



15/6 ✓

# PUBLIC HEALTH AND SOCIAL CONDITIONS.

---

## STATISTICAL MEMORANDA AND CHARTS

PREPARED IN THE

LOCAL GOVERNMENT BOARD

RELATING TO

# PUBLIC HEALTH AND SOCIAL CONDITIONS.

---

Presented to both Houses of Parliament by Command of His Majesty.

---



LONDON:  
PRINTED FOR HIS MAJESTY'S STATIONERY OFFICE.  
By DARLING & SON, LTD., 34-40, BACON STREET, E.

And to be purchased, either directly or through any Bookseller, from  
WYMAN AND SONS, LTD., FETTER LANE, E.C., and  
32, ABINGDON STREET, WESTMINSTER, S.W.; or  
OLIVER & BOYD, TWEEDDALE COURT, EDINBURGH; or  
E. PONSONBY, 116, GRAFTON STREET, DUBLIN.

1909.

[Cd. 4671.] Price 5s.

## TABLE OF CONTENTS.

	Page.
SECTION I.—POPULATION.—Memorandum, Charts (6) and Tables... ..	1
[Growth of population—the natural increase, birth-rates in the United Kingdom and Abroad—fertility rates and marriage rates. Urban and rural population.]	
SECTION II.—PUBLIC HEALTH.—Memorandum, Charts (18) and Tables... ..	11
[Rates of mortality in the United Kingdom, European countries, and large towns— urban and rural death rates—mortality at various ages—infant mortality—mortality in childhood and youth—principal causes of death—mortality from enteric fever, smallpox, and typhus, scarlet fever and diphtheria, and tuberculosis and phthisis—occupational mortality. Public Health Administration :—housing and overcrowding—the public medical service.]	
SECTION III.—OCCUPATIONS, WAGES AND UNEMPLOYMENT.—Memorandum, Charts (9), Map and Tables ... ..	33
[Period of working life—principal occupations—agricultural labour and wages—the building trade—casual labour. Wages and prices. Unemployment—Trade Union statistics—Distress Committee statistics. Relief of unemployment.]	
SECTION IV.—THE POOR LAW AND PAUPERISM.—Memorandum, Charts (10), Maps (2), Chronological Table of Legislation, &c., affecting the Poor Law and pauperism, and Tables ... ..	47
[Pauperism in the United Kingdom—pauperism of a year and average daily pauperism in the United Kingdom—the Poor Law in England and Wales and London; course of pauperism since 1850—pauperism and unemployment—methods of relief—components of pauperism in 1849 and 1908—pauperism in urban and rural districts—age incidence of pauperism—children under the poor law—poor law medical service. Cost of Poor relief in the United Kingdom.]	
SECTION V.—LOCAL GOVERNMENT AND LOCAL TAXATION.—Memorandum, Charts (8) and Tables ... ..	71
[Local Rates in England and Wales—Comparative growth of rates, rateable value and population—legislation affecting Local Government and finance and classification of rates. Local rates in London. Total revenue of local authorities. Local debt in (a) England and Wales and (b) London.]	
SECTION VI.—MISCELLANEOUS STATISTICS.—Memorandum, Charts (7) and Tables ... ..	101
[Education and illiteracy. Thrift and wealth—Friendly Societies—Trade Unions— Saving Banks—Income tax returns. Crime.]	

国立公衆衛生院附属図書館	
受入先	
受入日	
登録番号	
所在	
Library, National Institute of Public Health	

To the RIGHT HON. JOHN BURNS, M.P.,

President of the Local Government Board.

SIR,

THE accompanying series of statistical memoranda and charts relating to certain aspects of existing social conditions have been prepared in accordance with your instructions. The volume generally has been prepared by Mr. Hore, the poor law and public health sections being produced under the supervision of Mr. Davy and the Medical Officer of the Board respectively.

The volume is designed to illustrate in a convenient and readily intelligible form various matters of importance in the study of those conditions, such as the growth of population, mortality and public health administration, the changes in the occupations of the people, the recurring periods of industrial prosperity and depression, pauperism, and the action of the poor law, local taxation and local debt, and the development of education and of thrift.

While each subject is dealt with as briefly as possible, an endeavour has been made to provide material both in the Memoranda and in the Charts, for a historical survey of the subject covering as long a period as possible; and it will be found that many of the tables and charts have been carried back for a period of over 50 years.

The volume contains little that can claim to be the result of fresh investigation. Most of the material required for the purpose in view existed in one form or another, in various reports and other documents issued from time to time by the Local Government Board, the Board of Trade, the General Register Office, and other public departments, but it had not hitherto been presented in connected form. To effect this and at the same time to keep the volume within reasonable limits, it has been necessary to select a few only of the more important features of the general subject. In making this selection we have had specially in view those matters belonging to local administration with which the Local Government Board are more immediately concerned, and these have been treated in somewhat greater detail.

The subjects under review have been dealt with in six Sections.

SECTIONS I. and II. are complementary to each other. Section I. deals with matters incidental to the growth of population, while Section II. sums up the principal facts as to public health and mortality. A brief account of public health administration (both central and local) is appended to Section II., particular reference being made to two matters in which local action is of first importance, namely, housing and overcrowding, and the local medical service.

SECTION III. sets out briefly a few material features of industrial conditions, such as the changes that have occurred in various classes of occupation, the rise in the level of wages and the decline in prices over the past half century, the fluctuations of the labour market, and the results of the measures for dealing with distress arising from want of employment.

SECTION IV. deals succinctly with the subject of public relief of the poor, tracing the progressive decline in pauperism since 1850, and the efforts of poor law authorities to deal with the sick poor, children, and other classes in institutions appropriate to the needs of each, and concluding with some facts as to the cost of poor law relief.

SECTION V. contains a review of local taxation, giving information as to the growth of local rates and of local debt, the chief legislative measures which have contributed to this growth, the principal local services the burden of which falls upon rates, and the development of national subventions in relief of local taxation.

In SECTION VI. are collected a few miscellaneous statistics relating to such matters as the growth of education and the evidences of thrift and of wealth.

We are indebted to the Registrar-General for assistance in revising the statistics of population and mortality, and to the Board of Trade, the Chief Registrar of Friendly Societies, and other public departments, and to the Royal Commission on the Poor Laws and Relief of Distress for the statistics which they have been good enough to supply.

We are, Sir,

Your obedient Servants,

J. S. DAVY.

ARTHUR NEWSHOLME.

C. F. ADAIR HORE.

Local Government Board,

May, 1909.

## SECTION I.—POPULATION.

	Page.
MEMORANDUM	2
CHARTS (6):—	
Chart 1. Growth of population in each division of the United Kingdom (1851–1908)	To follow page 6
„ 2. Birth rates in England and Wales, Scotland and Ireland (1850–1907)	6
„ 3. Birth rates in England and Wales, France, Prussia and Belgium (1850–1907)	6
„ 4. Persons married per 1,000 of population, England and Wales and London (1850–1907)	6
„ 5. Women married under 21 years of age in every 100 marriages, England and Wales and London (1850–1907)	6
„ 6. Urban and rural population (1851–1908)	6
TABLES (6) showing the data on which the Charts in this Section are based	7

## SECTION I.—POPULATION.

### MEMORANDUM.

The series of tables and charts comprised in this section illustrate the principal facts connected with the growth and distribution of the population of the United Kingdom, and, in particular, of England and Wales. The material available on this subject, which is considerable, comprises

- The Census Reports.
- The Annual Reports of the Registrars-General for England and Wales, Scotland, and Ireland.
- The Decennial Supplements to the Annual Reports of the Registrar-General for England and Wales, containing detailed statistics of mortality, &c.
- The Annual Summaries of births, deaths, and marriages for England and Wales.

#### Population.

1. *Growth of Population.*—The population of the United Kingdom in the middle of the year 1908 was estimated at 44,539,593. According to the enumeration obtained by the last decennial census (1901), the population stood at 41,458,721; in 1851 it had been 27,368,736. Hence in the half century between these dates the population increased by 14,089,985 persons, or 51·5 per cent. In other words, for every 100 inhabitants of the United Kingdom in 1851, there were 151 in 1901, and 163 in 1908. This increase of population has not, however, been distributed equally over the several divisions of the Kingdom, since

for every 100 persons living, in the year 1851, in	{ England there were estimated to be 198 } 197 in 1908.			
	Wales*	"	"	187
	Scotland	"	"	... 167
	Ireland	"	"	... 67

Thus, while the population of England and Wales has nearly doubled in the 57 years, that of Scotland has only increased by 67 per cent. and that of Ireland has decreased by 33 per cent. The growth of the population in each section of the Kingdom is illustrated in Chart 1.

2. The increase thus recorded in the half century is found when analysed, census by census, to have been continuous, though the rate of increase has varied considerably from one period to another, as the following figures show:—

#### POPULATION OF THE UNITED KINGDOM (a).

Year.	Population.				Rates of decennial increase or decrease on preceding census.			
	England.	Wales.*	Scotland.	Ireland.	England. (+)	Wales. (+)	Scotland. (+)	Ireland. (-)
1851	16,926,348	1,001,261	2,888,742	6,552,385	12·8	10·5	10·2	19·8
1861	18,958,103	1,108,121	3,062,294	5,798,967	12·0	10·7	6·0	11·5
1871	21,498,642	1,213,624	3,360,018	5,412,377	13·4	9·5	9·7	6·7
1881	24,617,266	1,357,173	3,735,573	5,174,836	14·5	11·8	11·2	4·4
1891	27,487,525	1,515,000	4,025,647	4,704,750	11·7	11·6	7·8	9·1
1901	30,811,420	1,716,423	4,472,103	4,458,775	12·1	13·3	11·1	5·2
1908(b)	33,472,252	1,876,528	4,826,587	4,364,226	—	—	—	—

(a) See Table 46 in Appendix A. to the Report on the Census of 1901 (Cd. 2174—1904) and Table XVI. in the Summary Tables (Cd. 1523—1903).

(b) Estimated population in the middle of 1908.

The period of maximum increase occurred in the decade 1871–1881. This decade, in which, as will be seen later, the birth-rate in England and Wales reached its maximum, comprises the period 1871–75, when, as may be judged by the fall in the level of unemployment and of pauperism (Chart 4 in Section IV.), and by the rise in the average rate of wages (Chart 4 in Section III.), the country enjoyed a marked increase of prosperity. In the census period 1881–1891 there was a decline in the rate of increase, but the latest decade, 1891–1901, shows again a slight rise. It will be noticed that in the more recent periods there is some correspondence between England, Wales, and Scotland, as regards a rise or fall in the rate of increase of population, while at the same time the rate of decrease in the population of Ireland, though persistent, is reduced in proportion as the rate of increase in other sections of the Kingdom is higher.

3. *Factors in the increase of population.*—The growth of population in any given period is determined by two factors: (a) migration, that is the balance between emigration and

\* Welsh registration division as at present constituted, excluding Monmouth registration county.

immigration, and (b) the difference between the number of births and the number of deaths, termed the "natural increase" of population.

(a) *Migration.*—The data available for measuring the former of these two factors, migration, are very incomplete. Complete returns of the number of inward and outward bound passengers have only become available in quite recent years. It can, however, be shown (by calculations based on a comparison of the "natural increase" of the population and the ascertained increase in the enumerated population between two census dates) that on balance emigration has, since 1851, always exceeded immigration by an appreciable amount.\*

To what extent immigration has added to the population it is impossible to determine. The number of persons describing themselves as of alien birth has been ascertained at recent censuses: between 1891 and 1901 the number of such persons, exclusive of British subjects, increased in England and Wales from 198,113 to 247,758; but these figures are not altogether conclusive, since, on the one hand, they would include persons who were merely in this country at the date of the census, but who had no intention of settling here, and, on the other hand, they would omit children born of alien parents since their arrival in this country.

(b) *Natural increase of population.*—The more important of the two factors in the growth of population is the natural increase of population, that is, the difference between the number of births and the number of deaths occurring in any given period.

The broad facts to be noticed at the outset are (a) that the number of births has always (within the period of civil registration) exceeded the number of deaths, (b) that the number of births in proportion to the population (the birth-rate) has, for the last three decades, been decreasing, and (c) that the number of deaths in the same proportion (the death-rate) has also declined during the same period, though the decrease does not quite counter-balance the fall in the birth-rate. The net result is that the average (annual) natural increase in the population in England and Wales shows in the past thirty years a slight diminution.

#### NATURAL INCREASE OF POPULATION (ENGLAND AND WALES.) (a).

Period.	Per 1,000 of Population.		
	Average Annual Birth Rates.	Average Annual Death Rates.	Average Annual Natural Increase.
1851–1855 ...	33·9	22·7	11·2
1856–1860 ...	34·4	21·8	12·6
1861–1865 ...	35·1	22·6	12·5
1866–1870 ...	35·3	22·4	12·9
1871–1875 ...	35·5	22·0	13·5
1876–1880 ...	35·3	20·8	14·5
1881–1885 ...	33·5	19·4	14·1
1886–1890 ...	31·4	18·9	12·5
1891–1895 ...	30·5	18·7	11·8
1896–1900 ...	29·3	17·7	11·6
1901–1905 ...	28·1	16·0	12·1
1906 ...	27·1	15·4	11·7
1907 ...	26·3	15·0	11·3

(a) See Table 4, page 6 and page xxxiii of the 70th Annual Report of the Registrar-General for England and Wales (Cd. 4464—1908).

Looking over the whole period it will be seen that the death-rate fell only slightly up to and including the quinquennium 1871–75, but since that period it has decreased from 22·0 to 16·0 per 1000 living, in the quinquennium 1901–1905, and to 15·0 in the year 1907. The decrease in recent years is noticeable and is found to have been associated with a considerable decrease in the rate of infant mortality. The birth-rate, on the other hand, which rose with some uniformity until it reached its maximum about 1871–75, has fallen in each quinquennium since that period without a break.

#### The Birth-rate.

4. The annual birth-rate, for which the quinquennial averages in England and Wales are quoted in the preceding table, is illustrated for every year since 1850 in Chart 2, the corresponding rates for Scotland and Ireland being added. It will be evident that

\* See Table, page 16, of the Report on the Census (England and Wales) 1901 (Cd. 2174—1904).



the birth-rate in each section of the Kingdom was at its maximum in the period 1870-76, and since that date has shown a material decline.

The decline in the birth-rate is, at the same time, a feature common to the birth statistics of most European countries, as will be seen from Table 3 and from Chart 3 in which is illustrated in parallel curves the course of the birth-rate in France, Prussia, Belgium, and England and Wales.

5. *Methods of measuring the number of births.*—The birth-rate referred to in the preceding paragraphs, which is simply the ratio of the number of births in a given year to the aggregate population estimated to be living in that year, is an adequate measure, if the object is to show the contribution made by births in each year to the population. But the crude birth-rate thus ascertained gives no clue to the significance of the decline in the rate which has occurred in the past thirty years, and for comparative purposes a more accurate standard of measurement is obtained by calculating the number of births in proportion to the total or the married female population of child-bearing ages, *i.e.*, women who are approximately between 15 and 45 years. On this method, which yields a measure of the fertility of the population, it is possible to institute a more accurate comparison of the birth-rate as between, say, urban and rural districts, or as between an older and a more newly settled country; and it may also be applied to yield comparative birth statistics over a course of years in the same country. Thus, taking the period between 1876, when the birth-rate was at its maximum, and 1905, the following figures show that the decline in the birth-rate thus corrected is materially greater than is shown by the crude rate:—

BIRTH RATES (ENGLAND AND WALES). (a)

Period.	Average Annual Crude Birth-rate per 1000 of Total Population.	Average Annual Corrected Birth-rate per 1000 of Female Population aged 15-45 years.
1876-1880 ... ..	35.3	153.3
1881-1885 ... ..	33.5	144.3
1886-1890 ... ..	31.4	133.4
1891-1895 ... ..	30.5	126.8
1896-1900 ... ..	29.3	118.8
1901-1905 ... ..	28.1	112.5
Net decrease in rate for 1901-1905 as compared with 1876-1880.	20 per cent.	27 per cent.
1906 ... ..	27.1	108.3
1907 ... ..	26.3	105.1

(a) See Table C. on page xxv of 70th Annual Report of the Registrar General.

On an analogous method a comparison of the birth-rate in urban and rural districts brings out the fact that the rate of fertility is materially higher (about 7 per cent. in 1901) in rural than in urban districts, as the following figures show:—

LEGITIMATE BIRTH-RATES PER 1,000 MARRIED WOMEN AGED 15 TO 45 YEARS (ENGLAND AND WALES). (b)

	1881.	1891.	1901.
Aggregate of 21 large towns (population (1901) 9,799,866).	273.3	250.0	228.9
112 entirely rural registration districts (population (1901) 1,330,319).	294.5	272.9	244.0

(b) See Table C on page xxviii of the 69th Annual Report of the Registrar General (Cd. 3833-1908).

The majority of mining districts form a striking contrast with other industrial districts, the birth-rate in the former being frequently considerably in excess of that obtaining in either ordinary towns or rural districts; at the same time the higher birth-rate in these districts is associated with a very high rate of infant mortality, as will be seen in Section II.

6. *Contributory causes of the decline in the birth-rate: Marriage Rates.*—The causes which have led to the decrease in the birth-rate are perhaps not fully ascertainable, but certain contributory conditions may be noticed. In the first place the proportion of married persons to the population shows over the whole period a slight falling off, as will

be seen from Chart 4. The decrease in the marriage rate over a course of years becomes more marked if that rate is calculated, not on the total population, but on the population of marriageable age which for the reasons indicated in paragraph 7 (below) tends to form an increasing proportion of the total population. In 1876-80 the number of persons annually married was 52 in every 1,000 marriageable persons: in 1901-5 the number had fallen to 48. Further, if married persons are analysed into age groups, it is found that the number of married women at younger ages is proportionately less now than it was in previous decades. Out of every 100 married women (aged 15 to 45 years), in 1901, 12.5 per cent. were under 25 years of age as compared with 15.2 per cent. in 1871. The changed conditions as to marriage are illustrated in Table 4 and Chart 5, which show the proportion of the women marrying at under 21 years of age to the total number of marriages in England and Wales as a whole and in London separately. At the same time illegitimacy shows a very marked decline. Calculated on the total number of unmarried and widowed women of conceptive ages, the illegitimate births numbered 7.8 in every 1,000 in 1907, as compared with 14.6 per 1,000 in 1876.

As regards the decline in the birth-rate, generally, the Registrar General observes, "there are sufficient grounds for stating that during the past 30 years approximately 14 per cent. of the decline in the birth-rate (based on the proportion of births to the female population aged 15-45 years) is due to the decrease in the proportion of married women in the female population of conceptive ages, and that over 7 per cent. is due to the decrease of illegitimacy. With regard to the remaining 79 per cent. of the decrease, although some of the reduced fertility may be ascribed to changes in the age constitution of married women, there can be little doubt that much of it is due to deliberate restriction of child-bearing."

The decline in the birth-rate, to whatever cause it may be ascribed, renders the subject of infantile mortality, which is considered in Section II., of paramount importance.

7. *Age grouping of the population.*—The decline in the birth-rate coupled with the decline in the death-rate has tended towards increasing the average age of the population. Dividing the population for the census years at the beginning (1851) and at the end (1901) of the last half century into quinquennial age groups, we find that the proportion of the juvenile population is decreasing relatively to the proportion of persons of adult ages. Thus, 354 per 1,000 of the population in England and Wales were, in 1851, under 15 years of age, as compared with 324 per 1,000 in 1901. At the middle ages of life, on the other hand, persons between 35 and 55 years of age were 199 per 1,000 of the population in 1851, as compared with 212 per 1,000 in 1901, though at the later ages of life it is found that the proportion of the population over 65 years differs very slightly between 1851 (46 per 1,000) and 1901 (47 per 1,000). The changes in the age-grouping of the population between 1851 and 1901 are indicated in Table 5, in which are shown the proportion of persons living at each quinquennium of life per 1,000 of the whole population.

### Urban and Rural Population.

8. The distinction between urban and rural population is of primary importance in an estimate of social conditions. The tendency of population in this country to aggregate in urban centres is of long standing. A similar tendency, though of more recent date, is observable in most other European countries.

Taking the distinction between urban and rural population as adopted for the purpose of the Census Reports, *i.e.*, the population living in urban and rural sanitary districts, we find that the population of these districts in England and Wales in 1901 was:—

URBAN AND RURAL DISTRICTS IN ENGLAND AND WALES (1901). (a)

England and Wales.	Population (Census, 1901).	Percentage of Total of England and Wales.	Density of Population per Square Mile.
75 (including London) with population of 50,000 and upwards.	14,506,863	44.6	16,235
Urban Districts... { 361 with population of over 10,000, but under 50,000.	7,453,135	22.9	3,569
686 with population of under 10,000.	3,098,357	9.5	1,022
Rural Districts (664) ... ..	7,469,488	23.0	143

(a) See pages 23 to 27 of the Report on the Census of 1901 (Cd. 2174-1904).

\* See page xxvi of 70th Annual Report of Registrar General for England and Wales (Cd. 3833-1908).

This classification is perhaps open to some misconception, since a considerable number of the smaller urban districts, though technically urban, are distinctly rural in character, being in many cases small market towns in the midst of agricultural areas. At the same time a few of the rural districts are growing centres of population, which, for one reason or another, have not yet been formed into urban districts. But the figures suffice to show that 77 per cent. of the population of England and Wales in 1901 was urban.

9. *Growth of urban population.*—The increase of urban areas can be gathered from the Census Reports. In 1851 the population of such areas (consisting of incorporated boroughs and other districts of an urban character) amounted approximately to 9,000,000 or 50 per cent. of the total population of England and Wales; by 1881 the population of urban sanitary areas as defined by the Public Health Acts, 1872 and 1875, was 17,600,000 or 68 per cent. of the aggregate population; by 1901, as has been shown, the population of boroughs and urban districts amounted to 25,000,000 or 77 per cent. of the aggregate population.

But the real growth of urban population would be more accurately shown if the population of the urban areas and rural areas *as constituted in 1901* could be traced back through each previous census. This is not wholly practicable owing to the numerous changes in the boundaries of local government areas; but in Table 6, which is illustrated in Chart 6, an attempt is made to show approximately the growth of population in the areas of (a) London, (b) 84 of the largest towns\* and urban districts including the first group of urban districts (except London) referred to in the preceding table, (c) 14 predominantly rural counties exclusive of the county boroughs comprised in them, and (d) the rest of England and Wales. The net result of a comparison between 1851 and 1908 in regard to these four groups of areas is to show that

	for every 100 persons living in 1851 in	(London, there were approximately ... 203 in 1908.
		84 large urban areas ... 282 "
		14 rural counties (exclusive of their county boroughs) approximately 95 "
		the rest of England and Wales " 184 "

It will be seen from the chart that the rate of increase in the population of the group of large urban areas outside London is nearly constant; while the rate of increase in the population of London is sensibly declining, owing to the process of migration to the adjacent districts that make up Greater London. A similar process is observable in several of the older and larger provincial towns.

10. The decline in the population of the selected rural areas which is illustrated by the chart would imply either that the birth-rate in the rural districts is lower than elsewhere, or that the population has migrated to the towns. That the latter is the explanation will be apparent from the following figures:—

DECLINE OF RURAL POPULATION. (a).

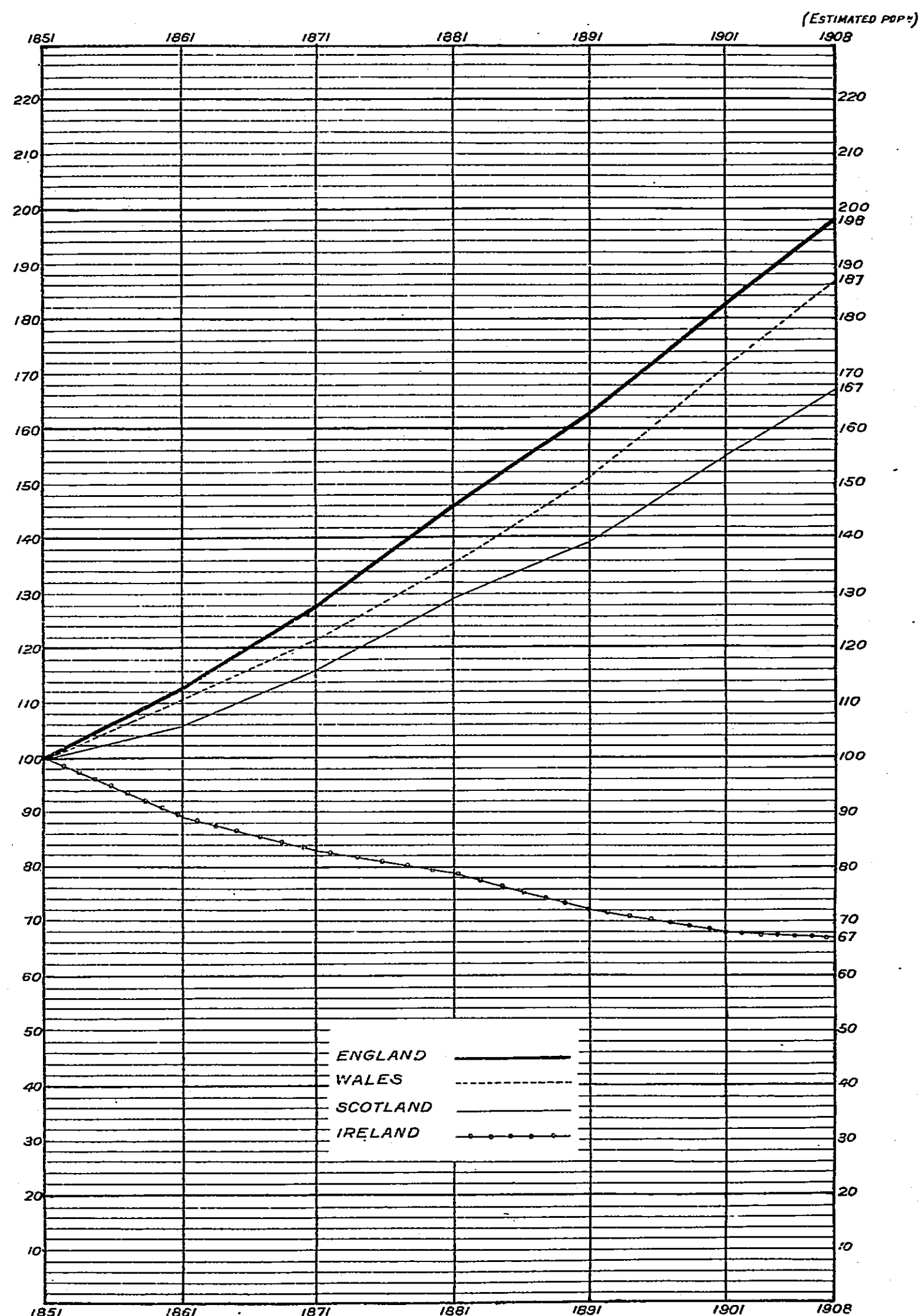
	112 Registration Districts entirely Rural.	222 Registration Districts which contain small Urban Districts with populations under 10,000.	Rest of England and Wales.
Population, 1901 ...	1,330,319	4,215,326	26,982,198
Actual increase in enumerated population since 1891.	25,492	39,107	3,460,719
Natural increase (= births minus deaths).	150,437	414,816	3,028,395
Increase or decrease due to migration ...	- 124,945	- 375,709	+ 432,234

(a) See Table on page 26 of the Report on the Census of 1901 (Cd. 2174—1904.)

The process of migration from the rural districts, which has, for obvious reasons, affected mainly the more youthful population of these districts, has had the effect of materially increasing the proportion of persons at the middle and later ages of life in the aggregate population of the rural as compared with the urban areas. This result is, as will be seen, of importance in any comparison between urban and rural districts in respect of such matters as mortality and pauperism.

\* Based on Table XIV. of the Summary Tables appended to the Report on the Census, 1901 (Cd. 1523—1903). The population of some of the towns cannot be ascertained with precision for the earlier periods owing mainly to the frequent changes of local boundaries.

CHART I. UNITED KINGDOM.  
POPULATION OF ENGLAND, WALES, SCOTLAND  
AND IRELAND, AT EACH CENSUS.  
(POPULATION IN 1851=100)



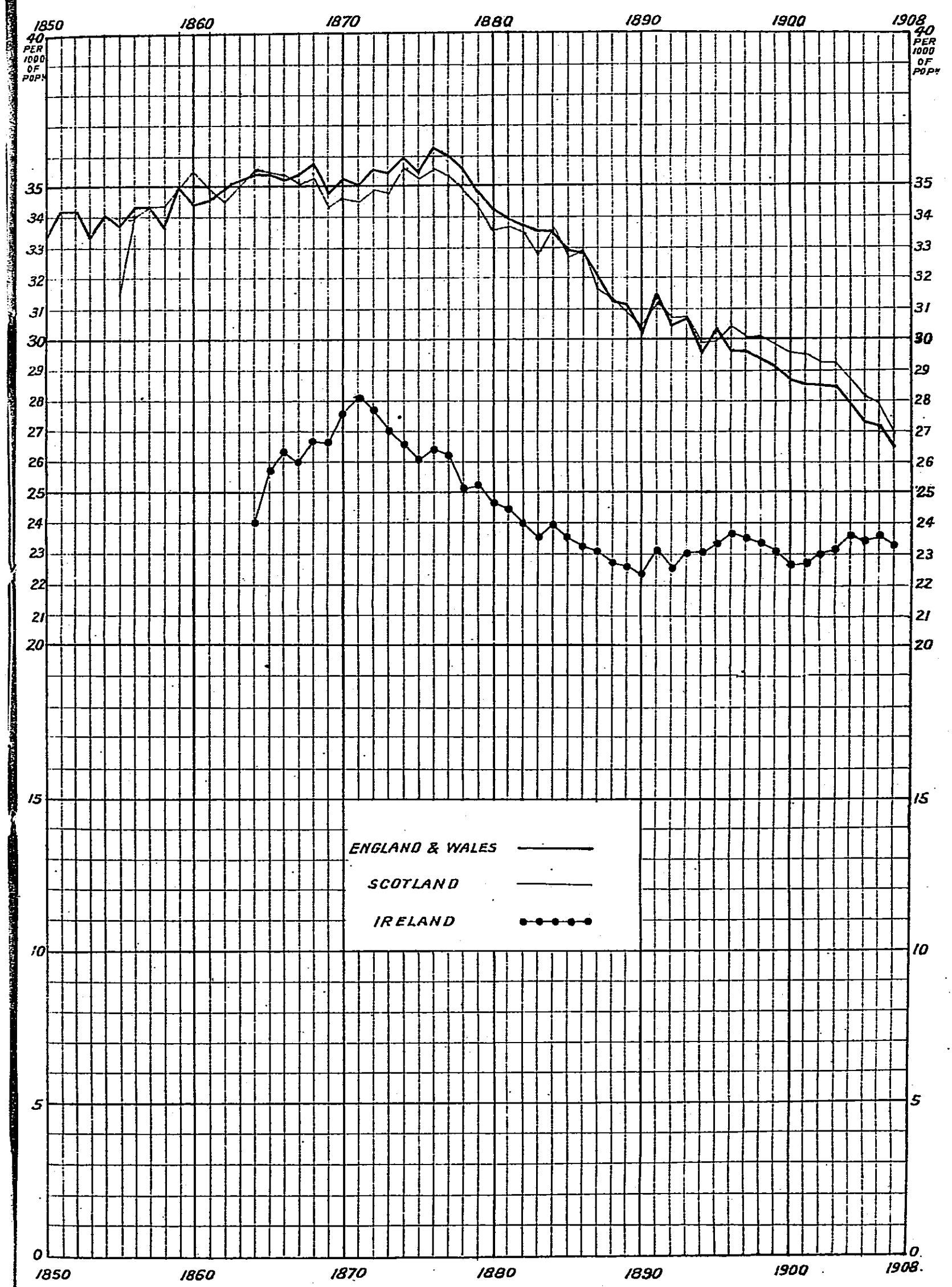
N.B. THE CHART MAY BE READ THUS: FOR EVERY 100 PERSONS ENUMERATED IN ENGLAND AT THE CENSUS 1851, THERE WERE 112 IN 1861, 127 IN 1871, AND 198 IN 1908.

For the figures on which this Chart is based see Table I.



CHART 2.  
 BIRTH RATES IN ENGLAND & WALES, SCOTLAND  
 & IRELAND. 1850 - 1908.  
 (NUMBER OF BIRTHS PER 1000 OF POPULATION.)

[SECTION I.]



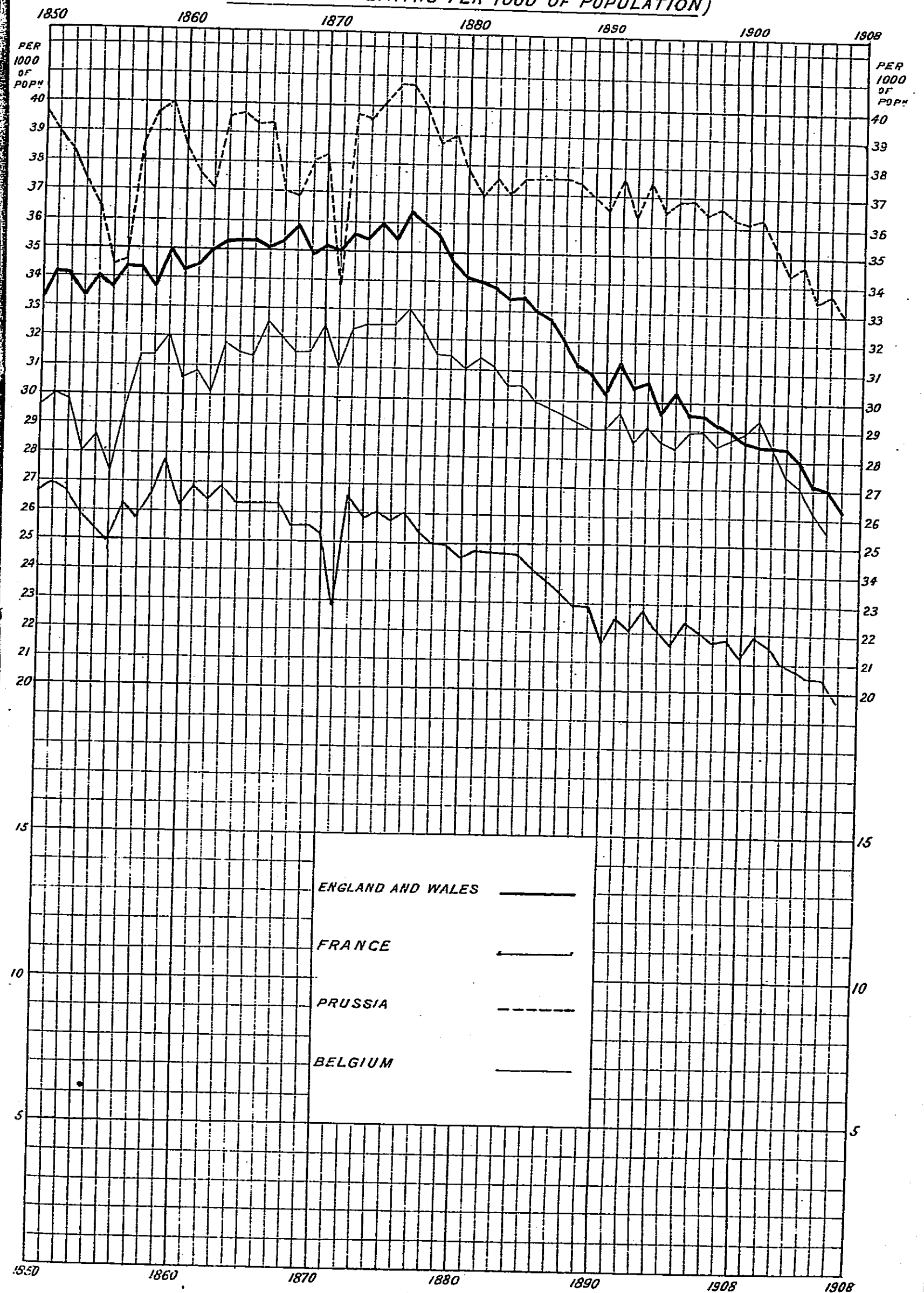
For the figures on which this Chart is based see Table 2.

To follow page 6.

To follow page 6.

CHART. 3. ANNUAL BIRTH RATES IN ENGLAND AND WALES, FRANCE,  
PRUSSIA AND BELGIUM 1850-1908.

(NUMBER OF BIRTHS PER 1000 OF POPULATION)



# MARRIAGES

[SECTION 1]

CHART 4. NUMBER OF PERSONS MARRIED PER 1000 OF THE POPULATION IN (a) ENGLAND & WALES AND (b) LONDON.

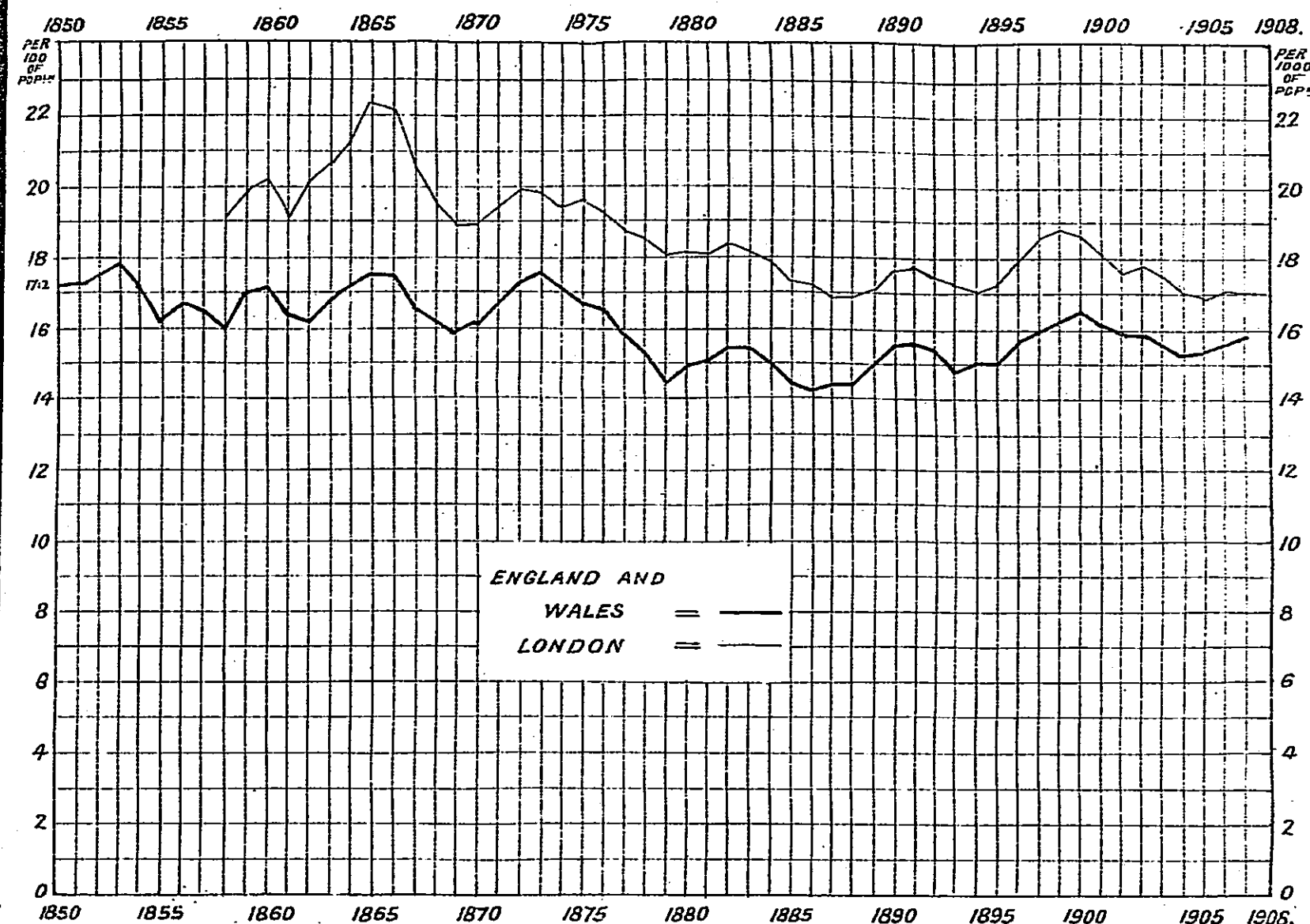
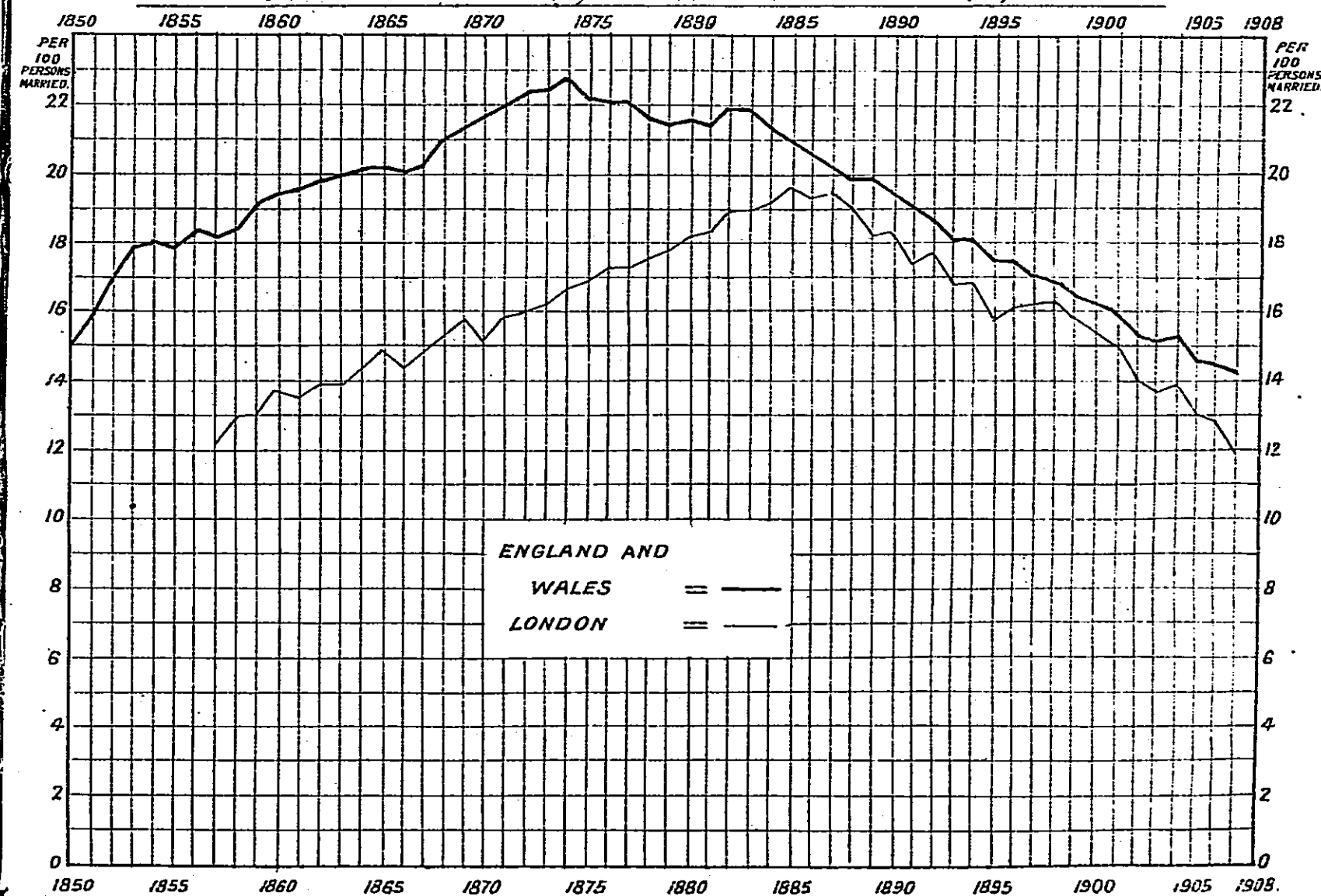


CHART 5. NUMBER OF WOMEN MARRIED UNDER 21 YEARS OF AGE IN EVERY 100 MARRIAGES IN (a) ENGLAND & WALES AND (b) LONDON.

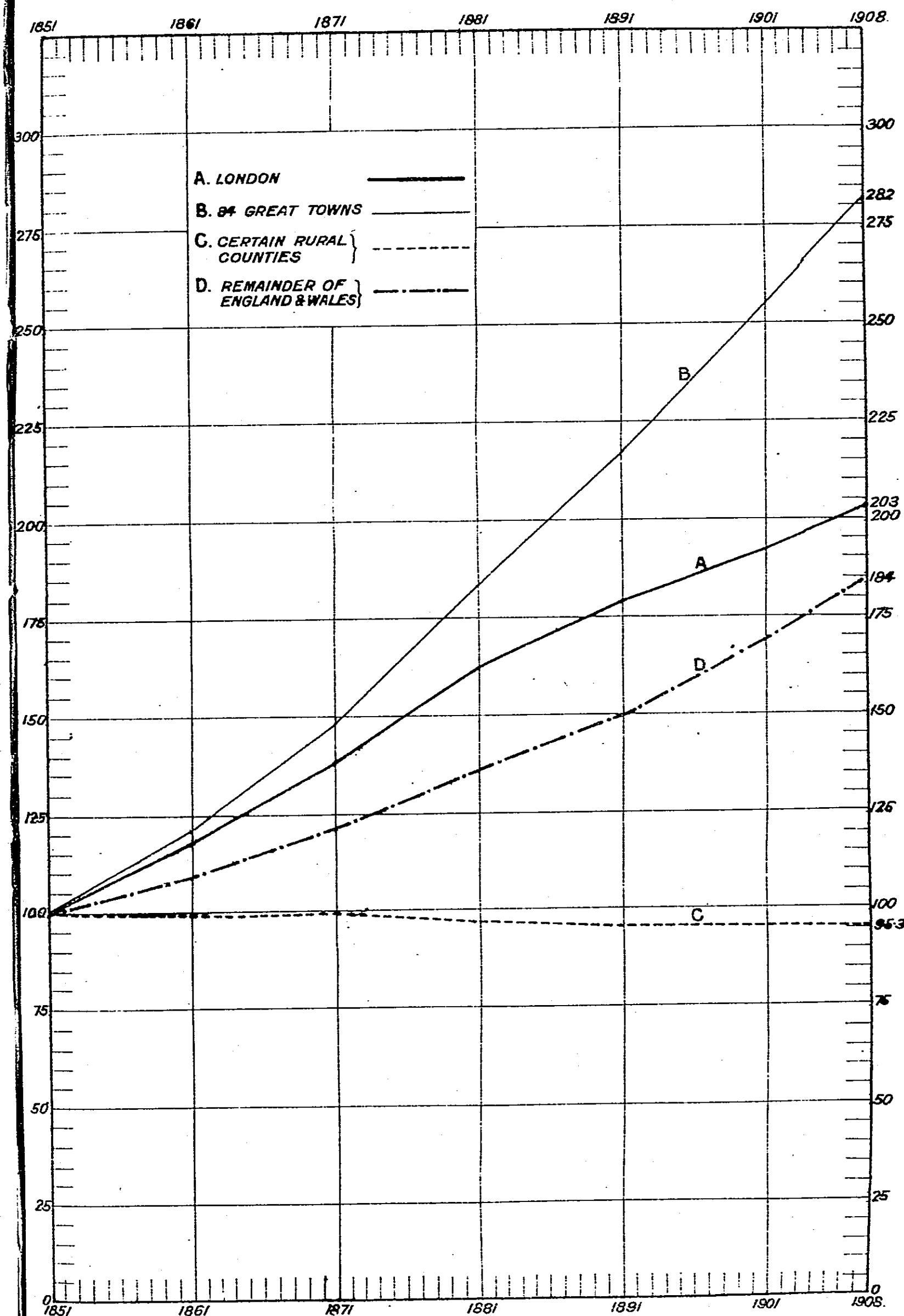


# CHART 6 URBAN AND RURAL POPULATION (ENGLAND & WALES)

CHANGES IN POPULATION OF (A) LONDON, (B) 84 GREAT PROVINCIAL TOWNS.

(C) CERTAIN RURAL COUNTIES, AND (D) THE REMAINDER OF ENGLAND & WALES 1851-1908.

POPULATION IN 1851 = 100.



LONDON.	84 LARGE TOWNS.	RURAL COUNTIES.	REMAINDER OF ENGLAND & WALES.
1851. 2,363,000.	4,106,000.	2,398,000.	9,060,000.
1908. 4,796,000.	11,597,000.	2,286,000.	16,670,000.

FOR THE FIGURES ON WHICH THIS CHART IS BASED SEE TABLE 6.

## SECTION I.—POPULATION.

TABLES CONTAINING THE DATA ON WHICH THE CHARTS IN THIS SECTION ARE BASED.

TABLE 1.—POPULATION OF UNITED KINGDOM.

INDEX NUMBERS\* OF POPULATION IN EACH SECTION OF THE KINGDOM; STANDARD YEAR, 1851 (CENSUS).

	1851.	1861.	1871.	1881.	1891.	1901.	1908 (estimated mid-year population).
England ... ..	100	112	127	145	162	182	198
Wales ... ..	100	111	121	136	151	171	187
Scotland ... ..	100	106	116	129	139	155	167
Ireland ... ..	100	89	83	79	72	68	67

\* For the population as enumerated, see table in paragraph 2 of Memorandum.

TABLE 2.—ANNUAL (CRUDE) BIRTH RATES PER 1,000 OF POPULATION IN THE UNITED KINGDOM.

[For intermediate years see Annual Reports of the Registrars General for England, Scotland and Ireland.]

Year.	England and Wales.	Scotland.	Ireland.	Year.	England and Wales.	Scotland.*	Ireland.*
1850	33.4	o	*	1895	30.3	30.0	23.3
				1896	29.6	30.4	23.7
1855	33.7	31.5	c	1897	29.6	30.0	23.5
				1898	29.3	30.1	23.3
1860	34.3	35.6	*	1899	29.1	29.8	23.1
1865	35.4	35.5	25.7	1900	28.7	29.6	22.7
				1901	28.5	29.5	22.7
1870	35.2	34.6	27.7	1902	28.5	29.2	23.0
				1903	28.4	29.2	23.1
1875	35.4	35.2	26.1	1904	27.9	28.7	23.6
1880	34.2	33.6	24.7	1905	27.2	28.1	23.4
				1906	27.1	27.9	23.6
1885	32.9	32.7	23.5	1907	26.3	27.0	23.2
1890	30.2	30.4	22.3				

\* The Registration Acts came into force in Scotland on 1st January, 1855, and in Ireland in January, 1864. Rates for earlier years are not available.

TABLE 3.—ANNUAL (CRUDE) BIRTH RATES PER 1,000 OF POPULATION IN CERTAIN EUROPEAN COUNTRIES.

[For intermediate years see Annual Reports of the Registrar General for England and Wales.]

Year.	France.	Belgium.	Prussia.	Year.	France.	Belgium.	Prussia.
1850	26.8	29.7	39.6	1895	21.7	28.55	36.9
				1896	22.5	29.0	36.9
1855	25.0	27.3	34.6	1897	22.3	29.0	36.5
				1898	21.8	28.6	36.7
1860	26.2	30.6	38.6	1899	21.9	28.8	36.3
1865	26.5	31.4	39.3	1900	21.4	28.95	36.1
				1901	22.0	29.4	36.2
1870	25.5	32.35	38.3	1902	21.7	28.4	35.5
				1903	21.1	27.5	34.4
1875	25.9	32.5	40.7	1904	20.9	27.1	34.7
1880	24.6	31.1	37.8	1905	20.6	26.2	33.5
				1906	20.6	25.7	33.7
1885	24.3	29.9	37.7	1907	19.7	—	33.0
1890	21.8	29.1	36.6				



TABLE 4.—MARRIAGE RATES IN (a) ENGLAND AND WALES AND (b) LONDON.  
[For intermediate years see Annual Reports and Summaries of the Registrar General for England and Wales.]

Year.	Number of persons married in each year per 1,000 of population.		Number of women married in each year under 21 years of age, per cent. of persons married.		Year.	Number of persons married in each year per 1,000 of population.		Number of women married in each year under 21 years of age, per cent. of persons married.	
	(a) England and Wales.	(b) London.	(a) England and Wales.	(b) London.		(a) England and Wales.	(b) London.	(a) England and Wales.	(b) London.
1850	17.2	—	15.1	—	1895	15.0	17.2	17.4	15.9
1855	16.2	—	17.9	—	1896	15.7	18.0	17.4	16.1
1860	17.1	20.2	19.4	13.7	1897	16.0	18.5	17.0	16.2
1865	17.5	22.3	20.1	14.8	1898	16.2	18.8	16.8	16.3
1870	16.1	18.9	21.6	15.0	1899	16.5	18.6	16.5	15.8
1875	16.7	19.6	22.2	16.8	1900	16.0	18.0	16.3	15.5
1880	14.9	18.1	21.5	18.1	1901	15.9	17.6	16.0	15.0
1885	14.5	17.4	21.0	19.6	1902	15.9	17.8	15.4	14.0
1890	15.5	17.6	19.5	18.3	1903	15.6	17.5	15.2	13.7
					1904	15.2	17.0	15.3	13.9
					1905	15.3	16.9	14.7	13.0
					1906	15.6	17.1	14.6	12.9
					1907	15.8	17.0	14.2	11.8

TABLE 5.—CHANGES IN THE AGE GROUPING OF THE POPULATION (ENGLAND AND WALES).

1851 (Census).					1901 (Census).				
Age Groups.			Number of persons at each age period.	Number per 1,000 of Total Population of all Ages.	Age Groups.			Number of persons at each age period.	Number per 1,000 of Total Population of all Ages.
Under 5 years	...	...	2,348,107	131.0	Under 5 years	...	...	3,716,708	114.3
Over 5 and under 10	...	...	2,092,359	116.7	Over 5 and under 10	...	...	3,487,291	107.2
„ 10 „ 15	...	...	1,913,357	106.7	„ 10 „ 15	...	...	3,341,740	102.7
„ 15 „ 20	...	...	1,757,189	98.0	„ 15 „ 20	...	...	3,246,143	99.8
„ 20 „ 25	...	...	1,666,607	93.0	„ 20 „ 25	...	...	3,120,922	95.9
„ 25 „ 30	...	...	1,470,475	82.0	„ 25 „ 30	...	...	2,824,509	86.8
„ 30 „ 35	...	...	1,276,126	71.2	„ 30 „ 35	...	...	2,431,331	74.7
„ 35 „ 40	...	...	1,088,559	60.7	„ 35 „ 40	...	...	2,145,383	65.9
„ 40 „ 45	...	...	968,019	54.0	„ 40 „ 45	...	...	1,850,622	56.9
„ 45 „ 50	...	...	798,989	44.6	„ 45 „ 50	...	...	1,573,188	48.4
„ 50 „ 55	...	...	708,801	39.5	„ 50 „ 55	...	...	1,329,003	40.9
„ 55 „ 60	...	...	526,287	29.4	„ 55 „ 60	...	...	1,052,577	32.4
„ 60 „ 65	...	...	481,310	26.8	„ 60 „ 65	...	...	890,673	27.4
„ 65 „ 70	...	...	327,519	18.3	„ 65 „ 70	...	...	629,673	19.4
„ 70 „ 75	...	...	250,162	14.0	„ 70 „ 75	...	...	446,333	13.7
„ 75 „ 80	...	...	146,102	8.1	„ 75 „ 80	...	...	264,480	8.1
„ 80 „ 85	...	...	73,840	4.1	„ 80 „ 85	...	...	128,768	4.0
„ 85 and upwards	...	...	33,201	1.9	„ 85 and upwards	...	...	48,499	1.5
Total	...	...	17,927,609	1000.0	Total	...	...	32,527,843	1000.0

TABLE 6.—Growth of Population in the areas of (a) London, (b) 84 GREAT TOWNS (i.e. each COUNTY BOROUGH and each URBAN DISTRICT having in 1901 a population exceeding 50,000), (c) CERTAIN TYPICAL RURAL AREAS (excluding the County Boroughs situate therein), and (d) the remainder of ENGLAND and WALES.

Year.	London.*	Index numbers.	84 Great Towns.*	Index numbers.	Typical Rural Counties.†	Index numbers.	Remainder of England and Wales.	Index numbers.	England and Wales.*
1851	2,363,341	100	4,105,997	100	2,398,467	100	9,059,804	100	17,927,609
1861	2,808,494	119	5,022,674	122	2,389,754	99.6	9,845,302	109	20,066,224
1871	3,261,396	138	6,080,329	148	2,391,639	99.7	10,978,902	121	22,712,266
1881	3,830,297	162	7,511,921	183	2,335,892	97.4	12,296,329	136	25,974,439
1891	4,228,317	179	8,914,745	217	2,294,218	95.7	13,565,245	150	29,002,525
1901	4,536,541	192	10,418,989	254	2,289,587	95.5	15,282,726	169	32,527,843
1908‡	4,796,000	203	11,597,000	282	2,286,000	95.3	16,670,000	184	35,349,000

\* For particulars as to London and the 84 Great Towns, and England and Wales at each Census, 1851 to 1901, see Tables XIV. and I. respectively of the Summary Tables of Census, 1901.—Cd. 1523, 1903.

† The rural counties selected are Cornwall, Devon, Hereford, Huntingdon, Lincoln, Norfolk, Rutland, Suffolk, Anglesey, Brecknock, Cardigan, Montgomery, Pembroke, Radnor (for populations see Table IV. of Summary Tables of Census, 1901), exclusive of the county boroughs of Grimsby, Lincoln, Great Yarmouth, Norwich, Ipswich, Devonport, Exeter and Plymouth.

‡ These figures represent estimates of the population at the middle of 1908 and are based on the rates of increase or decrease of the population in each group between the Censuses of 1891 and 1901, irrespective of any alterations in area since 1901. Estimates thus calculated must be regarded as approximate only, and their probable accuracy diminishes with the size of the area and population for which the estimate is made.

## SECTION II.—PUBLIC HEALTH.

	Page.
MEMORANDUM ... ..	13

## CHARTS :—

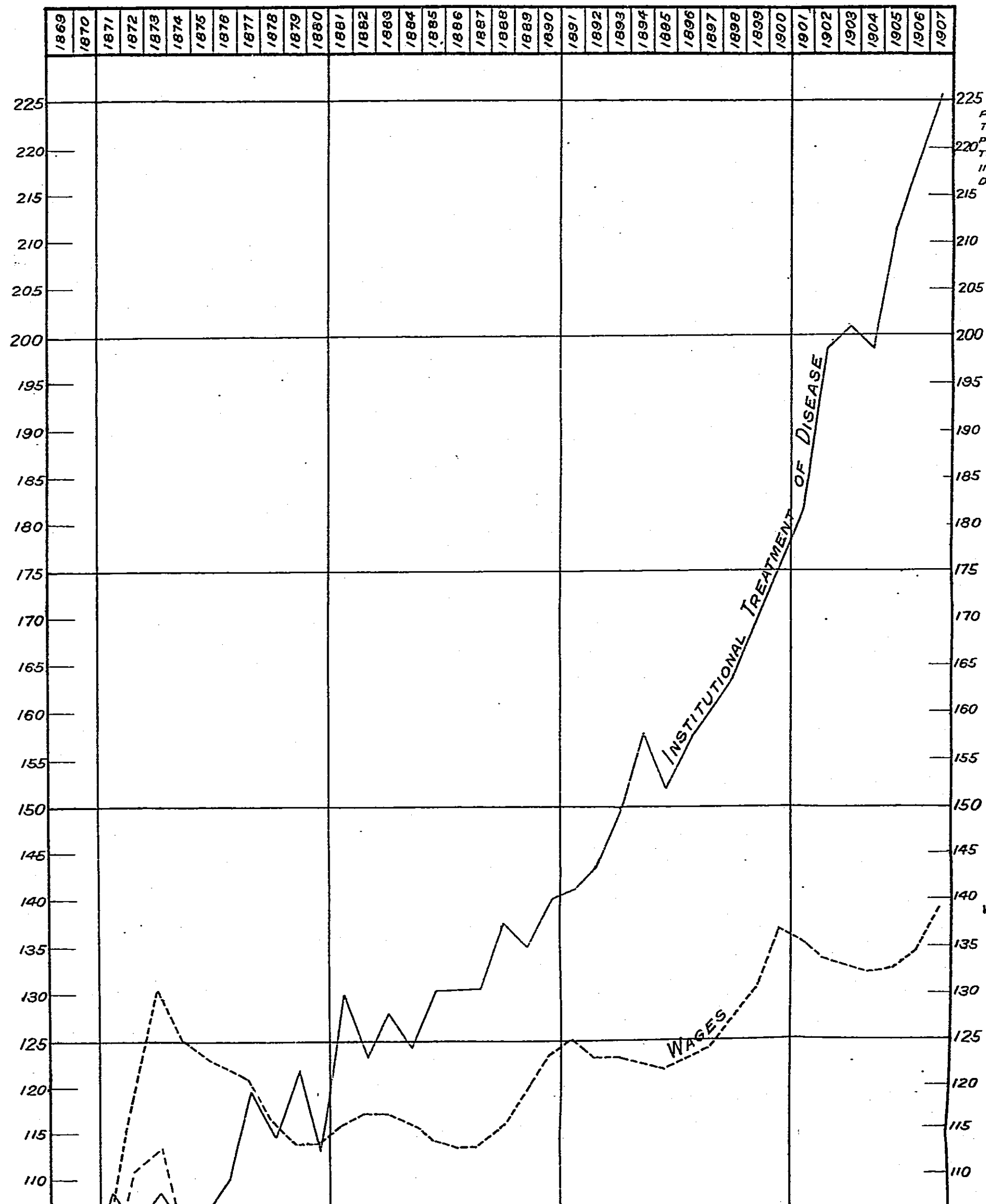
Frontispiece—General Death-rates, Phthisis Death-rates, Institutional Treatment of Disease, Pauperism, Prices and Wages—1869-1907 ... ..	To face page 12
--	-----------------

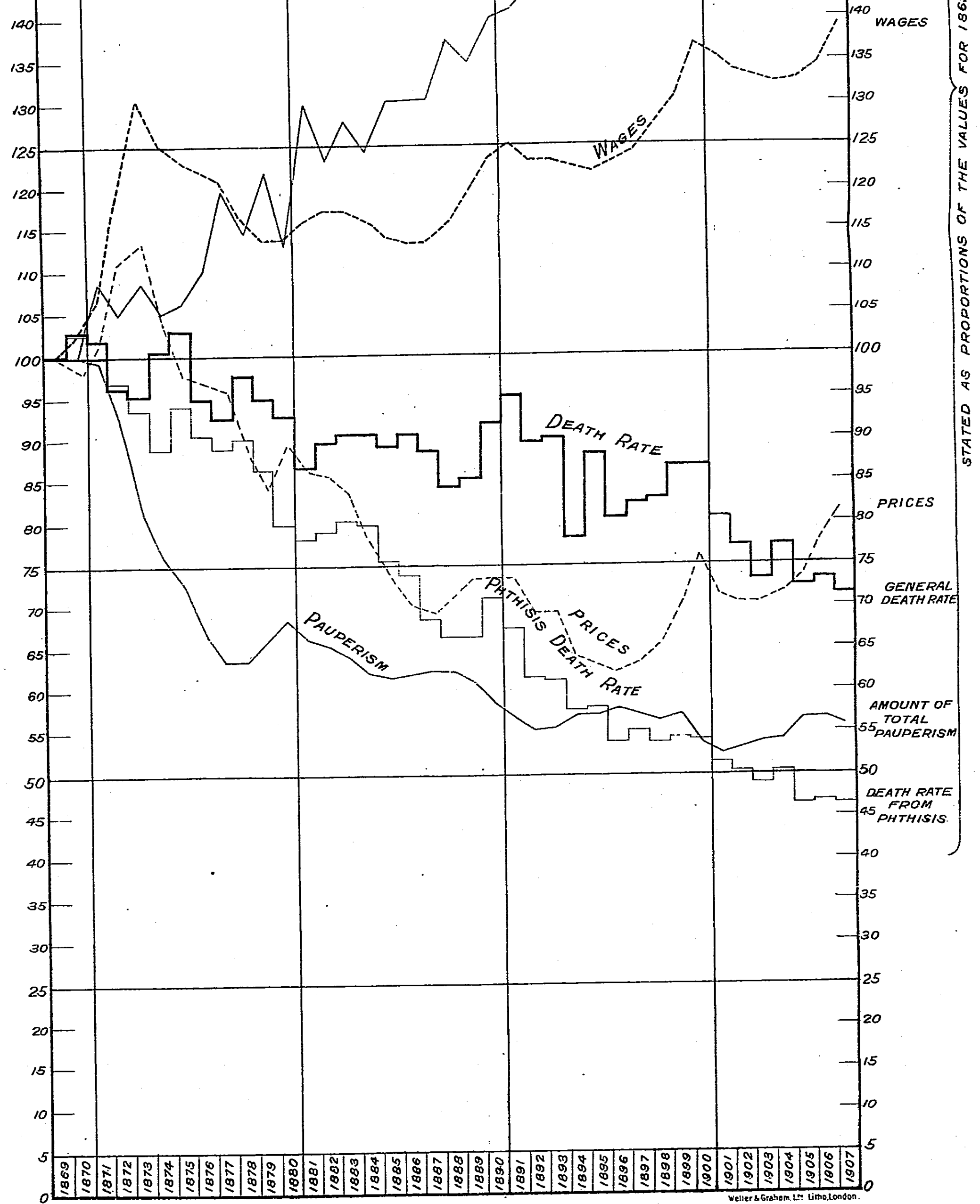
Chart 1. Annual death-rates per 1,000 of population in England and Wales, Scotland and Ireland, 1850-1907 ... ..	To follow page 16
„ 2. Annual death-rates per 1,000 of population in England and Wales, France, Prussia and Belgium, 1850-1907 ... ..	16
„ 3. Annual death-rates in London, Liverpool and Berlin, 1850-1907 ... ..	16
„ 4. Death-rates at various ages of life, in the two periods 1851-60 and 1901-05 ... ..	16
„ 5. Infant mortality: deaths of infants under 1 year of age per 1,000 births, 1857-1907 ... ..	16
„ 6. Death-rates of children under 5 years of age, 1857-1907 ... ..	16
„ 7. „ „ between 5 and 10 years of age, 1857-1907 ... ..	16
„ 8. „ „ between 10 and 15 years of age, 1857-1907 ... ..	16
„ 9. Mortality from various causes of death, in 1871-75 and 1901-05 ... ..	16
„ 10. Enteric Fever and Typhus: Death-rates in each year, 1869-1907 ... ..	16
„ 11. Small-pox: Death-rates in each year, 1850-1907 ... ..	16
„ 12. Scarlet Fever and Diphtheria: Death-rates in each year 1855-1907 ... ..	16
„ 13. Tuberculosis (all forms) and Phthisis: Death-rates in each year, 1851-1907 ... ..	16
„ 14. Comparative mortality of males, aged 25-65 years, engaged in various occupations in 1900-01-02 ... ..	16
„ 15. Mortality of males, aged 25-65 years, engaged in various occupations in 1890-91-92 and 1900-01-02 compared ... ..	16
„ 16. Housing and Overcrowding in England and Wales and London: Percentage of population living in various classes of tenement, and proportion of each class overcrowded, 1891 and 1901 ... ..	To face page 20
„ 17. Development of Institutional care in England and Wales and London: Deaths in each class of institution per cent. of total deaths in certain years, 1871-1906 ... ..	22

TABLES, showing the data on which the charts in this Section are based ... ..	25
---	----

GENERAL DEATH RATES

FRONTISPIECE.  
GENERAL DEATH RATES, PHTHISIS DEATH RATES, INSTITUTIONAL  
TREATMENT OF DISEASE, PAUPERISM, PRICES AND WAGES 1869-1907.





For the figures on which this Chart is based see Table I.

To face page 12.