanent dentition for usefulness and health after school life, so placing a smaller burden upon the State for dental and medical treatment.

Mr. N. D. McDonald, dental surgeon to the Camberwell centre, has by request conducted a very careful examination of 544 children in the infants' departments of schools in the Walworth district. The children were arranged in age groups differing by six months, boys and girls being examined and grouped separately, and inspection made to determine: (a) saveable teeth not requiring extraction; (b) unsaveable, therefore requiring extraction; (c) whether any permanent teeth, if present, required treatment; (d) normal children; (e) children who had received treatment. Of this last group it is noteworthy that, although the statutory dental inspection does not begin until the sixth year, many parents had obtained treatment for their children. There were, however, very few normal children.

Dental state of the youngest school children. Mr. N. D. Macdonald.

The figures in the following table show the appalling onset of caries among all children during the fourth year; the average five-year-old girl has nearly three carious teeth unsaveable. The slight fall in the fifth year corresponds with the increase in the number of teeth treated during that year. It is becoming very evident that education of the parent in the essentials of oral hygiene, and diet, must be intensified, for the importance of the influence of the temporary teeth upon the general health and state of the child, and upon the permanent teeth, has long been known to the dental profession.

EXAMINATION OF 544 CHILDREN UNDER 6 YEARS OF AGE.

	Age groups in years.											
	3—		3½—		4—		4½—		5—		5½—6	
	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.
Number examined ...	14	17	13	22	24	28	53	34	76	85	88	90
<i>Deciduous teeth—</i>												
Number saveable ...	15	17	12	27	19	29	47	33	56	73	67	62
Number unsaveable ...	33	10	29	31	32	63	117	94	175	235	181	190
<i>Permanent teeth—</i>												
Number saveable ...	—	—	—	—	—	—	—	—	2	—	4	12
Total number of children with defect	11	8	8	15	13	20	42	25	57	65	63	72
Normal children ...	2	9	5	6	9	5	6	8	6	6	9	4
Children previously treated ...	1	—	1	3	7	4	17	6	34	39	30	44

Special
investigation
of "school
leavers."
Dr. A.
Livingston.

At the request of the Board of Education, an investigation has been carried out by the consulting dental surgeon into the dental state of the "school leaver." Eight schools were chosen, including one central and one secondary school. The forms used provided four sections in which details were sought: (i) of a general nature; (ii) the history of dental inspections and treatment; (iii) the condition of the permanent teeth; (iv) notes, including remarks on cleanliness and presence or absence of deformity. In section (iii) the children were classified as follows:—

- A1. No dental treatment except for emergencies.
- A2. Irregular dental treatment.
- B. Systematic dental treatment for one or two years.
- C. Systematic dental treatment (intervals longer than one year) for three years or more.

D. Systematic annual dental treatment for three or more years. Children systematically inspected and found healthy were placed as having received treatment that is, not in group A.

The results are shown in the following table. To afford a measure of comparison, the italic figures in each group show the results expected were each group to consist of 100 children.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Category and number of children in each category.	Unrupted teeth.	Extracted teeth.	Filled teeth.	Carious saveable teeth.		Unsaveable teeth.	Gum disease		Cleanliness.				Deformity.	Children with mouths that are	
				Pinhole cavities.	Larger cavities.		Slight.	Moderate.	Very good.	Good.	Moderate.	Poor.		Healthy.	Unhealthy.
A1.—Emergency treatment only 22	12 55	23 105	1 5	31 141	29 132	17 77	9 41	—	3 14	6 27	6 27	7 32	7 32	1 5	21 95
A2.—Irregular treatment ... 35	24 69	42 120	16 46	30 86	54 154	24 69	13 37	2 6	3 9	6 17	12 34	14 40	8 21	1 3	34 97
B.—One or two years' systematic treatment ... 16	3 19	19 119	17 106	16 100	10 63	11 69	6 38	—	1 6	7 44	6 38	2 13	3 19	—	16 100
C.—Three or more years treatment with interval 14	5 36	26 186	14 100	15 107	7 50	6 43	1 7	2 14	2 14	4 29	5 36	3 21	3 21	3 21	11 79
D.—Systematic annual treatment for three or more years ... 192	96 50	194 101	184 96	55 29	36 19	18 9	20 10	2 1	73 38	55 29	55 29	9 5	50 26	129 67	63 33

NOTES:—Columns 5, 6 and 7.—Several children in categories C and D were waiting for treatment to be arranged.
Column 7.—There were only three or possibly four children that might be classed as having septic mouths due to grossly decayed teeth with exposed nerves.
Columns 8 and 9.—There was no case of severe gum disease.

From this table it emerges that omitting a very few cases of slight gum disease, practically all the healthy children come into group D, a demonstration of the value of annual, systematic dental inspection and treatment. The next striking fact is that very few indeed of the children in group D have any unsaveable carious teeth;

and, in fact, eight of the eighteen unsaveable teeth in this group are present in the mouth of one poor child, who is suffering from acute caries and general ill health. In this particular case it is extremely difficult to keep pace with the various diseases, although the boy is slowly improving. Again, in these schools, where continued strenuous efforts have been made by care committee workers, organisers, teachers, and by the doctors and dental surgeons, the numbers of treated children are very high in group D. The general percentage of healthy children is 48. Lastly, where cleanliness is high, dental health is high; a special examination of the individual records showed that among 35 children with poor cleanliness, only three were healthy; among 82 children who were classified as having very good cleanliness, 61 were healthy, a convincing argument (if it were needed) of the benefit of tooth brushing.

The number of teeth *unerupted* is almost uniform among these children, whose average age is just under 14 years. At this period, according to the best authorities, a normal child should have full 28 permanent teeth in place, and no temporary teeth remaining. Actually, every other child shows failure to erupt one tooth, frequently a premolar, owing to the retention of a temporary molar.

As would be expected, the *extracted* teeth are fewest in group D, where the average loss is one tooth for each child. In these critical years, if treatment is missed even for a year, caries spreads rapidly and necessitates extraction.

The *fillings placed* are numerous in children who come under treatment; the A group shows nearly none at all, for the treatment if any is "extraction when the tooth hurts"—an attitude towards the child's health that can almost be called criminal.

In investigating caries, the following classification was adopted—cavities just established, usually the size of a pinhead (the pinhole cavity, column 5); cavities reasonably treatable by the school dental surgeon (larger cavities, column 6); and finally those cavities where restoration is futile, or where the nerve of the tooth is exposed. The figures speak almost for themselves. In groups A1 and A2, where the teeth are neglected and where there is hygienic carelessness, the pinholes are many, food lodges in every crevice, rapidly ferments, produces a larger cavity, and finally destroys the crown. With even moderate attention to hygienic methods, caries is checked, although one child in every two of group D needs a small filling; this is perhaps explainable by the fact that the school dental surgeon does not inspect "leaver" children, and the very earliest decay is overlooked. It needs careful search to find these tiny cavities, even on the part of a qualified dental surgeon. The diminution in "unsaveable" teeth as care is given is obvious and striking, and that any of these teeth should be found at all in group D is accounted for by the inclusion of some children who, though receiving regular attention, are suffering from general ill-health reflected in the mouth.

Slight gum disease is prevalent in the neglected children—almost every alternate child shows it; whilst it is negligible in those cared for, it is found almost entirely among boys who think it is effeminate to clean their teeth, although they may have well-brushed hair and clean boots. Poor cleanliness (column 13) again, speaks for itself; although there was visual evidence that many children in groups A1 and A2 made some kind of attempt (on Sundays, perhaps) to clean their teeth. Deformity was strikingly uniform among all groups; highest in group A, but still high in group D. These figures confirm those compiled by Mr. Ovey, published in last year's Annual Report; deformity is due not only to hereditary factors, but to neglect of treatment in the pre-school and earliest school years, and also to growth failure.

There was practically no healthy child except in groups C and D; even the omission of a year's treatment may set a child back most woefully. Among the group D children, healthiness was far higher (67·2 per cent.), almost exactly double the general county percentage, and would have been higher still if the minute pinhole cavities had been disregarded.

For purposes of comparison the amount of defect has been estimated to the nearest unit on the assumption that there were 100 children in each group and the results are shown in the following table :—

Group.	Approximate number of years under treatment.	Number of children.	Total carious teeth.	Unsaveable carious teeth.
A1.	0	100	350	77
A2.	1	100	309	69
B.	2	100	232	69
C.	3	100	200	43
D.	4	100	57	9

Summary of Conclusions.—(1) When the teeth are treated only at a period of grave urgency, the child suffers caries and will have many unsaveable teeth : as the child is cared for and treated so does caries diminish, until with regular attention it almost vanishes.

(2) With regular treatment there can be very few, if any, unsaveable, septic teeth.

(3) In schools where united, continuous and strenuous efforts are made to persuade and educate the parents into caring for their children and providing dental treatment, there will be a high degree of dental and oral health, with consequent general benefit to the child.

The Council's officers are indebted to the Board of Education for the forms used, and permission to publish independently the results of this special investigation.

Classes for
stammerers.

Stammering Children.—During 1929, 311 children attended the centres for stammerers. Of these 37 were discharged cured, 57 as provisionally cured, and 43, many of them greatly improved, left for various reasons. A new centre was opened at Holbeach-road (Lewisham) in April, 1929.

One of these centres is situated at the Jews' Free school (Whitechapel and St. George's) and the headmaster of that school, Mr. L. G. Bowman, has every opportunity of observing the methods employed. He writes of the stammerers' class :—

"There is little question as to its effectiveness, less as to its importance for the future of the children under training. The technique appears to improve with experience, and new ideas are being incorporated in the general method of treatment. I should like to refer particularly to the value of the practice adopted this year of requiring the attendance once a month of old cases, and cases regarded as cured. These children are taken through their paces, questioned as to their daily speech exercises, and generally, it may be said, inspired with confidence by the knowledge that help and advice are at hand if required at these monthly meetings. Thus is their cure ensured."

The
Woolwich
remedial
exercises
clinic.

The Woolwich Invalid Children's Aid Association's remedial exercise and massage clinic is included in the Council's scheme. Dr. H. R. Kidner reports that "During the year 293 children were sent to the clinic. Of these 233 received treatment and the other 50 were helped in one of the following ways :—

1. Surgical instruments or splints supplied.
2. Convalescent treatment arranged.
3. Instructions given for home treatment.
4. Referred to hospital.
5. Referred for subsequent examination.
6. Recommended for operation.

"In addition, 20 old cases re-attended. The number of attendances during the year was 7,313. The children recommended to the clinic were sent by the

following :—Hospitals, 40 ; school doctors, 142 ; parents, 28 ; infant welfare centres, 57 ; tuberculosis dispensary, 3 ; from the general office of the Invalid Children's Aid Association, 13."

Personal Hygiene Scheme.

The number of examinations made by school nurses at rota visits during 1929 was 1,909,723, and verminous conditions were found in 236,034 cases, or 12·4 per cent., as compared with 12·6 per cent. of cases examined in 1928.

Particulars of the examinations and the results of the cleansing schemes during the past five years are given below :—

Year.	Examinations at rota visits.	Verminous conditions noted at rota visits.	Per cent.	Verminous children referred to centres.	Subsequently cleansed by parents.	Verminous children cleansed at centres.	Scabies and impetigo cases bathed at centres.
1925	1,937,588	323,020	16·6	112,806	27,647	85,159	2,077
1926	1,840,106	288,721	15·6	120,071	31,116	88,955	2,130
1927	1,990,201	261,135	13·1	123,279	27,031	96,248	2,609
1928	1,850,152	233,108	12·6	119,241	26,236	93,005	2,820
1929	1,909,723	236,034	12·4	116,618	25,502	91,116	3,163

Of the 236,034 cases in which verminous conditions were noted, 136,024 (57·6 per cent.) were found to have nits only.

The Council has two "cleansing schemes"; one in which only slight traces of infestation are dealt with (these are treated at "head-cleansing centres"). The other scheme provides for the treatment of the more severe cases and of infested clothing, leading up to court prosecutions where necessary. The latter scheme is worked from "bathing centres" provided by the borough councils or the Council itself; these centres are equipped with baths and sterilisers, but the popularly so-called "shampoo centres" have provision for head-cleansing only, and in some cases the work is carried out in a room in a medical treatment centre.

Under the scheme for dealing with the more severe cases, the number of verminous children whose condition was brought to the notice of parents by advice cards was 90,892, and of this number 42,904 attended voluntarily at bathing centres for cleansing. It was necessary to serve statutory notices in accordance with section 87 of the Education Act, 1921, in 26,097 cases, and as a result 4,650 children attended the centres voluntarily, but of the remainder, 17,836 were found to be still verminous and were taken for compulsory cleansing. It was necessary to take proceedings in the police courts in 416 cases. Children conveyed by ambulance from outlying schools numbered 10,997, as compared with 12,015 in 1928.

Co-operation with the medical officers of the City of London and the metropolitan boroughs in remedying verminous conditions in the homes of children has been continued.

The number of children attending for warm baths during school hours was 37,018 in 1929, as compared with 40,555 in 1928. Arrangements are being made to extend this scheme to the borough of Fulham. Use of public washing facilities.

A notable increase in the number of children treated for scabies at the children's baths has taken place during the last three years as shown in the following table :— Scabies.

Division.	Year.					
	1924.	1925.	1926.	1927.	1928.	1929.
E. ...	330	334	398	453	510	560
N.E. ...	204	177	160	185	171	214
N.W. ...	329	339	289	291	350	385
S.E. ...	291	227	225	233	294	290
S.W. ...	167	207	197	260	356	385
Total ...	1,321	1,284	1,269	1,422	1,681	1,834

Consideration of the distribution of these cases suggests that the explanation is to be sought in connection with the smallpox prevalence in London during this period. The children in the schools, especially in the eastern division, are being constantly scrutinised by school doctors or school nurses, and the examination made for smallpox is precisely that which would detect mild and doubtful scabies.

Rheumatism Scheme—1929.

Statistics.	Cases seen by medical referee in hospitals	46
	" " " " homes	200
	" " " " clinics	49
	" " " " County Hall	43
	Reports made on home conditions (Form R.B.)	280
	"Following-up" reports made (Form R.C.)	317
	Cases seen at County Hall on return from hospital	178
	Re-examinations by school doctors	355
	Special reports obtained on cases (whether under treatment, enquiries into complaints, etc.)	322
	Cases reported to medical officers of health as to dampness, etc.	37
	Cases referred to housing branch for better accommodation	16

Cases seen at Rheumatism Supervisory Clinics—

Hospital for Sick Children	184 new cases	1,847 re-inspections.
Royal Waterloo Hospital	226 "	707 "
Queen's Hospital for Children	273 "	625 "
Elizabeth Bullock Centre	205 "	439 "
Downham Centre	199 "	420 "

There are also supervisory clinics in Paddington, Kensington, and Marylebone, but the Council has no particulars of the cases attending these clinics.

Cases reported to I.C.A.A.	250
Cases reported on by I.C.A.A.	301

Number of children with rheumatic symptoms placed on register since commencement of scheme 11,000 approx.

Number of children nominated for residential treatment in 1929—

	Boys.	Girls.
Admitted Brentwood	71	150
Admitted Carshalton (Unit)	6	5
" " (Subacute)	7	31
Treatment arranged by I.C.A.A.	21	25
Cases considered unsuitable or no longer requiring treatment... ..	23	37
Parents averse from residential treatment	8	17
Admitted to hospitals, infirmaries or sent away by guardians	9	15
Convalescence arranged by hospitals or privately	20	24
Died	1	—
Number nominated in 1929 still awaiting consideration	30	44
	196	348

The
rheumatism
scheme.
Dr. J. N.
Dobbie.

Details concerning the Council's scheme for the registration and supervision of all rheumatic children and the organisation of institutional treatment for children with active rheumatism, have been given in the Annual Reports for 1926-8. Dr. J. Nairn Dobbie again reports as follows:—

"The number of names on the register up to the end of 1929 was over 11,000. Most are under observation by the school doctors and are followed up by the children's care organisation. Included in the register are the names of 196 boys and 348 girls specially nominated for institutional treatment under the scheme; the decreased nominations during 1929 are mainly due to the shortage of beds, to which attention was drawn in previous reports.

"Although no permanent arrangement for augmenting the number of beds was made during the year, the Metropolitan Asylums Board through the courtesy of the medical superintendents at Queen Mary's Hospital, Carshalton, and at High Wood Hospital, have accepted for treatment many children in addition to the number agreed under the scheme.

"The facilities at these country hospitals for treatment of the acute phase of the illness and for education under ideal conditions during the necessarily long convalescent stages put this form of treatment on a high standard and secure excellent results. The pressure on the voluntary hospitals is so great that rheumatic children can only be detained till defervescence of the acute stage and although every means is usually adopted to secure convalescence elsewhere under the best available conditions, this is not quite so satisfactory as treating the illness throughout in the same hospital and under such conditions as obtain at these country institutions. The acceptance of children for institutional treatment is dependent on the decision of a medical referee. In this connection, 46 children were examined in voluntary hospitals and 292 were visited in their own homes or otherwise specially seen. The help of the Invalid Children's Aid Association has been much appreciated; they dealt with or reported on 301 children and arranged treatment for those children whom it would have been otherwise impossible to place. Recognition must also be given to the deep interest and able work of the care committees who have specially reported on the social and environmental conditions of 280 children admitted for treatment. On the result of these reports, 37 cases of dampness in the houses were referred to the local sanitary authorities and 16 cases were put forward for consideration of the housing branch of the valuer's department. The children's care organisation also furnished 322 special reports on a variety of matters bearing on the welfare of rheumatic children.

"The 544 children nominated for residential treatment were dealt with as under, classified in sexes, the girls being shown in brackets :—

"*High Wood Hospital*.—Admitted in 1929, 71 (150); discharged in 1929, 51 (120); still under treatment, 29 (61); died in hospital, 0 (2).

"*Carshalton*.—Admitted from all sources to rheumatism unit, 29 (39); discharged, 23 (29); still under treatment, 19 (27); died in hospital, 2 (0); Carshalton, subacute beds—admitted, 7 (31); discharged, 0 (22); still under treatment, 7 (21).

"*Treatment arranged by Invalid Children's Aid Association*, 21 (25); cases considered unsuitable and no longer requiring treatment, 23 (37); parents averse from residential treatment, 8 (17); admitted to hospitals or infirmaries, 9 (15); convalescence arranged by hospitals or privately, 20 (24); died, 1 (0); number nominated in 1929 still awaiting consideration, 30 (44).

"The type of school and the modifications of school curriculum best suited to the child are decided after examination at the County Hall on return from hospital. The child's future welfare is largely dependent on the betterment of the home conditions and on the parents' adoption of the doctor's advice in their management of the child. This can best be secured by the sympathetic help given during the home visits of care workers, who furnished following-up reports on 317 children who had returned from hospital. Every endeavour is made to keep these children under medical observation and the progress reports obtained from High Wood and Carshalton are sent on to the doctor or hospital who originally treated the child. Information along specified lines is also obtained from the school doctors at regular intervals. During the year, 355 continuation reports were obtained.

"This work is well worth while, for with the exception of a few congenitally weakly ones, the children on their return are in excellent condition. Weight is increased, pallor has given way to the rosy colour of good health, lassitude and fatigue to brightness and spontaneity, and debility to robustness. In many cases the heart, apparently affected on admission, has on return shown no abnormality, and in the majority of those children whose hearts were definitely affected, quiescence appears to have been established, for relapses are definitely less in them than in others not so treated.

"Arrangements for the attendance of children at the supervisory centres directly co-operating in the scheme are made by the care organisers who attend at each

centre and supply a list of the names and a résumé of the condition of each child to the County Hall so that any recommendation of the examining doctor can be acted on.

"The scheme would be impossible without the active sympathy of the teachers, whose interest is shown in numerous ways. In addition to friendly advice and encouragement to the parents, they watch those children whose activities should be limited, they help in securing school meals and milk, and often in supplying boots and other clothing; they encourage the attendance of the children at the centres, and in many instances have arranged tea parties and meetings of parents at which homely talks on simple hygiene and care of the children in connection with rheumatism have been given.

"Several lectures to care committee workers have been given on the administrative and preventive measures adopted under the scheme.

"Since rheumatism was made notifiable in Holborn last Easter, arrangements have been made with Dr. Hutt, the medical officer of health, for the borough council's health visitors and the Council's organiser to co-operate fully in every direction. A somewhat similar arrangement was later made with Dr. Caley, the medical officer of health of Wandsworth. Such close and friendly relationships are extremely necessary in London to prevent overlapping in the duties of independent authorities and to secure for the child and his parents such help as exists for their benefit.

"The existing rheumatism supervisory centres were mentioned last year. Owing to the impossibility of keeping pace with the numbers nominated for the Council's Elizabeth Bullock and Downham centres, the collecting areas for each of these had to be narrowed, thus indicating the necessity of establishing centres in other districts where no facilities exist. A new centre, directly administered by the Council was opened in Woolwich at the beginning of January, 1930, and arrangements are well forward for opening similar centres at Hammersmith and at Putney. In addition to these facilities a centre will shortly be opened at King's College Hospital, which, it is proposed, shall be in close association with the children's care organisation.

"One session in each week has been held at both the Elizabeth Bullock and the Downham centres throughout the school year, and experience has shown that these centres neither encroach on the work of the private practitioner nor on that of the hospital, but fill an obvious gap by providing supervision where necessary of many children who would not in the ordinary way attend any doctor until perhaps irreparable damage had been done.

"The number of children seen during the year was as follows:—

				<i>Elizabeth Bullock Centre.</i>		<i>Downham Centre.</i>	
				<i>New</i>	<i>Re-</i>	<i>New</i>	<i>Re-</i>
				<i>cases.</i>	<i>inspections.</i>	<i>cases.</i>	<i>inspections.</i>
Boys	...	...	...	80	203	79	192
Girls	...	...	...	125	236	120	228
Totals ...				205	439	199	420

"The incidence of rheumatism is highest in children from the poorest schools. Attention should be focussed on these, and every effort made to encourage the parents to bring rheumatic or potentially rheumatic children from the poorest schools to the centres; it is such children who stand most in need of the facilities that exist for their benefit.

"The sources of reference of the children were very similar to those of last year, the great majority being sent by the school doctors and from school treatment centres, though an increased number has been referred from private doctors. The parents are increasingly alive to the value of full examination of children showing any prodromal signs of rheumatism. Children nominated otherwise than by doctors are either out of school or thought to be suffering from rheumatism and not under treatment or supervision elsewhere.

"Many children not definitely rheumatic but having something in common with rheumatic symptoms were seen; perhaps the most numerous class was that with so-called debility, thin, under-nourished and pale, with flabby, undeveloped muscles of poor tone with sagging posture and lacking in energy. Such children benefit greatly by convalescent treatment, and some do well at day or residential open-air schools. Another smaller class, usually of better social standing, gives a history of cyclical vomiting or recurrent bilious attacks followed by a day or two of malaise, of tiredness, and, may be, of vague pains and discomfort in the limbs not thought to be due to rheumatism; wholesome dietetic advice is indicated in these cases. Some children, of unstable type, were seen who have occasional mild pyrexial attacks with tachycardia without developing rheumatism or other recognisable disease.

"Pain is the one complaint common to most of these, and to rheumatism, and while no hard and fast rule can be laid down, infrequent transient and vague pains in the large muscles and over the long bones are not so indicative of rheumatism as are the more insistent and frequent pains related to the larger joints. When such pains are associated with swelling which moves from one to another of the larger joints, rheumatism is present, but even in the absence of arthritis, of rheumatic fever, or of chorea, the history and clinical appearance outlined in the Annual Report for 1927 is commonly found in the child suffering from early rheumatism.

"Seventy-three Elizabeth Bullock and 80 Downham children were thought not to be rheumatic and 25 at the Elizabeth Bullock centre and 30 at Downham were discharged after their first visit. The others were referred for re-examination at varying intervals, and of these, 19 Elizabeth Bullock and 17 Downham children were recommended for convalescent or residential open-air school.

"The value of tonsillectomy as a protective or an ameliorative step in rheumatism would be apparent were it agreed that there is a higher incidence of inflamed tonsils in rheumatic children. The normal amount of lymphoid tissue in the infant up to five years of age is not known, but somewhere about this age, when the throat is healthy, tonsils or lymphoid tissue gradually disappear; their physiological function appears to have terminated. Where there is marked hypertrophy or obvious local sepsis giving rise to symptoms, no one hesitates to remove tonsils and adenoids, and almost always with benefit to the child. In all investigations by the Council's officers, with any bearing on the tonsils, the findings subsequent to tonsillectomy have been such as to cause Dr. C. J. Thomas to remark, 'It is better to have had tonsils and lost them than never to have had tonsils at all.' The explanation is no doubt partly due to greater parental care shown by submitting the child to operation, especially as these enquiries have been in poorer elementary schools where the social conditions are at their worst and defects are more frequent. But the explanation may also be that when nature has done with the tonsils, their presence has become a danger in children whose throats are chronically inflamed and in these removal does good.

"The combination of tonsillitis and of sore throats with rheumatism is universally admitted. In contradistinction to the catarrhal child, the proliferative changes in rheumatism appear specially to affect connective rather than lymphoid or mucoid tissues and in these, even when sepsis is present in the throat, we find neither much increase in the size of the tonsils nor marked adenoids. The tonsils though small are usually inflamed and the surfaces irregular, whilst the edges of the pillars are injected, the tonsillar glands are not markedly enlarged as though they were no longer a barrier to infection, for the rheumatic child shows some degree of toxæmia. It also appears to be a fact that incomplete tonsillectomy, possibly by exposing a relatively unprotected surface to infection, increases the tendency to severe toxæmia and grave carditis, thus indicating that infection in the tonsils or through the tonsils has a definite bearing on the disease.

"Early and complete tonsillectomy stops the tendency to recurrent sore throats and thereupon presumably reduces the chance of continued septic absorption from the throat.

"The state of the tonsils in 84 children with developed rheumatic heart disease is shown :—

<i>With normal tonsils.</i>	<i>With inflamed tonsils.</i>	<i>Complete tonsillectomy.</i>		<i>Incomplete tonsillectomy.</i>	
		<i>Before rheumatism.</i>	<i>After rheumatism.</i>	<i>Before rheumatism.</i>	<i>After rheumatism.</i>
10	45	6	10	8	5
		16		13	

"Only 10 out of this series were thought to have normal throats, that is tonsils either not visible or visible but not inflamed. In a previous series (Annual Report. 1927) only 17 out of 100 rheumatic children had normal throats.

"Twenty-nine out of these 84 cardiopaths had been tonsillectomised, probably because of obvious local signs ; this represents 35 per cent., a higher percentage than is found among ordinary elementary school children in London (25 per cent.). The throats of rheumatic children are more troublesome than those of the normal child, but because there is no marked local hypertrophy of tonsils and adenoids, tonsillectomy although more frequent in them is not so frequent as it should be.

"Only six out of 84 were satisfactorily operated on before the known onset of rheumatism, 8 were incompletely tonsillectomised prior to rheumatism and 15 had the operation subsequent to the onset, of whom 5 had tags left and all those with fragments remaining show some signs of local inflammation. There is thus a higher percentage of inflamed tonsils in rheumatism. Complete tonsillectomy stops recurrent sore throats, incomplete tonsillectomy does not.

"The operation is therefore well worth while in every child with recurrent sore throats or who shows such evidence of inflammation as is indicated above, but it should be done before rheumatism declares itself, or alternatively, only during definite quiescence of the illness. The tonsils should be dissected out or completely removed ; to leave tags is more harmful than to leave the tonsils alone.

"A relatively large number of children was seen this year, without any apparent abnormality of the heart, an encouraging sign of the increasing attention of the parents to minor departures from good health in their children.

"The cardiac conditions of the children are shown :—

				<i>Nil.</i>	<i>Congenital.</i>	<i>Suspicious.</i>	<i>Definite.</i>
Elizabeth Bullock	Girls	...	...	61	2	46	16
" "	Boys	...	...	39	1	29	11
				100	3	75	27
				—	—	—	—
Downham	Girls	...	...	66	1	38	15
"	Boys	...	...	45	—	25	9
				111	1	63	24
				—	—	—	—

"Although the rheumatic infection may have long smouldered, some children will present few signs or symptoms prior to the detection of carditis. Unfortunately, when the heart is definitely affected recognition of the condition is too late. At the same time the range of physiological variation in the child's heart is wide and many apparent abnormalities are not of infective origin. Less than half of those whose hearts were looked upon with suspicion last year are now giving anxiety ; the others have improved and appear to be healthy and well.

"While adopting every means to better the child's condition and to increase his resistance to infection, an optimistic attitude is best, for children showing extremes

of functional variation are particularly susceptible to suggestion and react well in an atmosphere of confidence and encouragement. Too many restrictions often defeat their own ends and induce invalidism. When active carditis is present, hospital treatment is necessary. Restriction in school games and exercises is adopted when it is thought that the child, though perhaps able to benefit by exercises, if he can limit his activities when he feels tired, should not compulsorily compete in the activities of his stronger fellows. It is an indication to the teacher that the child requires watching.

"Swimming is contra-indicated in children with a definite rheumatic history.

"Exclusion from school is advised pending a child's admission to hospital or during any active illness when the mother is capable and the home is such that rest can be assured, otherwise exclusion from school does more harm than good. These considerations were discussed last year and are again raised as they form an important feature in dealing with these children and are points on which some difference of opinion exists.

"If proper convalescence of sufficient duration has been carried out a special physically defective school is not indicated in the absence of heart disease, but if the heart is affected and the damage appears stationary, special school education may be considered. A uniform policy based not only on an appreciation of the child's condition but also on the knowledge of home and school conditions is necessary to prevent conflicting advice and administrative difficulty.

"The following table shows the lines upon which these children were treated:—

<i>Centres.</i>	<i>School and no restrictions.</i>	<i>School and restrictions.</i>	<i>Treatment while attending school.</i>	<i>Treatment and excluded school.</i>	<i>Institutional treatment.</i>	<i>Convalescence.</i>	<i>Physically Defective School.</i>
Elizabeth Bullock	76	36	16	33	25	23	7
Downham	81	29	10	31	24	24	6

"It happens in many cases that restrictions are made and advice given by doctors prior to the child's attendance at the centre. These are usually endorsed pending further re-examination and assessment of the child's condition. Although every child sent up is fully examined, when a child is already under constant treatment it is not thought advisable to keep him under observation unless the treating doctor desires it. If other than a favourable diagnosis is given, this is done out of hearing of the child. The parents of all children who are discharged are advised to re-attend should the child's condition cause any anxiety.

"Forty-five children at the Elizabeth Bullock centre and 51 at Downham were discharged after the first re-inspection and 53 children from the former centre and 41 from the latter who were first seen last year are still under observation.

"The progress of the children at their last inspection is tabulated:—

<i>Centre.</i>	<i>Remaining free from symptoms.</i>	<i>Recurring symptoms.</i>	<i>Retrogressing.</i>
Elizabeth Bullock	109	91	21
Downham	113	80	16

"When the child is known and remains free from symptoms and physical signs the interval between re-examinations can safely be extended to six months, so long as the parents know they can re-attend on the recurrence of any illness on the child's part; others must be dealt with on their merits, active and usually institutional treatment is indicated in those who retrogress.

"While every effort is made to better the home conditions by advice and by official action if such is indicated and to procure for the child the benefit of all the existing facilities, there are some practical points to which attention should be called. It is obvious that any personal defects should be treated and few of these will be found that have not received attention prior to attendance at the centre. It is not uncommon, however, to find children sleeping in the same underclothing as

they wear during the day. In those children prone to night sweats this practice is dangerous and exposes them to chilling during the day. Light, porous clothing is better than layers of heavy things. Feet as well as hands are found to sweat in these children, and so the stockings should be changed and washed often. Wet boots should be changed in school for plimsolls or simple home-made slippers. It is better for a child to sleep alone, even on some kind of made-up bed. If this is impossible a bolster or some other device should separate one child from another to ensure rest. There is no definite length of time which any child should sleep; normally they sleep longer than adults, but the only test is whether the child wakes spontaneously in the morning. The skin in order to function properly should be clean. Although children vary in their appetites, no child will willingly starve to death; all children love fuss and many children are "finicky" with their food because of the excitement it causes in their elders. If food is suitable and varied and the child refuses it, it is better to let that child go without this meal as his appetite will be better at the next. While this is a good working rule, it cannot be applied unless the diet is known to be sound. Many of these children get bread and jam and margarine with occasional tinned foods and little else apart from the sweets they are so often munching. Their diet is therefore devitalised, and consists largely of carbohydrates. Glucose and sugar are sometimes a necessity to balance or partially replace an over rich diet, but some easily assimilated and vitamin containing fat must be added to the fat-free diet of many of the poorer elementary school children. Fat is the main vehicle of vitamins A and D. It is a physiological necessity, complementary to carbohydrate and necessary for the proper assimilation of calcium, of phosphorous and of the salts generally. Fruits and vegetables are also indicated. Milk is the only natural food that contains all the principles of an ideal diet; its worth has been proved by Dr. Corry Mann even in what was supposed to be a fairly generous mixed diet in a large residential institution for boys, and more recently the value of giving milk to ordinary elementary school children was demonstrated by Dr. J. B. Orr in some Scottish schools. It is certainly a necessity for ensuring the health of many of the children seen at these centres. Cod liver oil is also indicated in many debilitated children. These points, apparently trivial, are of moment to many of these poor children. In reviewing the work of the past few years, it occurs to me that clinical acumen is not so important as an intimate knowledge of their homes, their parents and their ways of life."

Waterloo
Hospital,
Supervisory
Centre.
Dr. Gerald
Slot.

Dr. Gerald Slot has contributed the following report of the work done at the Waterloo Hospital Rheumatism Supervisory Centre for the year 1929:—

"During the period under review, 226 new cases have been seen at the clinic, and there were 707 re-inspections. Of the new cases, 33 were admitted to the wards of the hospital; 21 cases were nominated for High Wood; 21 were referred to an infirmary owing to no hospital bed being available or to the case being unsuitable for hospital treatment; 48 cases were recommended for convalescent treatment; 50 were certified for P.D. schools. A group of 208 cases attending the centre has been very carefully investigated. The cases have been divided into three groups. A. 108 cases with definite evidence of myo-endocarditis. B. 22 cases with a history of rheumatism and showing cardiac irritability but no definite evidence of myo-endocarditis. C. 78 cases with a history of rheumatism, but no evidence of cardiac disease.

"The sex incidence in series, per cent., is as follows:—

	A.	B.	C.
Males	27	27	40
Females	73	73	60

"These figures show a marked preponderance of females in the group with organic heart disease.

"In view of the question of the influence of colour, this has been specially investigated : 60 per cent. of our cases had fair hair, 39 per cent. had brown or dark hair and 1 per cent. had 'red' hair. The combination of blue eyes and fair hair occurred in 50 per cent. of cases. Blue eyes with dark hair in 20 per cent., while 30 per cent. had dark eyes and dark hair. These figures do not suggest any marked colour propensities to rheumatism.

"From a study of the histories, the following facts emerged. Of the cases in group A, 41 per cent. gave a definite history of arthritis, 10 per cent. a definite history of chorea, 3 per cent. a history of chorea and arthritis, while 46 per cent. had a vague history of joint pains, twitchings, etc. In group B 18 per cent. gave a definite history of arthritis, 9 per cent. a history of arthritis and chorea, 18 per cent. a history of chorea only, and 55 per cent. gave only a vague history. In group C, 5 per cent. gave a definite history of arthritis, none a history of arthritis and chorea, and 15 per cent. gave a definite history of chorea. In 80 per cent. the history was vague. Hence it can be concluded (1) a definite attack of acute arthritis is very often followed by cardiac involvement ; (2) chorea is far less constantly a precursor of cardiac involvement than acute arthritis ; (3) half the cases of serious heart disease have been preceded by no recognisable serious illness, but had vague signs of tiredness, pallor, vague ill-health.

As regards the type of heart disease in Group A, 84 per cent. had mitral disease and myocarditis, of which 17 per cent. were mitral regurgitation ; 30 per cent. had combined mitral disease ; 25 per cent. had mitral stenosis ; 12 per cent. were unclassified ; 8 per cent. had both aortic and mitral disease. There were 7 cases of congenital morbus cordis of which 3 were associated with mitral disease. These figures show the striking preponderance of a mitral lesion. Of cardiac irregularities, only sinus arrhythmia and extra systoles were observed, but sinus arrhythmia was not often noted in the cases with myo-endocarditis, which lends stress to the statement that sinus arrhythmia is a normal event.

The pulse rate.—The average rate for each group showed no striking differentiation. A, 98·4 ; B, 100 ; C, 89·5 beats per minute, and for this reason a sub-classification was adopted :—

<i>Resting Pulse rate.</i>			<i>A (a) Active myo-endocarditis.</i>	<i>A (b) Healed myo-endocarditis.</i>	<i>B.</i>	<i>C.</i>
Over 100	...	...	46	81	40	80
Under 100	...	...	54	19	60	20

Hence it may be concluded that tachycardia is compatible with a normal heart ; but tachycardia in a child with a rheumatic history indicates the need for a careful and searching examination. It seems that a majority of children with normal hearts shows a moderate increase in pulse rate after exercise, but in the majority of healthy hearts it rapidly returns to normal. The following observations result from examinations of many hundreds of blood pressures taken. The system of marking adopted is fully set out in the Annual Report for 1928 (p. 81). Eight marks is the minimum allowed for efficiency :—

						<i>Cardiac efficiency. Per cent.</i>	
						<i>Over 8 marks.</i>	<i>Under 8 marks.</i>
Definite cases of myo-endocarditis]							
Active	...	...	...	...	...	27	73
Inactive	...	...	...	...	...	75	25
Group B	...	...	...	...	...	40	60
" C	...	...	...	...	...	80	20

These figures prove the usefulness of the cardiac efficiency taken in conjunction with other signs. The next table shows the effect of standing on the pulse rate (percentage of cases examined).

<i>Increase.</i>			<i>Active endomyo-carditis.</i>	<i>Healed endomyo-carditis.</i>	<i>B.</i>	<i>C.</i>
Under 10	...	...	78	84	68	81
Over 10	...	...	22	16	32	19

About 30 per cent of the children showed no increase at all in the pulse rate on standing

The effect of exercise on pulse rate (percentage of cases examined)

	<i>Active endomyo-carditis.</i>	<i>Healed endomyo-carditis.</i>	<i>B.</i>	<i>C.</i>
Increase in pulse rate, under 30	53	28	56	78
Increase in pulse rate, over 30	47	72	44	22
Return to standing pulse rate in 60 secs. ...	51	71	55	77
Return to standing pulse rate in 60-120 secs. ...	28	18	30	17
Pulse rate raised after 120 secs.	21	11	15	6

These figures are only of a preliminary nature, and further research is being made. Several lectures have been given during the year to practitioners and care committee workers and the method of working the clinic demonstrated. In conclusion, it is a pleasure to thank my two assistants, Dr. Doris Baker and Dr. Warwick Preston, for their great help and loyal co-operation, without which this work could not proceed, and to the Council's organiser, Miss Kilvert, for her unfailing efficiency and tact in dealing with the social side."

Notes on
rheumatism
in two
selected
schools.
Dr. Mabel
Russell.

Dr. Mabel Russell, studying rheumatism as it can be explored by the medical inspector in the schools alone, reports :—

"Although one is fully aware of the insidious onset of rheumatism following on a history of vague pains with a diagnosis of definite valvular lesion, at the same time there appears to be a tendency loosely to classify as subacute rheumatism every pain occurring in limbs, and one knows there are many and various conditions that give rise to "aching limbs" other than the specific rheumatic toxin, therefore in continuing the enquiry of last year special note has been taken as to the presence of any definite clinical sign or symptom of rheumatism, in those children who had complained of what they term "growing pains."

"The two schools selected were :—(a) Marlborough (girls') and (b) Ashburnham (girls'). These two schools are situated at opposite ends of Chelsea—the latter being near the river.

"The definitely rheumatic children are nearly all well known and are kept under observation, and of the other children (*i.e.*, those with "growing pains"), the majority of them had been examined at least twice. Comparison of the two schools showed very little difference in the incidence of rheumatism.

	<i>Marlborough.</i>	<i>Ashburnham.</i>
Children present on day of enquiry	319	313
Cases diagnosed as rheumatism by treating doctor	13	15
Children with "growing pains"	61	71
Number of definite cases available for examination... ..	11	13
Various degrees of myocardial debility	7	3
Early signs of valvular disease	2	—
Slight and compensated valvular disease	—	2
Past history of enlarged tonsils	4	10
Past history of rickets in infancy	4	5
Number with "growing pains" available for examination	54	61
Myocardial debility	3	8
Anæmia	14	10
Past history of enlarged tonsils	12	28
Past history of rickets	6	—

"It should be noted that the rheumatic cases recorded here refer to those children who have escaped a severe heart lesion and have been able to return to the

elementary school, but for the same range of ages there are already in the P.D. school 6 children from the Marlborough and 4 from the Ashburnham with valvular disease of the heart.

"The figures show that roughly a third of those with a history of "growing pains" had clinical signs (*i.e.*, degrees of anæmia and myocardial debility) which were possibly due to sub-acute rheumatism.

The following particulars are extracted from a report by Dr. D. W. Winnicott on the work done at the Queen's Hospital Rheumatism Clinic for the year ended 1st May, 1929.

During the year 45 treatment sessions were held, at which 313 new patients were seen, an average of 7 patients per session. There were 310 attendances apart from first attendances, making a total of 623 attendances. The number of second and third attendances is small because in the first 2 months only 7 patients were seen twice. Actually the number of old patients per session is constantly increasing, whereas the number of first attendances per session is kept constant as far as possible. In the two months March and April, 1929, the last two of the year in question 90 old cases attended, an average of 13 per session.

The 313 cases sent to the clinic during the first year were referred from the following authorities :—194 from school medical officers and care committees (the proportion from this source will be found to have greatly increased when statistics which do not take into account the abnormal first few months are compiled), 91 from the hospital out-patient departments (the proportion from this source will be found to be much smaller in future statistics), 13 from treatment centres, 5 from head teachers, 2 from patients' private doctors, 2 from Invalid Children's Aid Association and Charity Organisation Society, 76 brought to the clinic by parents.

During the year there has been a session every Wednesday of the school terms. New cases are expected to come at 1.30 p.m. and old cases at 4 p.m. Each session lasts till about 6 p.m.

The following statistics deal with 365 patients, 145 males, 220 females; this number includes 52 new patients seen in May and June of 1929. For the purposes of statistical inquiry each case was labelled according to a simple and definite diagnosis. Without some such plan no statistics can be compiled, though it must clearly be understood that any attempt to be dogmatic where sub-acute rheumatism is concerned is from the clinical point of view unwise. Clinically the condition of the patient is always more important than the diagnosis, and the indications for treatment must be derived from a study of the whole patient. Therefore the patients were labelled as follows :—

- (1) Those not considered to be, or to have been either rheumatic or choreic ;
- (2) Those who have had, and are therefore liable to, either rheumatism or chorea, or who have active disease of this nature now ;
- (3) Those who show very good evidence of past or present (active) rheumatic heart disease.

230 (95 males, 135 females) either have no physical disease or suffer from some disease other than the one in question ; of these 96 (42 males, 54 females) may be called rheumatic, that is, have or have had illness which cannot be distinguished from the kind of rheumatism that is often associated with heart disease.

48 (12 males, 36 females) have or have had chorea. Nine have had both rheumatism and chorea, and 65 (24 males, 40 females) have old rheumatic carditis or active carditis or both. As is usually the case, the predominance of girls over boys is marked in the chorea group.

The effect of damp home conditions.—The clinic is as yet too young to be able to contribute anything of value to the investigation of this problem. Also, no attempt is made to visit on a large scale as (except from the point of view of research, which

Queen's
Hospital for
Children
Rheumatism
Clinic.
Report by
Dr. D. W.
Winnicott.

is not our main object) as much as is required to be known of the patients' homes can be culled from the parents' remarks. Mrs. Farmer, the Council's organiser at the clinic, has formed the opinion from her friendly discussions with the parents, apart from whatever diagnosis may later on be made by the physician, that in 66 of the 365 cases the conditions at home are outstandingly damp. Of these 66 cases, 39 were diagnosed as not rheumatic or choreic; 9 were found to have rheumatic heart disease, past or present, and 18 (15 rheumatic, 3 choreic) had no heart disease.

Of 365 cases 63 per cent. have not been diagnosed as rheumatic or choreic, 17 per cent. have heart disease, past or present, 20 per cent. are rheumatic or choreic but without heart disease.

On this basis it is interesting to compare the expected proportions of the 66 "damp" cases with those actually found, for in so far as they coincide so far is the unimportance of damp as a factor in causation of rheumatic fever and its sub-acute forms implied.

	Not rheumatic or choreic.	Rheumatic heart disease.	Rheumatic or choreic without heart disease.
Expected if damp not important	41.6	11.2	13.2
Actually found	39	9	18

All that can be deduced from these figures is that dampness, as assessed at this clinic, is not yet shown to be of great importance in the causation of rheumatic heart disease.

Activities of the Clinic.—The main activities of the clinic are continuous diagnosis and supervision according to diagnosis. When each case has been seen for the first time and the personal history, family history and present home conditions have been examined from the more or less complete account obtained from the parent, a statement is written down by the physician in charge. This is more comprehensive than a diagnosis and at the same time more accurate for the description of most of the cases, especially where doubt exists. Some sample notes are here given:—

A.—I consider this boy is healthy. In routine examination at school S.M.O. found (I understand) some abnormality which caused him to tell the boy he must not play games and must attend this clinic. There is no history of rheumatism.

Heart.—Apex beat in nipple line, normal impulse, rate natural for the place and time, sounds normal and nothing added. During inspiration there is a systolic cardio-respiratory murmur which has no significance. Probably this murmur caused the S.M.O. to take precautions. I should advise that the boy be treated as normal in every way. Tonsils are enlarged, but in the absence of sore throats, rheumatism, heart disease, etc., I should not advise interference.

B.—This girl has had acute rheumatism and chorea, and so is liable to it again. Heart shows no signs of past or present disease. I do not think there is chorea at present, but for observation in ordinary out-patient department.

C.—This child, very nervous, gets pains and is pale. Apart from this there is no sign of disease anywhere. It is possible that the mother (having lost two children and being left with this one alone) tends rather to overdress and over-care for this girl. At present (as the S.M.O. noted) the heart is natural. As the girl will be kept under observation she may do drill and keep at school.

D.—This child is liable to acute and sub-acute rheumatism, and her mother and two sisters are rheumatic. The heart is at present normal. The fidgetiness is not typical of chorea and is probably emotional in origin and unrelated. A good case to take trouble over.

E.—This boy, whose heart is normal and who has not definitely had rheumatism, gets odd pains and lolls about. As his mother, brother and sister have had acute rheumatism he should be treated vigorously according to present knowledge in order to prevent acute attacks.

This means (1) Tonsillectomy (already arranged for) ; (2) Holiday while well, and repeat.

Memo : Home conditions not ideal—bedroom especially.

F.—This girl has had pains for five years. She is short but not thin. She is very nervous and excitable. 1926 had acute rheumatism with swelling of ankles. Tonsils have been removed, and yet sore throats have persisted. Heart normal at present. Probably a genuine rheumatism, latent. (Genuine rheumatism in family history.)

G.—This child, with occasional pains, is kept under observation because her twin is said to have acute rheumatism at present. This child is not ill, but examination of heart makes it imperative to treat as rheumatic, because the heart is dilated and the rate is raised (although she is not scared).

These case notes are afterwards copied by the organiser, on to the following-up card, and a résumé is sent to the County Hall. The care committee receives a letter notifying each new case and each subsequent attendance. The County Hall is also notified after each attendance. Apart from these notes and letters the organiser has in the fourteen months written about 1,470 letters to various authorities and about 330 letters to parents.

Treatment for rheumatic and other than rheumatic conditions has been arranged for as follows :—

Of 365 cases—172 have been referred to other departments of the hospital, about half of this number being referred to one of the ordinary out-patient departments of the physician in charge of the clinic. 4 were admitted to the wards of the hospital. 32 were referred for tonsillectomy and operated on. 3 were referred for an opinion but not operated on. 19 were treated for dental abscesses. 2 were referred to the eye department. 13 were X-rayed. 2 attended for a period for breathing exercises. From this it can be seen that the Queen's Hospital for Children, by work done in its ordinary out and in-patient departments (for the running of which it is dependent on voluntary contributions) is whole-heartedly supporting the clinic. In addition 4 were admitted to Highwood ; one was admitted to Carshalton ; one went to a police orphanage.

Treatment by change of surroundings.—In dealing with the class of case sent to this clinic it is logical to try to get a holiday for each debilitated child where the debility seems to be largely the result of home conditions. Especially has this been aimed at in doubtful rheumatic cases and in rheumatic cases between attacks, the essential feature being absence of active carditis. In following up this idea the clinic has been fortunate in that it has had the support of the authorities providing such holidays. 6 children went to Bushy on our recommendation. 2 children stayed with relations. 5 children went to the hospital's home at Bexhill. 50 children were dealt with by the Invalid Children's Aid Association. Of the last-mentioned 50 cases, 35 received holidays in I.C.A.A. homes. 4 holidays are being arranged. 7 were arranged but the parents disliked vaccination. 1 was arranged but fell through owing to payments. 1 was arranged but patient went to work instead. 1 went away after being referred to the Jewish Board of Guardians. 1 went through I.C.A.A. to Downs. Of those patients who received no treatment it may be assumed that either they needed no treatment and were content to receive no treatment, or they required treatment of a psychological nature for various anxiety or other states, such treatment being at present not available for many, and in most cases not absolutely necessary, although desirable.

The types of case seen.—One of the results of the work done in the clinic is the increased knowledge of what may and what may not be a "rheumatic" case, (that is, one carrying with it a liability to rheumatic heart disease). Knowledge on this point is still deplorably deficient, and exact diagnosis must probably wait for the bacteriologist and experimental pathologist. As more cases, however, are

seen and followed up so more types of symptom or sign can be said to be not rheumatic. This leaves a smaller group of probable-rheumatics for treatment by rest and careful supervision; treatment which aims at making heart disease, if it comes, less crippling, or perhaps preventing heart disease in cases where it would otherwise have developed.

Some of the patients suffer from disease obviously not rheumatic though the picture may at first sight have resembled that of sub-acute rheumatism. For instance, cases have been seen of lymphatic leukæmia, osteo-myelitis, traumatic myositis ossificans, fracture of the tip of a maleolus, ossifying hæmatoma around an ankle joint, flat foot, cervical rib, psoas abscess, tonsillar sepsis, pyelitis, cystitis, muscular weakness after illness. Others are sent for heart conditions which can be distinguished on close examination from those associated with rheumatic heart disease, as illustrations of which may be given:—congenital heart disease, systolic murmurs at the base and at the apex which can be ignored, irregularities originating in the sinus and not indicative of disease, premature contractions of unknown cause but not rheumatic, attacks of paroxysmal tachycardia, tachycardia or temporary dilatation or pain in the heart region due to pathological anxiousness.

The majority of the difficult cases is formed of those of possibly rheumatic children suffering from debility, fainting attacks, tiredness, and pains without joint swellings, and also of children with fidgetiness which cannot be immediately distinguished from chorea. As a result of the experience gained elsewhere, and now especially from the clinic with its organization for following up doubtful diagnoses, it has become more often possible to be dogmatic and to say in regard to a case of this nature that a particular case is not rheumatic or choreic, and is no more liable to rheumatic heart disease than is a normal child.

These children are usually anxious children or over-excitable children, the majority of them with other and obvious symptoms of psychological disorder, such as recurring night terrors, frank anxiousness by day, increased urgency and frequency of micturition apart from urinary tract infection, and so on, and the same wide group appears in all attempts to classify patients with debility. The same group formed the bulk of the "pre-tuberculosis child" of a few years ago.

It would, of course, be easy to call all these children "pre-rheumatic," and to treat them as such. Undoubtedly many of those improperly labelled "pre-tuberculous" children were very properly treated when they were sent away to sanatoria and given a good time in the open air. But, apart from the inaccuracy of such a procedure, the treatment of rheumatism involves long periods of rest and restraint, and this is the worst treatment for a highly-strung child. Such a child, in so far as he or she is capable of receiving help from external sources (that is, help which does not take into account unconscious conflicts) should be allowed to do all that other children do, even when symptoms appear (*e.g.*, feeling faint, pains, tiredness, for instance) which would be enough to determine the sending of a rheumatic child to bed for some months.

It is possible that nervous children are slightly more liable to rheumatic heart disease than normal children; it is possible that excitable children are more liable to chorea than their placid brothers and sisters. But there is certainly not enough correlation to justify a general designation of nervous children as "pre-rheumatic" or "pre-choreic." In this clinic these terms are never used, for they are not understood.

Rheumatism—Symptoms, etc.—The anxious child, especially when lying awake for hours each evening, waking up with frequent nightmares and generally lacking proper rest, is liable to "rheumatism"—that is, to pains in the thighs, back, head, muscles and sometimes joints. These pains are similar to those which are often acknowledged by a patient with definite rheumatic heart disease when questioned with regard to his or her past history. In any one patient it is impossible to form

even an opinion as to the etiology of pains without swelling unless the type of child is known.

If the illness with pains occurs in acute attacks with feverishness, and with first one and then another joint definitely picked out, especially if the child is not over nervous as far as can be judged, then the presumption of real sub-acute rheumatism is stronger.

The occurrence of hot, shiny, swollen joints is taken as evidence that the sub-acute illness is rheumatic and liable in this or a subsequent attack to be associated with heart disease, provided that other joint infections (*e.g.*, pyogenic, tuberculous) can be ruled out. It is characteristic for the swelling to flit from joint to joint in rheumatism.

A form of insidious rheumatic fever is repeated tonsillitis, or faucitis after tonsillectomy. There are physicians who recognise a rheumatic type of tonsil; this has not been found possible here. Acute rheumatism is at the time often fairly easy to diagnose, and is not especially under review in this context.

Heart disease accompanying rheumatism.—Heart disease of undoubted rheumatic nature may be found without any history of rheumatism whatever. On the other hand, a child may suffer from many attacks of typical acute rheumatism and yet never develop heart disease. It is common for several attacks of rheumatism or chorea to occur in a patient before one in which the heart becomes involved.

There are some who consider that every attack of rheumatism is accompanied by heart muscle disease, even if no signs of disease remain after recovery. The important factor is certainly the state of the heart muscle, and it is very difficult to exclude heart muscle involvement in a case of definite rheumatism. It is a good treatment, therefore, to treat every case which has been diagnosed as rheumatic by complete rest, even when the heart is not obviously involved in this particular attack.

It is fairly clear, however, that there are definite rheumatic attacks without heart involvement, and any test which would distinguish these attacks from those with heart involvement would be of great value. There is no such test at present. In difficult cases the physician has to rely on the impression he forms after enquiry into the type of child and careful examination. (See paragraphs on "active heart disease.")

When old rheumatic disease of the heart is present the physician is justified in saying that as the child has had some form of rheumatism he or she is liable to the same again. In an otherwise doubtful case of sub-acute rheumatism, the presence of old heart disease would weigh down the balance on the side of rheumatism. The presence or absence of active heart disease cannot, however, be decided on these points. Whether the patient has had heart disease or no, the diagnosis of active heart disease must be made with reference to the present condition of the child as an active being.

Active rheumatic heart disease.—The centre point round which all the work of a supervisory clinic revolves is the diagnosis of active heart disease. There are certain signs of acute carditis in an ill child that make diagnosis comparatively easy. The dilatation and a rapid rate not properly accounted for by the raised temperature, lead the way to a recognition of the condition of rheumatic carditis, even when no changing sounds point to active disease of the valves. When pericarditis is present diagnosis is still further facilitated.

In the child thought to be suffering from sub-acute rheumatism, however, the diagnosis of active smouldering carditis is excessively difficult. The condition undoubtedly occurs, many diseased hearts having become diseased during a period of sub-acute rheumatism without acute attacks. There may be times when in our ignorance we decide for or against diagnosis of rheumatism according to the opinion we form as to the presence or absence of carditis.

From time to time tests are brought forward as capable of deciding or materially

helping to decide whether active rheumatic carditis is present or not present. These tests usually depend on heart rate and the variations in heart rate under stress, and nearly always the observation is of the behaviour of the heart under standard altering conditions.

It seems that the decision as to the presence or absence of carditis must rest at present with the clinician who, after a careful review of what history the parent is capable of giving, uses his eyes and hands and ears and forms an opinion. This sounds very vague but the considered opinion of an experienced physician is always positively worth something, whereas a test that is not comprehensive and hence inaccurate is of negative value.

Apart from the diagnosis of developing valvular disease through repeated examinations (it is hoped to detect heart disease before the onset of valvular disease if that is possible), the signs on which the physician bases his opinion in these early cases are heart rate, position of the apex beat as indicating dilatation but not hypertrophy, character of the thrust of the heart beat in relation to thickness of the chest wall, and no more. And it is acknowledged that the heart rate is dependent on subtle emotional factors, and that the heart may be dilated when a child is examined in the out-patient department apart from physical disease (even including marked dilatation, *i.e.*, apex beat one inch and more outside the nipple line). This leaves very little in the way of definite signs worthy of respect as foundations for an opinion which may lead to irksome restriction of activity over a long period, and perhaps to postponement of an important scholarship examination with an effect which is difficult to calculate on the child's future. It is a sincere attempt to get round this impasse that leads to the exploration of the well-worn paths of tests of cardiac function. At this clinic, however, better results are expected from the adoption of the clinician's standpoint.

Comments on certain physical signs—Systolic murmurs.—Perhaps the commonest sign for which children are sent to the clinic is a systolic murmur discovered during routine examination at school. It would not be right to say that all systolic murmurs should be ignored, for it does undoubtedly occur that occasionally a heart is first found to be rheumatic because a systolic murmur caught the ear of a doctor and led to a more detailed investigation. But it would be better for all such murmurs to be ignored than for all to be taken seriously.

Actually, from the point of view of the seeker after a sign of rheumatic heart disease, systolic murmurs unless they are heard at the apex and conducted out need not be taken into account. Such murmurs at the base usually mean nothing, but when they have significance it is as evidence of congenital malformation and not of rheumatic disease. Systolic murmurs at the apex are very common in childhood, and may arise temporarily during illness of whatever nature, and are often present from early childhood with no rheumatic correlation whatever. Many cases of loud systolic murmurs at the apex, to a certain extent conducted out, have been watched from soon after birth onwards, and have been found to have no significance. The curious thing is that so often the blood should be pumped through such a complicated series of channels without murmurs.

However, the common residual auscultatory sign of rheumatic carditis is a systolic murmur at the apex, constant in quality throughout the respiratory cycle, well conducted out as a rule, and due to mitral regurgitation. Therefore, when this sign is found the history of the case must be searched for possible rheumatic attacks, and if it is fairly clear that there has been rheumatic carditis in the past the consequent liability to carditis in the present and future must be important in determining treatment. In this way the discovery of a systolic murmur may be valuable. But a systolic murmur by itself is no argument for or against present active heart disease.

Palpation of the apex beat.—Palpation of the apex beat is the most fertile

stage in the examination of a heart. The chest wall of a child is usually relatively thin; for this reason the rate and the rhythm (discussed above) are determined by palpation, and also the position of maximum pulsation, the area of pulsation, the furthest out point in the left fourth or fifth space at which pulsation is appreciable (indicating indirectly the position of the left border of the left ventricle), the presence or absence of the presystolic thrill of mitral stenosis, the systolic thrill of pulmonary stenosis and the still more rare systolic thrill of aortic obstruction. Most important of all, the type of thrust can be felt. The type of thrust gives the first and most important indication of the thumping of fear, the deliberate thrust of hypertrophy (the result of established disease) and the weak or the distressed forms of beat of active carditis.

The thumping excited heart is nearly always felt over a wide area and mostly outside the nipple line. The deliberate beat may be in or inside the nipple line in a slight case, though usually in a low space, and is quite typical of hypertrophy. The rheumatic carditis apex beat (apart from severe carditis, pericarditis, etc.) is well outside the nipple line if the patient is standing, and is seen as an out-patient, and the thrust is weak. As a result of exertion the beat may become distressed and resemble the thumping anxious heart, but probably is felt further out (one inch or more outside the nipple line in a child of eight years, for instance).

But it must be remembered that no one symptom or sign found at one examination is pathognomonic of active carditis, unless the carditis is severe, and the child obviously ill.

Rate of heart beat.—This is a very variable number in childhood. It is affected by exercise, posture, and excitement in health. The diseases which commonly cause increased heart rate are anxiety—hysteria and rheumatic heart disease. In the former case the heart may overact as part of a picture of obvious over-anxiousness, or may be a specialised anxiety phenomenon in a child not apparently scared. In the latter case the increased rate is, along with dilatation, the response of an impaired heart muscle to work which is in health performed with a normal rate and without dilatation. It is often difficult to distinguish between these two causes of tachycardia, unless the patient can be watched during sleep, and the heart rate during sleep can be counted. But it must be remembered that slow heart rate during sleep does not exclude carditis. The character of apex thrust may help, and this has been discussed in another paragraph.

Variations in rate.—In a child the heart does not beat at a steady rate, as in most adults. Only in a phlegmatic child is the rate unaffected by the process of being undressed and examined naked. As an idea of the possibility of being admitted to the ward flits across the child's mind, the pulse rate may first thump at a slow speed and then tear away at 120-130 per minute, before the face has shown evidence of apprehensiveness. The idea of lying on a couch contains for many children a suggestion of some imagined mutilating operation, usually quite unconsciously, but sometimes reinforced by conscious memories of preparation for tonsillectomy, dental extraction, circumcision, or some earlier experience which has overtaken them when well and left them sore. When this is the case, the change in heart rate on assumption of the supine posture is ludicrously unphysiological.

Another form of heart irregularity is sinus arrhythmia. Here the rate varies with the respiratory cycle. The irregularity can be emphasised by exaggerated but slow breathing. As is well known, this irregularity is of no significance in the diagnosis of rheumatic carditis.

Premature contractions are clinically of two kinds. The constant ones, occurring perhaps every second or third beat, only slightly influenced by exaggerated breathing, have probably a physical basis in some localised fibrosis in the heart musculature. The inconstant ones, influenced by deep respiration, heard in a group at the beginning of the examination of a nervous girl's heart and then not recurring for several

minutes, are possibly abnormalities of vagal control without physical basis. The former may be evidence of old rheumatic carditis, the latter are not related to rheumatism. Premature beats have not been found, in the very limited experience of the clinic, to be part of the picture of active carditis. A case of typical paroxysmal tachycardia has been sent to the clinic. The child is not rheumatic.

The relation of the length of systole to the length of diastole is sometimes interesting. The following observations are put forward tentatively. Hypertrophy with mitral regurgitation tends to lengthen systole, as also the rare condition of aortic obstruction. Aortic regurgitation lengthens diastole. The excited heart is either normal in having a slightly longer interval between the second and first than between the first and second sounds, or tends to have equal intervals. The heart of poor tone works away owing to increased speed with equally spaced sounds, not easily affected by slight emotional strain and stress.

Mid-diastolic murmurs.—The second sound is normally complex, and the two main components may under varying conditions become separated by a short interval, so that a split second sound is heard. This has no significance in the diagnosis of carditis. Quite distinct from this is a very significant sound, a mid-diastolic apical murmur heard best inside the nipple line. In some cases this murmur is best heard with the patient lying down; in other cases it is best heard with the patient standing. Such a murmur is always taken seriously in this clinic. It is true that in some of the cases the murmur disappears with a return to health, but it is thought that the illness has in that case always been rheumatic. In some of the cases the murmur later becomes an aortic diastolic, indicating aortic regurgitation. In other cases it becomes a pre-systolic murmur of mitral stenosis and the prognosis becomes correspondingly serious. Several of these cases are being watched in the clinic, and later these will confirm or modify these present views.

Special Reports and Enquiries.

Members of the Council's medical staff have during the year assisted in various enquiries undertaken on behalf of the Board of Education and its special committees. These enquiries have included an investigation into the relationship between rickets and enlarged tonsils and adenoid growths (Drs. E. J. Boome, J. N. Dobbie, D. Leys and A. G. Wells), an investigation into changes of refraction in the eyes of young children (Drs. V. Brander and J. H. McIlroy) and an investigation into the dental condition of leavers (Dr. A. Livingston).

Other special reports and enquiries were made as follows:—The investigation of rheumatic conditions in school children (Drs. G. Slot, D. W. Winnicott and M. Russell) which are given in the section on rheumatism and a further enquiry by Dr. E. J. Boome into the condition of school children in the hop gardens of Kent to which extended reference was made last year.

Degree of
myopia in
Gentiles and
Jews
attending
sight-saving
schools.

Dr. E. M. McVail has continued her investigation into the degree of high myopia presented by Gentile and Jewish children in the sight-saving schools.

In the Annual Report for 1928 it was stated that comparing Gentiles and Jews it appeared that the greatest percentage of high myopia occurred amongst the former, although the numbers examined (86 Gentiles and 24 Jews) were too small for any definite conclusion.

Further investigation has been made as to the degree of short sight in nearly all myopic children attending the sight-saving schools. The degree of myopia has been estimated from the glasses most recently prescribed, children whose myopia was associated with corneal scarring and other complications such as albinism being omitted, and also a few with doubtful glasses. The numbers seen were 479 Gentiles and 106 Jews, and these include at least 90 per cent. of the children with pure myopia.

The percentages at different ages varied little as between Jews and Gentiles, and separate statistics for each age are not given.

TABLE A SHOWING THE MEAN MYOPIA IN DIOPTRES OF GENTILE GIRLS AND BOYS.

				Mean myopia in dioptries.							
Ages 4-14				4—	7—	10—	13—	16—	19—	22—	Total
Girls ...	Number ...	...	...	74	100	47	22	8	3	2	256
	Percentage	...	...	28.9	39.1	18.3	8.6	3.1	1.2	0.8	100
Boys ...	Number ...	...	...	57	96	51	13	5	1	—	223
	Percentage	...	...	25.6	43	22.9	5.8	2.2	0.5	—	100
Girls ...	Number ...	...	...	131	196	98	35	13	4	2	479
+ Boys ...	Percentage	...	...	27.4	40.9	20.5	7.3	2.7	0.8	0.4	100

TABLE B SHOWING THE MEAN MYOPIA IN DIOPTRES OF JEWISH BOYS AND GIRLS.

				Mean myopia in dioptries.							
Ages 4-14				4—	7—	10—	13—	16 —	19—	22—	Total
Girls ...	Number ...	...	...	18	28	12	3	—	—	—	61
	Percentage	...	...	29.5	45.9	19.7	4.9	—	—	—	100
Boys ...	Number ...	...	...	16	17	8	3	1	—	—	45
	Percentage	...	...	35.5	37.8	17.8	6.7	2.2	—	—	100
Girls ...	Number ...	...	...	34	45	20	6	1	—	—	106
+ Boys ...	Percentage	...	...	32.1	42.4	18.9	5.7	0.9	—	—	100

Comparing the two tables, the percentage of children with the highest degrees of myopia is greater amongst Gentiles than Jews. Only one Jewish child (a boy) as compared with 19 Gentiles (13 girls and 6 boys) had a mean myopia of over 16 dioptries, the respective percentages for Jews and Gentiles being about 0.9 and 3.9. The two children with the highest myopia of all (22 to 24 dioptries) were Gentile girls. Similarly, 68.3 per cent. of Gentiles had a mean myopia under 10 dioptries as compared with 74.5 per cent. of the Jews. It is thus seen that on the whole Jewish children in myope schools are rather less highly myopic than Gentiles.

Dr. C. E. Thornton has made an enquiry into the method of infant feeding in relation to the physical condition of 433 entrant infants examined by him. "In these cases only were the mothers able to give definitely reliable statements. Of these only 89 or 20 per cent. adopted the ideal method—that is—feeding exclusively on the breast and weaning at 8-10 months; 172 or 40 per cent. continued breast feeding almost entirely, for longer than 12 months, several of them much longer. One mother asseverated that her child was fed entirely on the breast for nearly three years! The child certainly presented an appearance of something abnormal having occurred in infancy. All these mothers firmly believed that they could not again become pregnant whilst suckling, and freely admitted this to be the reason for prolonging breast feeding. On more than one occasion it had failed to have the desired effect.

Physical condition of entrants in relation to infant feeding.
Dr. C. E. Thornton.

"The commonest method of artificial feeding employed was 'condensed' milk which was adopted by 18 per cent. of the mothers, but ordinary milk (with the inevitable barley water) came in a very good second (14 per cent.). Cheapness and convenience seemed to be chiefly responsible for the choice of these foods. Indeed as far as choice of modes of feeding was concerned the humiliating fact emerged from my enquiries that in not a dozen cases was the method adopted due to any deference to the views of the medical profession. The inexperienced mother seems to follow the advice of friends or relatives. The experienced tell one that 'it was how they had brought up all their children.' Dried milk and malted cereal foods were little used, contrary to my expectations. Only about 6 per cent. of the mothers had used dried milk, and a negligible number (5 in all) had used malted cereals. Probably expense is the deterring factor. The enormous advertising costs of firms dealing in these foods must be paid for by families in the higher social planes.

"With regard to the physical condition of the children the following criteria were adopted (i) the general physical efficiency and development of the children, (ii) the presence or absence of obvious signs of rickets, (iii) dental defects.

"*General physical efficiency.*—Regarding anæmia, debility, stunted growth and persistent history of 'ailing' as evidence of physical subnormality, a disappointingly high percentage of the children (17 to 27 per cent. in the various feeding groups) had to be classified as subnormal.

"Ordinary cows' milk and condensed milk seem to give the worst results (26 per cent. and 27 per cent. subnormal). Properly weaned breast fed children showed the lowest percentage of subnormal cases but even here it amounted to 17 per cent. Prolonged breast feeding gives only slightly increased percentages of subnormal children (20 per cent.) but the greatest number of children showing sign of rickets was found in this group. It is only in properly breast fed children that the proportion of children found to be above the average, (namely 18 per cent.) exceeds the proportion of children falling below the average. The hope of gradual racial improvement or at any rate of maintenance of the present standard depends on the extent to which mothers can be persuaded to rear their infants in a normal physiological way, and at present the proportion of mothers doing this only seems to be about one-fifth of the total. In the groups in which the suckling period was prolonged or the children were fed on condensed milk, 14 per cent. of the children showed definite signs of rickets; 11 per cent. of children reared on dried milk showed evidence of rickets, but the numbers in this group are perhaps too small for deductions to be of value. In a few cases only were the deformities produced at all severe.

With regard to teeth only children with more than four carious are tabulated. The percentages vary very little in the different groups. Children reared on condensed milk seem to fare worse. A table showing the actual figures is appended:—

Type of feeding.	Number seen.	Above average.	Sub-normal.	With rickets.	With more than 4 carious teeth.
Breast fed for 8-11 months ...	89	16	15	4	5
Breast fed over 11 months ...	172	15	34	24	10
Condensed milk	78	5	21	11	9
Cows' milk	62	1	16	2	4
Dried milk	27	3	5	3	2
Malted cereals	5	—	2	—	1
Totals	433	40	93	44	31

Arising out of the consideration of His Majesty's inspector's report for 1928, the question of the extent of postural defect and its causation in the London junior technical schools for boys was referred to me. In a preliminary report made by me in December, 1928, I pointed out that the results of medical inspection did not show any greater incidence of deformity in boys in trade and technical schools

over that in boys of the same age otherwise situated. For instance, the percentages of defect in boys' secondary schools in London compared with those in boys in trade and technical schools showed no significant differences. There were in 1927 amongst boys of 15:—

	<i>Spine.</i>	<i>Flat foot.</i>	<i>Other deformities.</i>	<i>Enquiry into the occurrences of postural defects and their causation. The school medical officer.</i>
Secondary schools	1.3	3.0	2.1	
Trade and technical schools	1.4	3.0	1.7	

A further reference to me on 30th March, 1929, was accompanied by notes made by Captain Grenfell of the Board of Education in which specific schools were mentioned. It then became necessary to conduct an investigation into the condition at these schools and an examination of individual pupils in order to ascertain if possible whether any correlation could be found between the conditions of work and the posture and physical development of the pupils. The enquiry was carried out by Dr. Nairn Dobbie and extended over several months.

Social conditions.—The boys are average working class lads collected from all over London without weighting of racial or local character. Roughly half of them are scholarship holders, but no significant difference in bearing or physique was on close examination discoverable between the scholars and the others. This fairly level standard of physical development was also found when such differences of home conditions as could be elicited were taken into account such as, for instance, whether the boys' fathers were in the same trade or not or whether the distance travelled to school was small or great.

In Dr. Dobbie's opinion the dietary of the boys and their whole diet generally is of first importance. Barely one-third of the boys individually examined stated that they had their dinners in school, a few went home, many carried sandwiches others went out for "dinner"—consisting not infrequently of a bun and a cup of tea. Often it was the boys who needed a good diet most whose meals were casual and unsatisfactory. There is no school restaurant at the Central School of Arts and Crafts, but at other schools weekly or monthly vouchers for meals at schools can be purchased, and this is better than giving the lads money day by day for there is great temptation to spend the money on extraneous objects. Unfortunately the finance of the family in some cases precludes the purchase of vouchers.

It seems desirable that some arrangement should be set up to deal with the social aspect and care of these boys who with their families, certainly in these matters, require guidance and help at least as much as do the children in elementary schools.

Working conditions in school.—It was not found that working conditions in school had any adverse influence. The discipline was found to be that of interest as opposed to force and the boys never assumed any fixed attitude or position for many minutes on end. No signs of over-pressure in school work were apparent.

Almost every type of desk is found in the classrooms from dual patterns to flat-topped tables and chairs. Often several types are present in the same room, really an advantage which goes to meet the needs of different sized boys. The workshop benches also vary in height from 2 ft. 4 ins. to 3 ft. 2 ins. in some cases.

In the case of stone masonry the benches must be low in order to keep the height of the material worked at a suitable level—a block of stone may be a foot or more in height. In some cases when the bench was more than 2 ft. 8 ins. high smaller boys were at a disadvantage and when working at machines and lathes the smallest boys had to stand upon stools, which is disadvantageous. There is, however, no ideal height for any bench when the lads dealt with present in the same grade differences of 2 ft. in height, and there is no work bench of convenient height which does not necessitate bending over it. In no instance are all the benches too high or all too low, and the general average height of the benches is the most suitable

for the average heights of the boys engaged upon them. When working at the benches the boys are continually moving, not only their arms but their backs and legs. Whatsoever the material worked upon they are stretching for tools, using their implements, bending to work, or to lift, or to alter the position of the material they carry or fetch. There is continual alteration of position, alternately muscular tension and relaxation.

The hours in the workshops are comparatively low and are well spaced in the time-table. Close study of individual boys in relation to their work makes it quite clear that the conditions are not detrimental to health or posture, on the contrary, the work done in the shops is generally beneficial to the well-being of the boys.

Physical Training.—Generally the amount of formal physical exercise is restricted to two periods of 45 minutes each in the week, at the Westminster Technical Institute, the chefs have apparently only one such period, a definite disadvantage. In the summer term one afternoon each week is spent in the playing fields which are unfortunately necessarily at a long distance from the schools. (At the Brixton School of Building this is carried out also throughout the winter.)

Each school has its athletic club, cricket or football matches being arranged on Saturdays; this is of course, outside the curriculum, the organisation being undertaken by the physical instructors, in each of whom keenness, interest in and knowledge of his work was evident. But, of course, only the physically fit are selected for match play and this does not help the weedy boy whose physical needs require most attention.

As the time allowed for physical training is so restricted it is considered that specialisation or even remedial medical work for the individual or for a group unless done at a special time or out of school hours must be done at the expense of the general training of the average boy and for that reason should be subsidiary to universal training on broad lines. It should be the rule in all the schools, however, that all the boys should repair to the playing fields, weather permitting, on one afternoon in each week throughout the year.

Individual differences.—In carrying out individual inspection the boys were found to fall into one or other of three types of physical function and development. :

- (a) Broad shouldered and broad waisted—the “barrel” type of manhood.
- (b) Broad shouldered and slim waisted—the “wine-glass” type.
- (c) Boys with long bodies and undifferentiated waists—the “test tube”

type.

Each of these three types has its own mental and physical characteristics which differentiate the types further. For instance, the “test-tube” type presents persistent childish traits and in comparison with the two other types is unstable and erratic; body movements are ill conducted and loose.

The general appearance of any particular class will depend largely upon the proportion of these three types which happens to exist in it, and it is type (c) which needs most the careful attention to nutrition and physical exercise. Roughly one third of the boys fall into this type and no great differences were noted in the various schools. There was a slight proportion of boys living under better social conditions at the Central School of Arts and Crafts and in a Polytechnic, perhaps accounted for by the fact that the Central school boys’ fathers were mostly printers, while the Polytechnic boys paid higher fees than the fee-payers of the other institutes. It was not found that cycling to school had any connection with habitual posture or physical development.

A very large number of observations was recorded and tabulated, but these tables, on account of the complexity and number, cannot be reproduced in this report.

Conclusions.—(1) Postural defects do not arise in these technical schools in

virtue of any of the school conditions. Most minor postural defects appear to be an expression of the individual type of growth at the early adolescent age.

(2) Arising out of the first conclusion the conditions under which the boys work in the schools are thought to be generally advantageous to their well being.

(3) The nutrition of individual boys requires careful watching at this age, and more attention should be paid to this, particularly to the nature of the mid-day meal. Some form of care organisation (which should not exclude the physical instructor) is necessary to survey the home and environmental conditions and to eliminate or rectify so far as possible such adverse conditions as are found to exist.

(4) Physical training is of the utmost importance, increased opportunity should if possible be afforded for this, and the rule of one afternoon a week in the playing fields all the year round should be followed.

The difficulties of dealing with clever myopic children with due regard to the safety of their eyesight on the one hand and to their future prospects on the other, are by no means inconsiderable. The cases shew considerable variations both in the degree and progress of the myopia. It is clear that for their future prospects a sound education is essential; at the same time there has been abundant evidence that close study exerts an adverse influence on the visual conditions. The experiments tried in certain secondary and central schools have been continued during the year and have been reported upon by Dr. McVail. The aim of the experiments has been to allow the myopic children to participate with others in all lessons that can be regarded as of an oral character, but to allow them to use chalk on a blackboard or on specially pinned-up papers for writing. Those with more serious defects, are read to by a teacher or by a normal-sighted child during the hours of preparation; others are allowed to read specially selected books with good print for strictly limited periods. These books are supplemented by specially prepared extracts in very large typescript. The difficulty is, that but few text books, such as are ordinarily used for preparation for public examinations, are really satisfactory for this purpose. Instruction in science, handwork, drawing and physical exercises is specially modified to meet the needs of the shortsighted, and homework and sewing are prohibited. It has taken some time to secure the necessary co-operation, for clearly it is useless to take precautions during school hours if no corresponding care is given out of school and, if the children, once they return home, are allowed to read or do exactly as they like. These difficulties have now in a very large measure been overcome. To avoid writing, a special point has been made of teaching the "touch" method of typing under conditions in which the writing is not visible to the operator. This enables essay writing and similar exercises to be carried out and the pupil hands in the script without reading it. The pupils eventually become sufficiently expert to be able to answer many examination questions in this way, without being materially handicapped. Experience showed that, by special methods, pupils could be trained sufficiently to enter for public examinations provided the ordinary examination conditions could be slightly modified. The head-mistress of the Peckham secondary school approached the registrar of the Examination Board of the University of London on the matter and his interest being aroused, he inspected certain of the myope classes, finally suggesting that there should be no insuperable difficulty. Points stressed, in the application to the University for modified conditions of examination of myopes, were periods of rest for the eyes, large typing or writing as in the myope classes both for question papers and for answers, a separate room for myopes who type, large scale copies of geographical maps, and the use of chalk or brush in drawing.

Under such conditions, three girls from the Clapton secondary school entered for a recent general school examination—writing large script and being allowed five minutes rest at the end of each hour—an extra ten minutes being allowed for the

Myopic
classes in
secondary
and central
schools.
Dr. E.
McVail.

three-hours paper. All three gained honours certificates with three distinctions each—a very brilliant and helpful result which shows that even working under restricted conditions, students of ability can excel. Still more satisfactory was the observation that in one case there had been no increase in the myopia while the girl was under supervision and in the others, the mean increase per year was only 0.21 and 0.3 dioptries per year respectively.

The experiment will be continued and extended to other schools, and it is hoped that shortly the pupils will have attained such proficiency in touch typing that this method, which will involve considerably less eye strain, may be used to answer certain papers. The results are very hopeful for the future, though it is clear that a selection will have to be made of the pupils who may be allowed to work for an examination; the point to be considered being the degree and progress of the myopia, the condition of the fundi, the general health and ability of the student and in particular the powers of memorising.

At the end of 1929 the number of girls being taught under sight-saving conditions was:—Clapton secondary school, 33; Peckham secondary school, 26; while 12 boys were under instruction of a somewhat similar kind at the Raine's Foundation school. The head of the latter reported that the boys' work was particularly good and that he had now little difficulty in getting them to obey the sight-saving regulations. None of these boys was at the date of the enquiry over 15 years of age.

Forty myopes were under special instruction at the Ensham and Hugh Myddelton central schools. They were reported to be doing well and in some cases heading their classes. At one school they were said to "shine" particularly in memory tests—a clear indication that their education is on the right lines.

The whole experiment is full of promise for the future and seems to be opening a way to reduce the serious handicap from which such pupils have suffered in the past, when they were practically forced to choose between risking their eyesight or refraining from study. Anything which will enable the handicap to be overcome is deserving of imitation and extension, and praise is due to the energy and enthusiasm of the late Miss Knight who, as head mistress of the Peckham secondary school, showed a sympathetic understanding of the special needs of children of this type and helped materially to overcome all obstacles.

Feeding of Children.

Dinners are provided for necessitous children. These follow menus which have been approved by the school medical officer. Occasional sampling of actual meals given to the children is carried out in order to ensure that each child receives the correct quantities of nitrogenous and calorific elements. Eight samples were examined during the year in the Council's Central Laboratory, and found to be satisfactory.

The attention of the school medical service is chiefly bestowed upon the children receiving "milk meals" or "oil meals." Right from the time of the passing of the Education (Provision of Meals) Act, 1906, it has been the practice in London for the school doctors to prescribe milk or oil in school for debilitated or anæmic children coming under their notice. The children placed upon the milk or oil list in school are weighed regularly by the school nurses and kept under constant periodic examination by the school doctors. Excluding special schools the numbers of "milk meals" given during 1929 in the elementary schools under the above-mentioned provisions were:—

To necessitous children	...	...	...	...	1,651,169
To non-necessitous children	...	...	...	...	2,360,433
Total	...	...	...	...	4,011,602

The numbers of cod liver oil "meals" were:—

To necessitous children	...	...	...	...	329,685
To non-necessitous children	...	...	...	...	493,149
Total					822,834

This by no means represents the total quantity of milk consumed in the schools by the children. Apart from the doctors' recommendations, and apart from the feeding of children scheme, in many schools the teachers have for some years past formed "milk clubs" on a voluntary basis, providing milk for all who wish it on payment of cost.

An impetus was given to the latter movement during 1929 as a result of the endeavours of the National Milk Publicity Council, which offered, with the assistance and co-operation of the trade, to supply to any school, bottles containing one-third of a pint of milk, sealed and provided with a straw, at a uniform price of 1d. per bottle all the year round. The trade is prepared to deliver these bottles day by day in the numbers required, and will collect the empty bottles, which will then be washed and sterilised by the trade on milk sellers' premises. The Milk Publicity Council added that the scheme had already been put into force with the approval of the education authorities in the cities of Birmingham and Liverpool. In April the Council agreed that no objection should be offered in cases in which head teachers desirous of starting voluntary milk clubs organise them on the lines suggested by the Milk Publicity Council. In consequence a large number of schools availed themselves of the opportunity offered.

As an example of the work done in one area only, Dr. Mabel Russell contributes the following notes upon the scheme as carried out in the Chelsea schools which are under her medical supervision:—

"It may be interesting to note the success of the scheme of the National Milk Publicity Council in Chelsea—the teachers all welcome the scheme as it entails no washing up, no keeping of registers, etc.—the children who formerly would not take milk become milk enthusiasts—the 'straw' being a great attraction.

"The whole system appears to the writer much more hygienic than the ordinary methods followed in many schools. All unused bottles of milk are returnable.

"All the Chelsea schools, with the exception of Ashburnham and Park-walk, have now adopted the scheme, and the following figures give the numbers having milk on the day of enquiry:—

(1) *Christchurch*—Infants' department, all except 16; boys' and girls' mixed, 140 (160 on roll).

(2) *Cook's Ground*—Infants, 138; boys, 100; girls, 79.

(3) *St. Luke's*—Girls and infants, 93; boys, 40.

(4) *Marlborough*—Infants, 200 (first week, as they have only just adopted the scheme); girls, 136.

(5) *Oratory R.C.*—Infants, 25; girls, 80; boys, 30. (This is a splendid response, as it has always been difficult to deal with these children under the Council's scheme).

(6) *St. Joseph's R.C.*—Girls and infants, 56; boys, 23.

(7) *Servite R.C.*—Girls and infants, 70; boys, 30.

(8) *Holy Trinity*—Girls and infants, 180; (baby room, 38–40; Cl. 4 and 5 room, all); boys, 51."

The total number of samples of milk meals analysed was 1,517. Of these 191 Milk meals. (12 per cent.) were unsatisfactory, 31 containing added water and 160 showing a deficiency of fat. The maximum addition of water in any one sample was 24 per cent., whilst in one the deficiency of fat amounted to 54 per cent.

Open-air Education.

Provision for education in the open air includes eight day open-air schools (non-tuberculous) with accommodation for 1,360 children, and seven day open-air schools (tuberculous) accommodating 540 children. There are also five country and seaside convalescent camp schools, accommodating 484 children for short periods through which 4,600 children pass annually, and 177 open-air classes in playgrounds and parks providing for upwards of 6,000 children.

Day open-air schools for non-tuberculous children.

The following particulars are given of the day open-air schools, including the number of children who have attended them during the whole or part of the year. The accommodation is shown in brackets :—

					<i>Boys.</i>	<i>Girls.</i>	<i>Totals.</i>
Stowey House (260)	...	...	...	...	288	163	451
Brent Knoll (130)	...	...	...	...	128	74	202
Charlton Park (130)	...	...	...	...	103	65	168
Bow Road (160)	...	...	...	...	154	88	242
Holly Court (260)	...	...	...	...	236	180	416
Upton House (130)	...	...	...	...	129	107	236
*Wood Lane (130)	...	...	...	...	69	74	143
Aspen House (130)	...	...	...	...	115	106	221
*Opened 17th June, 1929.					1,222	857	2,079

The school doctors attached to the open-air schools find in them matters of absorbing interest and annually provide reports which are full of valuable details. From these reports the following extracts are taken :—

Stowey House.
(Dr. W. S. Slowan).

"The year April, 1928, to March, 1929, has been from a health point of view most satisfactory. This is clearly shown by the fact that the proportion of children found fit to leave at Easter reached the high figure of 25 per cent in the first year of attendance and 54 per cent. in the second year, and that in all one hundred and eleven children left fit either to return to the ordinary school or to leave altogether, being 14 years old.

"These results are largely due to the general sun-bathing during the summer months, the great majority of the children responding well to this treatment as is evidenced by the browning and glossiness of the skin, and by the increased energy and vivacity, both physical and mental, which are displayed. Although a few children do not respond to the sun treatment, no ill results have ever been noticed at Stowey House, and there can be little doubt that sun-bathing—under proper supervision and with necessary precautions—is a most valuable means of improving the health of weakly and debilitated children. Sun-bathing started in May and continued until October and was greatly enjoyed.

"It is again to be noted that girls seem to respond more quickly and to a greater degree than boys, and as a rule brown more deeply.

"From this last year's figures the average length of stay at Stowey House is 21½ months.

Upton House
(Dr. Banks Raffle).

"In April of this year the school completed its first year, and is fulfilling the predictions which I ventured to make in my first report by sending back into the elementary schools month by month children who have become sufficiently re-established in health to resume their places amongst normal children. The two factors making for this result are the suitability of the cases recommended from the ordinary schools and the happy atmosphere at Upton House in which they receive their 'cure.' The photographs produced on the next two pages illustrate the marked benefits received.

"At the opening of the spring term there were 142 children on the roll, and during the year 86 children were discharged for the following reasons—fit for elementary school, 59; attained 14 years of age, 11; ceased to attend on removal of parents from district, 10; found to be unsuitable for open-air school, 6.

UPTON HOUSE OPEN-AIR SCHOOL.



ON ADMISSION 10TH APRIL, 1929.

The boy in front (extreme right) was later found unsuitable and was returned to elementary school.



FIVE WEEKS LATER.



MID-SEPTEMBER, 1929.

"It was found necessary to re-admit one boy who had been sent back to his ordinary school. Whilst the discharge of 59 children as 'Fit E.S.' is gratifying, it is well to remember that each future year will open with the handicap of a larger number of children retained as still needing the open-air régime. Allowing for this, there appears to be no reason why the school should not continue to maintain a good discharge rate, and after having had charge of the medical work in the school since April, 1928, I believe that it is more fitted by its situation and nature for dealing with the type of case ready for discharge after a year's stay, than for children suffering from more chronic conditions. It is a school of this type that the contributory area particularly needs.

"During the period of the great frost a large proportion of the children was able to continue in attendance throughout this period of exceptionally severe weather. The school staff did much to secure this by increasing the amount of physical exercises and the provision of hot drinks.

"*Medical inspection.*—The school has been visited fortnightly for purposes of medical examination and several special examinations have been held. An attempt has been made to examine each child every three months, although absences have made this difficult, and, in addition, each child is examined on the completion of a year's stay. If a child be found unsuitable for discharge it is re-examined at the end of a further period specified when the annual re-examination is made.

"The children remaining at the end of last year, and those admitted during the present year, showed the following defects :—Anæmia, 74 ; defective nutrition, 68 ; lung diseases, 22 ; bronchitis, 14 ; fibrosis, 4 ; asthma, 4 ; heart conditions, 9 ; organic, 3 ; functional, 6 ; enlarged cervical glands, 20 ; gastric disturbance, 7 ; nervous conditions, 11 ; chorea, 4 ; instability, 6 ; infant paralysis, 1. Eight of

the children were classed as 'pretubercular,' 7 had evidence of cured tuberculous lesions (1 knee, 1 costal, 2 cervical glands, and 1 abdominal), 7 children were reported to be tuberculosis contacts.

"The subsequent history of the defects was:—*Anæmia*—39 children showed definite improvement; *Nutrition*—35 children improved considerably in nutrition, apart from the evidence of increase in weight. *Lung conditions*—the children who had a history or other evidence of bronchitis bore the open-air life well. Seven of the 14 improved markedly whilst in school, and in 1 case tonsillectomy enabled the child to make an early return to the elementary school. The cases of fibrosis remain much the same as on admission, but the asthma cases showed improvement. In 2 of the 4 cases the régime of the school brought about an almost complete cessation of the attacks. Whether these cases were true asthma is doubtful. *Cardiac conditions*—the organic cases remained as before, except that two of the children benefited in general physical condition. In 2 of the hæmic cases the murmur disappeared, whilst in a third cardiac tone improved. *Cervical glands*—in 5 cases enlargement of the cervical glands disappeared, and in 8 others they became appreciably smaller. *Gastric disturbance*—of the 7 children who had a history of gastric disturbance on admission 3 had no attacks during their stay at the school, and 2 of the others had only one or two attacks. I attribute this improvement to the provision of suitable meals at the school, and to the fact that where parents have asked for special diets we have insisted on the children being treated as ordinary individuals. *Nervous conditions*—3 of the 6 cases of nervous instability definitely improved, but the 4 cases of chorea showed no improvement. One of the latter became worse. This is in keeping with previous experience of open-air schools. True chorea does not improve.

"I am of opinion that it is essential that some provision should be made for the continuance of the fresh air treatment during the time that the school is closed. A great effort was made at Upton House to secure country holidays for as many children as possible. Nineteen boys were sent to Bushy during this period, 8 children were provided for by the Country Holiday Fund, and 22 children had a holiday of more than a week's duration with their parents. Thus 49 children out of a total of 161 received some form of continuation of their treatment.

"*Clothing and Footgear*—This is always an important consideration in open-air schools, and Upton House has had its problems to face in this respect. The school is fortunate in that its asphalted playground saves it from that bane of open-air schools—mud. Experiments were made during the summer months with clothing of the bathing costume type. The parents responded well to our demand for sun-bathing dress, and we look for a still greater response during the coming year. The problem of securing dry clothing for the children in wet weather has been under consideration. An additional cloak room has been provided and a clothing store has been established. Gifts of clothing have been made by Upton House Central School, our neighbours, and others who are interested in the work. It is essential that a child undergoing a course of open-air treatment be properly shod, and the difficulty of securing this seems almost unsurmountable. Many of the children in Upton House are drawn from the poorest parts of Shoreditch and Hackney and their parents seem quite unable to provide satisfactory footwear. One morning during heavy rain 26 children arrived at the school wearing plimsolls. Clogs have been provided for the gardening boys, and it is to be regretted that provision of this nature cannot be made for the whole school. Meanwhile a healthy boot club is attempting to fill the breach."

"At the close of the year 1929 the number on the roll at this school was 309; of this number 177 were boys and 132 were girls. The average attendance works around the number 238. Owing to the distance of the school from the tram terminus, Holly Court, (Dr. R. H. Norman).

many of the most delicate children are kept home on very wet days. It is this distance between tram and school which is the only criticism I can make on Holly Court, and this criticism is reduced to small dimensions when it is contrasted with the advantages—the beautiful situation, picturesque grounds, and the excellent meals provided—and the children appear very happy, with plenty of animal spirits considering their delicacy.

“For the year the average increase in the weight of the boys was 3.01 kgs., and of the girls 3.9 kgs., ranging from 4.03 kgs. in the oldest boys to 2.4 kgs. in the youngest and from 4.8 kgs. in the oldest girls to 2.3 kgs. in the youngest.

“The following gives the reasons for admission in each case:—*Boys*—quiescent tuberculous joints 3; undersized 8; anæmia or pallor 50; old tabes mesenterica or tuberculous peritonitis 4; malnutrition 24; tuberculosis contacts 26; ditto plus anæmia 1; fibrosis of lungs including bronchiectasis 10; bronchitis 1; asthma and bronchitis 5; bad history of tuberculosis in grandparents (not contacts) 1; past chorea 5; old empyema (healed) 2; ‘nervy’ 3; old tuberculous glands (neck) 4; debility 5; cough and signs of chronic bronchitis 6; congenital syphilis and malnutrition 1; subacute rheumatism 2; enlarged bronchial glands 7; enlarged cervical glands 7; choreiform movements 1; kypho-scoliosis 1; old septic arthritis 1; ‘head-ache and sickness’ 1; simple tic 1; rickets (unhealed) 1. *Girls*—undersized 8; anæmia or pallor 42; malnutrition 9; tuberculosis contacts 18; fibrosis of lungs 7; bronchitis 2; asthma 3; post-chorea 1; old tuberculous glands of neck 5; ‘debility’ 1; subacute rheumatism 5; enlarged bronchial glands 1; enlarged cervical glands 6; generalised enlarged glands 1; congenital syphilis 2; old mastoid disease with discharging ears 1; ‘fits’ 2; tuberculous bone 1; constant colds 1; old pleural effusion cases 2; doubtful tuberculosis of lungs 1; tuberculides 2; ‘fidgety’ 1; old pneumococcal peritonitis 1; colloid goitre 1; somnambulism 1; ‘nervy’ 1; old osteomyelitis (healed) 1; old pyelitis 1; tuberculosis of spine 1.”

King's
Canadian
School.
Report by
the Director
Mr. W. H.
Devonshire.

“The number of boys admitted during 1928 was 3,016 and during 1929 was 2,748. Of the total roll 46 per cent. were recommended by the school doctor for remedial exercises, and of these 330 were given individual treatment, whilst over 900 were treated in small groups. The 330 cases requiring individual treatment were divided as follows:—Scoliosis 157; kyphosis 140; post-poliomyelitis 1; post-osteomyelitis 1; special breathing 10; massage 2; flat foot 1; lordosis 16; wing scapula 1; re-education (walking) 1.

“The cases treated in small groups comprised round shoulders; flat feet, flat chest, shallow breathing, etc. The number of cases of spinal curvature amongst the age groups 12 to 14 shows an increase, but the groups 9 to 11 are almost free from this complaint. The flat foot cases are far too many for us to give them adequate treatment. During 1929 we had only seven cases of infectious illness. In addition 21,582 visits were paid to the dispensary for minor ailments.

“Nearly every boy admitted showed great improvement—the average increase in weight being 2.5 lbs. Most of all, improvement was noticed in general activity.”

Statement by
Major Gem,
the Council's
organiser of
physical
exercises.

“The establishment of the King's Canadian Camp School has brought to the lives of hundreds of poor lads a taste of life which they would perhaps never have experienced otherwise. Since its inception, the school has gone from strength to strength, and real health education in its widest sense is now established. A daily physical training lesson is in force, and this is supplemented by games, swimming, dancing, and country ‘treks.’ In addition special remedial gymnastics are given to those boys who, the doctors consider, are in need of it—this work is undertaken by two qualified men. A happy spirit pervades the whole school, and all appear to be really enthusiastic in their efforts.”

"Aspen House School has now completed its fourth year. The average attendance for the year was 8.41 per cent. of the roll. Aspen House.
(Dr. Jessie
Duncan).

The weather during the summer months was ideal for open-air treatment and rest took place out of doors on 110 occasions. I am still of opinion that some form of protection is desirable in wet and foggy weather. As pointed out in the report of last year, it would be of the greatest possible benefit if windows could be provided for the large dining shed, and on very bad days all the children could be accommodated there. Glass windows would undoubtedly be the most effective.

"The average gain in weight for the whole school was 3.9 kilograms (as compared with 3.89 kilograms for last year). Loss of weight is always noticed after the holidays. Medical inspections are held every two weeks, each child being examined once a term. For various reasons many of the children are examined much more frequently. It has been noticed that children who have been in attendance for a year without making noticeable progress suddenly begin to improve rapidly. It therefore seems desirable not to make the stay in the open-air school of too short duration.

"Of the 149 children at present attending the school, 93 suffered from anæmia and debility; 82 of these were much improved and the other 21 children improved to a less degree. The term 'debility' covers a large group of children who though not suffering from any definite disease are nevertheless out of health. They show the following symptoms:—headache, constipation, recurrent diarrhoea, listlessness, anæmia, failure to put on weight, loss of appetite, growing pains, pyrexia, nervousness, night terrors, nocturnal enuresis. This group of symptoms occurs almost exclusively in highly strung nervous children. They are suffering from relative or absolute insufficiency of sugar and therefore cannot digest fats easily.

"The dietary was adequate and of good quality. Children who on admission have poor appetites soon begin to enjoy their food. In some cases, diarrhoea after food is noticed at first but this soon disappears. A great many children also suffer from constipation on admission but with suitable dietary and training in regular habits this soon improves. The children themselves often complain of constipation at week-ends and during the holidays. It is also frequently noticed that the children have 'sick headaches' on Monday. Undoubtedly, regular and suitable food is one of the chief reasons for the children's improvement in health.

"As an experiment some of the more delicate and nervous children who were not making much progress were tried on a special 'sugar diet.' The following is the amount of sugar given:—2 level teaspoonfuls of sugar in weak tea at breakfast and tea. Lemonade sweetened with glucose between meals. Sandwiches of bread and butter and demerara sugar at each meal. A little milk in tea and in milk puddings but not given as a beverage, although it may be given if it is skimmed. The child is encouraged to eat boiled sweets. This apparently does not take away the appetite for meals. Unfortunately, some of the selected children left during the experiment so that it is not possible, at present, to give definite figures. It was noticed, however, that some of the children did remarkably well. Special sugar
diet.

"A.B., a very highly nervous boy suffered from night terrors and was markedly anæmic. After admission to the school, although he was put on extra milk, he gained weight very slowly and there was no improvement in his nervous condition. He was tried on sugar diet, and in 6 months he had gained 3 kilograms.

"D.C., suffered from enlarged glands, was always tired and slept badly. He gained very little until he was put on sugar diet. In 6 months he had gained 2.6 kilograms

"E.L., a very anæmic nervous boy who slept badly and did not gain weight. In 6 months he had gained 4·8 kilograms.

Open-air
schools for
tuberculous
children.

In addition to the provision of treatment for tuberculous children in residential institutions, the Council continued the use of the open-air schools, specifically for children notified under the Tuberculosis Regulations, 1912, as suffering from tuberculosis of the lungs or of glands with no discharging sinuses. During the year the Grove Hill Road School (Camberwell) was closed, thus reducing the number of schools to six. The six schools—Elizabethan (Fulham), Geere House (Stepney), Kensal House (Paddington), Springwell House (Battersea), Stormont House (Hackney), and Nightingale House, (Bermondsey), have together accommodation for 515 children. The number on the roll on 31st December, 1929 was 569 and the average attendance for the year ending 31st March, 1929, was 467.

Admission to the schools is granted on a certificate of a medical officer of the Council, and children returning home after a period of residential treatment in sanatoria are given preference. In this way 179 children were admitted during the year 1929, and 208 children were discharged. Of the latter, 45 were transferred as fit to attend elementary schools, 90 were fit for work, 35 were transferred to institutions for residential treatment for tuberculosis or admitted to hospitals for various reasons, 19 moved away, 5 were transferred to "special" schools and 14 were discharged for other reasons.

At Springwell House and Stormont House schools special attention is given to the vocational training of the older children in subjects likely to be of use to them in obtaining employment. Two classes are held at Springwell House, one for boys and girls in commercial training, which includes shorthand, typing, and general office routine, and the other for girls in trade needlework. The vocational class at Stormont House is in needlework. Instruction not ranking as vocational is also given in gardening and carpentry.

The following observations have been submitted by the medical officer of Springwell House School with regard to the vocational classes carried on at this school:—

"No great difficulty has been experienced in placing the children from the commercial class in employment, but the head teacher tells me that those children who have taken the trade needlework class, and got their employment in this branch of work, are inclined to leave their work to take up some other employment."

During the summers of 1920 to 1925 children attending the open-air schools for tuberculous children were sent away for a fortnight's holiday to the seaside or in the country. Subsequently, because of inability to secure suitable accommodation the scheme was abandoned. In the summer of 1929 arrangements were made mainly through the agency of the Shaftesbury Society for 234 tuberculous children to visit certain institutions at Bognor Regis, Whitstable, Sandown and Broadstairs for a period of a fortnight. The expenses were borne by the Council from a fund known as the Tuberculosis Contributions Fund. The scheme was organized on the lines of "school journeys" but the children selected were those who, in the opinion of the tuberculosis officers, needed the change on health grounds.

All the parties were accompanied by nurses as well as teachers, and the reports received indicate that the children benefited considerably from the holiday.

Open-air
schools and
adverse
climatic
conditions.

No year since open-air education has been established in London has provided such remarkable weather contrasts as the year 1929. In the early spring there was an unprecedented spell of intense frost, the summer was unusually fine and rainless, and the late autumn months provided gales of a magnitude not before experienced by the schools. These weather conditions raised questions which called for special enquiry.

All the day open-air schools have been visited and the teachers personally interviewed with regard to the school buildings. At all schools the teachers resented very much the bare idea that their feelings and needs should be considered apart from those of the children. "It is not to be heard of" was their immediate and resolute opinion. The general health of the teachers was admirable and the opinion was expressed by practically all that nothing would induce them to return to ordinary elementary schools. In rare instances was complaint made of suffering from cold such as would be obviated by heating the class shelters. Very many were most hostile to the idea of heating the class shelters. There was consensus of opinion, however, particularly in the more recently opened schools in exposed sites supplied with the newer type of shelter, that there is need of protection from biting winds and driving rain.

The provision of heating in the shelters was discussed, especially three methods, viz., (1) stoves, (2) floor heating by hot water pipes and (3) hot water foot warmers. The desirability of stoves was negatived almost by all, floor warming received some support and so did the provision of foot warmers (for children as well as teachers of course,) but so far from there being any great desire for any heating device, there was a preponderance of opinion actively hostile. Where support was given it arose from the desire to keep the shelters dry rather than for the purpose of supplying warmth.

Inasmuch as it is impossible to heat the open air, any form of general heating of shelters would be a retrograde step; besides being unnecessary and impracticable, it would be a definite departure from the open-air ideal, and would militate against those admirable results of the open-air régime which depend as much as anything upon the cool freshness of the air.

All the teachers were unanimous on the necessity of providing shelter from wind and driving rain. Complaints of suffering from these causes were made chiefly by the teachers in the more exposed recently erected schools provided with the new type of shelter. In the older schools hinged shutters are provided which as occasion demands can be used to fill in the space on the windward side between the fixed apron below and the protecting overhang of the eaves above. In many of the older schools also there is some building into which the school children can be withdrawn temporarily for shelter on the rare occasions when the weather is so wild and boisterous as to demand it. Many suggestions were encountered. The most generally favoured desideratum was some form of shutter, preferably glazed, which could be used to fill in the unprotected space between the apron and eaves (leaving open always that portion at the top which is adequately protected by the projection of the roof). In those schools which have no naturally protected nooks, the provision of wind screens in the open was also advocated, either in the form of brick walls or by a device of fixed posts with hanging wooden screens which could be swung through an angle of 90 degrees and thus provide unroofed shelters which could be arranged to form a protection against the wind from whichever quarter it came. Another idea was the provision of heavy wooden screens upon wheels such as are used on cricket fields as backgrounds to the wickets. Yet another proposal was the provision of buildings such as those at Birmingham where a brick wall is built on one side only, namely, the side of the prevailing wind; two brick pillars support the roof at the remaining corners to which are attached glass and wood shutters which can be folded right back or can be drawn out to ward off wind or rain, it being made the strict rule that only one side be drawn out at a time.

The conclusions reached were that each school must be considered separately from this point of view in the light of the amount of exposure and the natural or artificial means of shelter which exist, but that everywhere sufficient shelter from chilling wind and driving rain, must be provided either of a permanent or removable nature.

Open-air
classes.

The total number of open-air classes held in playgrounds and parks during 1929 was 177. While the majority is held only in the summer months (April to October) there is a tendency growing with experience to ask for facilities for carrying on the classes throughout the year. Thirty-six of the 177 classes which exist at present are "all the year round" classes. Detailed reports upon 66 classes were received from the school doctors, including 8 upon type A classes (delicate children selected by the school doctor from a number of schools), 43 upon type B classes (delicate children from a single school selected by the school doctor), 14 upon type C classes (ordinary class unselected by the school doctor, meeting in playground or park instead of in school), 1 upon a type D class (an open-air station occupied turn and turn about by various school classes).

The sites on which the classes are held include parks and gardens 42, roof playgrounds 20, land adjoining school or school garden 14, ordinary school playground 101.

The reports draw attention to the improvement in general appearance, alertness and animal spirits of the children and freedom from colds. "Beneficial influence on delicate children is undoubted," "Better colour, better nutrition and satisfactory growth," "40 per cent. more physical exercises than usually given to school children" are types of comment.

The average increases of heights in centimetres and weights in kilograms are here shown :—

					"A" type.		"B" type.	
					Heights.	Weights.	Heights.	Weights.
Boys	...	...	...	...	2.5	1.5	2.49	1.42
Girls	...	...	...	...	3.2	1.6	3.2	1.49
Infants	...	...	...	...	—	—	2.66	1.29

Dr. E. J. Boome reports upon the Cork-street open-air class held in Brunswick-park as follows :—

"During the past nine years there have been open-air classes at Cork-street school of the various types which have been reported on, but this year's results appear to be outstanding in their excellence. Concrete facts, *e.g.*, average increase in weight of 3 kgms. in 7 months compared with the normal increase of 2 kgms. for 12 months and other changes less susceptible to measurement but very striking and real, leave an impression of the immense value of this type of class. Especially is this so when the class is conducted by an enthusiastic class teacher in close co-operation with a keen and energetic head master in a poor neighbourhood where housing conditions are difficult."

Dr. W. Sloman reports upon the Sandford-road (G.) open-air class :—

"This is a type C class and consist of the lowest class in the school, children who have just come up from the infant school. The class is held on the roof playground, a position suitable on account of its height and fine exposure to air and light. Lessons are taken either at a class at one angle of the playground or individually, the children being scattered over the area at their movable tables and chairs. When the sun is too hot they find shelter in the shed. Great interest is taken in the garden, consisting of several large flower boxes. In addition to ordinary lessons a feature has been made this summer of weather observations and topography of London of which there is an extensive view from the roof.

"Handwork comprises decorative stitchery needlework, paper cuttings, plasticine work, drawing, etc., and breathing exercises, handkerchief drill, physical exercises and games are taken in a larger proportion to the rest of the curriculum than in other classes.

"A general improvement in mental and physical health was noted, especially in children who either through long absences or other causes were below the average."

Dr. E. M. Johnson reports on the John Ruskin senior school (Girls') open-air class, type C :—

"Standard IIIb was the class chosen, as it contained a large proportion of delicate girls. The average age was 8-9 years, and the number of girls 35.

"The class was held on the school roof, remaining out-of-doors from April 15th to October 15th. Very few days were spent indoors, the weather being exceptionally dry and warm. The average daily attendance was good, apart from two long absences, one a girl with tuberculous cervical glands, the other a case of debility. During the six months there was no case of infectious disease in the class; after the first month there were very few colds or minor ailments. The girls now look very well and there is marked improvement in both colour and nutrition. The class mistress reports that the girls have worked well and appear to her to be more alert and intelligent. The class has been very popular with the girls and also with the parents."

School Journeys, 1929.

During the year 1929, 513 (496) school journeys were made. The children taking part in them were medically examined in 512 cases before departure. In all 16,267 (16,008) children were examined; of these 110 (119) were rejected as unfit to take part in the journeys on various grounds, as follows :—Suffering from otorrhœa, 9 (14); suffering from infectious disease or contacts, 14 (9); tonsillitis and kindred ailments, 15; temperature, 7 (11); personal hygiene, 5 (7); skin diseases, 23. (The figures in brackets refer to the year 1928). Six children were prevented from going on account of the effects of recent vaccination. Several children were provisionally rejected on account of personal hygiene but were subsequently passed fit.

Physical Education.

The Council's organisers of physical education (Mr. A. H. A. Gem and Miss Grant S. Clark) present each year a report to the Education Committee. The following extracts are given from their report for the year ended July, 1929 :—

Ten years have passed since the present organiser of physical education for the boys' work was appointed, whilst the present organiser for girls' and infants' schools has been in London for five years. The time would therefore appear to be opportune for a review of the work accomplished during these periods.

(A) *Syllabus work.*—(i) General.—The position which physical education holds to-day is, in part, due to the spade work done by the pioneers in the early days. Their efforts resulted in the acceptance of physical training, if not as an integral part of education, at least as a useful adjunct. As time passed, they had the satisfaction of seeing the introduction of physical training as a compulsory subject.

Elementary
schools.
Physical
training.

Originally, the work was of a purely military nature and it passed through a series of changes, until finally Swedish exercises were introduced. Throughout all these changes two characteristics apparently were evident: the tendency towards a rigid form of movement and a continual striving to get the exercises performed simultaneously by the class, frequently before these exercises were understood by the children. This type of precision was often obtained at the expense of accuracy of performance, whilst through their rigidity the exercises were in many cases robbed of their full range of movement. Of what is to-day understood by general activity, little was present. This, in brief, was the position in many schools immediately after the war, and it was from this point that the reorganisation commenced.

During the past ten years the physical training lessons have been altered with one main object in view, namely, the maintenance of health. The modern syllabus lesson has two distinct contributions to make to this end—they are inter-related, yet distinct :—

1. Good postural training by means of exercises carried out accurately, vigorously and with a good range of movement.

2. Sound nutritional or functional training by means of a wide range of general activities, such as games, jumping and dancing.

The modern syllabus lesson contains an equal measure of these two types of work ; and the objective at the commencement of the reorganisation was to adapt the syllabus lessons throughout London so as to achieve these objects. It was obvious at the start that teachers' classes and lecture demonstrations must be the chief means of giving the teachers the necessary material to build up good syllabus lessons, these classes being supplemented by visits to schools and demonstration lessons. This work has absorbed the major portion of the organisers' time, often, it is feared, to the detriment of other branches of the subject. The syllabus lesson, however, is the one form of physical activity which reaches every child in London capable of taking exercise, and thus this concentration was more than justified.

(ii) Boys' work.—The work of the boys' classes has made remarkable strides in recent years.

The vast majority of the teachers now have knowledge of the essentials which should underlie the modern lesson. The success with which these essentials are carried out, however, naturally varies from class to class. Greater accuracy and a wider range of movement are noticeable in the formal exercises, and, speaking generally, these are much more effectively "coached" than was formerly the case. The possibilities of the general activity section of the lesson are better understood, and it is a rare thing to find a lesson taken without any attention being paid to this side of the work.

Improved as the position is with regard to these two essential points, there is still ample scope for development in these directions, particularly in the better and more ambitious arrangement of the general activity group. The organisation of the various classes on a team basis is more or less general, whilst in many schools the house system is firmly established and is producing excellent results. It is now usual to find the boys working in their shirt sleeves, and, as a small indication of the changing attitude of mind towards the subject, it is much more common to find the teacher also working with his coat off.

The very considerable change which has taken place has been made possible by two factors :—

(a) The keenness of the teachers to give to their boys the best physical training that lies in their power.

(b) The liberal provision of teachers' classes which have enabled all who so desire to become conversant with modern requirements.

(iii) Girls' and Infants' Work.—For many years past a great effort has been made in the schools to get the children into clothing suitable for exercising in. The children are rarely overloaded with clothes to the same extent as in the old days, and this factor in itself has contributed to the general health of the child. It is much more usual now to find the children wearing rubber shoes for their physical training lesson, and year by year the number of gymnastic costumes has increased. In several girls' schools in poor areas in which the physical training forms a vital part of the school life, almost the whole of the girls are in this type of dress.

The organisation of the lessons as regards outdoor work will always present a difficulty so long as there is only one playground available for the two departments. It is strongly recommended that in new buildings two separate playgrounds should be provided. Five years ago a small proportion of the work was taken out of doors, but this practice is becoming much more common, especially in the morning lesson in the infant schools.

The general effectiveness of the work has increased very appreciably in recent years. It has been realised that if there is to be sufficient activity to satisfy the child's body in the short periods given to exercise, there must be methodical organ-

isation within the class. This point has received careful attention at all courses held for teachers, with the result that the children are handled with much greater skill, and the lessons go with more "swing". As will be seen from the tables dealing with the question, great eagerness to attend classes has been shown by the teachers.

(B) *General Organisation*.—The general organisation of the subject in the schools is improving, and it is found that considerably more time is devoted to physical education than was formerly the case. The rules of the Education Committee originally required three lessons a week, one of which might be devoted to games or swimming. Some five years ago this rule was amended to the effect that three periods a week were to be given to syllabus work, and if games and swimming were taken it was to be in addition to the syllabus work. In July, 1927, the Council circularised all schools, informing the head teachers that it was desired that a minimum of one hundred minutes per week should be devoted to physical education, and that this time should be distributed over not less than four days a week. In many schools this suggestion has been acted upon, but in others little alteration has taken place. On an average it is found that seven lessons a week are given in the infants' departments, slightly under four in the junior forms of the upper schools, and three (with games or swimming—for some of the children—in addition) in the senior forms. This constitutes a distinct advance, but further progress is needed in this direction.

(c) *Equipment and Accommodation*.—Originally no definite allocation of material was made for physical training. A certain number of items of apparatus were on the requisition list, and it was left to the head teacher to indent for them as he or she saw fit. Such a scheme had obvious disadvantages. In schools in which the head teacher was keenly interested in the subject the amount of small games apparatus was adequate, in other schools no material whatsoever was available. In April, 1925, the Council made a free issue of a kit-sack to all departments, containing in the case of senior departments: 4 footballs, 4 sets of team colours, 4 jumping ropes, 12 indiarubber balls. Suitable apparatus was also sent to infants' departments. This issue has made a tremendous difference to the schools, and it is no exaggeration to state that it has proved the making of the general activity section of the lesson. Considerable progress has also been made with the hiring of outside halls for those schools that do not possess adequate accommodation for physical exercises on their own premises.

Swimming.—There has, perhaps, not been the same marked progress in swim- Swimming.
ming as has been the case with the physical training lessons. This is partly due to the fact that the swimming reached a higher standard in pre-war years than was the case with the syllabus lessons, and thus the same advance has not been possible.

It may be stated, however, that definite progress can be registered in three directions:—

(i) The organisation of the lessons is undoubtedly better, and a real effort to plan the work so that all may take part is clearly discernible in many cases.

(ii) The marked progress of the girls' swimming when viewed in the light of certificates gained. This is probably due to the fact that a class of girls has two teachers available when visiting the baths, and more intensive instruction is thus possible than is the case with the boys.

In years gone by the swimming instructress did the bulk of the teaching, but with the spread of knowledge amongst the assistant mistresses—and their practical ability to swim—they can, in many cases, now take a prominent part in the actual instruction.

(iii) A better use is made of the foot-bath and lavatory facilities than was formerly the case. In this respect, however, the provision is still far from ideal. It is submitted that every child should have an opportunity to wash completely before

entering the pool. If hot or tepid showers and soap were provided for the purpose, the operation could be carried out very quickly, and any slight loss of time would be more than compensated for by the increased cleanliness both of the children themselves, and also of the swimming pool. Instruction in swimming land drill has been one of the features of the half-time courses, whilst, in the case of the classes for men teachers, practical work in the baths has also been included. Two classes for instruction in life-saving are being held for the men in the summer of 1930.

Organised
games.

Organised Games.—The successful organisation of school games on the playing fields remains one of the outstanding problems. Owing to the necessity of concentrating on the syllabus work, the organising staff has, so far, had little time to devote to the playing field. This branch of physical education has not progressed as rapidly as the other sides of the subject, in fact there is an appreciable number of cases in which head teachers have ceased to send their children to the playing fields. It is perhaps inevitable that as the physical training becomes more effective, those head teachers who are in charge of schools situated some distance from a playing field should tend to rely more on the syllabus work and playground games than on the field game. There is a feeling amongst many that, under their own particular conditions, a syllabus lesson or a playground games lesson gives better value for the time spent than a visit to a playing field. Apart, however, from the question of time spent, there are other serious difficulties to be faced. Many schools lack the services of a teacher who has the requisite technical knowledge to coach successfully our national games. Being able to play and being able to coach are not necessarily one and the same thing. Shortage of effective coaches is a difficulty with which many schools are faced, and this fact raises the point whether games of less technical difficulty are not needed to supplement the more advanced national games. Now that a large number of teachers' classes devoted to syllabus work has been held, it is proposed to concentrate more fully on games and, during the summer of 1930, four half-time day courses for men, each lasting a fortnight, are to be held for this purpose.

Another serious difficulty which has to be faced is the quality of the playing fields. It is submitted that quality at the moment is more important than quantity—this being the case particularly in respect of cricket and hockey, both of which games require a good surface if they are to be played effectively. Much has been accomplished in this respect, such as the use, in a few cases, of the reserve match pitches for organised games, the laying of concrete cricket pitches and the better marking of the grounds. There is, however, still much leeway to be made up. It is considered that the system of allocating a pitch or pitches is in many respects open to objection. A class should have at its disposal an area of ground marked out for a variety of games, so that the teacher can really plan the lesson in the way best suited to the local conditions. The acquisition of playing fields and the erection of classrooms thereon is a step in the right direction. These grounds can be laid out and marked with one object, and one object only in view, viz. : the children's games. It is in this respect that the park authorities, who have to serve the general public, are handicapped. It is hoped that the acquisition of Education Committee playing fields will be proceeded with on an extensive scale, as this method would appear to be one of the chief means of solving the difficult and involved games problem.

School
sports.

School Sports.—There has been a great awakening of interest in athletic sports during the past few years. For some considerable time now successful district sports meetings have been held, but latterly a considerable number of schools has started holding their own sports meetings. This fact is all to the good, as in a school event every fit child can take part, whereas, generally speaking, in district meetings only a limited number can compete. An ideal organisation would be for every school to hold its own meeting and for the selected school representatives to

pass on to the district event. The marked increase in interest in this branch of physical education is shown by the following figures. In the years 1926-9 the numbers of departments holding school sports meetings were respectively 107 ; 280 ; 337 ; and 399. It is of interest to record that many schools give no prizes whatsoever, each child competing for his or her house. The prominent part which athletics are beginning to play gives rise to two points which will require careful watching.

(i) What events are suitable, from the point of view of physical strain and mental stress, for the child of elementary school age ?

(ii) How many events should a child be allowed to compete in during the course of a day ?

The rapid progress which has been made generally in physical education in schools has been accomplished by a wide development of the work of those bodies which deal with the games and sports of the children out of school hours. Numerous district associations have been formed, and it is regretted that limitations of space prevent more than a passing reference to the excellence of the work carried out. This report, of necessity, must be limited to the growth of the various "All London" associations since the war. Old-established associations such as the football, swimming and athletics have consolidated their position and extended their range of utility, whilst new associations for cricket, boxing and netball have been formed. London generally is heavily in debt to those teachers who, year after year, give so much of their own time to this valuable work.

Games,
athletics and
swimming
out of school
hours.

London Schools' Athletic Association.—This association was founded in the year 1900, and has grown until there are now twenty-five district associations affiliated to the parent body. The standard of performance has steadily increased, and much has been done to foster a love of athletics amongst the children generally. A London championship meeting is held each year.

London Schools' Amateur Boxing Association.—Boxing for boys has for years past been looked upon with some misgivings by many. This attitude has largely arisen owing to a misconception of the aims in view when teaching a lad to box. The true objective in boxing is to make the boy physically and morally better by participating in the sport. The production of the excellent boxer from a technical point of view is quite a secondary consideration. The London Schools' Amateur Boxing Association has worked to this end, and their desire is to instil a love of the sport in its best form into as many boys as possible. In the actual district competitions over one thousand boys now take part, this number being in addition to the many eliminating competitions which are held in schools.

London Schools' Cricket Association.—For many years there was no central body to deal with cricket, but recently the above association was formed. Much useful work has been accomplished in a short time, the best of which is, perhaps, the club coaching scheme. Representatives of the Council and the Cricket Association met the secretary of the M.C.C., the secretary of the Club Cricket Conference and other representative people in the cricket world, to see whether a scheme could be devised whereby boys could receive coaching in the evenings at the various club grounds in and around London. As a result of this conference many clubs allow boys to use their grounds under certain specified conditions, and the members help with the coaching. This scheme is growing ; in 1927, 400 boys, in 1928, 830 boys and in 1929, 860 boys were able to enjoy this privilege.

London Schools' Football Association.—This association has gone from strength to strength, until there are now 1,007 affiliated schools. Not only are many "All London" competitions organised, but help and guidance is given to district leagues and competitions. The fact that 140 inter-district games were played last season

gives some indication of the magnitude of the organisation. Much of the success of this association is due to the admirable work of the late secretary who, after sixteen years' service, resigned a few months ago.

London Schools' Netball Association.—This association was formed comparatively recently, and in the few years of its existence has made very rapid strides. In 1927, 310 teams, representing 2,170 players, took part in the competitions for the district champion school, whilst in 1929, 335 teams, representing 2,354 players, took part. The association has also done valuable work by arranging classes for training teachers as umpires. During the past season sixty-three teachers attended such classes.

London Schools' Swimming Association.—For many years past this association has done most valuable work by supplementing the work of the Council in the endeavour to teach the largest possible number of children to swim. The success of the work can be partly judged by the number of 1st class swimming certificates gained. The following figures are of interest :—

Year ended December, 31st.	Swimming.		Life-saving.			
	Boys certificates. 100 yards.	Girls certificates. 50 yards.	Boys.		Girls.	
			Advanced.	Elementary.	Advanced.	Elementary.
1919 ...	7,000	4,347	295	560	319	672
1920 ...	8,476	5,956	738	1,119	634	1,094
1921 ...	8,162	5,413	592	1,033	700	1,253
1922 ...	8,418	6,672	773	1,193	910	1,557
1923 ...	9,053	7,481	1,117	1,658	1,198	1,892
1924 ...	7,621	7,229	1,027	1,629	1,466	2,248
1925 ...	8,497	8,135	1,167	1,594	1,174	2,475
1926 ...	6,909	6,766	791	1,424	1,577	2,198
1927 ...	7,875	9,015	1,170	1,977	1,822	3,054
1928 ...	8,145	9,374	1,253	1,992	2,531	3,493

Four hundred and seventeen children have received awards from the Royal Humane Society for saving or attempting to save lives from drowning.

Physical training in secondary schools.

(a) *Boys.*—At a recent gathering of headmasters, the following statement was made by the headmaster of a famous London secondary school—"Physical training of boys is not as good as that of their sisters; there is not a sufficient number of expert teachers." It must be admitted that there is much truth in this assertion. Twenty or more years ago, physical education for girls was scandalously neglected. The need was great—but the need was met. It was not so great with the boys, and, therefore, the same resolute steps were not taken. An idea—and let it be stated, an incorrect idea—has always been prevalent that a boy's health was adequately safeguarded by games. This conception has largely sprung from the public schools, but a vital point has been overlooked. The public school boy has ample playing fields, and uses them every day of his life, whereas the secondary school boy is fortunate if he gets a game once a week. Secure in the belief that games were sufficient, little was done in pre-war days to strengthen the physical education of the boys, whilst during this period the women were building up their physical training colleges, increasing their qualifications of the specialist teacher—in fact, were seriously tackling the problem. Since the war, however, a change has been noticeable, and more reliance is being placed on physical training. Many headmasters realise that physical training can make a substantial contribution to the education of the boy; others consider it a useful supplement to games, whilst some merely include it because the authorities require that some attention should be paid to the subject; these

as a rule limit the work to the junior forms of the school. This gradually changing attitude may be traced to two main causes :—

(i) The introduction of a vastly improved scheme of physical training, wider in its scope and much freer in its nature.

(ii) The introduction of a different type of teacher—the graduate who has a dual qualification.

It must be remembered, however, that the majority of schools already had specialist teachers for this subject—teachers who had given years of loyal service, and who, in many cases, were doing able work. The problem of recent years has, therefore, been to strengthen the technical qualifications of the existing staff,—and as opportunity permitted—to make appointments of graduate teachers to fill any vacancies which arose.

Organisation.—One reason why the physical training of boys is not so good as that of their sisters is due to the fact that some of the headmasters do not make sufficient provision for this subject in the time-table. Whilst the junior forms receive two, and, in some cases three, lessons a week, the seniors do not as a rule have more than one period, and, in a few cases, none at all. An improvement, however, is noticeable, and more time is devoted to the subject than was formerly the case. There is, however, still ample room for improvement in this direction.

(b) *Girls*.—Physical training has steadily fought its way until it has become established as an integral part of secondary school life. As regards staffing, these schools can usually draw upon a wide field of expert women teachers who have been through a three-year course at a physical training college. As well as teaching gymnastics, swimming, dancing and organising and coaching the games, these teachers are responsible, when their time-tables allow, for the treatment of minor defects noted during medical inspection. They should be, and generally are, in attendance during the doctors' visits, and frequently do all the clerical work in connection with these. The task of seeing that the standard of clothing is kept up to the mark is generally placed in the hands of the physical training teacher. In a previous report it was submitted that in large schools where only one gymnastic mistress was employed, physical education had not been allocated a fair proportion of the total staffing. In the maintained schools the position has improved, three schools now having two specialists full-time ; and five schools, one full-time and one part-time. There are still several schools in which it is hoped that it will prove possible to make some addition in this direction to the staff. As far as the work is concerned, the expansion of team and group work and the more general use of the rhythmic method of performing certain exercises have been the main features of development in the past years. In some schools, the work reaches a high standard, and the bearing of the girls is good ; in others, much yet remains to be done.

A short time ago the gymnastic apparatus makers were supplying inferior goods—apparatus made from inferior timber and of indifferent workmanship. This position became so acute that the Council refused to accept the equipment installed in two of its gymnasia. The question of drawing up definite specifications, the production of working drawings and the sealing of specimen samples has had to be faced. This has presented a task of some magnitude but the matter is now settled, and it is of interest to record that the Board of Education is using the Council's drawings and specifications as the basis of a pamphlet which is shortly to be circulated on the equipping of a gymnasium.

Health classes are established under medical guidance in certain schools to include selected groups of children whose physical condition needs special consideration. The classes formed in this way are analogous to the nutrition classes which have been so popular in the United States of America, upon which Dr. Winifred Holloway, one of the Council's assistant medical officers, has recently written a report.

The children selected by the school doctors are especially those suffering from postural defect. In small groups they receive special daily physical exercises and are kept under special observation by the school doctor. Unfortunately as no special provision has been made for staffing in the creation and continuance of these classes there are many difficulties of organisation, and little tendency to an increase in their numbers. That considerable benefit is received by the children is shown by the medical officers' reports. A typical report is that of Dr. Edgar Argles upon the health class in the boys' department of Betts-street school :—

"I beg to submit a short report on 20 boys in this class who have been in regular attendance during the past twelve months.

"Twelve of the boys show definite improvement of those defects for which they were admitted to the class. In February, 1298, the chest expansion figure was 5.2 cms., and in the corresponding month this year it was 6.8 cms.

"I have made it my practice to see the class demonstrate once each term. At my last inspection the boys gave an extremely creditable display, which would compare very favourably with any drill class in any school I have seen. Both their mental and physical alertness showed great improvement.

"Great credit is due to the master, who has ingeniously chosen some very useful and interesting exercises and has achieved remarkably good results without any undue strain on boys with impaired constitutions.

"I propose to discharge 10 of the class and have already selected 7 boys to take their places."

Teaching of
hygiene.

The practical teaching of hygiene in the schools receives considerable attention, and a detailed account of this branch of the work was given in my Annual Report for the year 1927 (pp. 90-95). In the report for 1928 (p. 115) a reference was given to the issue of the handbook of suggestions on health education by the Board of Education. In the south-western division particularly, Miss M. Wilson, the divisional superintendent of nurses, has taken great interest in the question and endeavours through the co-operation of the school nurses with the teachers to make the personal hygiene work of the nurses of special educational value. Through this co-operation many Junior Red Cross links have been established in the division, upon which Miss Wilson has submitted the following report :—

"At the beginning of 1928 three Junior Red Cross links existed in schools in this division. Later 17 more were formed, making a present total of 20. Most of the new links were begun in the last term of the year, so that it is only possible at present to estimate the result of the work in a few schools.

"Where the nurse assists with the link activities, no child is enrolled until she can produce a tooth brush and a handkerchief for regular inspection and is clean and tidy and free from all signs of verminous infestation.

"The Red Cross work is popular with the children and the struggle to qualify for membership when a link is formed gives an immediate fall in the number of girls with nits in their hair, but I am unable to say whether this improvement can always be maintained.

"In one of the schools there was improvement of 7 per cent. in the personal hygiene figures in two months while a link was being formed. In another, where the work has been going on since Easter, 1925, there has been continuous improvement during that time.

"The table given below shows the difference of the rate of fall in the number of verminous children in 4 schools where there has been a junior link for a year or more and 4 others of similar type in the same neighbourhoods where no Red Cross work has been done. The control schools are under the supervision of the same nurses

as those doing Red Cross work, and the head teachers of all the schools give effective help with the cleansing work. For comparison the figures for 1925 have been taken, because these are more readily available and because the first link was formed in that year."

School.	Year.	No. of children.	Defective.		Total defective.	Per-centage.	Decrease — or Increase + per cent.
			Class 2.	Class 3.			
<i>With Junior Red Cross Link.</i>							
School No. 1	1925	1,003	88	35	123	12.2	— 5.2
(Infants)	1928	887	58	5	63	7.0	
School No. 2	1925	403	88	60	148	36.7	— 25.2
(Girls)	1928	451	49	4	53	11.5	
School No. 3	1925	899	160	47	207	23	— 7.5
(Girls)	1928	761	116	12	128	15.5	
School No. 4	1925	879	137	19	156	17.7	— 7.6
(Girls)	1928	807	63	19	82	10.1	
<i>Without Junior Red Cross Link.</i>							
School No. 5	1925	331	39	11	50	15.1	— 0.7
(Infants)	1928	333	39	9	48	14.4	
School No. 3	1925	668	88	36	124	18.5	— 1.8
(Infants)	1928	545	79	12	91	16.7	
School No. 6	1925	536	106	41	147	27.4	— 4.7
(Girls)	1928	490	88	23	111	22.7	
School No. 7	1925	1,061	150	44	194	18.3	+ 0.2
(Girls)	1928	978	116	49	165	18.5	
<i>Red Cross Link without nurses' help</i>							
School No. 8	1925	1,278	137	60	197	15.4	— 1.9
	1928	922	55	70	125	13.5	

"The above analysis suggests that an extension of the Junior Red Cross work in the schools would effect some improvement in the cleanliness of the children and that the time given by the nurses to the work is not unprofitably spent. The Junior Red Cross work adds to the nurses' opportunities of teaching the value of good health and the importance of forming healthy habits of living of which the maintenance of a high standard of cleanliness is only one.

"In two schools the nurses have started mothercraft-classes for a few elder girls after afternoon school. The girls are eager to attend and show great interest in the teaching but the difficulties of obtaining equipment and the excessive strain on the nurses will prevent any development of this work although it appears to be necessary, acceptable and useful."

Nursery Schools.

There are in London ten recognised nursery schools with total accommodation for 435 infants. The largest of these is the Rachel McMillan Nursery School with places for 260 (100 L.C.C. and 140 voluntary). Accommodation at Notting Hill has, by the erection of a pleasant open-air shelter, been increased from 50 to 80. The Jellicoe Nursery School, temporarily housed at Lyndhurst Hall, Warden Road, N.W., pending the building of new premises on the old site in Rochford Street, has accommodation for 45 instead of 25, Goldsmiths' College Nursery School has been increased from 25 to 35, the Mary Ward from 20 to 25 and the Children's House from 30 to 35.

The Kilburn Union Jack School has been closed and two new voluntary schools, the Women's University Settlement in Blackfriars and the Claverton Street Nursery

The following statement shows an analysis of the 455 cases for admission to special (P.D.) schools, in which the children were either returned to elementary schools or invalided :—

<i>Morbid conditions.</i>	<i>Elementary school.</i>	<i>Invalided.</i>	<i>Morbid conditions.</i>	<i>Elementary school.</i>	<i>Invalided.</i>
Tuberculosis, actual or suspected of bones, joints, glands, etc.	26	10	Kidney disease ...	2	2
Congenital deformities ...	32	16	Skin conditions ...	2	2
Rickets and deformities from this cause	8	8	Various chest conditions, bronchiectasis, empyema, etc.	10	3
Fragilitas ossium ...	0	1	Infantile paralysis ...	14	8
Osteomyelitis ...	5	4	Cerebral paralysis ...	2	25
Various traumata ...	8	2	Various other paralyses ...	7	2
Heart, congenital disease...	12	11	Epilepsy ...	4	1
„ valvular disease ...	38	24	Encephalitis lethargica ...	6	5
„ non-valvular disease	30	10	Pseudo-hypertrophic muscular dystrophy	2	3
Anæmia ...	3	0	Miscellaneous—Nervous conditions, ataxia, etc.	43	19
Rheumatism and chorea...	33	12			
				287	168

There were also 578 cases returned on improvement to elementary schools or, when over 14 years of age, excluded as no longer certifiable ; the details are as follows :

Special School Classification.	P.D.	M.D.	Blind.	Deaf.	Sight Saving.	Hard of Hearing.	Total.
Returned on improvement to elementary schools	161	25	1	1	12	10	210
Over 14 years of age, excluded as no longer certifiable.	206	119	2	2	39	0	368

The special schools were visited at least once a quarter and every child present was seen at least once during the year, the total examinations amounting to 17,831 ; in addition 671 special examinations were made of children already on the rolls of special schools in connection with applications for non-enforcement of attendance at special schools and for similar reasons.

As a result of the visits and re-examinations the following re-classification took place :

Transferred from Schools for	Re-classified as :									
	P.D.	M.D.	Sight saving.	Blind.	Deaf.	Hard of hear- ing.	White Oak, Swan- ley.	Open- air School.	Epilep- tic Colony.	Feeble minded detrimental.
P.D. 	—	21	3	1	1	—	1	10	1	—
M.D. 	2	—	—	—	1	1	1	—	—	3
Sight saving 	2	—	—	4	1	—	1	—	—	—
Blind 	—	—	9	—	—	—	—	—	—	—
Deaf 	—	—	—	—	—	2	—	—	—	—
Hard of hearing ...	—	2	—	—	15	—	—	—	—	—

49 children were excluded as imbecile and 54 were invalided on medical grounds.

The following table shows the number of children who improved to such an extent that they were able to return from the special (P.D.) schools to the ordinary children.

Decertification of P.D. children.

elementary schools or were "no longer certifiable" as defective between the ages of fourteen and sixteen years.

Defect.	Cases		Defect.	Cases	
	passed "no longer certifiable."	passed fit to return to elementary school.		passed "no longer certifiable."	passed fit to return to elementary school.
Heart	68	37	Miscellaneous — Nervous conditions, ataxia, etc.	4	3
Rheumatism	13	9	Chorea	8	10
Tuberculosis	40	23	Bronchiectasis	2	—
Infantile paralysis	31	16	Osteomyelitis	6	5
Rickets and deformities from this cause	2	16	Miscellaneous skin conditions	—	1
Various traumata... ..	11	12			
Congenital deformities	19	22			
Non-tuberculous arthritis and synovitis, including pseudo-coxalgia	2	7			
				206	161

Mental Deficiency Acts.
Cases notified to the local authority.

The following table shows the number of cases notified to the local authority by the education authority under section 2 (2) of the Mental Deficiency Acts, 1913-1927, during the year 1929. The figures in brackets are those for the previous year :—

	Boys.		Girls.	
(a) Feeble-minded—				
(1) Leavers	89	(66)	81	(85)
(2) Detrimental	7	(3)	6	(6)
(3) Special circumstances	1	(3)	1	(0)
(4) Ineducable	0	(0)	1	(0)
(b) Imbecile	81	(96)	58	(79)
(c) Idiot	3	(6)	11	(12)
(d) Moral defectives	0	(1)	0	(1)
Total	339	(358)	158	(183)

Mental status of parents, and brothers and sisters of 200 children examined with a view to admission to M.D. schools.

Dr. A. C. Williams has analysed the records of certain children brought to notice as being probably mentally defective in which it was possible from the comments of the certifying officers, or from the notes submitted by the teachers, to form some estimate of the mental status of the parents and of the brothers and sisters. The parents were classified in five groups :—

- I.—*Superior* : deduced from such remarks as "parents highly intelligent," "above the average for the district" etc.
- II.—*Average* : "parents average," "home ordinary," etc.
- III.—*Inferior* : "parents seem dull," "children neglected," etc.
- IV.—*Unstable* : "parents alcoholic," "father often in prison," etc.
- V.—*Mentally defective* : this class was used when a parent had been a pupil in a special (M.D.) school or had been ascertained under the M.D. Act.

The siblings were classified in three groups :—

- 1.—*Superior* : if they had obtained scholarships or places in secondary schools.
- 2.—*Average* : if they had attended ordinary elementary schools.
- 3.—*Defective* : if one or more attended a special school.

The children whose records are dealt with comprised 100, who were admitted to special (M.D.) schools, 100 who were examined with a view to such admission but who were not at the time accepted, and 22 imbeciles. The results as regards parentage were :—

<i>Group of Children.</i>			<i>Parents.</i>				
			<i>Superior.</i>	<i>Average.</i>	<i>Inferior.</i>	<i>Unstable.</i>	<i>M.D.</i>
Inferior but returned to E.S.	...	(100)	16	52	21	10	1
Mentally defective	...	(100)	15	45	28	8	4
Imbecile	...	(22)	6	13	—	2	1

Many of the parents classed as unstable were also inferior, showing that although comparatively few of the children had parents who were at some stage regarded as themselves defective nearly 40 per cent. had parents who were distinctly inferior. As it may well have been that some were classed as average from paucity of information, it is probable that this figure should be raised to 50 per cent. On the other hand, some inferior and mentally defective children were the offspring of parents equal to, or even surpassing, the average in intelligence; this was the more marked in the group of imbeciles. Many of the defective children who were the offspring of normal or superior parents were of the mongol, cretin or plegic types.

The mental status of the brothers and sisters was as follows :—

<i>Group of children.</i>							<i>Brothers and sisters.</i>		
							<i>Superior.</i>	<i>Average.</i>	<i>M.D.</i>
Inferior...	...	...	...	...	...	...	1	93	6
Mentally defective	...	...	...	...	...	...	1	78	21
Imbecile	...	...	...	...	...	...	2	15	5

As was expected the number of defective siblings varied directly with the status of the individual with whom the investigation started, there being more defective siblings of mentally defective than of merely inferior children.

One mother was anxious for her boy to go to the special (M.D.) school because so many of his family had been there, while on the other hand, one mentally defective child had three brothers and sisters who had won scholarships. Also it was interesting to note that whilst most of the children of mentally defective mothers were neglected there was one example in which such a child had won the prize at a baby show.

The numbers are, of course, too small to form the basis of conclusions, but they illustrate the common experience of certifying officers and agree with the findings of the investigator for the "Wood Committee." They are also confirmed by the notes made by a very experienced headmistress of a special school on 66 of her pupils which, when classified by Dr. Williams on the same lines as the foregoing, showed :—

<i>Parents.</i>		<i>No.] Per cent.</i>		<i>Siblings.</i>		<i>No.] Per cent.</i>	
Superior	...	6	9	Superior	...	1	1.5]
Average	...	36	54	Average	...	53	80.5]
Inferior...	...	10	15	Defective]	...	12	18.0]
Unstable	...	11	17				
Defectives	...	3	5				

This headmistress also gave details of certain striking cases which illustrated the effects of ancestry :—

J.W.—Unstable type of M.D. Mother excitable and markedly inferior. Father intelligent, three other children M.D.

R.H.—M.D. Father very unstable and inferior. Mother very inferior, not quite M.D. Two other children M.D.

M.N.—M.D. high grade. Father and mother, both superior. Mother's father illiterate but said to have been normal, four other children M.D.

L.H.—M.D. very unstable. Father intelligent but tuberculous. Mother is M.D. The other child is highly intelligent.

J.H.—M.D. very unstable. Father brutal but well educated. Mother nervous, not inferior mentally. A brother is M.D. A grand-parent died in an asylum.

S.S.—M.D. paralysed. Father normal. Mother very intelligent. Grandparents normal. 20 children born but only 10 alive, all above average intelligence except this boy.

L.W.—M.D. (premature and weakly baby). Father alcoholic. Mother superior in all ways. 6 brothers and sisters all normal.

L.C.—M.D. Father distinctly superior. Mother rather unstable. Two grandparents unstable and another illiterate. The other child is normal.

F.H.—M.D. Father intelligent but unstable (alcoholic). Mother normal. A grand-parent was a notoriously bad character. There were 14 children born, but only 5 survived, all normal except this girl.

The number of siblings of a defective who are also affected is a question of some importance from the stand point of mental deficiency as a family problem. In 1912 Dr. Shrubsall analysing the records of 2,000 children who had been in attendance at special schools for the mentally defective found that in 1,741 cases the child at school was the only defective member and that in 259 cases another member or members of the sibship were also mentally defective giving an incidence of 13 per cent. Dr. Shrubsall has this year analysed the records of 1,360 cases dealt with under the Mental Deficiency Act in which fuller histories are available as a result of home inquiries. In this series it was found that in 1,231 only the one member of the sibship was defective, and in 129 one or more others were also mentally defective, an incidence of approximately 9.5 per cent., the members affected being as follows :—

No. of brothers and sisters of defective who were also defective.	1928 and 1929.				1912.
	Idiot.	Imbecile.	Feeble-minded.	Moral defective.	Special school cases.
None	44	410	722	5	1,741
One	2	18	66	—	137
Two	—	4	27	—	87
Three	—	2	7	—	21
Four	—	1	1	—	6
Five	—	—	1	—	6
Six	—	—	—	—	1
Seven	—	—	—	—	—
Eight	—	—	—	—	1

In the cases analysed this year it appeared that all but seven of the instances in which more members than one of the sibship were mentally defective the type of defect found was simple primary amentia, often of the sub-cultural variety. The frequency with which other members of the sibship were affected varied inversely with the grade of defect, the lower the mental status, the fewer the others were affected; the percentages of those in whom there were defective brothers or sisters being :—Idiots 4.3, imbeciles 5.7, feeble-minded 11.6. It was also noted that in 12 instances brothers or sisters of defectives had won scholarships, of these defectives 7 were instances of primary amentia, 2 of cerebral paralysis and 3 of mongolism. In one instance 5 brothers and sisters of a defective individual had won scholarships and in another case two brothers had so done, both of these defectives were examples of simple primary amentia. The general effect of these analyses is to show that second instances of mental deficiency in a sibship are to be expected in less than 15 per cent. of the cases.

The analysis also gave some indication of the relative frequency of the different types of defect :—

Type of defect.	Grade of defect.			
	Idiot.	Imbecile.	Feeble-minded.	Moral defect.
Simple primary amentia	14	224	772	3
Mongolism	5	96	5	—
Cretinism	1	7	—	—
Hydrocephaly	3	5	3	—
Microcephaly	2	11	4	—
Encephalitis and meningitis	2	8	32	2
Plegia	15	44	29	—
Epilepsy	3	36	26	—
Traumatism	1	4	3	—
	46	435	874	5

Return for year to 31st December, 1929, of the after-careers of children formerly attending special schools for the mentally defective, apart from those whose names have been forwarded to the local control authority for action under the Mental Deficiency Acts, 1913-1927 :—

	<i>M.</i>	<i>F.</i>	<i>Total.</i>	After-careers reported by the London Association for the Care of the Mentally Defective.
1. Number of children born in or subsequent to 1910 who have left special (mentally defective) schools and who have been on the books of the association as "after-care" cases ...	831	561	1,392	
2. Number of these who—				
(a) Have since died	4	6	10	
(b) Are known to be incapable by reason of mental or physical defect of undertaking employment	33	30	63	
(c) Have been subsequently dealt with under M.D. Acts ...	19	11	30	
3. Number employed in—				
(a) Industrial or manual occupations (i.e., factory work, and trade or part of a trade)	506	359	865	
(b) Agricultural or rural occupations	6	2	8	
(c) Domestic occupations (i.e., servants sleeping in or out, lift boys and those "helping at home")	17	100	117	
(d) Commercial (i.e., shop assistants or selling behind a counter), professional (or Army and Navy), clerical (office boys and girls)	19	3	22	
(e) Blind alley or other precarious occupations (i.e., van boys, newsboys, errand boys or girls selling from a barrow) ...	141	4	145	
4. Judged to be employable but out of work	51	32	83	
5. Number whose careers have not been traced or who have left the neighbourhood	35	14	49	
Total analysed under headings 2, 3, 4 and 5 ...	831	561	1,392	

It has been considered desirable that there shall be a complete record of all children leaving the schools for the blind, and in order that this shall be done, arrangements have been made whereby the Metropolitan Society for the Blind is furnished with particulars of all children leaving such schools. Children leaving schools for the blind.

During the year consideration has been given to the question of gardening for children with defective vision. Gardening as occupation for children with defective vision.

The children in attendance at the myope classes may be divided into two groups :—

1. Children whose sight is poor owing to defect in the original development of the eye and others whose sight is poor owing to scarring of the cornea from ulceration or inflammation.

2. True myopes whose eyes are stretched by reason of a slow but continuous low grade inflammatory reaction.

Of the two groups the first accounts for some one-third of the total. For these children there is no risk and every advantage in out-door occupations. Gardening is therefore of value to them; and, if their bent is towards this work, it will be a satisfactory life occupation for them. Any means of training them for such work will therefore be good and worth while. There is no part of gardening from which they must be barred. They may dig and lift with freedom and without hurt.

The larger group of truly myopic children are in quite another category. The state of their eyes is such that any strain involves the risk of an increase of the short-sight. Outdoor life is of advantage to them since this will increase their general health, and to that extent tend to prevent extension of the eye changes. But that outdoor life must not entail strains that would outweigh the advantages of the open air. Gardening can scarcely be carried on without digging; digging entails considerable strain; it involves considerable muscular effort. It also entails frequent lifting of weights, pots and containers of flowers and plants, and this again entails strain. Of those in the myope classes whose myopia reaches 10 dioptries, and whose cards are marked "Care," there can be no question that gardening in any

form, save perhaps the lighter standing work that the potting shed entails, should be barred. There are few myopes of less than 6 dioptries admitted to the classes, the majority of the children in the classes have a myopia of between 6 and 10 dioptries. For these children gardening would be safe, providing digging and carrying were excluded, and also if they were taught to sit whilst weeding and planting, and not to stoop down to the work. It will be obvious that the limitation is considerable, and not easy to maintain. Hence the scope of this training must be small for these children.

Reading
capacity of
retarded
children.

Children are nominated for examination with a view to admission to special schools when they show signs of falling behind in their school work to a serious extent, and there are no remediable physical conditions such as defective vision, partial deafness, or aprosexia (no power of concentration) from the presence of enlarged tonsils and adenoids, to explain the retardation. Should such remediable conditions be found they are referred through the usual channels for treatment and the children are subsequently re-examined. A considerable number of the children rightly nominated for special examination do so well both in performance tests of various kinds and in tests of the Binet pattern as to show that mere lack of fundamental intelligence cannot be the explanation. Often it is a failure of aptitude in the acquisition of linguistic or numerical symbols. Dr. Thornton has investigated the records of some 248 children, who had received special examinations, and had been deemed not defective, but who were not making adequate progress in their studies. In those under 11 years of age, the difficulty was found to be largely an incapacity for reading. The results are shown in the following table:—

<i>Reading capacity.</i>	<i>Age group.</i>	
	<i>6 and 7 years.</i>	<i>8, 9 and 10 years.</i>
No letters	10	11
Letters only	18	49
2 letter words	6	43
3 letter words	4	26
4 letter words	—	33
5 letter words	—	3
Longer words	—	16

According to the researches of Professor Burt, a child in regular school attendance should read two letter words between 4 and 5, three letter words between 5 and 6, four letter words between 6 and 7, and five letter words between 7 and 8. None of these children presented intelligence quotients as low as 70, and most had much higher quotients, the average for the whole group being 80, yet but few had attainments up to the six year average, and few could read sufficiently to be able to use books with any profit. In most cases they appeared to experience great difficulty in word building, and such words as they knew, which were of varying length, they seemed to have acquired as word-wholes or single symbols. Some of the difficulty appears to arise at the change from the infants to the senior departments, the child who has not really commenced to acquire the ground work in the lower school is in a position of great disadvantage on promotion, despite all efforts made by the class teachers to give individual instruction. Part of the disadvantage appears to consist in a loss of incentive, and the child almost immediately discovers that it is easier to abandon effort until the need for certain words is brought home to him by the impact of reality in the out-of-school world. Such children then make an effort and acquire as word-wholes a limited number of words of special interest. In some of the cases the intelligence of the children who were nominated at the lower ages, and who could read was such as to indicate that lack of scholarship in the sense of the rudiments of literary ability could not have been the cause of their nomination as prospective defectives.

Of those nominated after the age of 11, only half were unable to read more than four letter words, and about one-third of those who could read had clearly been

nominated either in error as to their innate capacities, or on account of some features of their behaviour.

These children are of the type referred to in the "Wood Report" as "retarded" and who, although not properly certifiable as mentally defective in the educational sense, and still less in the social sense of the term, would derive far greater benefit could their education be conducted along the lines current in the special schools for older boys and girls. Under the conditions which apply in most ordinary schools, there is little to arouse their interest and they tend to mark time until released by the operation of the age limit. For such, a special post-primary curriculum would be an instrument of social salvage.

The aural consultant, Mr. Yearsley, has visited the schools for the deaf and partially deaf and has held 22 consultations at the County Hall. During these, 368 children were examined and the following recommendations made concerning them:—

<i>Fit for—</i>	<i>No.</i>	<i>Per cent.</i>
Central school	2	·5
Elementary	20	5·5
Elementary school and treatment	12	3·3
Elementary school front row	94	25·5
Elementary school front row and treatment	40	11·0
Hard of hearing	66	17·4
Deaf normal	62	17·0
Deaf and defective	20	5·5
Physically defective	1	·3
Mentally defective	14	3·8
Advice given	9	2·5
Invalided	28	7·7
	368	100·0

Some of these cases were seen more than once during the year and others had been seen on previous occasions; 122 deaf or hard of hearing children were seen for the first time; in 5 of these the cause of deafness was doubtful, in 29 the deafness was congenital and in 91 it was due to acquired causes. The congenital cases were classified as:—

	<i>Boys.</i>	<i>Girls.</i>	<i>Totals.</i>
True hereditary deaf birth	2	2	4
Sporadic deaf birth	11	12	23
Aphasia	0	2	2
	13	16	29

The acquired cases were classified as:—

	<i>Boys.</i>	<i>Girls.</i>	<i>Total.</i>	<i>Per cent.</i>
Diseases of nervous system	3	4	7	7·6
Infectious fevers	12	12	24	26·3
Other infective diseases	3	5	8	8·7
Primary ear disease	21	29	50	54·9
Injury	1	1	2	2·1

The diseases of the nervous system cases have been in the form of meningitis, in 2 cases influenzal, and in others of uncertain causation. For the first time in eleven years there are no cases recorded of deafness due to cerebro-spinal meningitis. As usual, measles and scarlet fever head the list of the exanthemata with percentages of 58 and 25 respectively. Of the cases of measles, in 12 the deafness followed suppuration, and in 2 nerve deafness; in the cases of scarlet fever the deafness resulted from suppuration in one case, and in 2 from residual catarrh of the middle ear. Of other infective diseases congenital syphilis accounted for 4 (4·3 per cent).

Of the 23 cases of middle ear catarrh, 19 were due to enlarged tonsils and adenoids. Of the 21 cases of deafness associated with mastoid disease, in 13 both ears were affected and in 8 cases a single ear.

Residential
schools.

There are 7 residential special schools (2 for blind, 2 for deaf, 1 for defective deaf, 1 for mentally defective boys and 1 for mentally defective girls) with a total accommodation for 355 residential and 215 day scholars. To each school is allocated a medical officer and provision has been made for dental inspection and treatment.

Places of
detention.

During the year changes have been made. In the early part of the year the previous arrangements whereby the girls and younger boys were taken to Ponton-road and the boys to Pentonville-road were in force. Each place of detention was looked after by a visiting local practitioner and special cases were referred to the County Hall for examination and report. From 1st January to 15th June, 1929, examinations were conducted at the County Hall in 49 cases with a view to ascertaining their fitness for education in industrial or reformatory schools with the following results :—

Recommended as suitable for	Boys.	Girls.	Total.
Reformatory school	11	1	12
Industrial school	21	2	23
M.D. industrial school	5	2	7
Dealt with under M.D. Act by being sent to institutions	7	—	7
	44	5	49

During the year, 726 children were admitted to Ponton-road and Pentonville-road places of detention. On 17th June, the Pentonville-road place of detention was closed, and since that date the children have been accommodated in the Ponton-road place of detention. The previous arrangements in regard to medical supervision were discontinued, and Dr. Verner Wiley, one of the Council's full-time medical officers, was placed in charge of the institution. Dr. Wiley's report is as follows :—

Ponton-road
place of
detention.
Dr. Verner
Wiley's
report.

Numbers.—Between the opening of the single unit place of detention at Ponton-road—17th June, 1929—and the end of the year there were admitted 338 boys and 63 girls of all ages from babyhood to nearly 16 years of age.

Courts.—The Courts dealing with these children and the numbers dealt with at each Court are as follows :—

Old Street Juvenile Court	...	...	...	...	111 cases.
Clerkenwell Juvenile Court	...	...	...	...	54 „
Lambeth Juvenile Court	...	...	...	...	37 „
Tower Bridge Juvenile Court	...	...	...	...	32 „
Greenwich Juvenile Court	...	...	...	...	30 „
Fulham Juvenile Court ...	...	...	...	...	20 „
Bow Street Juvenile Court	...	...	...	...	16 „
Woolwich Juvenile Court	...	...	...	...	9 „
Westminster Juvenile Court	...	...	...	...	7 „
Lindsey Hall Juvenile Court	...	...	...	...	2 „
Deptford Juvenile Court	...	...	...	...	1 case
Toynbee Hall Juvenile Court	...	...	...	...	1 „
London Adult Courts (various)	...	...	...	...	20 cases.
Middlesex Juvenile Courts (various)	...	...	...	...	33 „
Education Act, Borough Petty Sessions (various)	...	...	...	...	20 „
“Place of Safety” admissions and “Lodgers”	...	...	...	...	9 „

Reasons for Admission.—The following table shows the delinquencies or other reasons for admission with their numbers shown against each month. The month of June is from the 17th to 30th only.

	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Larceny	20	40	39	25	25	32	26	207
Being beyond parental control ...	1	6	6	13	9	8	2	45
Wandering	1	2	4	10	4	9	1	31
Housebreaking	9	8	2	1	7	1	2	30
Education Act cases	—	13	—	1	2	2	2	20
Breach of recognisances	1	2	1	4	6	2	1	17
"Living in circumstances," etc. ...	—	6	—	2	—	—	1	9
Suspected persons	3	1	1	—	1	—	1	7
"Places of safety" cases	—	5	—	—	—	—	—	5
Embezzlement	—	1	—	3	1	—	—	5
Parent criminal or drunkard ...	—	—	—	2	—	—	2	4
Begging	—	1	—	—	3	—	—	4
Sex offences	—	2	—	1	—	1	—	4
"Lodgers"	—	—	1	1	—	1	1	4
Arson	—	—	—	1	1	—	—	2
Unlawful wounding	—	2	—	—	—	—	—	2
Being in unlawful possession... ..	—	2	—	—	—	—	—	2
Uttering threats	—	—	—	—	—	—	1	1
Placing obstruction on railway ...	—	1	—	—	—	—	—	1
Causing wilful damage	—	—	—	—	—	—	1	1
Totals	35	92	54	64	59	56	41	401

Little in the way of useful commentary can be made because of the short period reviewed and the fewness of the cases. It may be observed, however, that the larceny cases are nearly twice as numerous in June, July and August than in the remaining months. This difference would be more marked were the whole month of June included instead of only 13 days in the month. The kindred crime of housebreaking also reaches its maximum during the same three months. The Education Act, "place of safety" and "living in circumstances" cases are presumably end of term clearances. The weather during June, July, August and September was unusually fine with much sunshine and practically no rainfall. There was no severe or wet weather throughout the whole period.

Physical Examination.—Complete physical examination was carried out on each child with the primary object of ascertaining fitness or otherwise for admission to certified schools; 361 were found fit for ordinary certified schools (industrial and reformatory), 29 mentally defective children were recommended as fit for special certified schools or institutions and the remainder (11) were found unfit—4 by reason of myopia of extreme degree, 5 on account of serious heart disease and 2 lung cases. The average heights of the delinquent group in question are better at all ages (except 10) than the corresponding average heights for London children, but the weights of the delinquent group were generally below the London averages.

Nutrition and Physique.—The estimate of nutrition and physique is liable to the influence of personal equation, but it may be noted that 15·2 per cent. of the Ponton-road children were judged to be of poor nutrition as compared with 4·8 per cent. so adjudged by school doctors examining London elementary school children, while 19 per cent. of the delinquent group were returned as of poor physique. The difference between the estimate of the delinquent group and the London group is so great that one must conclude that the former is markedly inferior.

Conditions of cleanliness of the head and body show, as one would expect, the same inferiority of the delinquent group, and there is a high percentage of skin disease—13·3 per cent. as against 1 per cent. in the London group.

Vision.—Eye defects of 6/12 and over are a little more numerous among the delinquent group, but against this 70·6 per cent. of them have normal vision, as against 56 per cent. normal in the London group.

Functional nervous disease.—Special reference must be made to functional nervous disease which has been noted in 14·1 per cent. of cases. All abnormalities of the system, however slight, were noted, including tremor, very exaggerated reflexes (without definite signs of organic disease), nervous overaction and inco-ordination, hippus, nail-biting, etc. It is probable that a careful scrutiny of an otherwise normal (non-delinquent) group of children would show as high a percentage of these minor nervous manifestations. The "nervous child" so called was rarely seen, and there were no cases of the nervous child with symptoms of acidosis. The only conditions noted under the *digestive system* were 2 cases of inguinal hernia and 2 cases of mild constipation. Indeed the whole group was remarkably eupeptic. *Enuresis* was noted in 26 cases (7·3 per cent.) and *stammer* in 6 cases (1·7 per cent.) only. No standards of comparison are available. *Rickets* shows a very high percentage (8·2 per cent.) as compared with the London group (0·5 per cent.).

Genito-urinary abnormalities.—Under this heading were 14 cases of complete or partial cryptorchism and 2 cases of partial hypospadias.

Stigmata.—Sixteen were noted as having marked stigmata, *e.g.*, Hutchinson's teeth (3 cases), prognathism (1 case), webbed toes (2 cases), adherent ear lobes (2 cases), and 8 cases of marked epicanthus.

Endocrine Abnormalities.—Under this heading were noted the following:—7 cases of adiposo-genital dystrophy of varying degree; 3 cases of eunuchoid tallness with genital hypoplasia; 5 cases of hyperthyroidism of mild degree (not associated with puberty) and 3 subthyroid cases (adiposity, dry-skin, bradycardia, etc.). Other conditions noted were:—Left handedness in 4·2 per cent.; 56 per cent. had marks of vaccination; 4·5 per cent. of the 15-year-old group showed complete sexual immaturity; 50 per cent. of the whole group were brown-eyed; 23·8 per cent. were in need of treatment—usually for defects of vision and carious teeth.

Educational and mental levels.—An estimation of the educational (reading and arithmetic) attainments and the mental age was made in all cases. Records of 340 cases are available for examination. The object of the examination was again primarily to determine the fitness or otherwise for ordinary certified schools. For the educational level Burt's standardised scales were used, and for the intelligence tests the Stanford revision of Terman's scale, reinforced by the Healy formboards and completion test, and the Porteus maze test. No attempt was made to determine intelligence quotient as being unnecessary for the object in view, but the mental age was fixed as accurately as possible on the child's total performance. The results of the examination are set out in the following tables.

Table showing mental ages for the different chronological ages:—

		Mental Ages.											Totals examined.
		4	5	6	7	8	9	10	11	12	13	14	
Chronological Ages,	5	1	2	—	—	—	—	—	—	—	—	—	3
	6	—	2	1	—	—	—	—	—	—	—	—	3
	7	—	—	3	4	—	—	—	—	—	—	—	7
	8	—	1	7	10	4	2	—	—	—	—	—	24
	9	—	—	4	5	4	11	—	1	—	—	1	26
	10	—	—	—	2	5	9	4	—	—	—	1	21
	11	—	—	—	3	5	8	6	1	4	1	—	28
	12	—	—	—	3	3	7	5	2	5	8	5	38
	13	—	—	—	1	4	6	10	9	6	5	6	47
	14	—	—	—	—	3	9	8	6	11	10	9	56
	15	—	—	1	—	1	11	12	13	21	8	20	87
Totals ...		1	5	16	28	29	63	45	32	47	32	42	340

An analysis of this table gives the following results :—

27 (8 per cent.) were found to be mentally defective. Of these 15 were known to be defective previous to admission, and 12 were found to be defective at the place of detention. Of the remaining 313 :—

95 or 28 per cent. tested at or above their chronological ages.

61 „ 19 „ showed 1 year of retardation.

69 „ 20 „ 2 years „ „

44 „ 12 „ 3 „ „ „

28 „ 8 „ 4 „ „ „

16 „ 5 „ 5 „ „ „

This analysis shows the wide range of mental content possessed by the group, with the moderately backward largely preponderating.

Educational levels.—Very gross educational retardation is a marked feature of the whole group, as the following tables show. Records of 321 cases are available.

Relation between reading and arithmetic levels and chronological age :—

							Reading.	Arithmetic.
Level up to or above chronological age	...	...	...	...	...	...	70	42
1 year retarded	...	...	...	...	...	...	54	45
2 years	...	...	...	...	...	...	48	50
3 „	...	...	...	...	...	...	46	63
4 „	...	...	...	...	...	...	55	59
5 „	...	...	...	...	...	...	26	23
6 „	...	...	...	...	...	...	14	25
7 „	...	...	...	...	...	...	5	10
8 „	...	...	...	...	...	...	2	4
9 „	...	...	...	...	...	...	1	0
							321	321

Relation between reading and arithmetic levels and mental age :—

							Reading.	Arithmetic.
Level up to or above mental age	...	...	...	...	...	...	165	117
1 year retarded	...	...	...	...	...	...	70	91
2 years	...	...	...	...	...	...	56	68
3 „	...	...	...	...	...	...	21	33
4 „	...	...	...	...	...	...	7	12
5 „	...	...	...	...	...	...	2	0

It is clear, therefore, that this educational backwardness is a real failure of achievement, and that this failure is especially marked in arithmetic.

Special reports to magistrates.—Special reports were asked for in a small number of cases, where the magistrate wished for information as to the physical or mental condition of the child. In some cases also, reports were submitted even though not asked for. This was especially so where there appeared as the result of examination to be conditions likely to benefit from psychological investigation and treatment.

Although the vast majority of the cases of delinquency that have been seen are cases of simple turpitude where discipline and training under good conditions away from home will in all probability affect a case, there is a residuum of cases where such treatment will fail unless guided by psychological investigation and treatment. It is in such cases that the Child Guidance clinics should be of great value.

There are 3 industrial schools (2 for boys, 1 for girls), with a total accommodation for 357. To each institution is allocated a medical officer and a dentist. Industrial schools.

Examination of Employees in the Education Service and Scholars.

7,342 entrants to the permanent service and candidates for the award of scholarships presented themselves for examination during the year. The following table indicates the numbers submitted for each grade and the results of the examinations :—

Status.	Number examined.		Number fit.		Number rejected.		Number who withdrew after being referred for remediable defects or were not due for re-examination until 1930.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Permanent service ...	298	418	280	405	5	9	13	4
Teaching awards ...	241	777	213	715	3	19	25	43
Scholarships—								
Myopes ...	4	6	4	6	—	—	—	—
Others ...	2,882	2,774	2,822	2,736	25	10	35	28
Total ...	*3,425	*3,975	3,319	3,862	33	38	73	75
	7,400		7,181		71		148	

* Including 8 permanent service cases (6 M., 2 F.), 46 teaching awards (5 M., 41 F.), and 4 scholarships (1 M., 3 F.) referred from 1928.

The causes of rejection were mainly defects of vision, unsatisfactory general health, and morbid conditions of the heart.

The total number of examinations was 8,682. Some of the candidates were referred for one or more remediable defects.

Cases specially referred.

There are also referred to the public health department special cases, in which medical advice is required. Particulars in regard to these cases are set out in the Annual Report for 1925.

The number of examinations made was 3,606, including 3,243 teachers, of whom 585 were men and 2,658 women. In connection with sick leave 1,983, or 66 per cent. of the teachers, were over 40 years of age; an increase of 2 per cent. over the previous year.

Health of teachers.

A record has been kept for the years 1925-1929 of all deaths and premature retirements for ill-health occurring among the teaching staff. These records have been specially examined by Dr. Fairfield. The annual average numbers of the teaching staff during these years were 6,397 men and 13,832 women, giving a total of 20,229.

Deaths.

Causes of death and age at death of teachers:—

Disease.	Age.											
	20-30		30-40		40-50		50-54		55—		Total.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Respiratory system:—												
(a) Tuberculous ...	6	2	6	—	4	4	1	2	—	—	17	8
(b) Non-tuberculous ...	2	—	—	3	4	10	4	6	4	4	14	23
Influenza ...	2	1	1	1	—	4	2	6	5	2	10	14
Organic disease of the nervous system	1	2	2	2	—	1	—	1	—	1	3	7
Gastro-intestinal diseases ...	—	—	1	1	3	7	2	3	5	2	11	13
Circulatory diseases ...	—	1	2	—	9	7	6	5	11	11	28	24
Septicæmia ...	—	2	—	1	2	1	1	1	2	2	5	7
Cancer ...	—	—	2	3	8	10	2	12	8	13	20	38
Accidents ...	3	5	3	2	1	2	2	2	1	1	10	12
Kidney ...	—	—	—	1	3	—	—	2	2	2	5	5
*Miscellaneous ...	—	3	2	4	—	5	2	4	2	2	6	18
Cause unknown...	—	—	—	—	1	—	1	—	—	—	2	—
Total ...	14	16	19	18	35	51	23	44	40	40	131	169
Yearly average ...	...	...	...	...	...	...	...	...	...	...	26.2	34.0

* Diabetes, lymphatic leukæmia, goitre, acute rheumatism, child birth—3 each.

Enteric fever and osteomyelitis—2 each.

Fibroid uteri, pemphigus, diphtheria, Addison's disease, tuberculous kidney—1 each.

There were eighteen deaths among teachers over 60 years of age, but these have not been included in the table.

Causes of retirement of teachers who have left the service on medical grounds :— Breakdowns.

Disease.	Age.											
	20-30		30-40		40-50		50-54		55-		Total.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Respiratory diseases :—												
(a) Non-tuberculous ...	—	—	—	2	2	3	—	6	1	4	3	15
(b) Tuberculous ...	—	—	2	6	1	11	3	3	—	—	6	20
Nervous diseases :—												
(a) Organic ...	—	—	3	3	4	6	2	7	2	10	11	26
(b) Functional ...	—	—	—	—	2	12	5	9	7	18	14	39
(c) Psychoses ...	—	—	1	6	1	5	—	11	5	7	7	29
Arthritis ...	—	—	—	—	2	4	—	11	—	12	2	27
Gastro-intestinal diseases ...	—	—	—	2	—	4	—	3	—	7	—	16
Kidney diseases ...	—	—	—	—	—	—	—	2	—	4	—	6
Circulatory diseases ...	—	—	—	4	1	15	1	16	7	24	9	59
Cancer ...	—	—	—	1	—	7	—	7	2	9	2	24
Deafness ...	—	1	—	2	—	6	3	7	1	5	4	21
Defects of vision ...	—	—	—	—	—	1	2	4	—	4	2	9
Diseases of larynx ...	—	—	—	—	—	3	—	5	—	2	—	10
Exophthalmic goitre ...	—	2	—	2	—	4	—	4	—	4	—	16
General debility ...	—	—	—	—	—	1	—	3	—	6	—	10
Miscellaneous ...	—	—	—	—	—	3	—	6	1	9	1	18
Unclassified ...	—	—	—	—	—	1	—	2	—	8	—	11
Total ...	—	3	6	28	13	86	16	106	26	133	61	356
Yearly average ...	...	...	...	...	...	...	...	...	...	...	12.2	71.2

The interesting point emerges that while women break down more frequently than men, the deaths among the male teachers as compared with women are relatively more numerous in the proportion of 167 to 100. Put in another way, the yearly averages show :—

	Men teachers.	Women teachers.
Deaths ...	1 in 244	1 in 317
Breakdowns ...	1 in 525	1 in 194

From these figures, it appears that roughly speaking, a woman is about twice as likely to retire prematurely as a man, but only one-third as likely to die during her service.

Three main reasons suggest themselves for this discrepancy between the sexes :—

(1) That the man has family obligations, and cannot afford to retire unless he must. This is not to suggest that women teachers take breakdown pensions unnecessarily, but rather that many men have to struggle on when their health would indicate retirement.

(2) That women tend to age earlier than men. It is rather to a general failure of health than to a tendency to a physiological crisis in the later forties, that the difference in the total figures can be attributed. So far as breakdowns are concerned, the number rises steadily with every quinquennium after 40, and is highest between 55 and 60. A certain number of cases is directly attributable to the menopause, but in the majority, menopausal symptoms, if present, have probably no causal influence on the general state. The group classified as general debility, for example, showed a physical "break-up" usual in old age, but occurring in these women (who had in the main worked exceptionally hard) in middle life.

(3) The fact that certain organic diseases or defects interfering markedly with a teacher's career, are much more common in women than in men. For

example, note the figures for deafness, blindness, diseases of the larynx, exophthalmic-goitre and arthritis, in the above table. (All these cases had been seen by the medical officer, and there was no question of the organic nature of the disease and of its gravity.)

The figures for tuberculosis show that the disease tends to attack the young male teacher in his twenties or early thirties, and to run a more acute course than it does in the woman teacher. Her danger period lies in the later thirties and forties, and she is able to resign. The question arises whether the young men teachers living a rather sedentary life, and perhaps in lodgings, obtain a sufficiency of the out-door exercises and the diet they require. The fact that the male deaths from heart disease are relatively high, and are often sudden, suggests that more attention should be paid to adequate rest on recovery from influenza, and to the early symptoms of high blood-pressure. The number of deaths from the effects of influenza in both sexes is much larger than would appear from the figures, and this condition is certainly responsible for many of the cardiac breakdowns in women.

During the year, all applicants for admission to the Council's course of physical education were examined, the number being 317; of these 11 were deemed to be physically unfit to undergo the training.

The arrangements made in 1922, whereby medical aid could be given in the event of cases of accident or sudden illness at the County Hall, were continued in 1929, and aid was rendered and advice given in 409 cases. Generally the cases were of a minor character, but of 30 cases of injury, 2 were serious—in 1 case multiple injuries leading to death, and in the other case a partial fracture.

Infectious Diseases in Schools.

In the report for 1928, the importance of paying special attention to cases of infection in the early stages, so as to obviate the spread of disease through unrecognised, or missed, cases, was emphasised. The dangers of relying upon disinfection as a panacea, in dealing with outbreaks of infectious illness in schools, was also stressed in this connection. Continued experience of the present methods of control by means of close supervision has accentuated the truth of the arguments already put forward, which need not be repeated.

The numbers of cases of infectious diseases reported by the teachers as occurring among school children during the course of the year, compared with similar figures in the preceding five years, are shown below :—

Year.	Diphtheria.	Scarlet fever.	Measles and German measles.	Whooping cough.	Chicken pox.	Mumps.	Scabies.	Ophthalmia.	Ring-worm.
1924 ...	3,696	5,093	35,946	8,404	11,826	15,424	920	1,101	1,558
1925 ...	5,033	5,717	24,521	12,795	17,583	9,161	711	882	1,364
1926 ...	5,634	5,872	34,778	5,534	12,769	11,897	694	606	937
1927 ...	5,097	6,498	8,119	8,387	17,358	13,876	820	492	831
1928 ...	5,178	7,505	41,891	8,592	13,657	5,744	901	408	707
1929 ...	5,081	7,462	19,313	12,076	12,346	14,010	932	644	610

Strict supervision of children attending the Council's schools is exercised, and visits by assistant medical officers and/or school nurses are paid to schools where cases of infectious illness have occurred among the pupils, with a view to ensuring, as far as possible, that all sources of infection are eliminated, in order that healthy children may continue to attend school without risk of infection due to school attendance.

The following table shows the numbers of schools visited and the numbers of children examined in connection with investigations into the occurrence of scarlet fever and diphtheria in the Council's schools during 1929 :—

Division.	Diphtheria.				Scarlet fever.			
	No. of visits.	No. of depts. visited.	No. of schools visited.	No. of children examined.	No. of visits.	No. of depts. visited.	No. of schools visited.	No. of children examined.
E.	26	20	20	3,188	26	23	20	3,541
N.E.	42	27	25	3,473	30	27	25	3,173
N.W.	43	31	28	3,859	27	26	23	2,960
S.E.	45	38	35	3,883	61	49	43	6,109
S.W.	55	44	40	6,168	26	26	25	3,357
London	211	160	148	20,571	170	151	136	19,140

During 1929, 7,462 cases of scarlet fever were reported as occurring among children attending the Council's schools, and 170 schools were visited from time to time by the Council's medical staff in connection with outbreaks of this disease. At these inspections 19,140 children were examined. Scarlet fever in recent years has been of such a mild type that there has been much difficulty of control because many cases were unrecognised, some of them pursuing their usual occupations while still in an infectious condition. Scarlet fever.

In addition to investigations by medical officers, valuable work was done by school nurses in following up the medical officers' visits for scarlet fever and diphtheria, as well as in connection with minor infectious ailments. In 1929 the prevalence of diphtheria showed a slight decrease, 5,081 cases having been reported as occurring among school children as compared with 5,178 in 1928 and 5,097 in the previous year. Diphtheria.

During the year 148 schools were visited owing to outbreaks of diphtheria in the localities concerned, involving 211 visits by assistant medical officers, whilst in a number of these schools a nurse was also in attendance daily during the outbreak, with a view to advising the head teachers and swabbing suspects. In the course of these investigations and during ordinary medical inspections, etc., 5,557 swabs were bacteriologically examined in the Council's pathological laboratory, of which 706 showed the presence of micro-organisms indistinguishable from *B. Diphtheriae*, and the remainder were negative. These 706 positive results related to 502 children, of whom 187 were officially notified as cases of diphtheria. In 4 cases which yielded several successive positive results tests were made for the virulence of the micro-organisms and 3 of them proved to be virulent, whilst 1 was avirulent. This latter case was readmitted to school.

The subject of diphtheria in London was fully dealt with in last year's annual report of the school medical officer.

It was then pointed out that the question of diphtheria carriers and their adequate treatment had been occupying the serious attention of the school medical service for many years and that the Council had entered into arrangements with three voluntary hospitals, viz., Guy's, London and St. Mary's, to establish special clinics for the purpose of dealing with diphtheria carriers. These clinics have now been functioning for two or three years, and have proved very valuable in providing the treatment required in the case of persistent "carriers," each of which, as has already been pointed out, needs to be studied and treated on special lines. During the year under review 107 children were referred by the Council to these clinics (Guy's Hospital 81, London Hospital 16, St. Mary's Hospital 8). All were treated and allowed to return to school after varying periods. There were no instances of recurrence, so far as is at present known.

In connection with measures for diphtheria prevention by means of the Schick test and active immunisation by inoculation with toxoid antitoxin and toxoid, which have now replaced the use of toxin antitoxin, as afforded in London, there are now 14 boroughs where provision is made through the welfare centres to enable parents to have their children protected against attack by the disease. Diphtheria prevention in London in 1929.

To those 12 boroughs in whose welfare centres preventive clinics had already been established up to the end of 1928 have been added 2 others, Southwark and Bermondsey, where the borough authorities decided to devote special sessions in their centres to this branch of preventive work. Southwark opened with a clinic at Sutherland House in April and Bermondsey at the Borough Town Hall in July, 1929.

The following are the 14 boroughs, with the date of commencement of diphtheria prevention, the welfare centres and days on which the immunisation sessions are held, together with the doctors carrying out the work, and in brackets the number of individuals tested and immunised up to the end of 1929. 1. *Holborn, N.E.* (1218) since December, 1922, 10, John-street, Theobald's-road, W.C.1., Wednesday, 2.30 p.m. (Dr. Rawlinson). 2. *Westminster, S.W.* (740) since October, 1926, 1, Pimlico-road, S.W., Tuesday, 2 p.m. (2) 15, Bessborough-street, S.W.1, Thursday, 11 a.m., (3) 9, Frith-street, Soho, W.1, Tuesday, 4 p.m., (4) 30, Page-street (Westminster Health Society), Thursday, 10 a.m. (Dr. Ian Thomson). 3. *Camberwell, S.E.* (955) since December, 1926, 140, Camberwell-road, S.E., Wednesday, 2 p.m., occasionally Saturday, 10.30 a.m. (Dr. Bousfield). 4. *Deptford, S.E.* (992) since January, 1927, Harton-street, Deptford Broadway, Wednesday, 2.30 p.m. (Dr. Donnelly). 5. *Battersea, S.W.* (543) since October, 1927, Latchmere Baths Clinic, Latchmere-road, off Battersea Park-road, Wednesday, 2.15 p.m. (Dr. Porter Smith). 6. *Stoke Newington, N.E.* (259) since October, 1927, 34, Milton-road, Newington Green, N.16 (next to the Town Hall), Monday, 11 a.m. (Dr. Ross Keyt, M.O.H.). 7. *Wandsworth, S.W.* (1,647) since January, 1928 (1) Earlsfield-road, S.W.18, Congregational Church Hall (near Earlsfield Station), Wednesday, 2 p.m. (Dr. Macdonald and Dr. Trott). (2) 91, Bedford-hill, Balham, S.W.12, Friday, 2 p.m. 8. *Hackney* (874) since January, 1928, 28, Lower Clapton-road, E.8, Friday, 2 p.m. (Dr. Porter Smith). 9. *Marylebone N.W.* (329) since January, 1928, 14, Salisbury-street, Lisson-grove, N.W.8, Thursday, 2 p.m. (Dr. Margaret Emslie). 10. *Lambeth, S.E.* (900) since May, 1928 (1) 212, Camberwell New-road, S.E.5, Tuesday, 2.30 p.m. (Dr. Bousfield); (2) 12, Hannen-road, West Norwood, S.E.27, Wednesday, 10.30 a.m. (Dr. Cogan). 11. *Finsbury, N;E;* (28) since May, 1928, Pine-street, Farringdon-road, E.C.1, Saturday, 10.30 a.m. (Dr. Booth). 12. *Poplar, E.* (258) since June, 1928, Wellington-road, E.3, near Bow District Station, Tuesday, 2 p.m. (Dr. Porter Smith), 13. *Southwark, S.E.* (194) since April, 1929, Sutherland House, Sutherland-square, Thursday, 2 p.m. (Dr. Porter Smith). 14. *Bermondsey, S.E.* (45) since July, 1929, Town Hall, Spa-road, Monday and Thursday, 9.30 p.m. (Dr. Toussaint).

The progress which has been made in the past 3 years may be gathered from the fact that in January, 1927, there were only 3 boroughs which had established diphtheria preventive clinics—Holborn, Westminster and Camberwell—and that at that date the numbers of individuals dealt with amounted to 1,132 Schick tested, of whom 831 were found Schick positive or susceptible and 662 who had been immunised, representing a total 3 years ago, of 963 naturally immune (Schick negative) or immunised individuals, the majority (870) in Holborn.

Up to the end of 1929 at the welfare centres of the 14 boroughs which had by then opened special preventive clinics, there had been a total of 7,850 individuals Schick tested, 5,720 (73 per cent.) found positive, and therefore 2,130 naturally immune, *i.e.*, Schick negative and 6,850 who had been or were in course of being immunised by inoculation with toxoid-antitoxin given in three weekly doses, representing a total of nearly 9,000 naturally immune or immunised individuals, almost a tenfold increase in 3 years. The excess of immunised over the number of Schick positives represents children, chiefly below the age of 5, who have been immunised without preliminary Schick test in view of the fact that the majority at that age are known to be susceptible. The age grouping of 10,000 individuals attending for testing and immunising was approximately 3,000 under 5 years (pre-school age),

6,200 of school age between 5 and 15 years and 800 over the age of 15 years. It is estimated that about 70 per cent. of those who have undergone protective inoculation attend for further Schick testing 3 to 6 months later to ascertain if inoculation has resulted in successful immunisation. The work done in the welfare centres during the past year may be judged by the following figures of those tested and immunised in 1929 :—2,273 were Schick tested, 1,633 were found Schick positive (71–72 per cent.) and 2,376 had been immunised or were being immunised, yielding a total for the year of 3,150 naturally immune or immunised individuals.

In addition to the preventive work for which the borough councils are responsible at the welfare centres, the use of the Schick test and active immunisation, has been now for several years a routine measure at a number of residential homes and institutions in the County and in Greater London ; they include Poor Law Guardians schools, homes, orphanages, training and masonic schools, numbering about 20, at which up to the end of 1929 a total of 13,444 individuals had been Schick tested, yielding 5,346 (just under 40 per cent.) Schick positive and 5,165 who have been immunised, representing a further total of 13,260 naturally immune or immunised. The higher proportion of Schick negatives, 60 per cent. immune, is due to the fact of their being older children than the majority at the welfare centres.

In several of the suburban districts in the outer ring of London, preventive inoculation against diphtheria has also been provided as part of the child welfare work of the municipal health centres.

In Ilford County Borough, in view of the marked increase in diphtheria, particularly on the Becontree Estate, a preventive clinic was started by Dr. A. H. G. Burton during 1929 in November, and up to the end of February, 1930, a total of 150 children under the age of 5 years had been and were being immunised, and 889 school children had been Schick tested, 737 (83 per cent.) Schick positives had been or were being immunised, *i.e.*, a total of 1,039 known to be immune or in process of being immunised.

As to the results, it may be said briefly that they are best judged in the case of residential institutions, which without known exception, have yielded the most satisfactory and much desired effect of complete freedom from infection, in contrast to previous experience of frequent outbreaks of diphtheria. From the totals most courteously supplied by the medical officers of health of the various boroughs and districts concerned, as well as by those in medical charge of residential institutions, it may be stated that in the aggregate, in Metropolitan and Greater London, about 26,000 individuals, the great majority under the age of 15, are now known to be or are being protected against diphtheria by means of toxoid-antitoxin inoculation.

During 1929, 19,313 cases of measles and German measles were reported from the Council's schools. The control of measles.

It was stated in the Annual Report for 1928 that the next epidemic of measles was expected towards the end of 1929, and that it was hoped to profit by experience and to make the administrative control of measles even more effective than during the last two epidemics.

The suggestion, approved by the Council, that the metropolitan borough councils should be invited to adopt a system whereby the health visitors, during an epidemic of measles, should meet the school nurses and co-operate directly with them in regard to suspected absentees from school, was considered in 1929 by the metropolitan branch of the Society of Medical Officers of Health. Thanks to the hearty co-operation of the hon. secretary, Dr. J. Fenton, medical officer of health of Kensington, a very satisfactory response was made by the other metropolitan boroughs ; none objected, and the degree of uniformity of the method of control throughout London promises better results than ever in the way of securing the early treatment of measles sufferers. Owing, however, to the greater demand for beds on the Metropolitan Asylums Board on account of the extended prevalence of

scarlet fever and diphtheria, and the use of Joyce Green M.A.B. Hospital for convalescent scarlet fever in addition to the increased demands for bed accommodation of smallpox cases, the number of cases of measles admitted to the Metropolitan Asylums Board's hospitals did not reach expectations, consequently a large number of children who should have been treated in hospital had to be nursed at home.

As is fully explained in the Annual Report, 1928, the scheme of control has the sole object of reducing mortality and mitigating the effects of measles and its sequelæ, every other tried method of control having failed to check epidemics of measles.

The epidemic commenced at the expected time, about 500 cases a week being reported by head teachers in December. The new scheme of control was put into operation and applied to 64 schools before the Christmas holidays and to twice that number at the commencement of the new term.

Smallpox
among school
children.

Of the 1909 cases of smallpox which were reported during the year, 726 were school children. The number of the Council's schools involved was 190. The number of cases in school children reported in 1928 was 110.

No vaccinated school child developed smallpox and generally the children reported were suffering from the prevalent mild type of the disease. Only one boy had virulent smallpox, and he died.

Whenever parents have requested in writing that facilities for vaccination should be provided through the school organisation, the attendance of a public vaccinator at school has been authorised. Applications for facilities were received from 70 schools, and approximately 5,000 children were vaccinated at school by the public vaccinators, all upon signed parental requests.

In the majority of cases children suffering from smallpox had not been in school in an infectious condition; but whenever there was a suspicion or evidence of the possibility of infection in school, special investigation was made at the school to discover the presence of any previously "missed" case and special supervision was exercised to prevent any subsequent secondary cases being in attendance.

In view of the continued prevalence of smallpox, particularly in the East End of London, and the fear of introducing cases of the disease into holiday resorts and extra-metropolitan residential schools, it was decided that unvaccinated children should not be sent under the auspices of the Council from infected areas to places outside London. In order to ensure complete protection and to allow time for the reaction to vaccination to subside before travel, the Council's rule now requires that vaccination shall have been performed at least 14 days before the child's departure. Since June, when this rule was made, no known case of smallpox has occurred in the person of a child so travelling by permission of the Council or of any of the associations who have adopted the principle of the Council's rule.

Whooping
cough.

The number of cases of whooping cough reported from the schools was 12,076 as compared with 8,592 in 1928. The incidence in preceding years will be found on page 144. The school nurses visited 15 schools where outbreaks occurred, for observation and to advise head teachers.

Chickenpox.

In 1928 there was a considerable decrease in the number of cases of chicken-pox reported from the schools, namely, 13,657 cases, as compared with 17,358 in 1927.

The figures for 1929 show a further decrease to 12,346. Comparative numbers for previous years appear in the table on page 144.

Mumps.

School nurses specially visited 50 schools where chickenpox was prevalent.

In the report for 1928 it was pointed out that mumps had been more prevalent than usual during the preceding 5 years and the sudden decrease to 5,744 cases reported in 1928 from 13,876 in 1927 was noted. Unfortunately, the number of sufferers from mumps reported from schools in 1929 has risen again to 14,010. A table on page 144 shows the figures for previous years.

During the year 103 schools were specially visited by school nurses on account Ophthalmia. of the prevalence of mumps.

Ophthalmia was reported as the cause of school absence in 644 cases in 1929. Although this is not many more than one-third of the number in 1923 it is disappointing to note that the recent annual decline in the number of cases of ophthalmia noted in the report for 1928 has been checked. The numbers of cases in previous years are shown in the table on page 144.

Ringworm continues to decline as will be noted in the table below.

Year.					Fresh cases.	Cured cases.	Cases outstanding at the end of the year.	Percentage of cures effected by X-ray treatment.
1919	...	...	...	...	3,447	3,103	1,259	57
1920	...	...	...	...	3,983	3,856	1,332	56
1921	...	...	...	...	3,473	3,765	999	61
1922	...	...	...	...	2,766	2,918	818	65
1923	...	...	...	...	2,322	2,395	705	69
1924	...	...	...	...	1,724	1,924	482	70
1925	...	...	...	...	1,518	1,611	373	71
1926	...	...	...	...	1,029	1,141	228	76
1927	...	...	...	...	896	868	249	76
1928	...	...	...	...	684	745	170	76
1929	...	...	...	...	590	603	146	76

During 1929, of the specimens of hair stumps sent in by school nurses, 1,132 Encephalitis were examined in the Council's laboratory, and of these 394 contained ringworm lethargica. fungus (342 small spore and 52 large spore) and 8 proved to be favus.

Three fresh cases of favus were discovered during the year, one of which was cured during the course of the year.

The arrangement by which, in November, 1925, the Metropolitan Asylums Board provided special accommodation for children between the ages of three and 16 years who are suffering from the sequelæ of encephalitis lethargica, has been continued. During 1929, 35 children were admitted (including 12 re-admissions) and 25 were discharged, 1 died and 9 were transferred to adult wards, leaving 69 under treatment on 31st December, 1929. A more detailed review of encephalitis lethargica was contained in the Annual Reports of the school medical officer for 1925 and 1926.

Few cases of infectious diseases were reported among the children in the Council's residential, special and industrial schools. Residential special and industrial schools and places of detention.

There was nothing in the nature of an "outbreak" of disease at any of the institutions.

TABLE I.

MEDICAL INSPECTION, 1929.

ELEMENTARY AND SPECIAL SCHOOLS.

(a) ROUTINE INSPECTIONS.

(b) OTHER INSPECTIONS.

	Boys.	Girls.	Total.		Boys.	Girls.	Total.
Entrants	38,347	37,677	76,024	Special inspections* { (1)	18,188	18,789	36,977
Age 8	33,442	33,201	66,643	(2)	28,045	25,990	54,035
Age 12	23,311	23,166	46,477	Re-inspections	—	—	185,989
Leavers	28,574	28,555	57,129				
Total—							
Elementary schools	123,674	122,599	246,273				
Special Schools	1,001	762	1,763				

* (1) Special cases where individual notes are made. (2) Cases seen *en masse* where individual notes are not made unless noted for treatment or observation, e.g., camp school nominations, school journey children, etc. (infectious disease contacts are not included in this figure).

TABLE II.

(a) DEFECTS FOUND AT MEDICAL INSPECTIONS IN 1929.

Disease or defect.	Routine inspections.				Special inspections.	
	Defects.				Defects.	
	Requiring treatment.		Requiring observation.		Requiring treatment.	Requiring observation only.
	E.S.	S.S.	E.S.	S.S.		
Malnutrition	849	12	924	7	535	190
SKIN—						
Ringworm—Head	6	—	1	—	29	15
Body	40	—	—	—	24	8
Scabies	97	—	—	—	367	232
Impetigo	300	1	5	—	444	67
Other disease (non-tubercular) ...	1,006	3	94	—	875	93
EYE—						
Blepharitis	902	9	83	—	284	28
Conjunctivitis	334	1	23	—	344	56
Keratitis	1	—	—	—	19	5
Corneal opacities	25	—	7	—	43	10
Defective vision (excluding squint) ...	18,593	139	6,306	70	3,876	470
Squint	1,518	6	481	2	595	49
Other conditions	208	—	41	1	205	24
EAR—						
Defective hearing	424	3	180	—	206	209
Otitis media	1,488	18	491	6	774	174
Other ear disease or defect	734	2	168	—	308	84
NOSE AND THROAT—						
Enlarged tonsils	10,421	27	8,343	13	2,711	549
Adenoids	1,199	10	616	—	446	71
Enlarged tonsils and adenoids ...	3,221	12	991	2	900	49
Other conditions	964	7	285	2	564	194
Enlarged cervical glands	534	1	1,709	7	244	267
Defective speech	102	—	185	—	194	46
Teeth, dental disease or defect ...	76,069	393	918	6	5,026	78
HEART AND CIRCULATION—						
Heart disease—Organic	40	2	140	—	6	9
Functional	28	—	365	—	—	3
Not stated	273	—	3,404	19	497	1,072
Anæmia	1,008	5	777	3	909	246
LUNGS—						
Bronchitis	1,191	5	1,066	3	358	165
Other non-tubercular	272	—	723	1	235	252

Disease or defect.	Routine inspections.				Special inspections.	
	Defects.				Defects.	
	Requiring treatment.		Requiring observation.		Requiring treatment.	Requiring observation only.
	E.S.	S.S.	E.S.	S.S.		
TUBERCULOSIS—						
Pulmonary—Definite	3	—	—	—	3	2
Suspected	15	—	55	—	42	107
Glands	13	—	16	—	18	12
Spine	—	—	1	—	3	2
Hip	—	—	1	—	4	5
Bones and joints... ..	—	—	6	—	5	3
Skin	4	—	—	—	3	3
Other forms	4	—	9	—	10	17
NERVOUS—						
Epilepsy	35	2	27	3	112	78
Chorea	112	1	62	1	283	187
Paralysis	32	1	34	2	240	129
Other conditions	183	—	209	—		
DEFORMITIES—						
Rickets	118	1	32	—	49	23
Spinal curvature	670	—	175	3	167	38
Other	660	5	398	—	203	61
Other conditions	3,265	18	1,459	7	4,127	1,390
					(including 659 men- tal cases)	(including 226 men- tal cases)

**CHILDREN FOUND AT ROUTINE MEDICAL INSPECTION TO REQUIRE TREATMENT
(b) (EXCLUDING UNCLEANLINESS AND DENTAL DISEASE).**

Age group.	Inspected.	Found to require treatment.	Percentage requiring treatment.
Entrants	76,024	13,072	17.2
Age 8	66,643	13,496	20.3
Age 12	46,477	9,397	20.2
Leavers (age 13½)	57,129	10,058	17.6
Total Elementary Schools ...	246,273	46,023	18.7
Total Special Schools ...	1,763	265	15.0

TABLE III.

EXCEPTIONAL CHILDREN IN LONDON IN 1929.

		Boys.	Girls.	Total.
BLIND (including partially blind)—				
(i) Suitable for training in a school or class for the totally blind	Attending certified schools or classes for the blind	110	111	221
	Attending public elementary schools	—	—	—
	At other institutions	8	4	12
	At no school or institution	3	6	9
(ii) Suitable for training in a school or class for the partially blind	Attending certified schools or classes for the partially blind	436	478	914
	Attending public elementary schools	3	10	13
	At other institutions	—	—	—
	At no school or institution	6	4	10
DEAF (including deaf and dumb and partially deaf)—				
(i) Suitable for training in a school or class for the totally deaf or deaf and dumb	Attending certified schools or classes for the deaf	285	231	516
	Attending public elementary schools	—	—	—
	At other institutions	24	22	46
	At no school or institution	4	2	6

DEAF—continued.

Boys. Girls. Total.

(ii) Suitable for training in a school or class for the partially deaf	Attending certified schools or classes for the partially deaf	73	87	160
	Attending public elementary schools	—	3	3
	At other institutions	1	—	1
	At no school or institution	1	—	1

MENTALLY DEFECTIVE.

Feeble-minded (cases not notifiable to the Local Control Authorities)	Attending certified schools for mentally defective children	2,901	2,084	4,985
	Attending public elementary schools	2	4	6
	*At other Institutions	455	177	632
	At no school or institution	89	49	138

EPILEPTICS.

Suffering from severe epilepsy	Attending certified special schools for epileptics	88	63	151
	In institutions other than certified special schools	10	3	13
	††Attending public elementary schools	8	3	11
	At no school or institution	38	49	87
Suffering from epilepsy which is not severe (Note.—This includes children under observation on account of a suspicion of possible epilepsy.)	Attending public elementary schools—			
	Ordinary... ..	240	212	452
	Special	58	36	94
	At no school or institution	—	—	—

PHYSICALLY DEFECTIVE.

Infectious pulmonary and glandular tuberculosis	*At sanatoria or sanatorium schools approved by the Ministry of Health or the Board of Education	87	134	221
	At certified day open-air schools	137	95	232
	At other institutions	1	1	2
	At no school or institution	18	16	34
Non-infectious but active pulmonary and glandular tuberculosis	*At sanatoria or sanatorium schools approved by the Ministry of Health or the Board of Education	147	184	331
	At certified residential open-air schools	—	—	—
	At certified day open-air schools	205	143	348
	†At public elementary schools	45	35	80
	At other institutions	1	3	4
	At no school or institution	—	—	—
Delicate children (e.g., pre- or latent tuberculosis, malnutrition, debility, anæmia, etc.)	At certified residential open-air schools	2,867	1,502	4,369
	At certified day open-air schools	1,222	857	2,079
	At public elementary schools	3,394	2,920	6,314
	*At other institutions	150	152	302
	At no school or institution	98	88	186
Active non-pulmonary tuberculosis (Note.—Cases of more or less quiescent tuberculosis attend the special day cripple schools)	*At sanatoria or hospital schools approved by the Ministry of Health or the Board of Education	595	458	1,053
	†At public elementary schools	18	15	33
	At other institutions	—	1	1
	At no school or institution	20	24	44
Crippled children (other than those with active tuberculosis), e.g., children suffering from paralysis, etc., and including those with severe heart disease	At certified hospital schools	19	19	38
	At certified residential cripple schools	18	11	29
	**At certified day cripple schools	1,958	1,953	3,911
	At public elementary schools	894	862	1,756
	*At other institutions	362	270	632
	At no school or institution	216	338	554

* Some of these may have come to the notice of the school medical officer, but have been dealt with throughout by the guardians.

† Discovered at medical inspections and referred for treatment.

†† Awaiting admission to colony.

** These figures include 1,000 children suffering from non-pulmonary tuberculosis more or less quiescent, or from the after-effects of such disease.

TABLE IV.
DEFECTS TREATED DURING 1929.

TREATMENT TABLE

GROUP I.—MINOR AILMENTS (EXCLUDING UNCLEANLINESS, FOR WHICH SEE GROUP V.).

Disease or defect.	Defects treated or under treatment.		
	Under Council's scheme.	Otherwise.	Total.
SKIN.			
Ringworm—Head		480*	
Ringworm—Body.		123	603†
Scabies	1,834		
Impetigo	1,329		
Other skin diseases			
EYE DISEASE.			
(External and other, but excluding cases falling in Group II.)			
EAR DISEASE.			
Cases in which operative treatment (<i>e.g.</i> , mastoid operations, etc.) is given are excluded.			
MISCELLANEOUS.			
(Minor injuries, bruises, sores, chilblains, etc.)			
	101,666	1,615	103,281

* 401 by X-ray.

† 455 by X-ray.

GROUP II.—DEFECTIVE VISION AND SQUINT (EXCLUDING EYE DEFECTS TREATED AS MINOR AILMENTS, GROUP I.).

Defect or disease.	Defects dealt with.		
	Under Council's scheme.	Otherwise.	Total.
Errors of Refraction (including Squint, but excluding operations for Squint)	39,120	1,905	
Other defect or disease of the eyes (excluding those in Group I.).	2,500 (estimated)	"	43,525

Children for whom glasses were prescribed under Council's scheme 29,212 } 92.4 %
 „ who obtained or received glasses under Council's scheme 26,993 }

GROUP III.—TREATMENT OF DEFECTS OF THROAT AND NOSE.

Number of defects.				
Received operative treatment.			Received other forms of treatment.	Total number treated.
Under Council's scheme.	Private practitioner or hospital.	Total.		
14,904	*2,282	17,186	4,999	22,185

* 107 by private practitioners, 2,175 at hospitals.

GROUP IV.—DENTAL DEFECTS.

(1) Number of children who were—

(a) Inspected by the Dentist—Age Groups—

5 years and under ...	9,691	10 years ...	39,926
6 " " ...	32,523	11 " ...	28,139
7 " " ...	38,699	12 " ...	7,118
8 " " ...	12,238	13 " ...	14,646
9 " " ...	50,194	14 years or over ...	6,866

Total ... 240,040

(b) Found to require treatment, 163,114 (67·9%).

(c) Actually treated, 129,952

(Including those re-treated as the result of periodical examination)

(2) Half-days devoted to—Inspection, 2,202.

Treatment, 17,793—Total 19,995.

(3) Attendances by children for treatment, 219,797.

(4) Fillings—Permanent teeth, 86,932.

Temporary „ 28,972—Total 115,904.

(5) Extractions—Permanent teeth, 50,767.

Temporary „ 345,071—Total 395,838.

(6) Administrations of general anæsthetics for extractions, 73,858.

(7) Other operations—Permanent teeth }
 Temporary „ } Total 23,840.

GROUP V.—CLEANLINESS—1929.

(a) Average number of visits per school made during year by school nurse, 6.

(b) Examinations of children in the schools by school nurses, 1,909,723.

(c) Instances of uncleanness, 236,034.

(d) Children cleansed under Council's arrangements, 102,539.

(e) Cases in which legal proceedings were taken under the Education Act, 1921 (Section 87), 416.

APPENDIX.

In past reports articles have appeared on special aspects of the subjects treated in the foregoing report. For convenience of reference an index has been prepared of these particular treatises. The page numbers are those taken from Vol. III. of the Annual Report of the London County Council for each year respectively. For readers possessing the School Medical Officer's Report only, the page may be obtained by subtracting from the given page number the number quoted at the foot of the table for each year.

Subject matter.	Page number of Report for the year.						
	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Blindness	—	—	—	—	143	—	—
Canal boat children (barge class)	—	—	—	161	153	—	—
Child mortality under 15 years	—	95	—	—	—	—	—
Co-operation with parents, teachers and other agencies	—	—	—	142	112	—	—
Crippled children, Treatment of	—	—	—	—	—	147	—
Deaf children	—	—	106	—	139	—	147
Dental condition of school children	—	—	—	—	—	63	109
Diphtheria (including Schick test)	84	—	98	94	122	135	127
Ears, treatment of	—	—	71	—	—	—	—
Encephalitis lethargica	—	—	—	106	131	—	—
Flat feet	—	—	—	—	—	—	73
Following-up	—	—	80	—	—	—	101
Health classes	—	—	—	—	—	90	115
Heart disease in P.D. schools	—	—	—	149	—	—	—
Hop gardens	—	—	—	—	—	—	90
Measles	—	97	—	98	—	—	134
M.D. Acts, criteria and tests	91	104	—	—	136	159	—
M.D. Acts, delinquents in America	—	—	112	—	—	—	—
M.D. Acts, Mongols	—	—	—	147	—	—	—
Myopes	—	—	—	—	147	167	84 151
Nursery schools	71	74	—	—	—	116	—
Nurses, work of school	—	—	—	—	90	—	—
Personal hygiene	—	—	—	139	—	—	—
Physical education	76	—	—	—	—	90	—
Rheumatism and chorea	—	82	77	123	88	81	75
School buildings, ventilation	—	—	—	—	63	—	—
School buildings, dustless oils	—	—	—	—	67	—	—
School buildings, desks	—	—	—	—	—	52	—
Swimming	—	—	—	—	108	—	—
Subtract from above page Nos. if possessed of S.M.O.'s Report only	55	59	65	79	62	50	65

CHAPTER III. PUBLIC HEALTH.

Tuberculosis

The responsibility in London for the public provision of treatment for tuberculosis rests on the Council, which in 1914 prepared a comprehensive scheme, revised in October, 1922.* Under this scheme the Council arranges for the provision of residential treatment required through a public authority (other than poor law guardians). The metropolitan borough councils provide or arrange for the provision of dispensary treatment. Various particulars of the work done under the scheme are given in Chapter I. of this volume (pp. 14-20 and 32-38).

During the year consideration was given to the position of the Council in relation to the tuberculosis dispensary arrangements made by the metropolitan borough councils, in accordance with the terms of the Council's tuberculosis scheme, having regard to the new basis of Government grants provided for under the Local Government Act, 1929. Under the financial provisions of the scheme, each borough council receives at the present time, in respect of its tuberculosis dispensary arrangements, the following grants:—

From the Exchequer:—(1) Block grant of fixed amount in consequence of the termination of sanatorium benefit. (2) 50 per cent. of remainder of approved net expenditure.

From the Council:—Half the balance of net expenditure approved by the Council after deducting Exchequer grants. On the basis of the continuance of the present arrangements, it was deemed that the case would be met by a variation of the scheme so as to provide for the payment by the Council to the borough councils, after 31st March, 1930, of 25 per cent. of the balance of net expenditure approved by it, after deducting an amount equivalent to the fixed Exchequer block grant previously paid in consequence of the termination of sanatorium benefit. This is, in effect, to retain the present financial relationship between the Council and the borough councils, and is regarded as a temporary measure pending further review.

One of the chief problems connected with the after-care of tuberculous persons is that of suitable employment on discharge from sanatorium treatment. This question has been under constant consideration, and a comprehensive report on the subject was prepared by the county medical officer in 1928.** The Council has always been anxious to encourage promising schemes of employment, but in its view the question is one of national rather than local policy. Various schemes have been investigated and the Council decided to employ a number of tuberculous ex-service men in its parks and open spaces. An experimental scheme for the employment of not more than nine women patients on nursing and domestic duties has been in operation for a year at the King George V. Sanatorium and is now under review.

Surveys are made at five-yearly intervals of the condition of persons discharged from residential treatment. Surveys have been completed in respect of adults and children discharged in 1921, 1922 and 1923.

Developments of the tuberculosis dispensary service are made from time to time with the approval of the Council and the Minister of Health.

In the light of experience gained the Council decided to terminate, on 31st March, 1929, the experimental arrangements then in operation for the treatment in suitable cases by artificial light, and treatment is now only approved by the Council in exceptional cases. Experience so far indicates that the best results are obtained only when this form of treatment is given in conjunction with residential treatment at institutions in the country.

* *Scheme for the treatment of tuberculosis in London.* No. 2183. Price 4d.

** *Employment of tuberculous patients.* No. 2545. Price 1s.

The Council approves dental treatment where necessary for tuberculous patients attending tuberculosis dispensaries where borough councils have included this as part of their tuberculosis dispensary service.

The Council's scheme for the diagnosis and treatment of venereal diseases in the county provides for the participation of certain authorities near London in the facilities afforded by selected hospitals for the purpose. Under the Local Government Act, 1929, the Council will make its contributions direct to hospitals, etc., working under its scheme out of the block grant to be paid to the Council by the Exchequer to cover all health services generally. The arrangements for 1929 provided for free treatment and diagnosis for in-patients and out-patients at 23 hospitals and for the reception of patients for treatment at seven hostels. All-day clinics have been established at six of the hospitals. Practitioners secure, at the cost of the Council, scientific reports for diagnosis purposes on materials obtained from patients suspected to be suffering from venereal disease, and approved practitioners may obtain from hospitals, at the cost of the Council, salvarsan or its substitutes. The cost of diagnosis and treatment at hospitals and hostels is borne as to 75 per cent. by the Ministry of Health, and as to the remaining 25 per cent. by the Council and the participating authorities, according to the user of the facilities available. Details of cases treated in 1929 and preceding years are given in Chapter I., pp. 30-32. Venereal disease.

The scheme provides in general terms for lectures and addresses to selected audiences, and for the publication and dissemination of information. The British Social Hygiene Council exercises on behalf of the Council certain of its powers relating to propaganda work.

The Council decided to continue as an experiment for a further year from 1st April, 1929, to make grants to approved rescue and preventive homes for the reception of women and girls suffering from venereal diseases under conditions providing that they shall be in possession of a certificate to be given by the medical officer of the treatment centre attended that, although still in need of treatment, they can safely be allowed to mix with others in the homes.

The Council accepted an offer of the Metropolitan Asylums Board to set apart two blocks at its Northern Hospital for the reception of 50 adult patients of both sexes suffering from encephalitis lethargica. The procedure for the payment of contributions towards the cost of treatment will follow that laid down for the residential treatment of tuberculosis. Encephalitis lethargica.

Under the Milk and Dairies (Consolidation) Act, 1915, which came into operation on 1st September, 1925, and superseded as from 1st September, 1926, Part IV. of the London County Council (General Powers) Act, 1907, samples of milk coming into London from places outside the county are taken and examined. Information is sent immediately upon discovery of tubercle-infected samples of milk to the medical officer of health for the county concerned, who is responsible for the examination of the cows at the farm whence the sample emanated. Tuberculous milk.

Under the altered arrangements the Council substituted for the position of full-time veterinary inspector one of half-time temporary veterinary inspector, subject to periodical review. The question of the continuance of the employment of this officer will come under review in August, 1930, when he will attain the normal retiring age.

Particulars of the examination of samples of milk consigned to London and of samples of milk taken at the Council's mental hospitals during 1929 are given in Chapter I. (pp. 28-29). Particulars of inspections of the cows in London cowsheds, and examination of samples of their milk are also given.

Part I of the Children Act, 1908, requires 48 hours' notice to be given of the reception for hire or reward of a nurse-infant under the age of seven years, and empowers the local authority (in London the Council) to fix the number of infants which may be kept in any dwelling. At the end of 1929, 2,879 nurse-infants and Infant life protection.

the premises of 1,995 foster-mothers were subject to inspection. Power is given to remove to a place of safety an infant found to be in the charge of a foster-mother who is unfit to have the care of it or in premises which are overcrowded, dangerous or insanitary. There is power also to exempt either partially or wholly premises which are so conducted as to render ordinary inspection unnecessary. Particulars of action taken in recent years are as follows :—

Year.	Infants removed from foster-mothers.	Exemptions.	Deaths.	Infringements discovered.	Cautions.	Prosecutions	Convictions
1921 ..	20	3	42	302	285	26	26
1922 ..	14	3	52	279	266	13	13
1923 ..	6	3*	53	303	292	11	10
1924 ..	7	4*	26	274	267	7	7
1925 ..	3	1*	38	263	261	2	2
1926 ..	4	1*	26	214	210	4	3
1927 ..	4	—	34	222	217	5	5
1928 ..	5	—	33	153	148	5	4
1929 ..	18	—	27	142	137	5	4

* Partial.

Nursing homes.

The Nursing Homes Registration Act, 1927, provides that a nursing home, viz., any premises used or intended to be used for the reception of, and the providing of nursing for, persons suffering from any sickness, injury or infirmity, including a maternity home, cannot be carried on unless it is registered in accordance with the provisions of that Act.

The Act empowers the Council to refuse or cancel the registration of any premises as a nursing home on certain grounds and to exempt certain institutions from the operation of the provisions of the Act.

The Council has made byelaws prescribing the records to be kept of patients received into nursing homes and other matters, and requiring notification to be given of any death occurring in such homes. The Council has placed on sale a form of record book for use by persons carrying on nursing homes.

At the end of 1928, there were 199 registered nursing homes. During 1929 132 were added to the register, and 53 were removed therefrom, either at the request of the registered keepers or for other reasons. During the year under review 3 applications for registration were refused; in 4 instances applicants for registration were, prior to registration, asked to submit proposals for the provision of adequate means of escape in case of fire at the premises; and in 29 further cases applications for registration were granted subject to qualified nurses being nominated to act as resident superintendents of the nursing at the respective homes. These applications were not, however, proceeded with.

118 applications for exemption in respect of hospitals or institutions not carried on for profit were granted for the year ending 30th June, 1930, without prejudice to the granting of further exemption.

Midwives.

The powers and duties of the Council in relation to midwives are contained in the Midwives Acts, 1902 to 1926.

Under the Midwives Act, 1902, the duties of the Council as the local supervising authority for London, were chiefly disciplinary in connection with the conduct, professional or otherwise, of midwives or persons practising as midwives in London. The Council was also required to suspend from practice any midwife, if such suspension appeared to be necessary in order to prevent the spread of infection. The Midwives Act, 1918, passed to amend the Act of 1902, enlarged the Council's responsibilities, the chief alteration dealing with the provision of medical assistance for midwives. By section 14, midwives were required to summon medical aid in an emergency as defined by the rules of the Central Midwives Board. The fees of the medical man so called in were made payable by the Council (in accordance with a scale fixed by the Local Government Board and amended by the Minister of Health) which has power

to recover them from the patient, her husband, or other person liable to maintain her, unless it can be shown that such person is unable to pay the fees. This Act also empowered the Council to pay, if it thought fit, to any midwife suspended by it from practice to prevent the spread of infection, such reasonable compensation for loss of practice as in the circumstances might seem just. It also gave power to the Council to aid the training of midwives and to make grants for the purpose.

The Act of 1926 amended the provisions of the Act of 1902 with regard to the practice of midwifery by uncertified persons, either male or female. It also repealed the discretionary powers conferred upon local supervising authorities in respect of compensation for loss of practice to any midwife suspended from practice to prevent the spread of infection, and entitled her to recover such amount as is reasonable in the circumstances of the case unless she herself had been in default. The Act conferred upon local supervising authorities power, subject to the sanction of the Minister of Health, to make arrangements with pregnant women in their respective areas for the payment of agreed sums, in instalments or otherwise, to cover liability in respect of the fees of medical practitioners called in under the provisions of section 14 of the Act of 1918.

Notifications by midwives of intention to practise during the year 1929 numbered 816; of intention to practise for specific periods less than a year, 6; and of having acted in specific cases, 6.

During the year 1929, two *prima facie* cases against one midwife were reported to the Central Midwives Board; in the first case the Board found the charge proved, but postponed sentence with a view to further consideration on receipt of reports from the Council as to the conduct and methods of practice of the midwife at the end of three, six, nine and twelve months; in the second case the Board found certain of the charges proved and censured the midwife severely, but decided to take no further action pending the receipt of the reports just mentioned. The Council found that *prima facie* cases had also been established against two other midwives, one of whom the Board found not guilty of the charges; in the other case, the charges were admitted by the midwife, but the Board decided to take no action pending the receipt from the Council of reports as to her conduct, etc., at the end of three, six and nine months.

Owing to the difficulty of assessing the sums to be recovered from patients, their husbands or other persons liable to maintain them in respect of the fees of medical practitioners called in by midwives to the patients, the Council, in 1921, adopted a scale of assessments graduated according to net income, after allowing a deduction in respect of each maintainable child or other dependant. From 1st April, 1929, to 31st March, 1930, the Council's expenditure under section 14 of the Act of 1918 was approximately £4,375, the sums recoverable during the same period amounting to £1,152 approximately. During the year 1929 the Council suspended 17 midwives (one on two occasions) from practice for short periods to prevent the spread of infection, and awarded compensation amounting to £43 16s. 7d.

An arrangement made with Middlesex County Council in 1928 was continued in 1929, whereby midwives practising in Middlesex were enabled to attend courses of lectures and practical demonstrations in ante-natal, post-natal and general midwifery, which were held during the autumn and winter sessions, on the same terms as those practising in London, any deficit on the course being shared by the two authorities on the basis of user.

Under section 5 of the Act of 1902, as amended by section 2 of the Act of 1918, any adverse balance in the accounts of the Central Midwives Board is apportioned between the councils of the several counties and county boroughs in proportion to population at the last census, and the Council's proportion for the year 1929 was £541 9s. 11d.

In pursuance of instructions of the Council for the preparation of a report as Public con- as to the sanitary condition, number, distribution and adequacy of the public veniences.

conveniences for men and women in London, including the parks and open spaces, and the hours during which they are available, information was obtained in 1928 from the authorities concerned, who also afforded facilities for any necessary inspections, and the county medical officer prepared a comprehensive report on the subject.* In the report some points and questions were raised as to matters requiring consideration, but the survey showed that, speaking generally, and in spite of some imperfections, a very satisfactory standard of sanitary provision had been attained. The provision of public conveniences in London being primarily a matter for the City Corporation and the metropolitan borough councils, their observations on the report were invited. Most of the authorities in question offered no observations or did not reply, but no doubt a useful purpose has been served by the making of the survey and the direction of the attention of those concerned to certain needs. No further action was therefore taken by the Council in the matter.

Particulars are given in Chapter I (p. 20) of the result of the census of homeless persons taken in February, 1929. The total numbers of homeless persons found in the streets, on staircases and under arches at the censuses in recent years were:—1915, 178; 1916, 44; 1917, 28; 1918, 9; 1919, 8; 1920, 51; 1921, 56; 1922, 112; 1923, 141; 1924, 82; 1925, 118; 1926, 103; 1927, 101; 1928, 78; and 1929, 31.

Particulars with regard to common lodging-houses licensed by the Council are as follows:—

Yea	Houses licensed.	Lodgers authorised.	Prosecutions.	Convictions.	Penalties and costs.	Cases of infectious disease.
1921.. ..	181	18,503	1	1	£3 18s.	1
1922.. ..	178	17,948	1	1	£3	2
1923.. ..	175	17,700	5	5	£19 10s.	2
1924.. ..	174	17,519	nil	nil	nil	1
1925.. ..	168	16,930	3	3	£8 19s. 6d.	1
1926.. ..	164	16,967	1	1	£2 2s.	2
1927.. ..	164	17,059	nil	nil	nil	1
1928.. ..	157	16,281	2	2	£4 2s.	7
1929.. ..	153	16,172	—	—	—	13

On the occasion of the census of homeless persons in February, 1929, 123 children were found in common lodging-houses in London as compared with the average of about 70 in recent previous years. The large majority were accommodated in houses conducted by charitable organisations, which are either in touch with the local infant welfare centres or have trained staff of their own. Even so, the whole atmosphere and associations of a common-lodging-house cannot but be regarded as bad for any child, and anything longer than a temporary stay is undesirable. Action was taken by the Council in 1928 to discourage the admission of children at the ordinary type of common lodging-house, and the retention of children in any common lodging-house for an indefinite period (see Annual Report for 1928, Vol. III, p. 164).

Particulars of seamen's lodging-houses licensed by the Council are as follows:—

Year.	Houses licensed.	Lodgers authorised.	Prosecutions.	Convictions.	Penalties and costs.	Cases of infectious disease.
1921.. ..	51	1,287	13	11	£130 10s. 6d.	1
1922.. ..	44	1,170	1	1	—	1
1923.. ..	36	1,089	4	4	£40	1
1924.. ..	38	1,128	4	4	£14 3s.	2
1925.. ..	33	1,092	7	7	£41 8s.	—
1926.. ..	34	1,073	1	1	£5 2s.	1
1927.. ..	31	1,061	6	5	£46 5s.	—
1928.. ..	27	1,044	5	5	£21 7s.	1
1929.. ..	25	896	—	—	—	1

The following table gives particulars of licensed slaughterhouses, knackers yards and authorised offensive businesses :—

Year.	Slaughterhouses.	Knackers' yards.	Offensive businesses.
1921	158	4	60
1922	153	4	60
1923	147	4	101
1924	136	4	230
1925	132	4	209
1926	122	4	165
1927	115	4	171
1928	110	3	169
1929	106	3	166

During 1929 sanction was given in three cases to the establishment anew of the business of a dresser of fur-skins and also to the establishment anew of the business of a slaughterer of poultry. In three instances the period for which the carrying on of offensive businesses was authorised was extended.

The numbers of cowhouses licensed by the Council in the past five years were Cowhouses, as follows :—1925, 84 ; 1926, 75 ; 1927, 65 ; 1928, 55 ; 1929, 52.

Proceedings as indicated below were taken by the Council during 1929 with Smoke nuisance. regard to smoke nuisance from railway and road locomotives, and some proceedings were also instituted by the sanitary authorities in respect of smoke nuisance from trade premises. As regards railway locomotives, section 114 of the Railway Clauses Consolidation Act, 1845, requires that every locomotive shall be constructed on the principle of consuming its own smoke, and section 19 of the Regulation of Railways Act, 1868, enacts that, if a locomotive fails to do this, the railway company shall be guilty of an offence.

Particulars of the work carried out during the year in connection with the suppression of smoke nuisance are as follows :—

(1) *Railway locomotives* :—Nuisances reported—26. Prosecutions—23. Convictions—23. Total of fines and costs imposed—£63 9s.

(2) *Road locomotives* :—Nuisances reported—8. Prosecutions—6. Convictions—5. Total of fines imposed—15s. 6d.

(3) *Premises* :—Reports made as to alleged nuisances—580. Cases in which legal proceedings were taken by metropolitan borough councils—7.

Section 2 of the Public Health (Smoke Abatement) Act, 1926, provides that the Council may make byelaws regulating the emission of smoke of such colour, density, or content, as may be prescribed, from buildings generally to which the enactments relating to smoke nuisance apply or from such classes of those buildings as may be so prescribed. With the object of securing a reasonable measure of uniformity in byelaws and in administration regarding smoke abatement, a conference of representatives of local authorities of London and Greater London was held on 3rd November, 1927. As a result of this conference a Greater London Joint Smoke Abatement Committee, composed of representatives of local authorities and of industry and other interested bodies, was set up. The recommendations contained in the report of this Committee were adopted by the conference of representatives at a meeting held on 15th October, 1929. A recommendation relating to the period of emission of black smoke is being considered by the Council with a view to the framing of a byelaw under the Act.

The Diseases of Animals Acts, 1894 to 1927, the object of which is the suppression Diseases of animals. of contagious diseases in animals, naturally do not affect London so much as they do the country. In London, apart from swine fever, attention is principally directed to glanders, anthrax, rabies, parasitic mange and foot and mouth disease ; diseases which are communicable to man. The Acts are supplemented by Orders issued by the Minister of Agriculture and Fisheries. During 1929 the incidence of

the principal animal diseases, so far as London is concerned, was as follows:—Glanders, including farcy, nil; swine fever, 7 outbreaks in which 522 animals were involved; anthrax, nil; parasitic mange, 9 outbreaks in which 41 animals were affected; foot and mouth disease, nil.

Glanders.

The Minister of Agriculture and Fisheries issued an Order, entitled the Glanders or Farcy Order, 1929, which came into force on 1st September, 1929. The Glanders or Farcy Order, 1920, is revoked, but its provisions are included in the new Order with certain amendments and additions, the principal of which are:—(a) the application of the "Mallein" test for the purpose of diagnosis is made compulsory in respect of all animals detained under the Order, (b) a post-mortem examination of the carcass of every diseased animal and every animal slaughtered under the Order is made obligatory, (c) the final determination of the existence or otherwise of disease is transferred from the local authority to the chief veterinary officer of the Ministry, and (d) new rates of compensation are provided for; the maximum value placed on a horse being reduced from £100 to £80.

At the request of the Minister a notice drawing the attention of the persons concerned to the provisions of the new Order was published.

Swine fever.

Swine fever has been very prevalent in certain parts of Great Britain during the past few years, and 7 outbreaks were dealt with in London during 1929. During the year, 19,596 swine were examined at feeders' premises.

Rabies.

The most efficacious measures for stamping out hydrophobia are muzzling, the seizure of all stray dogs and the regulation of the importation of dogs. Under the Dogs Act, 1906, which revoked all then existing muzzling regulations, regulations requiring the wearing of collars by dogs while on a highway have been made by the Council. Under these regulations, 22,217 dogs were seized by the police during 1929. Of this number, 8,077 were claimed by their owners and the remainder were sent to the Dogs' Home for sale or destruction.

Seven cases of suspected rabies in London were reported during the year but the existence of this disease was not confirmed by the veterinary inspectors, the suspicious symptoms being proved to arise from other causes.

Parasitic mange.

The conditions under which trade horses are fed and worked in London tend to encourage the spread of parasitic mange. During 1929 the returns of cases in London showed a considerable decrease. The following figures relate to 1929:—Outbreaks, 9; horses affected, 41; infringements, 2, one of which was dealt with by means of a written caution and one by the institution of legal proceedings (penalty, £5).

Foot and mouth disease.

In consequence of an outbreak of foot and mouth disease at Anerley, Kent, the Minister of Agriculture and Fisheries made an Order on 24th March, 1929, declaring a district within a radius of 15 miles of the infected place to be an "infected area" for the purposes of the Foot and Mouth Disease (Infected Areas Restrictions) Order of 1925. This area included nearly the whole of the County of London. The infected area in London with the exception of a small part in the south was released from movement restrictions on 8th April, 1929, and the remainder on 15th April, 1929. The necessary steps were taken to bring to the notice of the persons concerned the provisions of the Order of which the effect is to prohibit the movement of animals out of the infected area and to permit movement within or into such area only under licence.

There were 16 infringements of the Foot-and-Mouth Disease (Infected Areas Restrictions) Order of 1925, 15 of which were dealt with by means of written cautions and one by the institution of legal proceedings (penalty and costs amounting to £15 ls. were imposed).

Transit of animals.

To ensure that the requirements of the Orders relating to the transit of animals are being observed, and that the animals are not caused unnecessary suffering during transit and are free from signs of disease, the Council's inspectors

pay numerous visits to railway wharves, depots, etc., where animals in transit are collected. The visits during 1929 numbered 3,108, the animals examined being—horses 2,503, cattle 48,154, sheep 66,832, swine 36,666, making a total of 154,155. There were 27 infringements, all of which were dealt with by means of written cautions.

The Minister of Agriculture and Fisheries made an Order entitled the Importation of Dogs and Cats Order 1928, which came into operation on 1st January, 1929. This Order consolidates the existing Orders relating to the importation of dogs and canine animals and requires all cats and other feline animals brought to Great Britain from any country except Ireland, the Channel Islands or the Isle of Man, to be quarantined for a period of six calendar months on the approved premises of a veterinary surgeon.

In response to representations received from certain metropolitan borough councils the Council considered the question of nuisance and injury to public health and damage to property likely to be caused by the emission of sulphur fumes, etc., from the chimneys of the new electricity power station to be erected at Battersea. Various conferences of local authorities concerned took place on the steps necessary to safeguard public interests. Later, the Council attended, by deputation, upon the Minister of Health and laid before him the views of the Council on the whole question, and the Minister gave his assurance that reliance could be placed upon the Government departments concerned that all steps possible would be taken to ensure the protection of health and buildings. An Interim Report* of the Advisers to the London Power Company (owners of the station site), together with the Interim Report of the Committee presided over by the Government chemist, on the treatment of sulphur fumes in connection with the proposed power station was issued in November, and further investigations were in progress at the end of the year.

In order to afford the County Medical Officer of Health the necessary assistance in preparing for organising and carrying out the increased volume of work to be dealt with in his department consequent on the transfer in 1930 of poor law work under the Local Government Act, 1929, three positions of the rank of principal medical officer and one of matron-in-chief were created in the public health department, and the positions were accordingly filled.

CHAPTER IV.

MAIN DRAINAGE.

The district drained by the London main drainage system has an area of nearly 160 square miles with an estimated population of 5,600,000. This includes an area of nearly 43 square miles, with a population of 1,113,270 outside the County of London. The out-county districts draining into the London main drainage system and the years of admission are as follows—Acton (part before 1855 and part from 1905); part of Croydon (before 1855); Willesden, metropolitan area (before 1855); part of Beckenham (1873); part of Hornsey (1874); Tottenham and Wood Green (1891); West Ham (1900); East Ham—part (1900); Willesden, Brent area (1911); Leyton (1927), and Walthamstow (1928). Very small parts of other districts are also drained into the London system. The London County Council (Ilford and Barking Drainage) Act 1928, authorises the drainage of the areas mentioned into the London main drainage system. When these areas drain into the London system, 19 square miles, containing an estimated population of 150,000, will be added.

The quantities of sewage, etc., dealt with during 1929 were as follows :—

Sewage treated—						Million gallons.
Northern outfall	...	...	...	...	...	62,366 8
" "	(daily average)	...	...	...	...	170·8
Southern outfall	...	...	...	...	...	34,493·9
" "	(daily average)	...	...	...	...	94·5
Sludge sent to sea—						Tons.
Northern outfall	...	...	...	...	...	1,626,609
" "	(daily average)	...	...	...	...	4,456
Southern outfall	...	...	...	...	...	930,098
" "	(daily average)	...	...	...	...	2,548

The sludge vessels made 894 trips and travelled altogether 187,616 nautical miles.

Sewage
treatment.

The constantly increasing flow of sewage to the main drainage outfalls has necessitated in recent years consideration of the question of the possibility of dealing with the sewage by methods other than those hitherto in operation (see Annual Report for 1928, pp. 168–169). The estimated cost of the installation of plant capable of treating from 5 to 10 million gallons a day is £225,000, and the Council approved an estimate of this amount for the purpose. Progress was made during the year with the installation of a first unit of the new plant at the Northern outfall.

During a part of the month of August it was considered advisable to resort to treatment of the sewage with chemicals. The total expenditure in this respect amounted to £3,760.

Deposit of
sludge at sea.

The solids, known as sludge, which are obtained from the sewage after sedimentation at the outfalls, are conveyed to, and deposited in, the Black Deep in the Thames estuary. The Deep is also used by other authorities for the deposit of waste materials, and the cost of buoying the deposit area is apportioned among the various authorities using it for deposit purposes. The Council's proportion for the year 1929 amounted to £266 7s. 4d.

Sludge
vessels.

The Council's fleet of sludge vessels consists of five vessels, namely, the *Baralgette* (commissioned in 1887 and re-conditioned in 1921) of 1,000 tons capacity, and the *Henry Ward* (commissioned in 1923), the *J. H. Hunter* (commissioned in 1924), the *G. W. Humphreys* (commissioned in 1925), and the *John Perring* (commissioned in 1926), each of about 1,500 tons capacity. During the year the *G. W. Humphreys* became due for her first quadrennial survey by Lloyd's and the work entailed was carried out at a cost of £1,755. The *John Perring* and the *Henry Ward* underwent annual overhauls at a total cost of £2,603.

Northern
outfall.

The loading of sludge vessels at the Northern outfall is effected by pumping direct or by gravitation from the overhead sludge tanks. The pumping engines were obsolete and uneconomical and, to maintain them in working order, heavy repairs would have been necessary. The Council therefore decided to install two new steam engines and direct-coupled centrifugal pumps in the main engine-house. The total estimated cost of the proposed works is £6,500. It was arranged for the steam engines and pumps and new penstocks required to be obtained under contracts, and for the new foundations and sump necessary to be executed by the direct employment of labour. The work was well advanced during the year.

Arrangements have been made for the reconstruction of part of the jetty at a cost of £27,005, while repairs to the river walling of Barking Creek have been carried out by the direct employment of labour at a cost of £150.

The construction of bathrooms at the 12 cottages occupied by workmen at the outfall and the installation of baths therein with the necessary fittings was authorised at a cost of £1,008.

Better ventilation of the sludge settling channels was found to be desirable, and as an experiment the removal of one of the twelve walls dividing the channels and the erection of a spare engine and fan with the necessary piping to ventilate the twelve channels was authorised. The estimated expenditure in connection therewith was £810.

The construction of two overhead sludge tanks at the Southern outfall, each capable of holding 1,500 tons, similar to those erected at the Northern outfall, was completed during the year. The total expenditure involved amounted to £23,000.

An accumulation of sand and other material in the lower sludge store at the outfall, which was of many years' standing, had become so consolidated that it was necessary to employ manual labour to break it up. The cost of this work, including the removal of the material, was £970. In addition accumulations of sand in the pump well of the No. 4 pump and sumps in the main engine-house have been removed by direct employment of labour at a cost of £300.

Four cast iron bollards and the strutting of fender piles on the pier were renewed at a cost of £350. A new painter's punt for use in connection with the external painting of the hulls of the sludge vessels, etc., was provided at a cost of £58.

Repairs to the electrical installation were carried out at a cost of £275. In view of the decision to fix a limit to the amount of electricity allowed free to members of the staff arrangements were made for the whole of the electric current required for the staff quarters to be taken from the Erith Urban District Council and for the installation of meters at a cost of £110.

The condition of the seven boilers in the west boiler-house at Abbey Mills pumping station, which had been working for nearly 35 years, was such that consideration had to be given to the question of their renewal or alternatively to the provision of some form of motive power other than steam. The boilers in question supply steam for driving the beam engines and pumps in the main engine-house. In addition to the main engine-house, which was constructed in the year 1869, there are two other engine-houses. The second engine-house was built in the year 1894 to deal principally with sewage and storm water from the Isle of Dogs, and it has recently been reorganised. The third engine-house was erected in the year 1912 for the purpose of pumping storm water, and contains seven gas-driven engines and pumps. The total pumping capacity of the station is about 1,300 tons a minute.

The area served by the station is 34 square miles in extent on the north side of the river, and includes all the low-lying lands on this side. Sewage brought by the low-level sewers is pumped continuously, and at times of rainfall large quantities of storm water flow to the station. Except at low tide, the low-lying parts of the City of London, Westminster, Stepney, Hackney and part of Poplar are entirely dependent upon Abbey Mills pumping station for the prevention of flooding. Even at low tide the relief given by the storm overflows from these areas can only be relatively small, and from time to time complaints are received of flooding in these areas during heavy rainfall.

In recent years the rate of discharge of storm water into the sewers has been greatly increased by the waterproofing of road surfaces. It has therefore been considered advisable to increase the pumping capacity here by the installation of modern machinery in the main engine-house. The present building is spacious and would lend itself to a gradual replacement of the machinery without much interference with the working of the station, a matter of considerable moment. Each of the four bays of the building could accommodate, in place of the two beam pumping sets at present installed, two centrifugal pumping sets with a pumping capacity more than three times as great. Such a scheme would increase the total pumping capacity of the whole station by about 60 per cent., namely from 1,300 tons to 2,100 tons a minute approximately. After careful consideration the

Council decided to adopt electricity as the motive power for the new plant, and approved an estimate of £141,000 for the reorganisation of the main engine-house on the lines indicated above.

In addition to the tender referred to in the report for the year 1928 for the supply and erection of four pumping sets with an option to purchase four additional sets, the undermentioned tenders were accepted in 1929—C. J. Wills and Sons, Limited, for dismantling four of the beam engines and pumps and constructing foundations for the new engines and pumps on a time and materials basis (estimated cost £39,500); Markham and Company, Limited, for the provision of a flap and penstocks, £1,055.

Arrangements were made for the overhaul of No. 1 Gwynne pumping engine at a cost of £354 19s. The offer of the Cambridge Instrument Company, Limited, to repair and adjust the carbon dioxide and temperature recording instruments in the east boiler house for £44 was accepted. The overhaul of the gas-driven plant which had been proceeding continuously since 1926 was completed during the year.

Deptford
pumping
station.

Four filth cages screening the sewage passing to the two 6-cylinder compound engines at the Deptford pumping station were renewed at a cost of £300. The ironwork in the underground chambers under the second engine house was painted at a cost of £180. It was necessary to repair the brickwork of the walls and foundations of the offices and workshops and the boundary walls and to construct a door in the wall, at a cost of £130. Repairs to the barge bed were carried out at a cost of £150.

Western
pumping
station.

The reconstruction of the Grosvenor canal involved the rasing and rebuilding of portions of the boundary wall of the Western pumping station and consent was given to the Westminster City Council to execute the work subject to conditions to safeguard the Council's interests. Consent was given to the Westminster City Council to connect drainage from latrines to the drain at the station, subject to the payment of an annual charge of £3 3s. The staff quarters were re-painted externally and re-decorated internally at a cost of £212 5s. 2d.

North Wool-
wich pumping
station.

Expenditure of £290 was sanctioned for the provision of new workshop plant for use at North Woolwich pumping station and the necessary alterations in connection with the installation of the plant including the erection of a shed to contain the forge.

Heathwall
pumping
station.

Four gas engines at the Heathwell pumping station became out of date and in need of repair. Arrangements were made with Crossley Brothers, Limited, the makers of the engines, for their reconstruction. The estimated cost of the work including the necessary building work in connection therewith was estimated at £6,300. The offers of Davy Brothers, Limited, Sheffield, for the supply of four adjustable bearings with phosphor bronze brasses and four sole plates required in connection with modifications of the machinery amounting to £66 10s. and that of the Dover Engineering Company, Limited, amounting to £122 10s. for the supply of five new impellers were accepted.

Falcon brook
pumping
station.

One of the gas meters at the Falcon brook pumping station was repaired at a cost of £44 7s. 8d.

Isle of Dogs
pumping
station.

It became necessary to install an additional compressed air receiver at the Isle of Dogs pumping station at a cost of £95. The offer of Abbott and Company (Newark) Limited, to supply a steel receiver for £59 was accepted.

Shad Thames
pumping
station.

The repainting at a cost of £160 of the three original gas engines, centrifugal pumps and auxiliary plant at Shad Thames pumping station was entrusted to the London Scaling Company Limited, At the request of the South Metropolitan Gas Company, from whom the supply of gas is obtained for working the engines, authority was given for the installation and maintenance at the Company's expense of a direct telephone between the Company's Rotherhithe works and the station in order to secure an adequate supply of gas when required.

It became necessary to execute certain repairs to No. 5 gas engine at Lots-road pumping station at a cost of £145, the dismantling, supplying and fitting of a new breech end and the re-erection of the engine being undertaken by Crossley Brothers, Limited, the makers of the engine. Lots-road
pumping
station

Owing to the continual state of dampness of the superintendent's house at Deptford pumping station, caused by percolation and vapour from the adjacent cooling ponds, the Council decided to erect new quarters for the superintendent in another part of the station grounds at a cost of approximately £1,460, and to utilise the old quarters for offices, store and other purposes. Deptford
pumping
station.

As stated in the annual report for 1926 it became necessary to strengthen the Southern high level sewer, No. 2, owing to the erection over the sewer of the Lewisham nurses' home. Owing to unforeseen difficulties the work proved more costly than was originally estimated (£600) and after negotiation it was agreed that the Council should pay £952 in full settlement of the account for the work. Arrangements were made for a portion of the West India dock sewer, south of the South dock basin of the West India docks, to be reconstructed at a cost of £4,500. The Stamford brook sewer which follows approximately the line of an old open water course runs through private property between Ravenscourt-square and Goldhawk-road; at the request of the owner consent was given him to divert at his own cost the sewer to connect with the Northern low level sewer No. 2 in Goldhawk-road, the Council receiving £500 and being relieved of any liability in respect of the portion of the sewer abandoned. Outfall,
intercepting
and main
sewers.

During the night of 27th—28th July, 1928, a length of the Eastern Counties sewer which was being reconstructed collapsed following heavy rain which fell in the night. The down local line of the London and North Eastern Railway, under which the sewer ran, subsided, and adjoining lines were affected. Railway traffic was resumed in the afternoon of 28th July, 1928. Flooding of property in the neighbourhood occurred. Steps were at once taken to deal with the situation and a diversion of the sewer around the damaged portion was put in hand. The sewer adjacent to the portion which collapsed appeared to be in fairly good condition, but it tended to get further under the railway. It was therefore decided to divert a further length of the sewer clear of the railway. The total cost of this work and of filling in the old sewer to be abandoned amounted to £13,000.

Repairs, etc., have been carried out during the year to intercepting and main sewers as follows:—

	<i>Approximate cost.</i>					
	£					
Eastern Counties sewer	...	...	...	...	...	300
King's Scholars' Pond sewer	...	...	...	...	...	3,500
London-bridge sewer	...	...	...	...	...	2,500
Regent-street sewer	...	...	...	...	...	3,925
Ratcliff Highway sewer	...	...	...	...	...	4,126
Wick-lane sewer	...	...	...	...	...	2,500
Ranelagh sewer	...	...	...	...	...	3,750
Battle-bridge sewer	...	...	...	...	...	400
Effra sewer	...	...	...	...	...	1,800
Effra Branch sewer	...	...	...	...	...	4,000
Southern high-level sewer No. 1 extension	...	...	...	...	...	1,000
Earl Boundary sewer	...	...	...	...	...	187
Northumberland-street sewer	...	...	...	...	...	2,800
Southern outfall sewers, Nos. 1 and 2	...	...	...	...	...	200
Arnold sewer	...	...	...	...	...	60
Bankside sewer	...	...	...	...	...	100
Black ditch sewer	...	...	...	...	...	1,000

The work of removing from the sewers deposits which accumulate there is one of considerable magnitude. For this purpose the county is divided into four districts, each district being made the subject of a separate contract. Contracts are based upon prices for the cartage and disposal of the deposit which is removed from the sewers by the Council's staff. The cost of this work in 1929 was approximately £4,100.

One of the recommendations of the report of the commission appointed by the Secretary of State for the Home Department to inquire into the Holborn explosions and fires was to the effect that any structures forming an underground cavity should be adequately and continuously ventilated. With a view therefore to improving the ventilation of the Council's sewers a number of surface ventilators, which had been temporarily closed, were re-opened in May, 1929. The opening of the ventilators was followed by a period of drought and the lack of rain in sufficient quantities to ensure proper flushing gave rise to a number of complaints of smells from the sewers. These complaints were investigated and as the result some 570 of the 2,000 re-opened ventilators were again temporarily closed. The question of the adequate ventilation of the sewers was receiving serious consideration at the end of the year.

Flood relief works.

The Council on 22nd July, 1919, had before it a comprehensive scheme of works to mitigate floodings in various parts of London on both sides of the river Thames during times of heavy rainfall. The scheme, which is described in the Annual Report for 1920 (Vol. III, p. 121), specified seventeen works and the total estimated cost, based on pre-war conditions, was £2,467,150.

The first work undertaken was the construction of the north-eastern storm relief sewer from Kelvin-road, Highbury, to the Thames at Shadwell, which was commenced in 1921.

In order to provide additional employment the Council on various dates subsequently decided to accelerate the work on other portions of the 1919 scheme, particularly those which would provide work suitable for unskilled or partly skilled labour. The works selected were the improvement of the river Graveney, the Wandle Valley sewer, the Charlton storm relief sewer, flood relief works at Hammer-smith, the enlargement of the Isle of Dogs and Abbey Mills pumping stations, the south-western storm relief sewer, storm relief sewers in Lewisham and Woolwich and the North-western storm relief sewer. All these works have been approved for grant by the Unemployment Grants Committee.

A further item in the scheme, the construction of the Beverley Brook relief culvert, which was commenced in 1925, did not rank for Government grant.

Of the specified works included in the scheme of 1919, the following have been completed :—The improvement of portion of the river Graveney completed in January, 1923 (cost, approximately £200,000), the Wandle Valley sewer (first portion) completed in January, 1924 (£142,064), Charlton storm relief sewer completed in March, 1924 (£150,000), the North-eastern storm relief sewer completed in September, 1924 (£700,000), the Beverley Brook relief culvert completed in September, 1926 (£41,447), the Lewisham Branch sewer completed in October, 1926 (£246,656), enlargement of Abbey Mills pumping station completed in 1926 (£37,700), North-western storm relief sewer completed in September, 1927 (£465,000), Lewisham Branch sewer (Hither Green branch) completed in August, 1927 (£47,160).

The estimated final cost shows an increase of about 72 per cent. on pre-war figures.

Shad Thames pumping station.

Shad Thames pumping station, opened in 1909, was designed to accommodate six pumping sets, but as a first instalment three only were put in. The flood relief scheme of 1919 included proposals for completing the equipment of this station. The second instalment, consisting of three engines and pumps, is being added at an approximate cost of £22,000. The installation of the machinery was completed during the year.

Under section 204 of the Metropolis Management Act, 1855, and section 68 of the Metropolis Management (Amendment) Act, 1862, no building or any other encroachment may be erected in, over or under any sewer vested in the Council or any such sewer diverted except with the Council's consent. During 1929 the Council gave its consent in 16 such cases. Buildings, etc., over sewers.

Section 69 of the Metropolis Management Act, 1855, provides that no local sewer shall be made without the approval of the Council. During 1929 the construction or reconstruction of 99,568 feet of local sewers of various sizes was sanctioned. Local sewers.

For some time past the Barking Town Urban District Council and the Ilford Corporation have experienced difficulties in connection with the drainage of the areas under their respective control owing to rapid development for building purposes. The Council's Becontree housing estate lies partly within these areas. Proposals have been made for the establishment of sewage works on the Ripple marshes, but these proposals have not been acceptable to the Council, among others, and they have been opposed. On the other hand, the Council had been pressing the Barking Town Urban District Council to find an outlet for the drainage of the part of the Becontree housing estate in the urban district in order that the erection of houses might proceed on this part of the estate. In these circumstances consideration was given to the question of bringing the districts into the London main drainage system. Out-county drainage.

The area of the Barking Town Urban District is 3,805 acres, and the population is estimated at 40,000 persons. The Borough of Ilford comprises an area of 8,496 acres, with an estimated population of about 110,000 persons. Based upon average quantities, the total quantity of sewage discharging from these areas is approximately $4\frac{1}{2}$ million gallons a day. Compared with the quantity of sewage discharging to the Council's Northern main drainage outfall (over 160 million gallons a day) these quantities are comparatively small, and will remain so under any conditions which can be foreseen with regard to increases of population in the two districts. So far, therefore, as the engineering aspect of the question was concerned, there appeared to be no practical difficulty in receiving the sewage from the two districts into the London main drainage system. Negotiations took place, and ultimately terms were agreed, which included (i) a payment by the two authorities jointly of £1,000 a year for 30 years in respect of discharged capital on main drainage works, and (ii) annual payments in two instalments calculated on the net annual value of the districts (including the value on which contributions are made in respect of Crown property), and based upon the portion of the rate levied by the Council attributable to main drainage purposes, including administrative costs calculated at not exceeding 5 per cent. of the cost of maintenance of the main drainage system. Agreement was also reached upon the engineering aspects of the matter, providing for the limitation of the quantity of sewage to be discharged to 50 gallons a day per head of population, the disposal of storm water, etc. In view of the urgency of the matter the Council decided to make application to Parliament in the session of 1928 to sanction the arrangement, and the London County Council (Ilford and Barking Drainage) Act, 1928, was passed.

At the end of the year the details of the works necessary for connecting up the systems were under consideration by the technical officers of the bodies concerned.

An agreement has been entered into with the East Ham Corporation for the drainage of certain dock buildings, payment being made on the same basis as that in respect of the part of East Ham draining into the London main drainage system under the provisions of the London County Council (General Powers) Act, 1897.

Permission was granted to the Hornsey Corporation to drain a convenience on the London and North Eastern Railway Company's sidings near Western-road into a sewer in Wood Green and thence into the London main drainage system.

CHAPTER V.

HOUSING.

Powers and
duties of the
Council.

Prior to the passing of the Housing Act, 1925, which came into force on 1st July, 1925, and which reproduced in a consolidated form the permanent law relating to the housing of the working classes, the powers of the Council in this matter were derived from the Housing Acts, 1890 to 1924. The financial provisions of the Housing, etc., Act, 1923, and the Housing (Financial Provisions) Act, 1924, dealing with Exchequer contributions towards the cost of the construction of houses, are not incorporated in the Act of 1925, but are continued as separate enactments. These Acts were passed for the purpose of encouraging building in the immediate future, and are thus in the nature of temporary expedients. Particulars of the provisions of these Acts are set out in the Annual Report for 1924 (Vol. III, pp. 142 and 143). Apart from administrative duties, the main divisions of the Council's housing work are (i) the provision of new dwellings to meet the need for additional accommodation, and (ii) the improvement or reconstruction of unhealthy areas, including the provision of dwellings for rehousing persons of the working classes displaced.

Building
grants—
Revision of
State contri-
butions.

The contributions payable by the State towards the cost of the construction of houses, both by local authorities and private enterprise, are subject to revision every two years. Reductions in the amounts of the State grants in respect of houses not completed before 1st October, 1927, were made by the Housing Acts (Revision of Contributions) Order, 1926, and further proposals for modification of the rate of State grant were embodied in the Housing Acts (Revision of Contributions) Order, 1928, as regards houses which had not been completed before 1st October, 1929. Particulars are given in the Annual Report for 1928 (Vol. III, pp. 176-7.)

The Housing (Revision of Contributions) Act, 1929, however, restored the rate of State grant for new houses under the Housing (Financial Provisions) Act, 1924, to the rate fixed by the Order of 1926, namely, £7 10s. a year for each house for 40 years, and the Council has decided to continue its grants under the Act of 1924 to public utility societies, housing associations, etc., up to the maximum of £9 7s. 6d. a house a year for 40 years (including the State grant). The maximum amount of the supplemental grants which may be made by the Council under the Act of 1924, to the City Corporation and metropolitan borough councils towards the cost of housing schemes undertaken by them is continued by the Act of 1929 at £1 17s. 6d. a year for each house for 40 years, and the Council has decided to restore the maximum of its supplemental contribution in such cases to that amount. No State or other grant under the Housing, etc., Act, 1923, is payable in respect of houses not completed before 1st October, 1929.

In the case of grants to private enterprise, public utility societies, housing associations, etc., payments are made by the Council in approved cases, the State grant being subsequently paid by the Minister of Health to the Council, and the net expenditure by the Council is represented by the difference between the Council's grant and that made by the State. The Council's contributions towards housing schemes of the City Corporation or metropolitan borough councils are also limited to approved cases and are supplemental to the State grants which are paid direct to those authorities.

Houses
approved for
grant.

Up to 31st December, 1929, the Council had approved proposals submitted by private builders, public utility societies, etc. for the erection of 3,406 houses and flats to qualify for subsidy on completion, 1,120 of which will be maintained for letting. The number of houses, etc., approved during the year was 162, whilst approval was withdrawn for various reasons in the case of 6 houses.

The total number of grants by the Council to owner-occupiers under the Act of 1923 (included in the figures given above) has amounted to 2,051, of which 50 were made during the year.

Since the war, the Council itself, up to 31st December, 1929, has completed 37,109 houses and flats. The houses and flats completed during the year 1929 totalled 3,104. Altogether since the completion of the first dwellings in 1894, the Council has provided 47,094 tenements and houses and three lodging-houses with 1,880 cubicles. The total estimated population of the Council's dwellings on 31st December, 1929, was nearly 215,000 persons. These figures cover the whole of the Council's housing operations for the period mentioned, including rehousing in connection with schemes for the clearance of unhealthy areas and other public improvements.

The programme of work in hand is very considerable, comprising the erection of about 20,000 additional houses under Part III. of the Housing Act, 1925, apart from the rehousing required under slum clearance schemes.

The Minister of Health is empowered by the Housing, etc., Act, 1923 to make State contributions towards the expenses incurred by local authorities in carrying out improvement or reconstruction schemes under Part II. of the Housing Act, 1925, such contributions being limited to one-half of the estimated average annual loss to be incurred by the local authority in carrying out the scheme. A large programme of slum clearance is being carried out by the Council with the aid of State contributions on this basis. The schemes now in operation or decided upon by the Council are 16 in number, and include 26 separate areas comprising 111·56 acres. The displacement of 30,787 persons of the working classes is involved, and rehousing accommodation for about an equivalent number has to be provided, of whom about 25,000 will be accommodated within the limits of the improvement areas.

This programme generally may be taken to be approximately half-way towards completion.

On 23rd July, 1929, the Council decided to embark on a further programme for the clearance and reconstruction of unhealthy areas in London covering about 95 acres and involving the rehousing of about 30,000 persons. Between 25 and 30 areas in various parts of the County have been selected, and the total estimated cost of acquisition and clearance and the provision of necessary rehousing accommodation is about £4,600,000. Each scheme will be considered by the Council on its merits, and it is hoped that all the schemes in this further programme will be initiated during the course of the next five years.

Realising the need for large numbers of persons to reside in reasonable proximity to large centres of business and industry, the Council on 24th July, 1928, decided to provide under Part III. of the Housing Act, 1925, a number of new block dwellings in or near the central areas of London, quite distinct from rehousing operations, and on 22nd January and 23rd July, 1929, approved capital estimates amounting to £500,000 for the acquisition of sites for the purpose. These new dwellings will be of a type superior to those provided by the Council for rehousing purposes, and the tenants will be selected from applicants from the central areas of London who are obliged to reside reasonably near to their places of employment. This new accommodation will not be available for persons displaced from unhealthy areas, for whom provision is specially made in connection with each clearance scheme.

On 19th November, 1929, the Council reviewed the question of the location of sites to be acquired for housing purposes in or near the central areas, and decided that the following should be the main considerations governing the selection of any such site :—

- (i) The site shall be suitably situated so as to be reasonably accessible to persons living and working in the central areas of London who are obliged to reside in reasonable proximity to their place of employment and are therefore unable to avail themselves of accommodation on outlying cottage estates.

(ii) There must be a reasonable expectation of a sufficient demand from such persons for the new dwellings proposed to be erected on the site.

(iii) The number of persons to be displaced by the scheme must be small relatively to the number who could be accommodated in the new dwellings.

(iv) The estimated cost of the site and of the new dwellings proposed to be erected thereon, together with the estimated loss, must be such as may be considered reasonable, having regard to the policy of the Council.

(v) The site must be free from any town planning or other considerations which would render it inexpedient to erect block dwellings thereon.

Up to 31st December, 1929, the Council had selected ten appropriate sites, with a total area of about 65 acres, upon which 2,896 tenements with about 10,000 rooms can be erected.

Particulars of the sites are given on pp. 177-178.

Particulars of housing schemes carried out or in process of execution by the Council during the year under Part III of the Housing Act, 1925, are as follows:—

Becontree.

The estate known as Becontree, situated in the County of Essex, between Chadwell Heath on the north and Ripple-road on the south, comprises about 2,770 acres, and was purchased with the aid of compulsory powers obtained in 1920. The development of the estate is being carried out by C. J. Wills and Sons, Limited, on a cost basis with a variable fee to the contractor. This type of contract, termed a "value-cost" contract, was described in the Annual Report for 1928 (Vol. III, p. 184). About two-thirds of the area of the estate which is available for the erection of houses, namely, the portions in the Borough of Ilford and the Urban District of Dagenham, has been almost completely developed.

To enable the development of the portion of Becontree east of Gale-street in the Barking Town Urban District to be proceeded with, the Council on 26th February, 1929, decided to enter into an agreement with the Barking Town Urban District Council for that portion of the estate (to be known as the Barking (No. 12) section) to be permanently drained into the Dagenham sewerage system. The agreement provided for the payment to the District Council of a lump sum of £9,250. The sewage from the main portion of Becontree in the Barking area will be taken into the London system, but this arrangement cannot be carried into full effect until towards the end of 1930. The Council on 26th February and 30th July, 1929, approved capital estimates, amounting to £779,000, for the development of the Barking (No. 12) section by the erection of about 1,461 houses and flats, and 39 shops. Building operations were immediately put in hand and by the end of the year a number of the houses had been completed.

Mention was made in the Annual Report for 1928 (Vol. III, p. 179) of the decision of the Council to defer for the present the development of the portion of Becontree in the Barking Town Urban District west of Gale-street. The question was reviewed towards the end of 1929 and the Council came to the conclusion that the situation had substantially changed since July, 1928, when the previous decision was made, and that the time had arrived when the development of the remainder of Becontree should be undertaken. The lines of the main roads on this portion of the estate were accordingly provisionally decided upon and on 3rd December, 1929, the Council approved a capital estimate of £698,000 for the development of a further section (Barking (No. 13) section), on which about 1,414 houses and flats will be erected. It will be possible to provide on the remainder of the Barking portion of the estate a further 4,500 houses, and at the end of the year preliminary questions with regard to lay-out were under consideration.

At the end of the year, about 17,540 houses on the estate had been completed, about 950 were in course of construction, and orders had been issued to the contractors for the erection of about 700 others. The estate will probably be completed

in about another three years and it will then comprise about 25,000 houses and flats, with a total population of about 125,000.

During the year a site, which was sold to the Church of England authorities in 1928 for a church, was re-conveyed to the Council and a site which was found to be more suitable for their purpose was sold to them. A further site for a church was also sold to that body. A site was sold to the Baptist church authorities for a minister's manse, and a site for a mission hall and possibly a missionary's house was sold to the London City Mission. Other sites on the estate were sold during the year for various purposes as follows :—Two sites for a technical school and a secondary school to the Essex County Council ; sites for an elementary school and an electricity transformer station to the Barking Town Urban District Council ; a site for an employment exchange to the Dagenham Urban District Council ; and a site for a factory to East Ham Woodcrafts, Limited. The site previously sold to the Essex Territorial Army Association for the extension of their drill hall was enlarged by the sale also of an adjoining plot of land. Other sites were let on building lease for 99 years for the erection of shops, etc., and for doctors' residences.

A piece of land, about $1\frac{1}{2}$ acres in extent, where formerly there was a sandpit, was let on lease for 20 years at a nominal rent to the Dagenham Urban District Council for use as an open space.

In order to straighten an irregular portion of the boundary of the estate an exchange of lands with the Ilford Corporation was agreed to during the year.

The Council on 26th February, 1929, agreed to undertake the widening and reconstruction of the portion of Oxlow-lane from Hunters Hall-road to the eastern boundary of the estate, subject to a contribution of £3,300 from the Dagenham Urban District Council towards the cost ; and on 10th December, 1929, the Council agreed to reconstruct and widen to 50 feet the portion of Gale-street from Goresbrook-road to the foot of the bridge approach on the south side of the railway, subject to a contribution by the Barking Town Urban District Council of £5,575 towards the cost and on condition that, should any Government grant be made in respect of this work, such grant should be divided between the Council and the District Council in the proportion of their contributions towards the cost of the work. In this connection an area of about 1 acre of land was surrendered by the Council for addition to the public way.

The Council, both directly and through the Minister of Transport, has repeatedly urged upon the railway companies serving the estate the need for improvement in railway facilities for Becontree. Automatic signalling introduced on the Metropolitan District line between Barking and Bow has enabled additional electric trains to be run to and from London and Barking, but there has so far been little improvement in the steam train service beyond Barking on the Southend line. The London Midland and Scottish Railway Bill, 1929, was introduced in order to secure additional powers to give effect, among other things, to the proposals agreed to by the Company with the Council in 1928, including the extension of the existing electric service from Barking to Dagenham, the improvement of the steam train service from Fenchurch-street and Broad-street, and the conversion of Gale-street halt to a fully equipped passenger station. Subject to assurances that the work would be expeditiously carried out, that the ordinary and workmen's fares to Broad-street would not exceed those to Fenchurch-street, and that the Company would continue to provide from stations serving Becontree the best possible service to Fenchurch-street, the Council on 29th January, 1929, agreed not to oppose that portion of the Bill relating to the repeal of that section of the Midland Railway (London, Tilbury and Southend Railway Purchase) Act, 1912, which required the Company to prepare a scheme for the electrification of their line from Fenchurch-street to Southend. These assurances were given and on 26th February, 1929, the Council agreed to the sale to the Company of portions of land totalling about 25·7 acres for widening the line through Becontree

and providing a passenger and goods station at Gale-street and an electricity station at Halbutt-street. Certain strips of land are to be surrendered free of cost to the Company for any necessary widening of the approach roads to the railway bridges on the estate. As part of the arrangement the Company agreed to surrender two areas (in all about 3.2 acres) adjoining Dagenham station in order to rectify the estate boundary. By way of equality of exchange a net payment of £6,000 is to be paid by the Company.

Particulars of certain reductions in the rents of houses and flats at Becontree are given on page 186.

Pending the completion of houses which are being provided by the Dagenham Urban District Council, the temporary letting, for a period not exceeding 12 months, of 5 houses on the estate to employees of the District Council was authorised.

There is need at Becontree for further accommodation at low rents for carrying on small businesses, and the Council on 19th March, 1929, decided to erect 4 small lock-up shops for the purpose on the Dagenham (No. 8) section of the estate.

Bellingham.

The total area of Bellingham (Lewisham) is 252 acres, and, under the main contract, completed in 1923, for the development of the portion of the estate devoted to working-class dwellings (176½ acres), 2,096 houses and flats have been erected. A few vacant plots were left, on which 32 additional houses have since been erected. The last of these houses was handed over in November, 1929, thus completing the estate, so far as the erection of working-class dwellings is concerned, and bringing the total of the houses and flats provided by the Council to 2,128.

Downham.

The housing estate at Downham (Lewisham and Bromley), which is about 522 acres in extent, was acquired under compulsory powers. The estate is being developed by Holland and Hannen and Cubitts, Limited, under a "value-cost" contract, and the main portion of the estate is nearly completed. On 2nd July, 1929, the Council decided to proceed with the development of a small section of the estate for which arrangements had not previously been made. About 193 additional houses will be erected on this section, thus bringing the total number of houses to be erected on the estate to 6,071, of which 5,878 had been completed by the end of the year.

During the year a site was sold to the London City Mission for a mission hall and a strip of land was sold to the Roman Catholic Church authorities for addition to the site sold to them in 1927 for a church and elementary school. A site was leased for 99 years for the erection of shop premises with living accommodation over them. Small strips of land were surrendered for addition to the public way. On 18th June, 1929, the Council decided to carry out at an estimated cost of £8,000 the extension to Baring-road of Downham-way, which is a tramway route through the estate. Of this expenditure £5,430 is chargeable as part of the cost of the housing estate, the remainder, to which the Minister of Transport has been asked to contribute, being chargeable to other accounts.

St. Helier estate.

The main portions of St. Helier estate (Morden and Carshalton) were acquired under compulsory powers obtained in 1926 and 1927. The estate, which now comprises about 825 acres, is being developed by C. J. Wills and Sons, Limited, under a "value-cost" contract. After allowing for open spaces and buildings for various purposes other than dwelling accommodation, the estate will be capable of providing in all for about 10,000 houses. At the end of 1929 over 1,000 houses, etc., were in course of construction, a number of which were nearing completion.

A portion, consisting of about 78 acres of the estate lies to the west of the new Wimbledon and Sutton branch of the Southern Railway. The intervening railway would have mitigated against this portion of the estate obtaining the full benefit of the large scale building operations contemplated by the Council for the estate as a whole, and the 78 acres of land in question were therefore offered for disposal for the erection of houses by private enterprise. In order that the aggregate area of the

estate should not thereby be diminished, the Council decided on 5th February, 1929, to make a compulsory Order for the acquisition of about 89 acres of land, between the north-west boundary of the estate and Morden railway station of the London Electric Railway, the Council in its choice of the additional land being influenced by the desirability of providing direct access from the estate to the railway station. After a local inquiry the compulsory Order was confirmed by the Minister of Health in June, 1929.

The Council on 30th July, 1929, approved an estimate of £595,000 for the development of the second (south-western) section of the estate by the erection of about 960 houses and flats, and on 3rd December, 1929, it decided to proceed with the development of the third (northern) section, namely, the portion covered by the compulsory Order of 1929, by the erection of about 948 houses at an estimated cost of £572,000.

In consequence of the decision to dispose of the land to the west of the Wimbledon to Sutton railway and of amendments of the lay-out, the number of houses to be erected on the first (central) section of the estate has been reduced from 2,940 to 2,462, and the estimated cost of the development of that section from £1,764,000 to £1,490,000.

In connection with the development of its cottage estates it has been the general practice of the Council to reserve sites for leasing for the erection of shops by private enterprise. The Council has, however, erected some shops at Becontree and other estates and it has decided to undertake, through its contractors, the erection at St. Helier estate of a number of shops, commercial garages and workshops. Proposals were approved by the Council on 3rd December, 1929, for the provision of a first instalment of 14 shops with living accommodation over them, 12 lock-up garages and 12 lock-up workshops at an estimated cost of £38,000.

Open spaces, playing fields, etc., to a total of approximately 120 acres, have been reserved on the estate as follows:—An area, about 29 acres, adjoining the River Wandle (this was conveyed during the year to the Carshalton Urban District Council, free of charge); a wooded area, about 12 acres, between the north-eastern boundary of the estate and Greenwrythe-lane; an area, about 50 acres, between Greenwrythe-lane and Wrythe-lane, which it is proposed to sell to the National Playing Fields Association, a private donor having made a gift of money to the Association for the purchase; an area, about 17 acres, for playing-fields to the south-west of Green-lane, some part of which could be made available for London scholars; and a wooded area of about 11 acres between the Sutton by-pass road and London-road. Small greens and shrubberies will also be formed as part of the lay-out of the areas to be developed by the erection of houses, etc. There are also within the confines of the Council's land, but not forming part of the estate itself, the recreation ground, about 20 acres, of the Merton and Morden Urban District Council, and a sports ground, about 10 acres, purchased for the staff of a London newspaper. In close proximity to the estate areas of about 70, 99 and 17 acres have been acquired, or are proposed to be acquired by other bodies for open spaces purposes.

During the year a small strip of land on the south side of Central-road was surrendered to the public way for a widening of that thoroughfare.

Sites were let on lease for 99 years for an electricity transformer station and for a doctor's residence, respectively.

Arrangements were also made as regards the disposal of the 78 acres of land west of the Wimbledon to Sutton railway. The Council on 12th March and 9th July, 1929, agreed to lease about 17 acres of this land to the trustees of the Douglas Haig Memorial Homes for 999 years at a nominal rent of £1 a year for the erection of about 170 houses and, probably, a tenants' hall. The houses are to be let to disabled ex-service officers and men and the widows and dependents of ex-officers, and the rents are to be fixed at amounts showing no interest on the capital

cost. About 90 per cent. of the tenants are to be selected from applicants residing in the County of London or employed in and recently residing in the County. On 29th October, 1929, the Council agreed to include in the lease about 9.75 acres of adjoining land subject to the payment of a premium of £5,750. This additional land is to be used by the trustees in conjunction with the Housing Association for Officers' Families for housing and ancillary purposes. Of the remainder of the land west of the railway two areas, 24 acres and 17 acres, have been sold to private builders for the erection of dwelling-houses and shops, and the balance of about 10 acres which is unsuitable for building is being reserved for use as an open space, this area being additional to the above-mentioned 120 acres on the main part of the estate.

Watling
estate.

The development of Watling estate (386 acres), on the east side of Edgware-road, Hendon, carried out by C. J. Wills and Sons, Limited, under a "value-cost" contract, was commenced early in 1926 and completed in 1929. The total number of houses and flats provided is 4,021. The majority are two-storey houses, comprising 668 of five rooms (parlour type), 858 of four rooms (parlour type), 927 of four rooms (non-parlour type) and 1,215 of three rooms (non-parlour type). In buildings of two or three storeys there are 100 flats of four rooms, 140 of three rooms and 110 of two rooms. Each house and flat has a kitchenette and a bathroom in addition to the number of rooms mentioned. Three houses have also been provided for the estate superintendents. The weekly rents, exclusive of rates and water charges, range from 10s. to 11s. for two-room flats to 14s. 6d to 17s. 3d. for five-room houses. As regards construction, 1,974 of the dwellings have been built in brick and 1,331 have external walls of concrete. In addition there are 252 "Atholl" steel houses and 464 timber-framed houses which were built to supplement the rate of production in brick and concrete houses during the time that a shortage of certain classes of skilled labour existed in the building trade.

During the year a site for a church was sold to the Congregational Church authorities, and a plot of land was sold to the Roman Catholic Church authorities for addition to the church site previously conveyed to them. Orange Hill House, with part of the grounds, which was acquired by the Council as part of the estate, was sold to an organisation of Dominican Nuns for education and ancillary purposes. Sites were sold to the Hendon Urban District Council for an elementary school and a maternity and child welfare centre. A small plot of land (previously let on a quarterly tenancy) was sold to the Hendon Board of Guardians for institutional purposes. About 6½ acres of land on the estate was sold to the Hendon Urban District Council for use as a playing field for its schools, and another area of 5½ acres, which the Council had previously decided to sell to the North London Collegiate School for Girls, was leased to the Camden School for Girls for a similar purpose. A small strip of land, fronting shop premises erected by a lessee of the Council, was surrendered for addition to the public way. Seven sites were let on building lease for the erection of shops and a site was let for the erection of lock-up garages.

The Council decided, in 1928, to let on building lease for 99 years, to Watney, Combe, Reid and Company, Limited, a site for the erection of a licensed refreshment house (if the necessary licence could be obtained). The site in question was scheduled for residential user in the Hendon Urban District Council's draft town planning scheme and the prospective lessees applied to the District Council for consent to the requisite variation of the scheme, which was refused. The Council asked the District Council to reconsider its decision, but it could not see its way to do so. The Council accordingly, on 9th July, 1929, decided to appeal to the Minister of Health under the Town Planning (General Interim Development) Order, 1922, against the District Council's refusal. The appeal, and a similar appeal by the prospective lessees, were heard by the Minister at the Town Hall, Hendon, on 21st October, 1929, and were allowed, thus enabling an application to be made to the licensing justices in 1930 for a licence in respect of the proposed premises.

Particulars are given below of the various schemes of the Council for the provision of new block dwellings under Part III of the Housing Act, 1925, in or near the central areas of London, to which reference is made on pages 171-172.

Dwellings in or near the central areas.

The main portion of the site of the disused school in Harwood-road, Fulham, was appropriated in December, 1928, for housing purposes, the remainder of the site being utilised for the widening of New King's-road and Harwood-road. The old school buildings have been demolished. The area of the housing site is .76 of an acre, and estimates amounting to £35,100 were approved by the Council on 29th January and 22nd October, 1929, for the erection thereon of a five-storey block of dwellings (Broxholme House) to contain 44 tenements and 8 lock-up shops. The scheme also provides for 12 perambulator and cycle sheds. The work is being carried out by Rowley Brothers (1929), Limited, and at the end of the year building operations were well advanced. During the year a plot of land forming part of the Harwood-road site was let on lease for 99 years to the Fulham Metropolitan Borough Council for the erection of an electricity sub-station.

Broxholme House, Fulham.

Loughborough estate comprises about 6 acres at the junction of Loughborough-road and Wiltshire-road, Lambeth. The site is being acquired under a compulsory purchase Order which was made by the Council on 26th March, 1929, and confirmed by the Minister of Health in August, 1929. It is proposed ultimately to erect on the site six blocks of dwellings, five storeys in height, to contain about 295 tenements with 994 rooms. The site has been partially cleared and tenders for the erection of the first two blocks of dwellings were invited towards the end of 1929.

Loughborough estate.

Clapham-park estate consisted originally of two areas of about $5\frac{1}{2}$ and $2\frac{1}{2}$ acres on the north and south sides respectively of Atkins-road, Wandsworth at its junction with New Park-road. These portions of the estate are being acquired under a compulsory purchase Order made by the Council on 26th March, 1929, and confirmed by the Minister of Health in October, 1929. The Council has entered into an agreement with the Postmaster-General for an exchange of lands so as to improve the shape of the Council's land to the north of Atkin's-road and to provide a satisfactory site for a telephone exchange. The Council on 11th June, 1929, decided to acquire by agreement certain properties for addition to the southern portion of the site and it is now proposed to acquire as opportunities arise other land for addition to the northern portion of the site. The total area of the estate as thus enlarged would be about 18 acres, but it is proposed to reserve about two acres with a frontage to King's-avenue for development other than by the erection of working-class dwellings.

Clapham-park estate.

About 713 tenements (in five-storey blocks) with 2,431 rooms can be erected on the part of the site reserved for working-class dwellings. The southern section of the site and part of the northern section are being cleared, and tenders for the erection of dwellings on the southern section will be invited early in 1930.

Glebe estate North, on the north side of Peckham-road, Camberwell, adjoining Brunswick-square is about 5 acres in extent. The selection of the site was approved by the Council on 30th April, 1929, and it is being acquired by agreement. Plans have been prepared for the erection of about 206 dwellings (in five-storey blocks) with 716 rooms on the western portion (about $\frac{3}{4}$ of an acre) of the site (with the exception of a portion at the rear, which is reserved by the vendor for the erection of a mission hall) and on the central portion (about $2\frac{3}{4}$ acres). Tenders for the erection of the first three blocks of these dwellings will be invited early in 1930. It is proposed to provide in one of the buildings accommodation to be let for use as an infant welfare centre.

Glebe estate North

Glebe estate South ($2\frac{1}{2}$ acres) is situated the south side of Peckham-road, opposite Glebe estate North. The Council on 30th July, 1929, made a compulsory purchase Order in respect of the site and confirmation of the Order by the Minister of Health is awaited. The lay-out plan of the site which has been prepared

Glebe estate South

contemplates the provision of about 112 dwellings in three blocks, five storeys in height, with 370 rooms.

Stamford-hill
site

The Stamford-hill site comprises about $5\frac{3}{4}$ acres on the east side of Stamford-hill, Hackney, at its junction with Lynmouth-road. The site is being acquired under a compulsory purchase Order made by the Council on July 9th 1929, and confirmed by the Minister of Health in November, 1929. The Council has entered into agreements with the owners of two adjoining clubs that in certain events the Council will be enabled to purchase their lands (having a total area of about $4\frac{1}{2}$ acres) for addition to the housing site. Plans which have been prepared provide for the erection on the land forming the subject of the compulsory purchase Order of eight blocks of dwellings comprising 277 tenements with 947 rooms. The buildings will be five storeys in height with the exception of parts of three blocks (four storeys) and a part of another block (six storeys).

Shore-road
site.

The Shore-road site consists of an area of about $3\frac{1}{2}$ acres bounded by Shore-road, King Edward's-road and the back gardens of houses in Fremont-street and Victoria-park-road, Hackney. The site forms the subject of a compulsory purchase Order made by the Council on 26th March, 1929. Confirmation of the Order by the Minister of Health is awaited. A lay-out plan has been prepared which provides for the erection at an early date of 103 dwellings with 345 rooms, in buildings five storeys high, on part of the site.

Streatham-
hill site.

The Council on 10th December 1929, made a compulsory purchase Order in respect of the Streatham-hill site (9 acres) in Leigham-court-road, Streatham-hill, Wandsworth, near its junction with Mount Nod-road. It is proposed to erect about 282 dwellings with 943 rooms, in blocks three or four storeys high, on the main portion of the site, and to reserve the land fronting on Leigham-court-road to a depth of about 150 feet for better-class development. It appeared, at the end of the year, that there was a possibility of acquiring practically all the requisite property by agreement.

Dog Kennel-
hill site.

The Dog Kennel-hill site consists of an area of about 15 acres on the east side of Dog Kennel-hill, Camberwell, in respect of which the Council on 17th December, 1929, made a compulsory purchase Order, which has been submitted to the Minister of Health for confirmation. It is proposed to provide on the site about 757 dwellings with 2,710 rooms, in buildings mostly five storeys high, with a small proportion of four storey buildings.

Clearance
Schemes.

Particulars are given below of the various schemes being carried out by the Council for the clearance and reconstruction of unhealthy areas under Part II of the Housing Act, 1925. In connection with these schemes, 352 further premises were acquired and 498 old buildings were demolished during the year.

Tabard-
street, etc.,
scheme.

The Tabard-street, etc., scheme deals with the Tabard-street and Grotto-place areas, Southwark, and the Crosby-row area, Bermondsey, comprising in all about $18\frac{1}{2}$ acres. The clearance of the three areas involves the displacement of 4,550 persons of the working classes, and the Council is required under the confirming Order, made in 1912, as amended by the modification Order issued by the Minister of Health in July, 1926, to provide rehousing accommodation for not fewer than 3,580 persons. Seven blocks of dwellings and one cottage, containing altogether 1,190 rooms, have been provided on the main portion of the Tabard-street area, known as Tabard Garden estate. An estimate of £31,500 for the erection of further dwellings (118 rooms) on an adjacent site in Law-street included in the scheme, was approved on 30th July, 1929. Plans are being prepared, but the site is not yet available for building operations to be commenced. The remainder of the rehousing accommodation has been provided at East Hill estate, Wandsworth.

Brady-street
scheme.

The Brady-street scheme, which was confirmed by the Minister of Health in 1922, relates to an area of about 7 acres in the metropolitan borough of Bethnal Green. About 1,865 persons of the working classes will be displaced. Four blocks

of dwellings (563 rooms) have been erected on part of the cleared site (Collingwood-estate), and at the end of the year two further five-storey blocks of dwellings (Blackwood House and Harvey House), comprising in all 50 tenements of the normal type, with 161 rooms, and 4 lock-up shops on the ground floor of Harvey House, were almost completed. Arrangements were also well forward for the erection of a further block, to be known as Rutherford House (117 rooms). The central portion of the estate will be laid out as an open space of about $1\frac{1}{2}$ acres.

On 18th June, 1929, the Council decided to acquire by agreement two adjoining old houses in Brady-street, for the purpose of adding to and improving the area. A lock-up shop provided by the Council was during the year let on lease for 21 years to a medical practitioner displaced in connection with the clearance of the area.

The scheme for dealing with the Ware-street area (Whitmore-estate), Hoxton Ware-street scheme. ($8\frac{1}{2}$ acres), which was confirmed by the Minister of Health in 1922, involves the displacement of about 2,648 persons of the working classes. Up to the end of 1928 rehousing accommodation had been provided on the area in 8 blocks of dwellings containing 215 tenements (547 rooms); during 1929 a further block of dwellings (part of Stringer Houses), four storeys high, comprising 32 tenements of the simplified type with 72 rooms, was completed.

On 29th January, 1929, the Council approved an estimate of £3,447, for the construction of the foundations for a further block of dwellings (Crossbow House), comprising 54 tenements (164 rooms), and the work was carried out during the year by Henry Boot and Sons, Limited. An estimate of £63,000 was approved on 30th July, 1929, for the erection of Crossbow House together with Longbow House (55 tenements with 167 rooms) and certain road and sewer works and the cost of the foundations of Crossbow House was included in this figure. Both of the blocks will be of the normal type, five storeys in height. The building work was entrusted to Rowley Brothers (1929), Limited, and at the end of the year considerable progress had been made with the erection of Crossbow House. Preliminary plans were also being prepared for the erection of two further blocks.

A small portion of Mill-row which has been closed and incorporated in the estate has been appropriated for education purposes in connection with the enlargement of the playground of the Canal-road L.C.C. school. The education account will be debited with £400 in respect of the value of the land, and the cost of the new boundary wall, estimated at £320, is to be charged in equal proportions to the housing and education accounts.

Another unhealthy area which is being cleared by the Council is the Hickman's- Hoxton Hickman's- folly area, Bermondsey (6 acres), to be known after reconstruction as Dickens folly scheme. estate. The scheme, which involves the displacement of about 1,660 persons of the working classes was confirmed by the Minister of Health in 1923. Up to the end of 1928 accommodation had been provided on the area in two blocks of dwellings containing 86 tenements (247 rooms). During 1929 a further block of dwellings (Dombey House) four storeys high, of the normal type, comprising 28 tenements, with 76 rooms, was completed. At the end of the year preparatory work in connection with four further blocks of dwellings on the area was in hand.

During the year a small strip of land forming part of the area was sold to the Bermondsey Metropolitan Borough Council for £100 for the purpose of widening and improving a portion of Jacob-street, and an area of about 6,850 square feet, surplus to the requirements of the scheme, was sold to the Borough Council for £1,500 for the erection of public baths and washhouses.

The Bell-lane and Ellen-street scheme, which was confirmed by the Minister of Health towards the end of 1923, provides for the clearance and reconstruction of two areas known as the Bell-lane area, Spitalfields (4 acres), and the Ellen-street area, St. George-in-the-East ($1\frac{1}{2}$ acres) and involves the displacement of 1,705 persons of the working classes. The name Holland estate has been selected for the

Bell-lane area when reconstructed. Accommodation has already been provided on the area in two blocks of dwellings, Carter House and Bernard House, containing 60 tenements (182 rooms).

At the end of the year the construction of (i) the first section of a third block of five-storey dwellings, to be known as Brune House, and an estate store, (ii) nine shops and workrooms in Shepherd-street, (iii) a portion of another building in Shepherd-street, comprising a shop with dwelling accommodation over it, and (iv) three shops with dwelling accommodation over them and three stores in connection with the shops in Wentworth-street, was approaching completion. Brune House has been designed to contain in all 99 tenements of the normal type, with 295 rooms, and the first section comprises 44 tenements (134 rooms). The method of utilising the Ellen-street area when cleared is still under consideration. Arrangements will be made for the erection of the remainder of Brune House and 10 further shops in Wentworth-street as soon as the sites are available.

Difficulty was experienced in obtaining possession of 60, Bell-lane, required by the Council for the purposes of the scheme, and High Court proceedings resulted in a decision being given in the Council's favour. An appeal against the decision was dismissed by the Court of Appeal.

The Council, on 23rd July, 1929, agreed to sell for £700 to a firm of merchants displaced by the scheme, a plot of land fronting on Butler-street surplus to the requirements of the scheme. The land is to be utilised for the erection of new business premises.

Prusom-
street
scheme.

The Prusom-street scheme, as confirmed by the Minister of Health, with modifications, in 1924, deals with an area of about $8\frac{1}{2}$ acres in extent in Wapping, to be known, when reconstructed, as Wapping estate. The scheme involves the displacement of 2,601 persons of the working classes. At the end of 1928 accommodation had been provided in five blocks of dwellings containing 127 tenements (356 rooms). During 1929, Fenner House, a four-storey block of dwellings of the simplified type containing 20 tenements with 48 rooms, was completed, whilst considerable progress had been made with the erection of Jackson House, a five-storey block of the normal type, comprising 31 tenements with 98 rooms, and 8 lock-up shops. The work of erecting 3 shops with dwelling accommodation over them in Old Gravel-lane was completed during the year.

On 14th May, 1929, the Council approved a capital estimate of £32,800 for the erection of two further blocks of dwellings five storeys high, to comprise 58 tenements of the normal type with 180 rooms, and an estate workshop, and the construction of a public footway between the estate and Wapping Recreation Ground. The building work was entrusted to the Canonbury Construction Company, Limited, and considerable progress had been made at the end of the year with the erection of one of these blocks; the other block was to be commenced early in 1930. Plans for the erection of two more blocks of dwellings were under consideration at the end of 1929.

Baker's-alley,
Birchfield-
street and
Bromley-
place scheme.

The scheme made by the Council for the clearance of the three insanitary areas in the metropolitan borough of Poplar, known as the Baker's-alley ($1\frac{1}{2}$ acres), Birchfield-street ($\frac{3}{4}$ acre) and Bromley-place ($\frac{3}{4}$ acre) areas, was confirmed by the Minister of Health in 1924. The scheme involves the displacement of 740 persons of the working classes. A block of dwellings (Birchfield House) containing 40 tenements (95 rooms) has been erected on the Birchfield-street area.

The Bromley-place area has to be laid out as an open space and the Baker's-alley area may be disposed of or utilised by the Council for any purpose with the consent of the Minister of Health. Neither of these areas has yet been cleared, and the question of providing rehousing accommodation for the persons who will be displaced is under consideration.

The scheme, confirmed by the Minister of Health in 1925, for dealing with the two unhealthy areas, known as the George's-road and Brand-street areas, Holloway (4½ acres), involves the displacement of 1,320 persons of the working classes. George's-road and Brand-street scheme.

Up to the end of 1928 Branston and Rollit Houses on the Brand-street area, comprising 48 tenements (146 rooms) had been erected, and during the year Radford and Hartnoll Houses on the George's-road area, comprising 135 tenements (111 of the normal type and 24 of the simplified type) with 376 rooms, were completed.

In November, 1929, arrangements were made for the laying-out of the forecourts of Radford and Hartnoll Houses, including the provision of paths, seats and the planting with small trees, at an estimated cost of £200.

An exchange of lands with the Northern Polytechnic Institute, foreshadowed at the inception of the scheme, was completed during the year. A plot of land belonging to the Institute was incorporated in the site of the new dwellings erected on the Brand-street area and a portion of the area was conveyed by the Council for the extension of the Institute premises. A net payment by the Institute of £5,250 by way of equality of exchange was agreed to by the Council on 19th November, 1929.

The Watergate-street scheme deals with an unhealthy area in Deptford and Greenwich, known as the Watergate-street area, about 7½ acres in extent. The area adjoins and, when reconstructed, will form part of an existing housing estate, known as Hughes Fields estate. The scheme, which was confirmed by the Minister of Health in 1926, involves the displacement of 1,927 persons of the working classes. At the end of 1928, Blake and Hawkins Houses, comprising in all 67 tenements (198 rooms), had been erected. During 1929, Clinton House, containing 37 tenements with 156 rooms, and two of five further blocks to be known as Watergate Houses, were completed. These five blocks will comprise in all 48 tenements (168 rooms). Watergate-street scheme.

On 26th March, 1929, the Council approved an estimate of £9,510 for the erection of a further block five storeys high, to be known as Grenville House, comprising 17 tenements with 53 rooms, and the tender of R. J. Rowley, Limited, amounting to £8,634 was accepted for the building work. Good progress had been made with the work at the end of the year. On 30th July, 1929, an estimate of £6,029 was approved for the erection of (i) three lock-up shops with three dwellings over them, in New King-street, and (ii) three lock-up shops, one coal shop and store and two lock-up workshops in Watergate-street, and other works. The tender of Mr. Thos. D. Leng, amounting to £1,937, for the building work under item (ii) was accepted. At the end of the year plans had been approved or were in course of preparation in respect of the erection of four further blocks of dwellings.

The Council, on 23rd April, 1929, agreed to let on lease for 21 years a plot of land fronting on Prince-street, Deptford, surplus to the requirements of the scheme. As part of the arrangement, a strip of land was surrendered for addition to Prince-street, and the lessee agreed, if and when required by the Council, to surrender for a similar purpose a portion of the land leased to him.

The "Osborn Arms" beerhouse, one of the three licensed premises included in the scheme, has been reinstated on an adjoining site leased by the Council for the purpose. The new building was completed during the year and the application for the removal and renewal of the licence has been granted.

The scheme for dealing with the Ossulston-street area, St. Pancras (about 8 acres), involves the displacement of about 2,557 persons of the working classes. The scheme was confirmed by the Minister of Health in 1926. The name Ossulston estate has been selected for the area when reconstructed. Ossulston-street scheme.

The area naturally divides itself into three sections—the northern, between Hampden-street and Phoenix-street; the central, between Phoenix-street and Christ Church and its school; and the southern, between Christ Church and Weir's-

passage. At the end of the year 61 of the 87 tenements (275 rooms) comprising Chamberlain House (central section) had been completed, and work on the remainder of the block was well advanced. This block includes 14 lock-up shops and accommodation for a maternity and child welfare centre and a Salvation Army meeting hall. Work on the first portion of Walker House (northern section), comprising 39 tenements with 117 rooms, was approaching completion at the end of 1929, and preliminary plans for the remainder of this block, which will comprise in all 149 tenements were under consideration.

On 16th July, 1929, a composite capital estimate of £333,976 was approved in respect of the erection of the whole of the dwellings, shops and other buildings to be erected on the estate, this estimate absorbing the estimates already approved. Levita House (southern section) will comprise 245 tenements, and 28 shops in Chalton-street, and at the end of the year preliminary arrangements were in hand for the construction of 121 tenements (402 rooms) comprising the first portion of this block.

The various blocks of dwellings on this estate will vary in height from three to six storeys. A central hot water supply is being provided in Chamberlain House and the first portion of Walker House, and electricity, to the exclusion of gas, is being installed for lighting, heating and cooking. It is not proposed to extend the central hot water installation to Levita House and the remainder of Walker House, and the question of installing electricity for heating and cooking as well as lighting in these buildings will be considered when experience has been gained of the working of this system in the other dwellings.

The Council on 11th June, 1929, agreed to a lease for 21 years at a rent of £160 a year, of the accommodation provided in Chamberlain House for a Salvation Army meeting hall. On 9th July, 1929, the Council agreed to a similar lease to the St. Pancras Metropolitan Borough Council of the maternity and child welfare centre, at a rent of £127 10s. a year.

H.R.H. the Prince of Wales paid an informal visit to the estate on 17th October, 1929, and inspected two specimen flats, the rent office, the Salvation Army hall, the welfare centre and other outstanding features on the site.

The "Cock Tavern" and "Somers Town Coffee House" public-houses, included in the scheme, have been reinstated on sites leased by the Council for the purpose. The new buildings were completed and opened for business on 12th June and 17th July 1929, respectively.

China-walk,
etc., scheme.

The China-walk, etc., scheme deals with four unhealthy areas known as the China-walk area, Lambeth; the Hatfield-street and Hankey-place areas, Southwark; and the Wyndham-road area, Camberwell. The scheme, which was confirmed by the Minister of Health in 1927, involves the displacement of 3,350 persons of the working classes.

China-walk
area.

The China-walk area when reconstructed will be known as China-walk estate. During the year Coalport, Davenport, Derby and Minton Houses, comprising 76 tenements (240 rooms) were completed. In connection with the latter block, nine costermongers' barrow sheds and four workshops were provided. The Council on 30th July, 1929, approved a capital estimate of £78,000 for the erection of the first (rectangular) portion of a fifth block of dwellings on the estate. This portion, five storeys in height, will consist of 138 tenements of the normal type with 447 rooms. The tender of Mr. A. T. Rowley amounting to £19,806 for the erection of the first section of the dwellings comprising 34 tenements (108 rooms) and for the erection of the second section of 35 tenements (118 rooms) at the same schedule of prices was accepted in December, 1929. The remainder of block 5 (other than the rectangular portion), on land along the Kennington-road frontage surplus to the requirements of the improvement scheme, will be appropriated to Part III of the Housing Act, 1925, and the 60 tenements to be erected will be five storeys in height and of a superior type to those ordinarily provided for rehousing purposes under clearance schemes.

The Council on 17th December, 1929, agreed to an arrangement with the owners of the "French Horn" public-house with regard to the adjoining site of 34, Walnut Tree-walk included in the China-walk area, whereby they were enabled to carry out an improvement of the licensed premises which they had long contemplated, while at the same time the requirements of the scheme at this point were unaffected.

The Hatfield-street area (2 $\frac{3}{4}$ acres), situated in an industrial district, is being devoted to commercial purposes. Hatfield-street area.

The Council in 1928 approved a capital estimate of £14,080, and on 30th July, 1929, approved a supplemental estimate of £900 for the erection of a block of dwellings (Medway House) five storeys high, comprising 27 tenements of the normal type (76 rooms) on the Hankey-place area. The dwellings were completed towards the end of 1929. Hankey-place area.

The name Comber estate has been selected for the new dwellings to be erected on the Wyndham-road area and the adjoining 4 acres of land acquired under Part III. of the Act of 1925. The first block of dwellings, known as Moffat House, comprises 42 tenements (127 rooms). Wyndham-road site.

During 1929 Speke House, containing 17 tenements (53 rooms) was completed, and considerable progress had been made towards completing Livingstone House, comprising 56 tenements (160 rooms). At the end of the year preliminary arrangements were being made for the erection of three further blocks of dwellings on the estate.

The Council on 26th February, 1929, agreed to the appropriation for education purposes of about 5,000 square feet of land for addition to the L.C.C. Comber-grove school at a transfer figure of £800, the cost (£240) of erecting the new boundary wall being shared equally between the housing and education accounts. For the purpose of an adjustment of boundary the Council on 17th December, 1929, agreed to an exchange of lands with the trustees of Dulwich College Mission.

The scheme for the clearance of the Basing-place and Blue Anchor-lane areas, Camberwell (about 3 acres), as confirmed by the Minister of Health in 1927, requires that rehousing accommodation for 756 persons, which is the estimated number of persons to be displaced from the two areas, shall be provided by the Council in new dwellings to be erected on the Blue Anchor-lane area. The Basing-place area will not be used for housing. The Blue Anchor-lane area (to be known as Oliver Goldsmith-estate) is being developed by the erection of two blocks of dwellings (Wakefield and Primrose Houses) of the normal type, five storeys high, comprising in all 121 tenements and 383 rooms, 12 lock-up shops on the ground floor of Primrose House, 13 costermongers' barrow sheds, and an estate workshop and store. Basing-place and Blue Anchor-lane scheme.

The foundations of part of Wakefield House were completed during the early part of 1929. On 26th March, 1929, the Council approved a capital estimate of £82,200 for the erection of the Wakefield and Primrose Houses, including the cost of the foundation work already done. In May, 1929, a tender of R. J. Rowley, Limited, amounting to £45,984, was accepted for the construction of the remainder of the foundations and the erection of the superstructure of Wakefield House, including the construction of an entrance road and cartways and the erection of the estate workshop and store and the 13 costermongers' barrow sheds, together with the company's offer to erect Primrose House (with the 12 lock-up shops) at the rates and prices in their tender for the superstructure of Wakefield House. At the end of the year considerable progress had been made with the building works, a substantial portion of Wakefield House was approaching completion and work on the northern portion of Primrose House (including 8 shops) was well advanced. The clearance of the site of the southern portion of this block cannot be completed until the licensing justices have dealt with the question of the licence of the "Horseshoe" beerhouse standing on a portion of the site. The Council, on 23rd April, 1929, agreed to abandon the licence even though it might be unsuccessful in its efforts to obtain

under section 47 (2) of the Housing Act, 1925, a contribution from the compensation fund under the Licensing (Consolidation) Act, 1910. During the year the Council agreed to the surrender, for addition to the public way, of a strip of land in connection with the widening of a portion of Hill-street. On 23rd April, 1929, the Council decided to enter into an agreement with the Rochester and Southwark Diocesan Church Trust for an exchange of lands in the Blue Anchor-lane area.

Carlisle-
street
scheme.

The scheme made by the Council in 1927 for the clearance of the Carlisle-street area, St. Marylebone (about 7.92 acres), was confirmed by the Minister of Health with modifications on 6th February, 1929. The scheme involves the displacement of 2,632 persons of the working classes, and rehousing accommodation has to be provided for at least that number of persons, of whom not fewer than 1,800 are to be accommodated within the area. The annual loss on the scheme is to be borne as to one-half by the State, as to one third by the St. Marylebone Metropolitan Borough Council and as to one-sixth by the Council.

In 1928 the Council decided to enter into agreements for exchanges of certain lands in the Carlisle-street area, subject to confirmation of the scheme by the Minister of Health. Upon the scheme being confirmed, the Council on 14th May, 1929, agreed to somewhat similar arrangements with the Keepers and Governors of Harrow School and Maida Vale Estates, Limited, respectively, with regard to certain other properties included in the scheme.

It is proposed to erect on the area seven blocks of dwellings of the normal type comprising in all about 300 tenements with about 920 rooms. It is proposed also (if suitable arrangements can be agreed with the St. Marylebone Metropolitan Borough as to the rent to be paid) to provide accommodation to be leased as a maternity and child welfare centre and a schools and dental clinic, and the provision of a number of shops is also contemplated. The Council, on 30th July, 1929, approved an estimate of £175,000 for the erection of the dwellings and other buildings on the area. At the end of 1929 the preliminary lay-out plan of the whole area had been approved by the Minister of Health, and preliminary drawings for the first block of dwellings were being prepared.

Teale-street
area.

The Council on 22nd January, 1929, decided to make a scheme under Part II of the Housing Act, 1925, in respect of an area of about $4\frac{1}{4}$ acres of land in Bethnal-green and Shoreditch, bounded on the north by Teale-street and a public recreation ground, on the west by Sebright-passage, Gillman-street and the back gardens of houses on the east side of Garner-street, on the south by the south side of Spencer-passage, Coate-street and the rear of properties on the north side of Hackney-road, and on the east by Pritchard's-road and Dinmont-street. The area contains 143 dwelling houses, a garage and some industrial properties. The houses are old, worn and damp. The area of the proposed scheme includes the whole of that officially represented by the Council's medical officer, with the exception of one house in Gillman-street, and includes also other small adjoining plots for the purpose of making an efficient scheme. About 900 persons of the working classes will be displaced and accommodation for at least that number can be provided on the area when cleared. An estimate of £45,000 was approved in respect of the acquisition of property and the clearance of the area. The cost of the provision of the requisite rehousing accommodation was roughly estimated at £78,000.

The trustees of the Sebright Endowed Schools Estate are the freeholders of the whole of the properties included in the clearance scheme, and also of a block of property with a somewhat open lay-out comprising about 70 dwelling houses and some other premises immediately to the west of the area. The Council decided on 22nd January, 1929, to enter into an agreement with the trustees for the purchase of all their properties required for the erection of new dwellings on the area when cleared, subject to the trustees being permitted to retain such of their lands in the area as will not be required permanently by the Council for the purposes of the

scheme. The trustees have expressed their willingness to include in the agreement an option to the Council to acquire the block of property lying to the west of the clearance area, and in the meantime, as and when the houses become vacant, to accept as tenants persons displaced from houses in the clearance area. This arrangement will greatly facilitate the execution of the clearance scheme.

Following on an official representation by the medical officer of health of Poplar, the Council on 22nd January, 1929, decided to make a scheme under Part II of the Housing Act, 1925, in respect of about $2\frac{1}{2}$ acres of land in Poplar situated on the north-east side of West Ferry-road, comprising 66 dwelling houses which are old, badly planned and poorly maintained. The area is subject to periodical flooding and considerable damage was done to the houses in the area during the Thames floods of January, 1928. The scheme involves the displacement of 374 persons of the working classes and rehousing accommodation for at least that number of persons can be provided on the area when cleared. An estimate of £25,000 for the acquisition and clearance of the area was approved. The cost of providing the requisite rehousing accommodation, including works necessary to render the new dwelling immune from flooding, was roughly estimated at £32,000.

The Council on 5th March 1929, decided to make a scheme under Part II of the Housing Act, 1925, in respect of an area of about $5\frac{1}{4}$ acres situated to the east of Walworth-road and mainly to the north of East-street, Walworth. For the purpose of making an efficient scheme the area (about $4\frac{1}{2}$ acres) officially represented by the medical officer of health of Southwark was enlarged by the addition of adjoining properties, bringing the total area up to about $5\frac{1}{4}$ acres. The displacement of about 1,200 persons of the working classes is involved, and it is estimated that rehousing accommodation for about 1,140 persons can be provided on the area when cleared, leaving the balance of the rehousing accommodation to be provided elsewhere. Under the scheme as proposed a new 40 feet wide road parallel to Walworth-road will be provided to connect Brandon-street and Portland-street, some roads will be widened and most of old mean streets and alleys will be closed. An estimate of £65,000 in respect of the acquisition and clearance of the area, including the road works, was approved. The cost of providing the necessary rehousing accommodation on the area was roughly estimated at £107,000. Some of the old properties included in the scheme are being purchased by the Council, with the consent of the Minister of Health, in advance of confirmation of the scheme.

East Hill estate, Wandsworth (8 acres), was purchased in 1924 for the purpose of providing rehousing accommodation in connection with the clearance of unhealthy areas. The 13 blocks of dwellings provided on the estate comprise 524 tenements with 1,627 rooms.

The last two blocks (Yarmouth and Lowestoft Houses) containing 32 tenements (120 rooms) were completed during 1929. The Council in September, 1929, accepted the tender of Messrs. Fitzpatrick and Son, amounting to £1,211 for paving the footways and finishing the carriageways adjacent to these two blocks and of constructing a short connecting road on the estate between St. Peter's-place, off the estate, and Darvall-square. The work was approaching completion at the end of the year.

Another estate in course of development by the Council for rehousing purposes is Shore Estate, South Hackney (3 acres), which has been taken on building lease for 99 years from the Governors of St. Thomas's Hospital. Up to the end of 1928, the first two blocks of dwellings, known as Grendon and Kendal Houses respectively, had been erected. These two blocks contain 92 tenements with 254 rooms.

During 1929 a further block of dwellings of the normal type (Tornay House), which is a replica of Kendal House and comprises 44 tenements (134 rooms), an estate workshop and store, and 10 perambulator sheds was completed.

On 26th March, 1929, the Council approved a capital estimate of £18,312 for

the erection of the remaining block of dwellings to be known as Multon House (a replica of Grendon House) to comprise 48 tenements of the simplified type with 120 rooms. The building work was entrusted to Rowley Brothers (1929) Limited as an extension of their contract for the erection of Grendon and Multon Houses but at prices (exclusive of prime cost items and provisional sums) $4\frac{1}{2}$ per cent. less. At the end of the year work on this last block was approaching completion.

Reduction
of rents—
Becontree.

During the year the Council reviewed the rents charged for accommodation on its estates with a view to considering whether, on general grounds, any immediate reduction of rents at any of the estates was called for.

The net rents (i.e., exclusive of rates and water charges) of all the Council's dwellings provided before the war are the pre-war rents plus 40 per cent. as allowed by the Rent Restriction Acts. The net rents of post-war dwellings provided by the Council in London as rehousing accommodation in connection with clearance schemes have been fixed on the same basis, having regard to the general level of rents prevailing in the neighbourhood, the type of accommodation provided, and the class of persons for whom the accommodation is intended. In some cases, specially low rents are being or will be charged, e.g., for dwellings of the simplified type or with reduced standard of finish, to meet the needs of the poorer classes of persons displaced from clearance areas. The Council did not consider that an alteration of the rents fixed in any of these cases was called for at present.

In the cases of houses provided since the war at cottage estates, the net rents were fixed with due regard to statutory requirements and to conditions prevailing at the time, and in some cases at increased rates in order to reduce the estimated annual loss on the houses to approximately one-half of the amount of the State grant under the Housing (Financial Provisions) Act, 1924. Having considered the rents in operation at all the cottage estates in question the Council came to the conclusion that, on the merits of the case and on general economic grounds, a reduction of rents was most needed at Becontree. The Council, therefore, on 14th May, 1929, decided that a uniform reduction should be made as from 1st July, 1929, in the net rents of all the houses at Becontree by 1s. 6d. a week. The annual cost involved by reduction of income in respect of about 16,677 houses completed up to 20th April, 1929, is approximately £61,273 (with a corresponding addition for 1,031 houses not completed by that date for which rents had been fixed). The scales of weekly net rents (i.e., exclusive of rates and water charges) at Becontree, as thus reduced, are as follows:—Six-room houses, 15s. ; five-room houses, 10s. 9d. to 13s. 6d. ; five-room (parlour) flats, 12s. to 13s. ; four-room (parlour) houses, 9s. 3d. to 13s. ; four-room (parlour) flats, 10s. 6d. ; four-room (non-parlour) houses, 8s. 9d. to 12s. 6d. ; four-room (non-parlour) flats, 8s. 9d. ; three-room houses, 8s. to 10s. 6d. ; three-room flats, 7s. to 8s. ; two-room flats, 6s. to 7s. 9d.

Rents.

Particulars of the rents fixed by the Council from time to time for its working-class dwellings will be found in the Annual Reports for previous years. Weekly net rents (exclusive of rates and water charges) for further accommodation provided both at cottage estates and in block dwellings were fixed by the Council during the year 1929 as follows:—

Cottage estates.—Becontree (Barking No. 12 section, about 1,459 houses and flats).—Houses—3 rooms, 9s. to 9s. 6d. ; 4 rooms (non-parlour), 9s. 6d. to 12s. 6d. ; 4 rooms (parlour), 10s. 6d. to 12s. 6d. ; 5 rooms, 11s. 6d. to 12s. 9d. Flats—2 rooms, 6s. 6d. to 7s. (These rents are based on the reduced scales of rents mentioned above.) Bellingham (32 additional houses)—4 rooms (parlour), 14s. and 14s. 6d. ; detached house, 4 rooms (non-parlour), 15s. 6d. St. Helier estate (Central section, about 2,460 houses and flats)—Houses—3 rooms, 12s. 6d. ; 4 rooms (non-parlour), 13s. to 15s. 6d. ; 4 rooms (parlour), 14s. to 16s. ; 5 rooms, 15s. to 17s. Flats—2 rooms, 10s. to 10s. 6d. ; 3 rooms, 11s. to 12s. ; 4 rooms (non-parlour), 12s. to 13s. ; 4 rooms (parlour), 13s. 6d.

Block Dwellings.—China-walk estate (Coalport, Davenport and Derby Houses)—2 rooms, 9s. 6d. and 10s. ; 3 rooms, 11s. 6d. to 13s. ; 4 rooms, 13s. to 14s. 6d. ; 5 rooms, 14s. 6d. to 15s. (Minton House)—2 rooms 7s., and 7s. 6d. ; 3 rooms, 9s. to 10s. ; 4 rooms, 10s. 6d. to 11s. 6d. ; 5 rooms, 12s. 6d. Collingwood estate (Blackwood and Harvey Houses)—2 rooms, 8s. 9d. to 9s. 9d. ; 3 rooms, 11s. to 12s. 6d. ; 4 rooms, 14s. ; 5 rooms, 14s. 9d. to 15s. 9d. ; Comber estate (Livingstone House)—2 rooms, 9s. to 10s. 6d. ; 3 rooms, 10s. 9d. to 12s. 6d. ; 4 rooms, 12s. 9d. to 13s. ; 5 rooms, 14s. to 15s. 9d. (Speke House)—2 rooms, 6s. 6d. and 7s. ; 3 rooms, 8s. 6d. to 9s. 3d. ; 4 rooms, 10s. 6d. and 11s. ; 5 rooms, 12s. 6d. Dickens estate (Dombey House)—2 rooms, 8s. 6d. to 9s. 3d. ; 3 rooms, 10s. 6d. to 11s. 6d. ; 4 rooms, 13s. 3d. and 13s. 9d. East Hill estate (Yarmouth and Lowestoft Houses)—3 rooms, 12s. and 12s. 6d. ; 4 rooms, 14s. to 15s. 6d. Hughes Fields estate (Clinton House)—2 rooms, 7s. 6d. to 8s. 9d. ; 3 rooms, 9s. 6d. to 10s. 6d. ; 4 rooms, 11s. to 12s. ; 5 rooms, 12s. 3d. to 13s. (Blocks 4 to 8, part of Watergate Houses)—3 rooms, 10s. 6d. and 11s. ; 4 rooms 12s. 6d. and 13s. Medway House (Hankey Place area)—2 rooms, 9s. 6d. to 10s. 6d. ; 3 rooms, 11s. 6d. to 13s. 6d. ; 4 rooms, 13s. 6d. to 14s. 6d. ; 5 rooms, 16s. Ring Cross estate (Radford House)—2 rooms, 8s. 6d. and 9s. ; 3 rooms, 10s. 6d. to 12s. 3d. ; 4 rooms, 13s. 3d. and 14s. 6d. ; 5 rooms, 14s. to 15s. 9d. (Hartnoll House)—1 room, 5s. 3d. and 5s. 9d. ; 2 rooms, 6s. 9d. and 7s. 9d. Ossulston estate (Chamberlain House)—2 rooms, 12s. 1d. to 13s. 7d. ; 3 rooms, 14s. 3d. to 16s. 6d. ; 4 rooms, 16s. 10d. to 18s. 11d. ; 5 rooms, 19s. 3d. (Walker House, first portion)—2 rooms, 12s. 3d. to 14s. ; 3 rooms, 14s. 7d. to 16s. 2d. ; 4 rooms, 17s. and 18s. 8d. ; 5 rooms 19s. 3d. to 21s. 3d. (Rents at Chamberlain House and Walker House, first portion, include charges for central hot water supply and wiring for electric lighting, cooking and heating). Shore estate (Multon House)—2 rooms, 6s. to 7s. ; 3 rooms, 8s. to 9s. (Tornay House)—2 rooms, 8s. to 9s. 6d. ; 3 rooms, 10s. to 12s. 6d. ; 4 rooms, 11s. 6d. to 13s. 6d. ; 5 rooms, 14s. 6d. to 16s. Wapping estate (Fenner House)—2 rooms, 5s. 6d. to 7s. ; 3 rooms, 8s. 3d. to 9s. (Jackman House)—2 rooms, 7s. 6d. to 9s. ; 3 rooms, 9s. 6d. to 10s. 3d. ; 4 rooms, 11s. to 12s. 3d. ; 5 rooms, 13s. 9d. Whitmore estate (Block 7, part of Stringer Houses)—1 room, 5s. 9d. and 6s. 3d. ; 2 rooms, 7s. 3d. and 7s. 9d. ; 3 rooms, 9s. 3d. and 9s. 9d.

Particulars are given in the Annual Report for 1926 (Vol. III, p. 191) of the rents in excess of the normal scale charged to tenants carrying on at or from their dwellings a profession, trade, business or occupation for profit. Occupation of Tenants. Rents.

The Council on 12th February, 1929, reviewed the whole position and decided that the rents (or charges) in such cases should in future be as follows :— (i) dwellings occupied by midwives or nurses or persons carrying on at or from such dwellings a trade, business or occupation or a minor profession and giving public indication of the fact—the normal rent, plus a special charge of 10s. a month for the privilege of exhibiting a plate or advertising ; (ii) dwellings occupied by ministers of religion or social workers preferentially accommodated—a rent 2s. 6d. a week more than the normal rent ; and (iii) dwellings occupied by doctors and dentists and the like—a remunerative rent.

The following particulars are given of matters arising during the year in connection with completed estates or estates which had been completed so far as the erection of dwellings by the Council was concerned. Completed estates.

To improve the means of access to Castlenau estate, Barnes, two triangular portions of the Council's land at the northern ends of Kilmington-road and Boileau-road were added to the public way. The owner of a corner house adjoining the estate purchased from the Council a small piece of land along the return frontage to the house and the owner and the Council each surrendered small pieces of land for rounding off the corner. Castlenau estate.

A house at Wormholt estate, Hammersmith, was appropriated for the accommodation of a schoolkeeper. A site was sold to the Ecclesiastical Commissioners Wormholt estate.

for the erection of a mission hall and missionary's house, and a site was let on lease for 99 years for the purpose of erecting shops with living accommodation over them.

Hornsey-rise
estate.

Arrangements were made for the provision and fixing of a railing round the garden at Hornsey-rise estate and the provision of seats at an estimated cost of £254.

Boundary-
street
estate.

In 1928 arrangements were made for the installation of electric lighting (free of cost to the Council) to the tenements on Boundary-street estate, Bethnal-green and Shoreditch, in cases in which the tenants desired such service. During 1929 arrangements were made for the installation at an estimated cost of £1,075, of electric lighting to the common staircases, central laundry building and estate office.

Garden
competi-
tions.

In order to encourage garden cultivation amongst its tenants, the Council for several years past has made grants annually towards providing prizes for the best-kept front gardens at cottage estates, and for window-box competitions at block-dwelling estates, and towards the expenses of judging the competitions at the various estates. The Council has provided a silver challenge cup to be held from year to year by the tenant whose garden is judged to be the best. The London Gardens Guild have also presented a shield to be held by the local society which obtains the highest number of entries for the competitions. At Bellingham, a special challenge cup for the estate was presented by the staff engaged on the development of the estate. After conference with the London Gardens Guild and the local societies, the Council decided to enlarge the scope of its grants for the season of 1929 and future seasons. In 1929 cash prizes (varying from 2s. 6d. to £3 and amounting to £212) were awarded to tenants, grants amounting to £77 were made to local horticultural societies and a grant of £58 was made to the London Gardens Guild with whose co-operation the various competitions were organised and judged. The total expenditure (£347) has been met, as in past years, from the interest on deposits paid by tenants on taking up their tenancies.

Rehousing.

During the year 1,136 families were displaced by the Council in connection with the carrying out of slum clearance schemes. Of this total, 684 families (60 per cent.) were provided with accommodation in the Council's dwellings, 272 (24 per cent.) were transferred to premises belonging to the Council and maintained temporarily pending demolition for the purpose for which they were required; and the remaining 180 families (16 per cent.) removed to property not belonging to the Council. The families housed temporarily will in due course be offered permanent accommodation on the Council's estates.

Staff.

The average number of workmen employed by contractors on the Council's housing development operations at the end of the year was about 4,800. About 875 men, including 52 workmen caretakers, were continually engaged during the year on works of maintenance and repair at the Council's dwellings and estates, while the local management staff, including superintendents, 8 caretakers (whole time), estate clerks, porters, etc., numbered about 190, and women workers, *i.e.* laundresses, bedmakers, etc., about 53.

Housing
handbook
and hand
map.

The Council has published a handbook containing an account of its housing activities up to the end of 1927, with particular reference to post-war housing schemes.*

Grants to
metropolitan
borough
councils.

During the year the Council agreed to make supplemental contributions from the County rate under section 1 (6) of the Housing, etc., Act, 1923, or section 2 (5) of the Housing (Financial Provisions) Act, 1924, towards the undermentioned schemes of metropolitan borough councils, the grants being of the amounts stated in brackets. The contributions under the Act of 1923 are for a period of 20 years in each case, and those under the Act of 1924 for a period of 40 years in each case:—

Housing, etc. Act, 1923.—Greenwich Metropolitan Borough Council.—76 additional houses on Charlton-park estate (£2 a house a year, fixed contribution) making

* *Housing: with particular reference to post-war housing schemes.* No. 2,544. 2s. 6d. *Illustrated.*

a total of 376 houses for which a fixed contribution has been approved ; 76 further houses on the estate (not exceeding £2 a house a year) making a total of 152 houses for which subsidy on these terms has been approved.

Lambeth Metropolitan Borough Council.—306 houses on Bloomfield estate and 108 houses in Prince's-road (£3 a house a year, fixed contribution).

Stepney Metropolitan Borough Council.—5 tenements in Brook-street and 5 tenements in Caroline-street (£3 a tenement a year, fixed contribution).

Housing (Financial Provisions) Act, 1924—Bermondsey Metropolitan Borough Council.—9 tenements in Rotherhithe-street (£1 a tenement a year, fixed contribution).

Bethnal Green Metropolitan Borough Council.—16 tenements in Pedley-street (£1 17s. 6d. a tenement a year, fixed contribution).

Islington Metropolitan Borough Council.—132 tenements in Laycock-street (£1 a tenement a year, fixed contribution).

Lambeth Metropolitan Borough Council.—12 tenements in Newburn-street and 100 tenements in Cottington-street (amount of contribution not yet fixed) ; 4 houses in Tivoli-road (not exceeding £1 17s. 6d. a house a year) ; 2 houses and 2 tenements in Dassett-road (not exceeding £1 10s. a dwelling a year).

Poplar Metropolitan Borough Council.—8 tenements in Violet-road and 6 tenements in Gale-street (£1 a tenement a year, fixed contribution).

St. Pancras Metropolitan Borough Council.—3 tenements in Chester-road and 36 tenements in Clarendon-street (£1 10s. a tenement a year, fixed contribution).

Woolwich Metropolitan Borough Council.—138 additional houses on Eltham estate (£1 a house a year, fixed contribution) making a total of 1,345 houses, after deducting 41 houses utilised for rehousing or other purposes, in respect of which subsidy under the Act of 1924 has been approved.

Returns as to the progress of housing in Greater London since the war are submitted to the Council periodically. The latest return for 1929 brings the figures up to 31st December, 1929.

Housing
progress in
Greater
London.

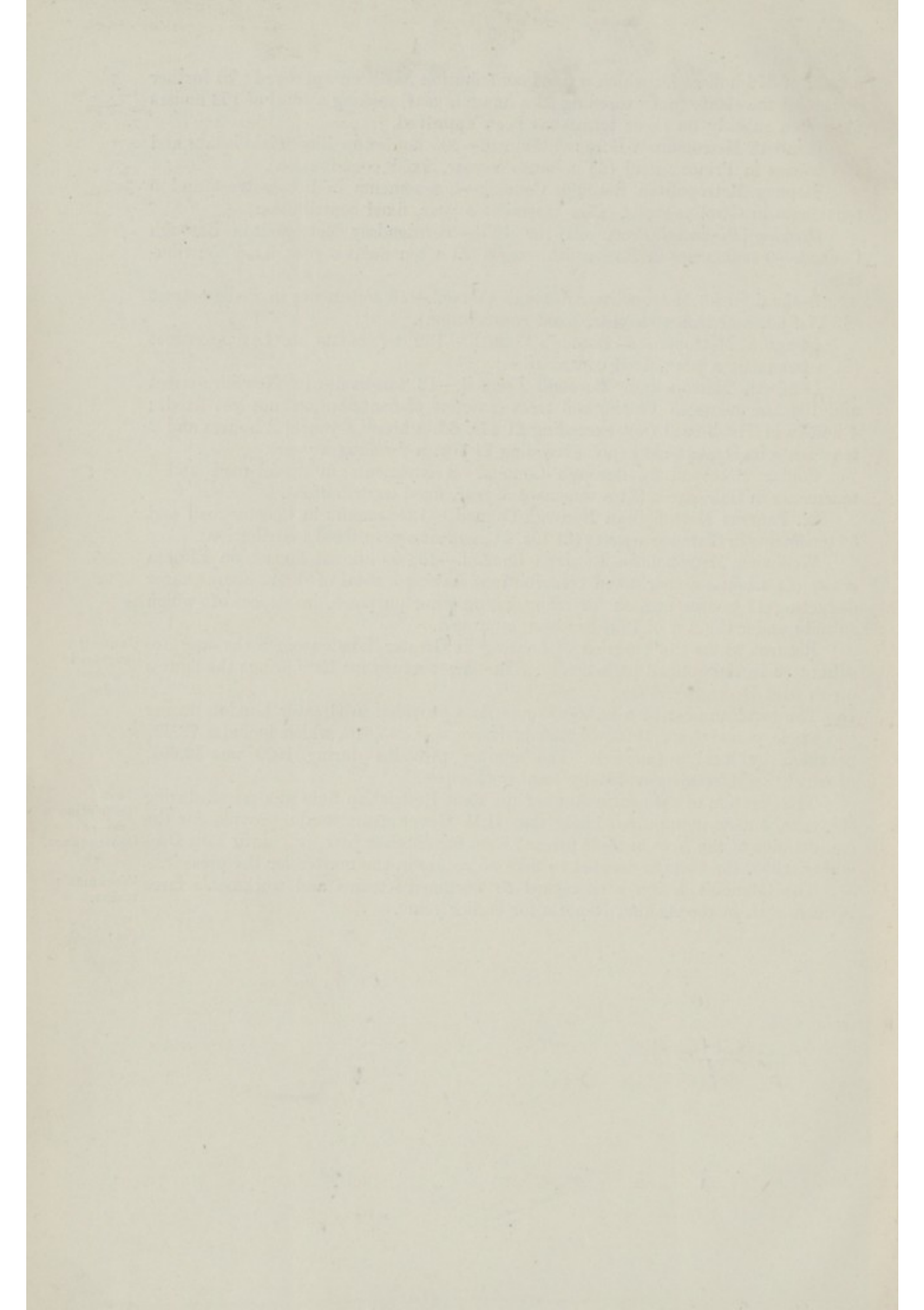
The total number of new houses and flats provided in Greater London during the whole period from 1920 to 1929 inclusive was 243,616, which includes 78,634 provided by local authorities. The number provided during 1929 was 42,601, of which 8,451 were provided by local authorities.

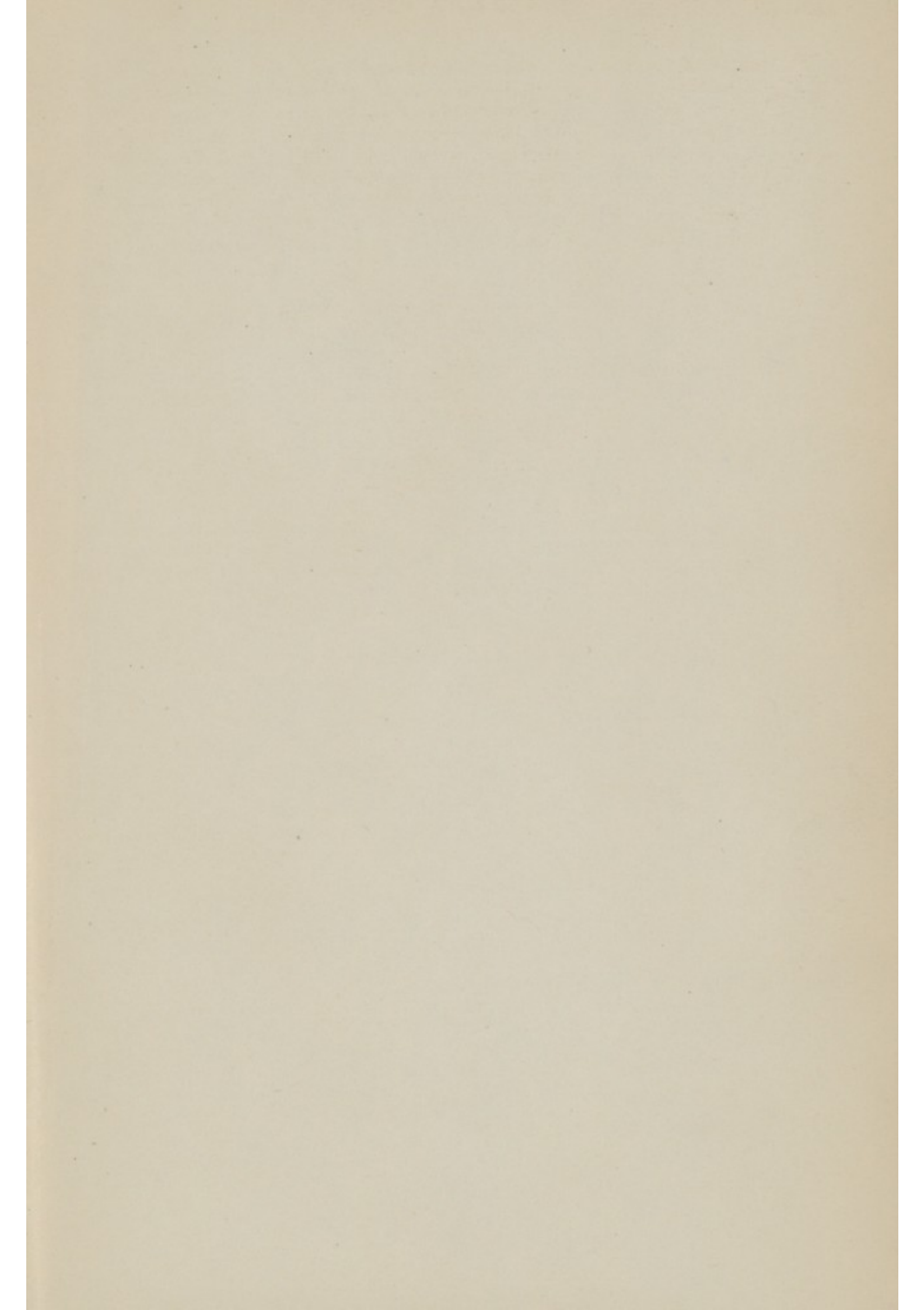
The question of the continuance of the Rent Restriction Acts was raised during the year, but as it appeared likely that H.M. Government would provide for the continuance of the Acts in their present form for another year, *i.e.*, until 25th December, 1930, the Council decided to take no action in the matter for the present.

Rent
Restriction
Acts—
Continuance.

The Council's action with regard to workmen's trains and workmen's fares is dealt with in the Annual Reports for earlier years.

Workmen's
trains.







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