

ONLY

42 [HA 16].

STATISTICS
BACK-UP

BRITISH LIBRARY
OF POLITICAL AND
ECONOMIC SCIENCE



LONDON SCHOOL OF
ECONOMICS AND
POLITICAL SCIENCE

42(R7)

FOURTEENTH
ANNUAL REPORT

OF THE

REGISTRAR-GENERAL

OF

BIRTHS, DEATHS, AND MARRIAGES

IN ENGLAND.



LONDON:
PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY.
FOR HER MAJESTY'S STATIONERY OFFICE.

1855.

ANNUAL REPORT

REGISTER-GENERAL

BIRTHS, DEATHS, AND MARRIAGES

IN ENGLAND



LONDON: PUBLISHED BY GEORGE E. BISHOP AND WILLIAM BROTHERWOOD, PRINTERS TO THE GENERAL REGISTER OFFICE.

1852

CONTENTS.

	PAGE
REPORT	i
MARRIAGES, BIRTHS, and DEATHS; and their annual Proportions to the Population in each of the Years 1838-51	i-ii
MARRIAGES in 1851. Number celebrated according and <i>not</i> according to the Rites of the Established Church; after Licence, Banns, &c.;	
Marriages of Roman Catholics, Dissenters, Quakers, Jews	iii
Marriages of Minors, Signatures of Persons married, and Re-marriages	iii-v
Marriages of Bachelors, Spinsters, Widowers, Widows, compared with the Numbers of each Class according to Census of 1851, and the Proportions at different Ages	vi-viii
Marriages in different Seasons	vii
BUILDINGS registered for the SOLEMNIZATION of MARRIAGES	viii-ix
BIRTHS in 1851. Rate on Population; Proportion of the Sexes; and of Children born out of Wedlock	ix-x
Proportion of Births out of Wedlock in different Counties. Ages of the Mothers of Children born, Legitimate and Illegitimate. Counties compared in respect of Illegitimacy	xi-xiii
Influence of the Seasons on the Births in each County	xiv-xv
DEATHS in 1851. Rates of Mortality (1838-51) of Males and Females compared	xv
Mortality of Males and Females at different Ages in each of the Years 1838-51	xvi
Influence of the Seasons on Deaths in each Year 1838-51	xvi
Deaths of Males in different Occupations compared with the Numbers living in 1851	xv-xxiii
ABSTRACTS:—	
MARRIAGES Registered in England and in each of the Divisions, Counties, and Districts in 1851; distinguishing those according and those <i>not</i> according to the Rites of the Established Church; and distinguishing also Persons married according to their conjugal Condition, Minority, and Signature of the Register by marks	2-25
AGES at MARRIAGE of Husbands and Wives; also those of Bachelors, Spinsters, Widowers, Widows	26-27
MARRIAGES, BIRTHS, and DEATHS Registered in each of the Divisions, Counties, and Districts in 1851; also BIRTHS and DEATHS in the Sub-districts of England; showing Illegitimate Births throughout	28-82
DEATHS in 1851 in the principal Public Institutions in London	83-84
BIRTHS of all Children, and of Children born out of Wedlock, Registered in the Divisions and Counties in each of the Four Quarters of 1851	86-93
DEATHS Registered in each of the Four Quarters of 1851, in DIVISIONS and COUNTIES	94-97
XIV.	a 2

CONTENTS.

ABSTRACTS— <i>continued.</i>	PAGE
DEATHS of Males and Females at different AGES Registered in 1851 in DIVISIONS, COUNTIES, and DISTRICTS	98-119
CAUSES of Death in LONDON, at Twenty-four Periods of Life, in 1851	120-125
CAUSES of Death in ENGLAND, and in each DIVISION and COUNTY in 1851	126-137
OCCUPATIONS of Males aged 20 Years and upwards enumerated in England in 1851; and the Males of the same Age whose Deaths were registered in that Year; in CLASSES and SUB-CLASSES	138-139
OCCUPATIONS of Males aged 20 Years and upwards enumerated in 1851; and the Males in those Occupations at different Ages, whose Deaths were registered in the same Year in ENGLAND	140-147
OCCUPATIONS of Males aged 20 Years and upwards enumerated in 1851; and the Males in those Occupations whose Deaths were registered in the same Year—in ENGLAND and in each of the DIVISIONS and COUNTIES	148-197
OCCUPATIONS of Males aged 20 Years and upwards enumerated in 1851; and the Males in those Occupations whose Deaths were registered in the same Year—in the principal TOWN DISTRICTS	198-222
Number of Deaths in the Year 1851 of MALES aged 10 and under 20 Years of Age, who were described as following certain OCCUPATIONS	223
ALPHABETICAL LIST of the OCCUPATIONS of MALES returned in the Tables, with a Reference to the Class and Sub-class	224-225

APPENDIX.

EXTRACTS FROM THE QUARTERLY RETURNS of MARRIAGES, BIRTHS, and DEATHS, issued in the year 1851:—	
Quarter ending MARCH 31, 1851	1-32
Quarter ending JUNE 30, 1851	33-64
Quarter ending SEPTEMBER 30, 1851	65-96
Quarter ending DECEMBER 31, 1851	97-128

LETTER TO THE REGISTRAR GENERAL ON THE CAUSES OF DEATH IN ENGLAND, BY WILLIAM FARR, ESQ., M.D.:—	
STATE of PUBLIC HEALTH in the year 1851	129
ZYMOTIC DISEASES	129
TABLES showing the Numbers and Proportions dying of each Cause	130-131
SPECIFIC DISEASES; or Diseases of uncertain or variable Seat, and Tuberculous Diseases	<i>ib.</i>
ORGANIC DISEASES; or Diseases of particular Organs	132-133
DISEASES of GROWTH, NUTRITION, and DECAY	133
EXTERNAL CAUSES of DEATH	133-134

INDEX of DISTRICTS, referring by Numbers to the several TABLES of ABSTRACTS	
	135-138

REPORT

TO

The Right Honourable SIR GEORGE GREY, Bart., G.C.B., Her Majesty's Principal Secretary of State for the Home Department, &c. &c. &c.

*General Register Office,
23d May, 1855.*

SIR,
ABSTRACTS of the numbers of the Births, Deaths, and Marriages that were registered in England during the year 1851, have been already presented to Parliament. And I have now the honour to submit to you abstracts more in detail, distinguishing the particulars of each marriage,

TABLE I.—Estimated POPULATION, Number of MARRIAGES, BIRTHS, and DEATHS registered in England in each Year from 1838 to 1851.

Years ended Dec. 31st.	Estimated POPULATION in England in the Middle of the Years.*	MARRIAGES.	PERSONS Married.	BIRTHS (exclusive of Still-born).	DEATHS.	Excess of Births over Deaths.
1838	15,312,256	118067	236134	463787	342760	121027
1839	15,515,296	123166	246332	492574	338984	153590
1840	15,721,029	122665	245330	502303	359687	142616
1841	15,929,492	122496	244992	512158	343847	168311
1842	16,123,793	118825	237650	517739	349519	168220
1843	16,320,479	123818	247636	527325	346445	180880
1844	16,519,565	132249	264498	540763	356933	183330
1845	16,721,081	143743	287486	543521	349866	194155
1846	16,925,051	145664	291328	572625	390315	182310
1847	17,131,512	135845	271690	539965	423304	116661
1848	17,340,492	138230	276460	563059	399833	163226
1849	17,552,020	141883	283766	578159	440839	137320
1850	17,766,129	152744	305483	593422	368995	224427
1851	17,982,849	154206	308412	615865	395393	220469

* The Population has been deduced on the assumption that the annual rate of increase was uniform; viz. 1·220 per cent. in each of the 10 years 1841-51, and 1·326 per cent. in each of the 3 years 1838-40.

TABLE II.—Proportion of MARRIAGES, BIRTHS, and DEATHS to the Population of England.

Years ended Dec. 31st.	To 100 Persons living.				The Number of Persons living.			
	MARRIAGES.	PERSONS MARRIED.	BIRTHS.	DEATHS.	To one Marriage.	To one Person Married.	To one Birth.	To one Death.
1838	·771	1·542	3·029	2·238	130	65	33	45
1839	·794	1·588	3·175	2·185	126	63	31	46
1840	·780	1·560	3·195	2·288	128	64	31	44
1841	·769	1·538	3·215	2·159	130	65	31	46
1842	·737	1·474	3·211	2·168	136	68	31	46
1843	·759	1·518	3·231	2·123	132	66	31	47
1844	·801	1·602	3·273	2·161	125	62	31	46
1845	·800	1·720	3·251	2·089	116	58	31	48
1846	·861	1·722	3·383	2·306	116	58	30	43
1847	·793	1·586	3·152	2·471	126	63	32	40
1848	·797	1·594	3·247	2·306	125	63	31	43
1849	·808	1·616	3·294	2·512	124	62	30	40
1850	·860	1·720	3·340	2·077	116	58	30	48
1851	·853	1·716	3·425	2·199	117	58	29	45
Mean .	·803	1·606	3·244	2·234	125	62	31	45

NOTE.—By disregarding the decimal points the Table will show the proportion to every 100,000 persons living. A correction for increase of population has been made in calculating the above results.

birth, and death, which can be compared with the facts that the census of 1851 has now placed at my disposal.

Until the census of 1851 had been taken, the rates of marriage, birth, and of mortality were necessarily calculated on the population returns of 1841; raised, as the population was known to be increasing, in the proportion inferred from the rate that had been found to prevail between 1831 and 1841. We now learn from the census that the population after the year 1841 was overstated to a slight extent by this assumption; the population of England and Wales increased rather faster in the ten years 1831-41 than it did in the ten years 1841-51, when emigration became more active; for the annual rate of increase of the population at home and abroad was 1.326 in the former, 1.216 per cent. in the latter period. The population at home in England and Wales, or exclusive of the portion of the army, navy, and merchant seamen abroad, in the middle of the years 1841 and 1851 was 15,929,492 and 17,982,849; and therefore, upon the hypothesis that the increase was uniformly in a geometrical ratio, the annual rate of increase was 1.220. The rate of increase in the years 1838, 1839, 1840, was taken to be 1.326; the exact proportion of the population at home in 1831 not having been determined.

The change affects the results very slightly.

The year 1851 was a year of prosperity; the marriages and the births exceeded, the deaths were less than, the average numbers. The rate of

TABLE III.—MARRIAGES registered in ENGLAND in each Year from 1841 to 1851.

YEARS ending 31st December	According to the Rites of the Established Church.					Not according to the Rites of the Established Church.					TOTAL MARRIAGES.		
	Special Licence.	Licence.	Banns.	Superintendent Registrar's Certificate.	Not stated.	Total.	Total.	In Registered Places.	Superintendent Registrar's Office.	Quakers.		Jews.	
1841	13	15792	78015	972	19579	114371	8125	5882	2064	66	113	122496	
1842	9	14935	75744	944	18415	110047	8778	6200	2357	58	163	118825	
1843	8	14544	79849	1222	18014	113637	10181	7152	2817	61	151	123318	
1844	10	14930	85176	1558	18335	120069	12240	2280	3446	55	175	132249	
1845	10	16013	92867	1706	18919	129515	14228	2816	3977	74	180	143743	
1846	14	17135	92995	1862	18503	130509	15155	3027	4187	68	224	145064	
1847	14	17052	84963	1968	16079	120876	14939	2961	4258	83	184	135845	
1848	13	16896	86519	2170	15871	121449	16761	3658	4790	67	186	138230	
1849	13	16697	90644	2593	13230	123182	18701	4199	5553	53	229	141883	
1850	8	17413	98669	3136	11733	130959	21785	5623	6207	69	260	152744	
1851	8	17781	99406	3351	10412	130958	23248	6570	9540	6813	65	260	154206

YEARS ending 31st December	Marriages contracted between				Re-married.		Under Age.		Signed the Marriage Register with Marks.			
	Bachelors and Spinners.	Bachelors and Widows.	Widowers and Spinners.	Widowers and Widows.	Widowers.	Widows.	Men.	Women.	Men.	Women.	Marriages in which both Signed.	Marriages in which one Signed.
1841	—	—	—	—	—	—	5362	16235	39954	59630	—	—
1842	—	—	—	—	15619	10579	5387	16003	38031	56965	—	—
1843	—	—	—	—	16305	10811	5511	16403	40520	60713	—	—
1844	—	—	—	—	16941	11183	5515	17410	42912	65073	—	—
1845	119539	6028	11835	6341	18176	12369	6287	19376	47665	71229	—	—
1846	121324	5997	12212	6131	18343	12128	6313	20001	47488	70145	—	—
1847	112576	5705	11667	5397	17564	11602	5556	18118	42429	61877	32622	39062
1848	113234	5920	12702	6324	19026	12244	6092	19436	43166	62771	32974	39939
1849	116134	6102	13155	6492	19647	12594	6650	21105	44027	65135	—	—
1850	124031	6575	14558	7580	22138	14155	7453	23109	47572	70606	—	—
1851	126018	6625	14313	7250	21563	13875	7737	24286	47439	69812	36186	44379

marriage was 1.716, of birth 3.425, of death 2.199 to 100 of the population.

MARRIAGES.

154206 marriages were celebrated, so 308412 persons were married, or a number equal to 4-fifths of the deaths, and to half of the births. The fact of the rapid increase of marriages in the English population since the Registration Act came into operation is remarkable. It will be seen upon referring to Table I. that 236134 persons married in 1838, and that the marriages have since progressively increased at a faster rate than the population, so that they now exceed that number by 72278.

130958 of the marriages were performed according to the rites of the Established Church; namely, 8 upon special licence, 17,781 after licence, 99406 after banns, 3351 on superintendent registrars certificate; to which numbers should be added certain proportions of 10412 marriages, the mode of which is not indicated by the clergy.

23248 marriages were not performed according to the rites of the Established Church, but 6570 were performed according to the rites of the Roman Catholic Church; 9540 were performed in the registered places of other Christian denominations, and 6813 in superintendent registrars' offices. The number of Roman Catholic marriages exceeded by 947 those in the preceding year; the number in the superintendents' offices also increased; but the numbers in the other registered places of worship, which increased up to 1850, decreased in 1851. 65 marriages were contracted by members of the Society of Friends; and 260 by Jews. The Jewish marriages have increased rapidly; for they were 113 in 1841, and 163 in 1842.

Marriages of minors. Of the men that married 7737 or 5.02 per cent., of the women 24286 or 15.75 per cent. were under 21 years of age; and marriages at these early ages, before the faculties of the mind or the strength of the body have attained maturity, increased in the proportion of 2 to 3 in the ten years.

The counties present great differences in the proportion of early marriages; thus in Bedfordshire 13 in 100 of the males, 27 in 100 of the females that married were *not of full age*; in Herefordshire these proportions were less than 2 and 8, in Cumberland 4 and 14 in 100.

TABLE IV.—MARRIAGES. The Proportion per Cent. of *Minors* of each Sex, of Males and Females who signed the Register with Marks, and of Persons who were *Widowers* or *Widows*.

YEARS ended 31st December	To 100 MARRIED.								
	The Proportion under 21 Years of Age.			The Proportion who signed the Marriage Register with Marks.			The Proportion who were		
	Males.	Females.	Mean.	Males.	Females.	Mean.	Widowers.	Widows.	Mean.
1841	4.38	13.29	8.83	32.7	48.8	40.8	*12.90	*8.99	*10.95
1842	4.53	13.47	9.00	32.0	47.9	40.0	13.14	8.90	11.02
1843	4.45	13.25	8.85	32.7	49.0	40.9	13.17	8.73	10.95
1844	4.17	13.16	8.67	32.4	49.2	40.8	12.81	8.46	10.63
1845	4.37	13.48	8.93	33.2	49.6	41.4	12.64	8.60	10.62
1846	4.33	13.73	9.03	32.6	48.2	40.4	12.59	8.33	10.46
1847	4.09	13.34	8.72	31.2	45.5	38.4	12.93	8.54	10.74
1848	4.41	14.06	9.24	31.2	45.4	38.3	13.76	8.86	11.31
1849	4.69	14.88	9.79	31.0	45.9	38.5	13.85	8.88	11.37
1850	4.88	15.13	10.01	31.1	46.2	38.7	14.49	9.27	11.88
1851	5.02	15.75	10.39	30.8	45.3	38.1	13.98	9.00	11.49

* The proportion of Widowers and Widows in the Year 1841 is for the September and December quarters only.

Re-marriages. Of the men that married 132643 were bachelors, 21563 (or 14 per cent.) were widowers; of the women 140331 were spinsters, 13875 (or 9 per cent.) were widows.

Signatures of persons married. The proportion of the men who in signing the marriage register wrote their names was 69 in 100, leaving

TABLE V.—ENGLAND. MARRIAGES.—PROPORTIONAL NUMBER of MARRIAGES in the several Counties of England during the Year 1851; of Persons who signed their Names; of Persons not of full Age; and of the Re-marriages of Widowers and Widows.

REGISTRATION COUNTIES.	Marriages to 100 Inhabitants.	Signed their Names in Writing.		Persons not of full Age.		Re-marriages.	
		Of 100 Men Married.	Of 100 Women Married.	In 100 Men Married.	In 100 Women Married.	Widowers.	Widows.
						In 100 Men Married.	In 100 Women Married.
ENGLAND - - -	*858	69.2	54.7	5.02	15.75	13.98	9.00
I.—LONDON.							
Middlesex (part of) - - -	1.126	86.9	76.9	2.44	10.14	14.29	9.68
Surrey (part of) - - -	1.099	88.2	77.3	1.61	8.67	16.25	10.56
Kent (part of) - - -	*748	83.1	74.3	1.58	9.41	14.55	11.68
II.—SOUTH EASTERN COUNTIES.							
1 Surrey (extra-metropolitan) - - -	*568	65.4	71.0	2.60	15.78	11.27	7.72
2 Kent (extra-metropolitan) - - -	*729	71.5	65.7	3.04	15.17	12.35	8.51
3 Sussex - - -	*714	70.4	71.2	3.74	16.40	11.92	8.34
4 Hampshire - - -	*761	72.9	66.3	2.38	13.92	13.23	9.94
5 Berkshire - - -	*669	62.9	65.1	3.82	12.87	14.07	8.46
III.—SOUTH MIDLAND COUNTIES.							
6 Middlesex (extra-metropolitan) - - -	*564	73.0	70.0	3.64	13.75	12.57	9.17
7 Hertfordshire - - -	*627	50.0	48.8	7.48	21.90	11.04	8.12
8 Buckinghamshire - - -	*653	57.2	49.7	9.34	18.47	14.76	6.26
9 Oxfordshire - - -	*733	63.5	61.2	3.75	15.02	15.10	7.27
10 Northamptonshire - - -	*718	63.5	55.4	7.66	21.48	14.34	7.14
11 Huntingdonshire - - -	*695	58.9	52.7	9.03	23.75	14.01	7.84
12 Bedfordshire - - -	*731	52.2	40.9	13.43	26.65	15.95	7.14
13 Cambridgeshire - - -	*727	58.0	53.9	7.79	25.02	13.44	7.79
IV.—EASTERN COUNTIES.							
14 Essex - - -	*599	55.7	54.9	6.72	22.49	12.52	7.88
15 Suffolk - - -	*680	56.8	53.8	4.84	17.31	13.03	7.45
16 Norfolk - - -	*730	57.9	56.0	5.07	14.29	13.98	7.46
V.—SOUTH WESTERN COUNTIES.							
17 Wiltshire - - -	*678	57.9	53.3	7.69	16.54	16.30	7.20
18 Dorsetshire - - -	*741	64.0	62.1	5.47	13.06	12.22	6.07
19 Devonshire - - -	*793	73.7	63.7	2.75	10.20	11.45	8.23
20 Cornwall - - -	*736	63.1	48.1	3.63	15.26	10.81	5.58
21 Somersetshire - - -	*698	63.7	57.4	5.42	12.43	13.87	7.39
VI.—WEST MIDLAND COUNTIES.							
22 Gloucestershire - - -	*898	71.4	62.6	4.29	11.22	14.64	8.73
23 Herefordshire - - -	*595	60.4	58.7	1.69	7.61	10.83	7.61
24 Shropshire - - -	*659	59.3	52.6	2.16	9.64	13.16	8.84
25 Staffordshire - - -	*946	55.2	39.6	7.56	22.52	14.26	11.20
26 Worcestershire - - -	*876	64.4	52.4	4.88	15.21	11.78	8.70
27 Warwickshire - - -	*950	68.8	57.2	6.25	18.73	14.23	9.22
VII.—NORTH MIDLAND COUNTIES.							
28 Leicestershire - - -	*839	69.7	56.9	9.49	18.94	14.04	7.47
29 Rutlandshire - - -	*730	66.3	68.0	6.18	12.92	15.17	3.37
30 Lincolnshire - - -	*710	70.4	61.3	3.86	16.65	12.79	8.27
31 Nottinghamshire - - -	*902	69.7	51.5	6.38	18.84	13.14	8.18
32 Derbyshire - - -	*807	73.8	57.8	6.44	16.71	13.78	7.67
VIII.—NORTH WESTERN COUNTIES.							
33 Cheshire - - -	*812	67.5	44.6	4.87	14.14	14.57	8.92
34 Lancashire - - -	1.032	64.5	36.8	7.02	18.58	15.44	10.35
IX.—YORKSHIRE.							
35 West Riding - - -	*965	67.3	40.9	7.73	23.36	14.70	9.54
36 East Riding (with York) - - -	1.021	78.8	60.9	5.26	16.94	15.32	8.95
37 North Riding - - -	*715	78.9	64.4	2.15	11.74	13.17	6.23
X.—NORTHERN COUNTIES.							
38 Durham - - -	*874	73.1	51.7	4.53	18.62	13.26	9.31
39 Northumberland - - -	*783	79.7	61.5	4.23	12.65	13.48	8.46
40 Cumberland - - -	*522	83.7	69.5	4.29	13.95	10.93	6.24
41 Westmorland - - -	*645	83.1	71.4	1.85	12.70	10.58	4.23
XI.—MONMOUTHSHIRE AND WALES.							
42 Monmouthshire - - -	*829	51.2	38.9	3.94	14.80	11.95	9.71
43 South Wales - - -	*814	56.0	33.4	3.59	11.34	13.80	8.69
44 North Wales - - -	*682	56.2	33.7	3.04	8.93	13.49	8.61

31 who signed with marks; of the women 55 in 100 wrote their names, 45 signed with marks. The proportions during the last five years have varied little, and the instruction in the elements of knowledge is still deplorably inefficient in the country generally, and more particularly in the counties of Hertford, Bucks, Huntingdon, Bedford, Cambridge, Essex, Suffolk, Norfolk, Wilts, Shropshire, Staffordshire, Monmouth, and Wales, where less than 40 in 100 men that married made their marks.

There is a curious result deducible from the returns of this year: it appears that in 36186 marriages both husband and wife *signed with marks*, in 73141 marriages both husband and wife *wrote their names*, and in 44879 cases either the husband or the wife signed with a mark, while the other party wrote his or her name.

Does this imply that the ignorant have a tendency to marry the ignorant in a greater or less proportion than the learned up to the writing point marry the ignorant, or than those so far learned marry the learned? It is evident from these numbers, that in 24 of every 100 families neither the husband nor the wife can write, that in 47 both can write, and that in 29 one of the two can write. Now as we know the number of the men who could write (106767) and the number (47439) who could not write, as well as the number of women (84394) who could write and the number (69812) who could not write, it is a purely mathematical question in the doctrine of probabilities to determine how many of each of these four classes would come together in pairs if their union were determined simply by lot, and there was no interference of selection between the classes who can write and the classes who cannot write.

In conformity with these doctrines the *number* of marriages in which both parties were unable to write their names should have been 21477, the actual number was 36186; the number of marriages in which both could write should have been 58432, while it was 73141; and on the other hand the number of marriages in which only one could write should have been by the doctrine of chances 74298, and was 44879*. Thus the ignorant evidently intermarry by choice and the force of circumstances, to a much greater extent than would be inferred from their numbers; and this is important, as the result is, that in 24 of every 100 of the families that are now constituted every year by marriage, the children are without the advantage of having either the father or the mother able to write.

*The combinations that would arise if the unions took place simply in conformity with the doctrine of chances, may be thus illustrated:—In one urn A. put 692 *white balls* (M.) (representing men who write), and 308 (M') *black balls* (representing men who do not write); in another urn B. deposit 547 *white balls* (W.) (representing women who write), and 453 *black balls* (W'), (representing women who do not write); then upon proceeding to draw balls in pairs, one out of each urn, it is evident that there are two ways in which a black and a white ball may be drawn in a pair; namely (1) a *white ball* from A., a *black ball* from B., (2) a *black ball* from A., a *white ball* from B.; while there is but one way in which two *white balls*, and one in which two *black balls* can be drawn together. Calculation shows that upon drawing and returning every time 100 pairs of balls from the two urns, the most probable of all proportions is, that in 38 cases both balls would be *white*, that in 14 cases both balls would be *black*, and that in 48 cases one ball would be *white*, one would be *black*. A *hundred* marriages, instead of varying in the proportions 38, 14, and 48, however, give this result, as has been seen, that in 47 cases both write, in 24 cases both sign with marks, and in 29 cases one writes and one signs with a mark; by lot like to like would arrive 52 times, by selection and the force of circumstances it arrives 71 times. By hypothesis the balls in the two urns are well mixed. The fact that the unlettered predominate in some counties, the writers in other counties, affects the results much as the arrangement of the balls in corresponding strata in the two urns would affect the coincidence of black and white balls.

A new table (V a.) is introduced below, in which the number of marriages of bachelors, of spinsters, of widowers, and of widows respectively is compared with the numbers of the four classes found existing at the

TABLE V a.—Number of BACHELORS, SPINSTERS, WIDOWERS, and WIDOWS enumerated in each County in the year 1851; also the Numbers and Proportions who were MARRIED.

REGISTRATION COUNTIES.	Numbers enumerated in 1851.				Numbers married in 1851.				Proportions married to 100 living.			
	Bachelors aged 15 and upwards.	Spinsters aged 15 and upwards.	Widowers.	Widows.	Bachelors.	Spinsters.	Widowers.	Widows.	Bachelors.	Spinsters.	Widowers.	Widows.
ENGLAND	2297759	2306909	333926	661894	132643	140331	21563	13875	5.8	6.1	6.5	2.1
I.—LONDON.												
Middlesex (part of)	221747	271434	26411	81877	16922	17832	2822	1912	7.6	6.6	10.7	2.3
Surrey (part of)	54767	68373	7966	22276	4454	4767	866	563	8.2	6.9	10.9	2.5
Kent (part of)	18932	17119	2703	5923	863	892	147	118	4.6	5.2	5.4	2.0
II.—SOUTH EASTERN COUNTIES.												
1 Surrey (extra-metropolitan)	27225	26814	4091	7075	1023	1064	130	89	3.8	4.0	3.2	1.3
2 Kent (extra-metropolitan)	67275	59648	9497	16819	3109	3245	438	302	4.6	5.4	4.6	1.8
3 Sussex	43168	44800	7028	11182	2143	2230	290	203	5.0	5.0	4.1	1.8
4 Hampshire	56973	50028	8166	14536	2662	2763	406	305	4.7	5.5	5.0	2.1
5 Berkshire	26341	24580	4403	6934	1148	1223	188	113	4.4	5.0	4.3	1.6
III.—SOUTH MIDLAND COUNTIES.												
6 Middlesex (extra-metropolitan)	19301	21155	2683	5895	744	773	107	78	3.9	3.7	4.0	1.3
7 Hertfordshire	21774	20570	3594	6088	975	1007	121	89	4.5	4.9	3.4	1.5
8 Buckinghamshire	16290	16891	3317	5053	803	883	139	59	4.9	5.2	4.2	1.2
9 Oxfordshire	22618	20390	4165	6026	1063	1161	189	91	4.7	5.7	4.5	1.5
10 Northamptonshire	26380	23926	4655	7043	1320	1431	221	110	5.0	6.0	4.7	1.6
11 Huntingdonshire	6818	6248	1189	2035	332	388	59	33	5.3	6.2	5.0	1.6
12 Bedfordshire	13578	16431	2589	4168	801	885	152	68	5.9	5.4	5.9	1.6
13 Cambridgeshire	24229	21748	3713	6586	1211	1290	188	109	5.0	5.9	5.1	1.7
IV.—EASTERN COUNTIES.												
14 Essex	43671	37775	7499	11651	1809	1905	259	163	4.1	5.0	3.5	1.4
15 Suffolk	39032	39355	7323	11732	1995	2123	299	171	5.1	5.4	4.1	1.5
16 Norfolk	50522	54088	8724	16282	2733	2940	444	237	5.4	5.4	5.1	1.5
V.—SOUTH WESTERN COUNTIES.												
17 Wiltshire	29290	29646	5208	8626	1371	1520	267	118	4.7	5.1	5.1	1.4
18 Dorsetshire	21604	23866	3530	6522	1156	1237	161	80	5.4	5.2	4.6	1.2
19 Devonshire	70352	80583	9848	23416	4030	4174	521	377	5.7	5.2	5.3	1.6
20 Cornwall	43732	46046	5130	14458	2508	2655	304	157	5.7	5.8	5.9	1.1
21 Somersetshire	52401	63787	8289	18396	2750	2957	443	236	5.2	4.6	5.3	1.3
VI.—WEST MIDLAND COUNTIES.												
22 Gloucestershire	50466	61670	7816	17536	3225	3448	553	330	6.4	5.6	7.1	1.9
23 Herefordshire	14589	12599	2232	3992	527	546	64	45	3.6	4.3	2.9	1.1
24 Shropshire	34246	30917	5089	8943	1405	1475	213	143	4.1	4.8	4.2	1.6
25 Staffordshire	82812	64874	10862	18116	5136	5319	854	671	6.2	8.2	7.9	3.7
26 Worcestershire	32251	32951	4898	8975	2007	2077	268	198	6.2	6.3	5.5	2.2
27 Warwickshire	59070	58526	8384	16569	3925	4154	651	422	6.6	7.1	7.8	2.5
VII.—NORTH MIDLAND COUNTIES.												
28 Leicestershire	27398	28638	5142	8134	1702	1832	278	148	6.2	6.4	5.4	1.8
29 Rutlandshire	3377	2937	530	890	151	172	27	6	4.5	5.9	5.1	.7
30 Lincolnshire	53286	45809	7399	18007	2488	2617	365	236	4.7	5.7	4.9	1.8
31 Nottinghamshire	35837	36446	5909	9789	2314	2446	350	218	6.5	6.6	5.9	2.2
32 Derbyshire	33361	31828	5416	8255	1821	1950	291	162	5.5	6.1	5.4	2.0
VIII.—NORTH WESTERN COUNTIES.												
33 Cheshire	53660	56155	8018	14301	2949	3144	503	308	5.5	5.6	6.3	2.2
34 Lancashire	270126	276830	36344	72424	18118	19207	3307	2218	6.7	6.9	9.1	3.1
IX.—YORKSHIRE.												
35 West Riding	169720	158300	24952	42692	11073	11743	1908	1238	6.5	7.4	7.6	2.9
36 East Riding (with York)	34411	32705	4603	10094	2205	2371	399	233	6.4	7.3	8.7	2.3
37 North Riding	26395	24513	4351	7517	1213	1310	184	87	4.6	5.3	4.2	1.2
X.—NORTHERN COUNTIES.												
38 Durham	53964	43282	6963	14285	3140	3283	480	337	5.8	7.6	6.9	2.4
39 Northumberland	42972	40106	5594	12209	2066	2186	322	202	4.8	5.5	5.9	1.7
40 Cumberland	28261	27002	3763	7927	913	961	112	64	3.2	3.6	3.0	.8
41 Westmorland	8674	8218	1385	2139	338	362	40	16	3.9	4.4	2.9	.7
XI.—MONMOUTHSHIRE AND WALES.												
42 Monmouthshire	26975	17693	3407	5480	1297	1330	176	143	4.8	7.5	5.2	2.6
43 South Wales	83305	77494	11136	22292	4273	4526	684	431	5.1	5.8	6.1	1.9
44 North Wales	54483	50515	8102	15729	2392	2527	373	238	4.4	5.0	4.6	1.5

The Table may be read thus:—Of the number of persons enumerated in Berkshire at the Census of 1851 there were of the age 15 and upwards 26341 Bachelors, 24580 Spinsters, 4403 Widowers, and 6934 Widows; the numbers who were married during the same year (1851) were respectively 1148, 1223, 188, and 113, being in the proportion of 4.4 Bachelors, 5.0 Spinsters, 4.3 Widowers, and 1.6 Widows to every 100 living; and so on for the other Counties. By disregarding the decimal point the proportions to 1000 living will be represented.

census in each county in the year (1851). This table supplies a more satisfactory measure of the rate of marriage than the ordinary comparison of the marriages with the population, including a variable proportion of children. Thus of 1000 bachelors in England, 58 married, and the proportions ranged in the counties from 82 in the Surrey portion of London to 36 in Herefordshire, and to 32 in Cumberland. Of 1000 spinsters in England 61 married, and the proportions ranged from 82 in Staffordshire to 36 in Cumberland. Upon carefully inspecting this Table it will appear that the marriages in London are in a high proportion to the marriageable part of the population, and that the proportion in the surrounding counties of Surrey, Middlesex, and Essex is conversely below the average. A certain proportion of the marriages of the country people are apparently contracted in the towns; and in the north of England, it was shown in the last report, that great numbers of the population of the northern counties marry, or pretend to marry, over the borders in Scotland, where the law of marriage is still in a loose and unsatisfactory state. The counties are arranged below in the order of the rate of marriage calculated on the population in the usual way, and it will be seen that they do not follow in the same order as they would if the order of the correct method of comparison were followed.

TABLE V b.—LONDON and the REGISTRATION COUNTIES arranged according to the PROPORTION of MARRIAGES to POPULATION.

REGISTRATION COUNTIES.	Marriages to 100 Inhabitants.	Bachelors married	Spinsters married	Widowers married	Widows married
		to 100 of each Class.			
London (parts of Surrey, Kent, and Middlesex)	1.099	7.5	6.6	10.3	2.4
Lancashire	1.032	6.7	6.9	9.1	3.1
E. Riding	1.021	6.4	7.3	8.7	2.3
W. Riding	.965	6.5	7.4	7.6	2.9
Warwick	.950	6.6	7.1	7.8	2.5
Stafford	.946	6.2	8.2	7.9	3.7
Nottingham	.902	6.5	6.6	5.9	2.2
Gloucester	.898	6.4	5.6	7.1	1.9
Worcester	.876	6.2	6.3	5.5	2.2
Durham	.874	5.8	7.6	6.9	2.4
Leicester	.839	6.2	6.4	5.4	1.8
Monmouth	.829	4.8	7.5	5.2	2.6
S. Wales	.814	5.1	5.8	6.1	1.9
Cheshire	.812	5.5	5.6	6.3	2.2
Derby	.807	5.5	6.1	5.4	2.0
Devon	.793	5.7	5.2	5.3	1.6
Cornwall	.786	5.7	5.8	5.9	1.1
Northumberland	.783	4.8	5.5	5.9	1.7
Hants	.761	4.7	5.5	5.0	2.1
Dorset	.741	5.4	5.2	4.6	1.2
Oxford	.733	4.7	5.7	4.5	1.5
Bedford	.731	5.9	5.4	5.9	1.6
Norfolk	.730	5.4	5.4	5.1	1.5
Rutland	.730	4.5	5.9	7.1	.7
Kent (Extra-metropolitan)	.729	4.6	5.4	4.6	1.8
Cambridge	.727	5.0	5.9	5.1	1.7
Northampton	.718	5.0	6.0	4.7	1.6
N. Riding	.715	4.6	5.3	4.2	1.2
Sussex	.714	5.0	5.0	4.1	1.8
Lincoln	.710	4.7	5.7	4.9	1.8
Somerset	.698	5.2	4.6	5.3	1.3
Huntingdon	.695	5.3	6.2	5.0	1.6
N. Wales	.682	4.4	5.0	4.6	1.5
Suffolk	.680	5.1	5.4	4.1	1.5
Wilts	.678	4.7	5.1	5.1	1.4
Berks	.669	4.4	5.0	4.3	1.6
Salop	.659	4.1	4.8	4.2	1.6
Bucks	.653	4.9	5.2	4.2	1.2
Westmorland	.645	3.9	4.4	2.9	.7
Hertford	.627	4.5	4.9	3.4	1.5
Essex	.599	4.1	5.0	3.5	1.4
Hereford	.595	3.6	4.3	2.9	1.1
Surrey (Extra-metropolitan)	.568	3.8	4.0	3.2	1.3
Middlesex (Extra-metropolitan)	.564	3.9	3.7	4.0	1.3
Cumberland	.522	3.2	3.6	3.0	.8

born. The sex of the child is supposed to be influenced, to a certain extent, by the relative ages of the parents; but the truth of this cannot be tested by the English returns.

42000 children were born out of wedlock in the year 1851, that is 6.8 or nearly 7 in 100 of the children were born under circumstances which often shorten and sometimes embitter their lives.

TABLE VIII.—ENGLAND. BIRTHS, 1851.—NUMBER and PROPORTION of Male and Female Children born in and out of Wedlock.

Table with columns: REGISTRATION COUNTIES, Children born (Male, Female), Born in Wedlock (Males, Females), Born out of Wedlock (Males, Females), and various ratios (Males born to every 100 Females born, etc.). Rows include ENGLAND, I.—LONDON, II.—SOUTH EASTERN COUNTIES, III.—SOUTH MIDLAND COUNTIES, IV.—EASTERN COUNTIES, V.—SOUTH WESTERN COUNTIES, VI.—WEST MIDLAND COUNTIES, VII.—NORTH MIDLAND COUNTIES, VIII.—NORTH WESTERN COUNTIES, IX.—YORKSHIRE, X.—NORTHERN COUNTIES, XI.—MONMOUTHSHIRE AND WALES.

The proportion of the births out of wedlock is by the returns lowest in London (4 in 100); but it is probable that in many instances the births of these children are not registered or are not distinguishable in the large towns.

TABLE VIII a.—ENGLAND. Number of MARRIED and UNMARRIED WOMEN enumerated on 31st March 1851; the Number of BIRTHS IN WEDLOCK and OUT of WEDLOCK registered in 1851; and the Proportion of Births in Wedlock to Married Women, and Births out of Wedlock to Unmarried Women.

Table with columns: DIVISIONS AND REGISTRATION COUNTIES, Enumerated in 1851 (MARRIED WOMEN, UNMARRIED WOMEN AND WIDOWS), BIRTHS REGISTERED in 1851 (Total Births, In Wedlock, Out of Wedlock), and Proportion of Births in Wedlock to Married Women and Births out of Wedlock to Unmarried Women. Rows include ENGLAND, I.—LONDON, II.—SOUTH EASTERN COUNTIES, III.—SOUTH MIDLAND COUNTIES, IV.—EASTERN COUNTIES, V.—SOUTH WESTERN COUNTIES, VI.—WEST MIDLAND COUNTIES, VII.—NORTH MIDLAND COUNTIES, VIII.—NORTH WESTERN COUNTIES, IX.—YORKSHIRE, X.—NORTHERN COUNTIES, XI.—MONMOUTHSHIRE AND WALES.

In seven counties, exclusive of those of the metropolis, the proportion of births out of wedlock is less than 6 in 100 births; namely, 5.3 in Monmouth, 5.4 in Devon, 5.5 in Cornwall, 5.7 in Durham, 5.8 in the Extra-metropolitan part of Middlesex, 5.8 in Huntingdon, 5.9 in Warwick; in six counties the proportion of illegitimate births exceeds 9 in 100 births, namely, 9.1 in Westmorland, 9.5 in Nottingham, 9.9 in Shropshire, 10.2 in Herefordshire, 10.5 in Cumberland, and 11.1 in Norfolk; so that in Norfolk 1 in 9 of the children, and in Devon 1 in 19, are born out of wedlock.

These returns show that great differences exist in the manners of different counties; and they undoubtedly imply varieties in the state of the family relations, in the social education of children, and in the morals of the people. But it must not be immediately assumed, as has been sometimes done, in comparing the counties of England and Wales, any more than in comparing the results of our returns with those of other

TABLE VIII b. — Proportion of BIRTHS OUT OF WEDLOCK (1) to 100 UNMARRIED WOMEN, and (2) to 100 BIRTHS; also the Proportion per Cent. of Married Women who signed with Marks in 1851.

REGISTRATION COUNTIES.	Proportion of Births out of Wedlock to 100 Unmarried Women and Widows.		Children born out of Wedlock to every 100 Births.	Proportion per Cent. of Married Women who signed with Marks.
	Of the Age of 20-40.*	Of the Age of 15-55.		
Devonshire - - - - -	1.87	1.12	5.4	36
Middlesex (<i>Extra-metropolitan</i>) - - - - -	1.89	1.17	5.8	30
Gloucestershire - - - - -	2.11	1.27	6.3	37
Surrey (<i>Extra-metropolitan</i>) - - - - -	2.24	1.35	6.3	29
Cornwall - - - - -	2.43	1.36	5.5	52
Hampshire - - - - -	2.51	1.46	6.0	34
Somersetshire - - - - -	2.54	1.51	7.0	43
Sussex - - - - -	2.67	1.54	6.7	29
Dorsetshire - - - - -	2.67	1.52	6.5	38
Rutlandshire - - - - -	2.78	1.59	6.6	32
East Riding - - - - -	2.84	1.62	6.7	39
Kent (<i>Extra-metropolitan</i>) - - - - -	2.87	1.65	6.4	34
Warwickshire - - - - -	2.91	1.65	5.9	43
Worcestershire - - - - -	3.09	1.79	7.1	48
Berkshire - - - - -	3.14	1.80	7.4	35
Wiltshire - - - - -	3.30	1.85	7.2	47
Northumberland - - - - -	3.38	1.95	7.7	38
Westmorland - - - - -	3.40	1.97	9.1	29
Essex - - - - -	3.49	1.95	6.9	45
North Riding - - - - -	3.59	2.09	8.4	36
Bedfordshire - - - - -	3.60	1.97	7.1	59
Cheshire - - - - -	3.63	2.12	8.5	55
Cambridgeshire - - - - -	3.64	2.01	7.1	46
Lincolnshire - - - - -	3.65	2.04	7.4	39
Huntingdonshire - - - - -	3.65	1.89	5.8	47
Buckinghamshire - - - - -	3.72	2.06	7.3	50
Shropshire - - - - -	3.73	2.17	9.9	47
Herefordshire - - - - -	3.73	2.20	10.2	41
Oxfordshire - - - - -	3.74	2.13	8.2	39
West Riding - - - - -	3.75	2.09	6.9	59
Derbyshire - - - - -	3.81	2.14	8.0	42
Durham - - - - -	3.82	2.02	5.7	48
Hertfordshire - - - - -	3.82	2.15	7.9	51
Northamptonshire - - - - -	3.90	2.15	7.1	45
Leicestershire - - - - -	4.08	2.32	8.1	43
Cumberland - - - - -	4.18	2.44	10.5	30
Suffolk - - - - -	4.36	2.45	8.8	46
Nottinghamshire - - - - -	4.37	2.46	9.5	48
Staffordshire - - - - -	4.48	2.40	6.7	60
Norfolk - - - - -	4.87	2.83	11.1	44
The following Sub-divisions do not fairly admit of comparison with those preceding in reference to Education:				
London - - - - -	1.32	.82	4.1	23
Monmouthshire - - - - -	3.04	1.68	5.3	61
South Wales - - - - -	3.06	1.80	7.4	67
North Wales - - - - -	3.12	1.82	8.1	66
Lancashire - - - - -	3.22	1.90	7.2	63

* The figures in this column are deduced from those in the last column but one of Table VIII a.; reduced by 1-eighth part for children born to women either under the age of 20 or above the age of 40.

The Table may be read thus, disregarding the decimal point:—In Norfolk to every 10,000 women *unmarried*, and of the age 20-40, there were 487 children born in the year 1851; or to every 10,000 women of the age 15-55 there were 283 children born; of 1000 children born 111 were born out of wedlock; of 100 women married 44 signed the register with a mark.

countries, that the relative morality of the population is expressed by these numbers.

The mothers of all the children that are born in the country are between the ages of 15 and 55; and the greater part of them are between the ages of 20 and 40. The English schedule is defective, as it does not show the age of the father and mother at the birth of the child; but it may be inferred from the Swedish returns that not more than 1 in 8 women who bare children is under the age of 20 or above the age of 40. The numbers of women *married* and *unmarried* in each county at the two divisions of age, as ascertained at the census, are shown in the subjoined Table VIII a.; also the births of children in each of the two classes, and the proportional numbers of children to women.

It thus appears that in 1851 there were in England and Wales 2,553,894 married women under the age of 55, and that the children born alive in wedlock were 573,865; so that 22 in 100 bore living children. The number of unmarried women,—spinners and widows inclusive,—of the same age (15-55) was 2,449,669; and as the number of children born out of wedlock was 42,000, it would appear that to 100 of them 1.7 children were born. The proportion of children to 100 married women under the age of 55, ranges between 19.73 in Herefordshire and 25.56 in Durham; the proportion of children to 100 unmarried women (age 15-55) ranges between 1.12 in Devon and 2.83 in Norfolk.

The number of women of the age (20-40) in England and Wales at the time of the census, was 2,856,398; of whom 1,248,182 were unmarried, 1,608,216 were married. And if 11.967 per cent. of the children are deducted, belonging, as it may be inferred, to the women under 20 and above 40, it will follow that to every 100 women of the age 20-40 about 18.981 children are born annually, to every 100 unmarried women 2.962, and to every 100 married women 31.413 children.

These facts may well calm the apprehensions of those who entertain any dread of the depopulation of the kingdom; and they present in an encouraging aspect the great resources of the English population for colonization or for war.

The relative proportions of the unmarried women who gave birth to children in the year 1851 are shown in the annexed Table (VIII a.), which will probably give rise to further inquiries, and lead to some important results.

Excluding London from view, as the returns are probably imperfect, it may be inferred that generally the unmarried women in the counties south of the Thames, comprising the descendants of the old Saxon population, have few illegitimate children: Wales stands next in the scale: the West Midland, the North Western, and the South Midland counties, covering the area of the ancient Mercia, present less favourable results; while in Yorkshire, the Northern counties, the North Midland counties, and particularly the Eastern counties, covering the area of the ancient Danish population, the number of illegitimate children is excessively great.

The women of the counties in which there are fewest illegitimate children appear to be the best mothers and housewives, as, other things being equal, they lose fewer of their children in infancy than the women of counties where many children are born out of wedlock.

With the facts in these tables before them, it will be for the clergy and for other moral inquirers in each county to investigate the causes of the discrepancies which they disclose, and to ascertain how the existing evils can be most efficaciously and successfully treated. To facilitate such inquiries, which should be elaborate and not be confined to a single class of causes, the counties are arranged (Table VIII b.) in the order that the proportion of mothers of illegitimate children of the age 20-40 bear to 100 unmarried women of the same age; commencing with the counties

in which the proportion is lowest. A column is added which shows the state of elementary instruction among the women who married, and thus throws some indirect light on the education of the class of unmarried women in each county.

The seasons exercise some influence on the births; and the number of births that were registered in the first two quarters of the year were 157286 and 159073, whilst the births in the last two quarters were 150594 and 148912. (Table X.) The illegitimate births were very

TABLE IX.—ENGLAND. BIRTHS, 1851.—PROPORTIONAL Number of BIRTHS registered in each Registration County in the Year 1851, and in each Season of the Year; or the Number of Births in each Quarter to 1000 Births in the Average Quarter.

REGISTRATION COUNTIES.	BIRTHS to 100 Persons living.	Proportional Number of Births registered.				
		In the AVERAGE QUARTER assumed to be 1000.	In the FIRST QUARTER ending March 31.	In the SECOND QUARTER ending June 30.	In the THIRD QUARTER ending Sept. 30.	In the FOURTH QUARTER ending Dec. 31.
ENGLAND - - -	3·425	1000	1022	1033	978	967
I.—LONDON.						
Middlesex (part of) - - -	3·283	1000	1037	977	977	1008
Surrey (part of) - - -	3·409	1000	1044	991	966	1000
Kent (part of) - - -	3·095	1000	1051	945	1003	1002
II.—SOUTH EASTERN COUNTIES.						
1 Surrey (extra-metropolitan) - - -	2·943	1000	1064	963	963	1011
2 Kent (extra-metropolitan) - - -	3·324	1000	1059	935	981	1025
3 Sussex - - -	3·149	1000	1095	1001	910	993
4 Hampshire - - -	3·180	1000	1028	1001	956	1016
5 Berkshire - - -	3·111	1000	1051	1012	971	996
III.—SOUTH MIDLAND COUNTIES.						
6 Middlesex (extra-metropolitan) - - -	2·921	1000	1024	981	973	1022
7 Hertfordshire - - -	3·388	1000	1053	1078	945	923
8 Buckinghamshire - - -	3·410	1000	1059	1016	937	988
9 Oxfordshire - - -	3·254	1000	1055	1024	945	976
10 Northamptonshire - - -	3·500	1000	1041	987	976	996
11 Huntingdonshire - - -	3·537	1000	1084	1006	1008	902
12 Bedfordshire - - -	3·655	1000	1104	1002	933	960
13 Cambridgeshire - - -	3·418	1000	1034	1046	968	952
IV.—EASTERN COUNTIES.						
14 Essex - - -	3·277	1000	1055	1030	952	963
15 Suffolk - - -	3·369	1000	1076	1076	928	919
16 Norfolk - - -	3·298	1000	1058	1058	947	938
V.—SOUTH WESTERN COUNTIES.						
17 Wiltshire - - -	3·217	1000	1009	1025	979	988
18 Dorsetshire - - -	3·238	1000	1031	1065	967	937
19 Devonshire - - -	3·013	1000	1050	1040	943	968
20 Cornwall - - -	3·361	1000	1117	1050	929	904
21 Somersetshire - - -	3·087	1000	1048	1019	998	935
VI.—WEST MIDLAND COUNTIES.						
22 Gloucestershire - - -	3·114	1000	1055	1010	976	959
23 Herefordshire - - -	2·799	1000	1045	983	1006	967
24 Shropshire - - -	2·859	1000	1001	1057	981	961
25 Staffordshire - - -	3·942	1000	1002	1051	983	965
26 Worcestershire - - -	3·309	1000	1012	1051	941	996
27 Warwickshire - - -	3·662	1000	1002	1024	968	1005
VII.—NORTH MIDLAND COUNTIES.						
28 Leicestershire - - -	3·644	1000	1030	1044	983	943
29 Rutlandshire - - -	3·068	1000	941	1166	898	995
30 Lincolnshire - - -	3·315	1000	997	1011	1006	986
31 Nottinghamshire - - -	3·407	1000	1000	1021	994	984
32 Derbyshire - - -	3·411	1000	982	1056	1037	925
VIII.—NORTH WESTERN COUNTIES.						
33 Cheshire - - -	3·532	1000	1026	1090	982	901
34 Lancashire - - -	3·840	1000	1011	1062	976	951
IX.—YORKSHIRE.						
35 West Riding - - -	3·835	1000	990	1050	1009	951
36 East Riding (with York) - - -	3·281	1000	977	1031	1014	979
37 North Riding - - -	3·175	1000	936	1028	1003	1032
X.—NORTHERN COUNTIES.						
38 Durham - - -	4·024	1000	912	1078	1027	984
39 Northumberland - - -	3·486	1000	964	1051	973	1011
40 Cumberland - - -	3·332	1000	1002	1049	997	951
41 Westmorland - - -	3·070	1000	923	1063	1007	1007
XI.—MONMOUTHSHIRE AND WALES.						
42 Monmouthshire - - -	3·449	1000	1046	1041	1009	903
43 South Wales - - -	3·245	1000	1007	1055	988	949
44 North Wales - - -	2·891	1000	980	1118	1006	895

equally distributed over the year, and amounted to 10802, 10526, 10256, and 10416 in the four quarters.

DEATHS.

395,396 deaths were registered in 1852.

The mortality of the population in the year was at the rate of 2·199 per cent., which is in excess of the mortality in 1850, but is below the average mortality (2·234) of the 14 years 1838-51. The mortality of males was at the rate of 2·276, of females at the rate of 2·124 per cent. The mortality of childhood (age 0-5) was slightly above the average in both sexes; but at every other period of life the mortality was below the average.

The Table (XII.) shows the rate of mortality at twelve periods of life in the two sexes; and it will be noticed that in the two divisions of the table, the mortality decreases from infancy to the age of puberty; it then increases slowly up to 55, and after the age of 55 the rate of mortality is doubled every ten years of age.

The influence of the seasons on the mortality is shown in the Tables XIII. and XIV.

MORTALITY OF PERSONS ENGAGED IN DIFFERENT OCCUPATIONS.

The previous investigations of the various rates of mortality in the districts of the kingdom, have showed how much the health and life of

TABLE X.—BIRTHS registered in each Quarter of the Years 1838 to 1851.

Years.	Quarters ending the last day of			
	March.	June.	September.	December.
1838	113815	121781	114734	113457
1839	123543	128806	120115	120110
1840	132305	129059	119822	121117
1841	133720	129884	123868	124686
1842	135615	134096	123296	124732
1843	136837	131279	128161	131048
1844	143578	136941	130078	130166
1845	143080	136853	132369	131219
1846	145108	149450	138718	139349
1847	146453	139072	127173	127267
1848	139736	142760	140359	133204
1849	153772	153693	135223	135471
1850	144551	155865	146911	146095
1851	157286	159073	150594	148912

TABLE XI.—ENGLAND. DEATHS.—ANNUAL RATE of MORTALITY of Males and of Females.

YEARS.	DEATHS.			Mortality of Males to the Mortality of Females assumed to be 100.
	To 100 Males living.	To 100 Females living.	Deaths of Males to 100 Deaths of Females.	
1838 - - -	2·335	2·133	105	109
1839 - - -	2·275	2·090	104	109
1840 - - -	2·372	2·203	103	108
1841 - - -	2·238	2·083	103	107
1842 - - -	2·241	2·098	102	107
1843 - - -	2·202	2·047	103	108
1844 - - -	2·242	2·083	103	108
1845 - - -	2·170	2·012	103	108
1846 - - -	2·395	2·221	103	108
1847 - - -	2·546	2·380	103	107
1848 - - -	2·391	2·224	103	108
1849 - - -	2·581	2·445	101	106
1850 - - -	2·143	2·013	102	106
1851 - - -	2·276	2·124	103	107
Average of 14 years, 1838-51 - - -	2·315	2·154	103	108

The Table may be read thus:—in the year 1838 to every 100 males living there were 2·335 deaths of males; to every 100 females living there were 2·133 deaths of females; and to every 100 females who died there were 105 deaths of males. The last column shows the relative mortality of males and females; and that out of equal numbers living the deaths of males was 109 to every 100 deaths of females in 1838.

the population are affected by fixed local influences. The professions and occupations of men open a new field of inquiry, on which we are now prepared to enter, not unconscious, however, of the peculiar difficulties that beset all inquiries into the mortality of limited, fluctuating, and sometimes ill-defined sections of the population.

Laudable attempts have been made by ingenious men to determine the effects of professions on health, by general observation, unaided by exact recorded facts. Ramazzini and Thackeray in this way deduced some useful practical results and rules for the improvement of the health of artisans. More recently the *mean age at death* has been relied on to show the healthiness or insalubrity of certain occupations. And this method, as well as that of the annual rate of mortality without distinction of age, is applicable in certain definite conditions where only approximations are required.

But the *mean age at death* evidently depends upon many circumstances besides health, and among others, upon the ages of the living; which vary in proportions in almost every profession, according as it is a profession that people enter early or later in life, and according as the numbers that enter it annually increase or decrease.

TABLE XII.—ENGLAND. DEATHS.—ANNUAL RATE of MORTALITY per Cent. of Males and Females at different Ages, in the 14 Years 1838-51.

DEATHS to 100 MALES living.															
Years -	1838	1839	1840	1841	1842	1843	1844	1845	1846	1847	1848	1849	1850	1851	Average of the Rates of 14 Years 1838-51.
All Ages -	2.335	2.275	2.372	2.238	2.241	2.202	2.242	2.170	2.395	2.546	2.391	2.581	2.143	2.276	2.315
0-	7.041	7.167	7.542	6.843	7.048	6.898	6.984	6.665	7.760	7.588	7.401	7.513	6.695	7.298	7.175
5-	.901	.904	1.083	.956	.901	.844	.897	.823	.825	.970	1.043	1.124	.814	.869	.925
10-	.519	.512	.542	.510	.501	.478	.473	.466	.507	.550	.530	.646	.467	.491	.514
15-	.851	.819	.832	.811	.783	.772	.763	.781	.859	.929	.858	.951	.717	.776	.822
25-	1.064	.986	.995	.978	.928	.924	.940	.926	1.025	1.100	1.026	1.243	.879	.948	.997
35-	1.342	1.255	1.266	1.217	1.197	1.218	1.225	1.202	1.272	1.436	1.303	1.581	1.165	1.236	1.260
45-	1.949	1.798	1.796	1.785	1.733	1.722	1.750	1.715	1.800	2.065	1.864	2.262	1.716	1.787	1.839
55-	3.410	3.192	3.142	3.137	3.041	3.008	3.051	2.975	3.129	3.649	3.266	3.655	2.980	3.081	3.190
65-	6.916	6.421	6.678	6.482	6.595	6.578	6.736	6.491	6.758	7.696	6.793	7.244	6.306	6.396	6.721
75-	14.752	13.874	14.488	14.266	14.578	14.090	14.651	14.400	15.070	17.326	14.986	15.187	14.019	14.055	14.696
85-	29.745	27.923	30.242	29.650	29.438	28.758	31.716	30.191	32.214	35.553	30.622	29.976	28.555	28.245	30.202
95 & up.	49.699	43.112	48.498	46.633	46.427	45.681	43.228	49.035	51.651	56.607	42.435	42.859	38.560	41.937	46.169

DEATHS to 100 FEMALES living.															
Years -	1838	1839	1840	1841	1842	1843	1844	1845	1846	1847	1848	1849	1850	1851	Average of the Rates of 14 Years 1838-51.
All Ages -	2.133	2.090	2.203	2.083	2.098	2.047	2.083	2.012	2.221	2.380	2.224	2.445	2.013	2.124	2.154
0-	6.047	6.138	6.432	5.861	6.023	5.897	5.885	5.657	6.675	6.553	6.396	6.488	5.738	6.299	6.149
5-	.895	.935	1.113	.963	.925	.848	.902	.800	.813	.951	.997	1.102	.810	.860	.922
10-	.543	.535	.569	.520	.512	.485	.503	.476	.533	.577	.566	.653	.491	.527	.535
15-	.854	.848	.868	.842	.830	.784	.810	.815	.870	.919	.878	1.000	.777	.818	.851
25-	1.046	1.007	1.033	1.007	1.005	.976	1.006	.980	1.048	1.173	1.090	1.347	.988	1.005	1.051
35-	1.313	1.248	1.269	1.227	1.220	1.227	1.200	1.188	1.242	1.422	1.301	1.617	1.169	1.193	1.274
45-	1.660	1.549	1.567	1.542	1.526	1.484	1.525	1.467	1.559	1.789	1.589	1.998	1.473	1.519	1.589
55-	2.977	2.730	2.829	2.740	2.744	2.692	2.773	2.668	2.783	3.226	2.860	3.355	2.625	2.679	2.834
65-	5.919	5.554	5.899	5.841	6.013	5.877	6.052	5.856	6.156	6.964	6.072	6.596	5.717	5.854	6.026
75-	13.281	12.519	13.541	13.375	13.084	13.037	13.494	13.036	13.794	15.945	13.604	14.028	12.684	12.818	13.446
85-	26.463	25.242	28.394	28.255	28.438	27.655	28.434	27.569	30.350	32.104	27.623	28.028	25.922	26.357	27.917
95 & up.	41.099	39.915	46.199	45.907	42.832	46.679	44.616	42.036	52.200	53.230	46.816	43.323	42.927	45.017	45.200

The Table may be read thus:—Of 100 Males living of the age of 35 and under 45, 1.342 died in 1838, 1.255 in 1839, 1.217 in 1841, and so on for other years; a correction for increase of Population having been made for each Age at each Year, and the deaths of persons whose ages were not returned have been distributed proportionally over each age. The figures showing the mortality of Males and Females at "All Ages" in this and the previous Table are correct, and differ slightly from those given in the 13th Annual Report, pp. xiii-xiv. The data upon which this Table is constructed appear in this or have appeared in the previous Reports, and in the Census Report. See Census Report 1851; and the Annual Reports of the Reg. Gen., particularly the 8th and 9th.

The mortality is at the rate of 20 in 1000 among men of the age of 20 and upwards in England; but this gross rate is compounded of all the varying rates, from the age of 20 to the age of 100. For while the annual rate of mortality among men of the age of 25 and under 35 is 9 in 1000, the rate among men of the age of 45-55 is 18 nearly, and the rate among men of the age of 65-75 is 64: so, as the age of the living in different professions may vary almost indefinitely, the gross rate of mortality affords only an imperfect indication of the influence of occupation on health and on the duration of life. The rate of mortality among farmers of the age of 20 and upwards, is 28 in 1000, among tailors 20 in 1000; yet it will be shortly shown that when the rates of mortality among men of *corresponding ages* are compared, the farmers are much the healthier of the two classes.

To obtain results upon which reliance can be placed for the purposes of sanitary inquiry and of life insurance, several extended series of observations are required, and have now been obtained in England. The Census Report exhibits the number of persons in each occupation at each decennial age in 1851, and the present Report shows the numbers in those professions dying at corresponding ages.

Upon examining the results of these two series of observations, it is evident that the unsettled nomenclature of the professions throws in the way of the inquiry another formidable difficulty, which can only be gradually removed. Thus it is impossible at present to determine the relative mortality of the classes that are respectively engaged in the silk, cotton, linen, and woollen manufactures, as great numbers of men are registered as *weavers* simply, without any further distinction; so all the

TABLE XIII.—DEATHS registered in each Quarter of the Years 1838 to 1851.

Years.	Quarters ending the last day of			
	March.	June.	September.	December.
1838	98152	90877	72877	80854
1839	89740	87969	76280	84995
1840	98896	90339	80822	89630
1841	99069	86184	75440	83204
1842	96314	86538	82339	84328
1843	94926	87234	76702	87493
1844	101024	85337	79708	90864
1845	104664	89149	74872	80681
1846	89484	90230	101664	108937
1847	119672	106718	93435	103479
1848	120032	99727	87638	92436
1849	105870	102153	135227	97589
1850	98430	92871	85849	91845
1851	105359	99458	91499	99080

TABLE XIV.—ENGLAND. DEATHS.—PROPORTIONAL Number of DEATHS in each QUARTER to 1000 Deaths in the Average Quarter of each Year.

YEARS.	Number of Deaths in the Average Quarter.	Proportional Number of Deaths				
		In the Average Quarter (assumed to be 1000).	First Quarter ending March 31.	Second Quarter ending June 30.	Third Quarter ending Sept. 30.	Fourth Quarter ending Dec. 31.
1838	85690	1000	1145	1061	850	944
1839	84746	1000	1059	1033	900	1003
1840	89922	1000	1100	1005	899	997
1841	85962	1000	1152	1002	878	968
1842	87380	1000	1102	990	942	965
1843	86611	1000	1096	1007	887	1010
1844	89233	1000	1132	956	893	1018
1845	87342	1000	1198	1021	857	924
1846	97579	1000	917	925	1042	1116
1847	105826	1000	1131	1008	883	978
1848	99958	1000	1201	998	877	925
1849	110210	1000	961	927	1227	885
1850	92249	1000	1067	1007	931	996
1851	98849	1000	1066	1006	926	1002

persons that are engaged in the textile manufactures are thrown together. *Miners* in iron, lead, copper, coal, and the manufactures of the metals, have for the same reason been thrown into one group. Again, as the large class of agricultural labourers has in the registers often been confounded, under the indefinite term "labourer," with labourers on roads, on railways, in quarries, labourers have been dealt with in the aggregate.

By selecting a few of the well-defined occupations in which large numbers of men are employed, and by grouping together in one line

TABLE XV.—ENGLAND. MALES aged 20 and upwards in the under-mentioned Occupations at the Census (31st March 1851); DEATHS in the same Occupations in the Year 1851; and MORTALITY per Cent.

OCCUPATIONS.	Living at the Census of 1851.	DIED in the Year 1851.	Mor-tality to 100 Living.	OCCUPATIONS.	Living at the Census of 1851.	DIED in the Year 1851.	Mor-tality to 100 Living.
ENGLAND.—TOTAL of MALES AGED 20 and UPWARDS				Class VIII.—continued.			
	4,717,013	94,692	2·009	(4) Ship-owner	1526	33	2·163
Class I.				Seaman and Seaman R.N., Pilot, and others connected with Sea Navigation			
(1) Post Office, Inland Revenue, Customs, and other Government Officers	33830	558	1·649	(5) Engaged in Warehousing and Storage	11274	210	1·863
(2) Police	16334	199	1·218	(6) Messenger (not Govt), Porter, and others employed about Messages	27892	661	2·370
Union Relieving Officer, Officer of Local Board, and other Local Officers	9705	191	1·968	Class IX.			
(3) East India Service	3291	63	1·914	(1) Farmer and Grazier	225747	6426	2·847
Class II.				Agricultural Labourer, Farm Servant, Shepherd, General Labourer, Road Labourer, Railway Labourer, Stone, Slate, and Limestone Quarrier, Brickmaker, Marble Mason, and other Workers in Stone and Clay			
(1) Army Officer, Army Half-pay Officer, Soldier	36733	1000	2·722	(2) Woodman, and others connected with Arboriculture	1192909	25801	2·163
(2) Navy Officer, Navy Half-pay Officer, and Marine (a)	10022	231	2·305	(3) Gardener, Nurseryman, and others connected with Horticulture	6989	80	1·145
Greenwich and Chelsea Pensioner	26323	1102	4·186	Class X.			
Class III.				(1) Horse-dealer			
(1) Clergyman, Protestant Minister	23725	323	1·361	Horse-keeper, Jockey, Groom	1227	33	2·689
(2) Barrister	2816	29	1·030	Inn Servant, Ostler	33851	409	1·203
(3) Physician	11350	224	1·974	Farrier, Veterinary Surgeon	16929	397	2·345
(4) Surgeon	1771	53	2·993	Cattle, Sheep-dealer, Salesman	5581	148	2·652
(5) Parish Clerk and other Church Officers	13470	261	1·938	Drover	4428	72	1·626
(6) Law Clerk	3987	118	2·960	Gamekeeper	2623	49	1·868
(7) Druggist and Druggist's Assistant	9714	195	2·007	Fisherman	7198	111	1·542
Class IV.				Publisher, Bookseller, and Stationer			
(2) Painter (Artist)	4171	65	1·558	Bookbinder	8421	116	1·378
Architect	2252	31	1·377	Printer	4292	88	2·050
(4) Music Master, Musician	7026	156	2·220	Musical Instrument Makers and Dealers	16034	298	1·859
Schoolmaster	17664	374	2·117	(4) Engraver	3977	77	1·936
Class V.				(5) Engaged about carving Figures			
(2) Domestic Servant	51889	874	1·684	(6) Connected with Shows, Games, and Sports	3936	72	1·829
(3) Hairdresser	9261	217	2·343	(7) Pattern and other Designers and Draughtsmen	2268	26	1·146
Hatter	11297	330	2·921	(9) Watchmaker	2152	26	1·208
Tailor	96633	1931	1·998	(10) Gunsmith and others engaged in manufacture of Arms	1764	48	2·721
Hosier, Haberdasher	2615	45	1·721	(11) Engine and Machine Maker, Tool maker, and others dealing in Tools and Machines	14020	243	1·733
Hose, Stocking—Manufacture	25683	577	2·247	(12) Coachmaker and others connected with Carriage-making	5784	141	2·438
Glover (Material not stated)	3505	70	1·997	(13) Saddler, Whip-maker, and other Harness Makers	39636	425	1·072
Shoemaker	173932	3236	1·860	(14) Shipwright, Ship-builder, Boat, Barge-builder, and others engaged in fitting Ships	13077	228	1·744
Class VII.				(15) Surveyor			
(1) Merchant	7482	152	2·032	Builder	21716	425	1·957
Banker	1482	33	2·227	Carpenter, Joiner	2492	36	1·445
Stock, Share Bill, Broker	3559	64	1·798	Bricklayer, Mason, Pavior	10680	218	2·041
Agent, Factor	3617	84	2·322	Slater	133675	2604	1·948
Salesman	1302	21	1·613	Plasterer	123950	1980	1·597
Auctioneer	3341	63	1·886	Paperhanger, Painter, Plumber, Glazier	3800	57	1·500
Accountant, Commercial Clerk	33324	784	2·353	Wheelwright and other Implement Maker	13122	278	2·119
Commercial Traveller	8093	146	1·804	Millwright	48669	919	1·888
Pawnbroker	2432	45	1·850	Dyer, Scourer, Calenderer	24365	453	1·859
Hawker, Pedlar	13983	363	2·596		6446	133	2·063
Class VIII.				(17) Dyer, Scourer, Calenderer			
(1) Railway Engine Driver, Stoker, and others in Railway Service	22797	260	1·141		8162	205	2·512
(2) Toll Collector	3307	58	1·754				
Carrier, Carman, Carter, Drayman	38200	774	2·026				
Coach and Cab-owner, Omnibus-owner, Conductor, and Driver, Livery-stable Keeper, Coachman, Postboy, and others engaged in Road Conveyance	27301	557	2·040				
(3) Canal Service, Boat and Barge-man, and others connected with Inland Navigation	32128	598	1·861				

(a) The Seamen of the Royal Navy are included with Merchant Seamen in Class VIII, Sub-class 4.

classes easily confounded in the returns, certain striking and interesting results have been obtained, which are embodied in the Tables XVI., XVII. In some instances these results confirm preconceived opinions; in others they bring to light important facts of which we had before no idea.

Farmers.—Of the twelve classes in the Tables, the farmers are the oldest and the longest livers; out of 225747 there are 31720 of the age 25 and under 35; 48378 of the age 35-45; and 53608 of the age 45-55. Their numbers then decline, and there are 45585 of the age 55-65;

TABLE XV. (continued)—ENGLAND. MALES aged 20 and upwards in the under-mentioned Occupations at the Census (31st March 1851); DEATHS in the same Occupations in the Year 1851; and MORTALITY per Cent.

OCCUPATIONS.	Living at the Census of 1851.	DIED in the Year 1851.	Mor-tality to 100 Living.	OCCUPATIONS.	Living at the Census of 1851.	DIED in the Year 1851.	Mor-tality to 100 Living.
Class XII.				Class XIII.—continued.			
(1) Cowkeeper, Milkseller	9300	219	2·355	(12) Flax, Linen manufacture, Draper, Lace manufacture, Cotton manufacture, Packer and Presser (cotton), Fustian manufacture, Calico, Cotton Printer, Calico, Cotton Dyer, Other Workers and Dealers in Flax and Cotton	175598	2421	1·379
Cheesemonger	2932	37	1·262	(13) Paper manufacture, Paper Stainer, other Paper Workers and Dealers	7923	154	1·944
Butcher	49403	1054	2·133	Class XIV.			
Poulterer	1795	32	1·783	(1) Miners, &c., Coal, Iron, Copper, Tin, and Lead Miners; Iron, Copper, and Lead manufacture; Dealers and Workers in Copper, Tin, and Lead	238782	3609	1·511
Fishmonger	6315	104	1·647	Coal-merchant, Dealer	9741	149	1·530
Provision curer and others, dealing in Animal Food	7872	88	1·118	Coal-heaver, Coal-labourer	10628	160	1·505
(2) Soap-boiler	1055	12	1·137	Chimney Sweeper	4146	95	2·291
Tallow Chandler	3954	74	1·872	(2) Stone Quarriers, Railway Labourers, &c. (See IX.; 1.)			
Comb-maker	1458	40	2·743	(3) Earthenware manufacture, Earthenware and Glass Dealer, Tobacco pipe Makers, and others	20518	381	1·857
(3) Fellmonger, Skinner, Currier, Tanner, and other Workers in Leather	21384	395	1·847	(4) Glass manufacture and other Workers in Glass	8083	168	2·078
(4) & (5) (Feathers) and Hair manufacture	1088	26	2·390	(6) Water Providers	1503	28	1·863
Brush and Broom Maker	6053	97	1·603	(7) & (8) Workers, Dealers in Precious Stones, Goldsmith, and Silversmith	8496	170	2·001
(6) Wool-stapler, Woollen-cloth manufacture, Fuller, Worsted manufacture, Stuff manufacture, Clothier, Woollen Draper, Carpet and Rug manufacture, and other Workers and Dealers in Wool	114350	1565	1·369	Plater	1111	17	1·530
(7) Silk manufacture, Silkmercer, Ribbon manufacture, Fancy Goods manufacture, and other Workers and Dealers in Silk	40032	396	·989	Carver, Gilder	3334	62	1·860
Aggregate of the Wool, Cotton, and Silk Sub-classes	329980	5865	1·777	(9) Copper-miner and Lead Manufacture (See XIV.; 1.)	1211	23	1·899
Class XIII.				(10) Tin miner (See XIV.; 1.)			
(1) Greengrocer	7674	144	1·876	Tinman	5897	122	2·069
Corn merchant and Flour Dealer	6783	100	1·474	(11) Zinc manufacture and Workers and Dealers in Zinc	378	7	1·852
Miller	26413	456	1·726	(12) Lead miner and Lead manufacture (See XIV.; 1.)			
Baker, Confectioner	42717	763	1·786	(13) Brassfounder, Locksmith, Bell-hanger, Brazier, White Metal manufacture, Button-maker, Wire-maker, Wire-worker, Weaver, other Workers and Dealers in mixed Metals	26157	417	1·594
(2) Malster	9812	205	2·089	(14) Iron-miner, iron manufacture. (See XIV.; 1.)			
Brewer	16128	346	2·145	Whitesmith	7615	109	1·431
Inn and Hotel Keeper, Licensed Victualer, and Beer-shop Keeper	55315	1706	3·084	Blacksmith	75998	1409	1·854
Wine and Spirit Merchant	6049	120	1·984	Nail manufacture	12713	264	2·077
Sugar-refiner	1897	25	1·318	Boiler-maker	4857	55	1·132
Grocer	47473	721	1·519	Ironmonger	6093	103	1·690
Tobacconist	2616	33	1·261	File-maker	4371	74	1·693
(3) Oil and Colourman	1627	27	1·659	Cutler	6242	161	2·579
French Polisher	2478	34	1·372	Needle manufacture	1884	39	2·070
(4) Timber Merchant	3512	57	1·623	Other Workers and Dealers in Iron and Steel	17557	407	2·318
(5) Cork cutter	1395	30	2·151				
(6) Sawyer	27824	493	1·772				
Lath-maker	1377	22	1·598				
(7) Cabinet-maker, Upholsterer, Turner, Chair-maker, Box maker, and others dealing in Wood Furniture	40203	689	1·714				
(8) Cooper and other Makers of Wood Utensils	14867	355	2·388				
(9) Frame-maker, Block and Print Cutter, and other Wood Tool Makers	5579	67	1·201				
(10) Basket maker	6078	96	1·579				
Thatcher	5065	105	2·073				
(11) Rope-maker, Sailcloth manufacture, and other Workers and Dealers in Hemp	14296	259	1·812				

Note.—Several Occupations have been excluded from this Table, as from limited numbers or errors of nomenclature it is believed that the mortality is not truly expressed; thus,—Authors, Editors, Writers, and others engaged in Literature, mortality ·819 per cent.; Scientific Persons, 1·259 per cent.; Ship-agents ·794; Actors and others connected with Theatres, 3·533; Civil Engineers, ·950; Medallists and Die Sinkers, 3·152; Gaswork service, ·940; Salt-makers and Dealers, ·509; Anchorsmiths, ·504; Grinders (branch undefined), 4·128; Mechanics, Manufacturers; Shopmen (branch undefined), and others of indefinite Occupations, 4·333 per cent.

28660 of the age 65-75; 11363 of the age 75-85; and 1711 of the age 85 and upwards. Their numbers, depending on the number of farms, have been probably stationary for some years in England, and it is evident that men enter the class at all the ages up to 45-55, when the number living is greater than the number at any other period of life. Few become farmers after that age. The total deaths in the year were 6426; and the deaths to 1000 living at each of the decennial ages commencing at 35-45 were nearly 9, 12, 25, 55, 148, 324.

The deaths to 1000 labourers at each of the corresponding ages were 13, 17, 29, 68, 174, and 418. The advantages in respect to health of the farmer over the labourer are considerable at every age after the age of 35; but, singularly enough, the mortality of the young farmers of the age 25-35 is rather higher (10.15) than the mortality (9.79) of the young labourers of the same age.

The labourers of all classes that are brought into the calculation were 1,192,909, of whom 25801 died in the year. They constitute nearly one fourth part of the male population of England; and their mortality is at nearly the same rate as that of the whole population, except in the very advanced ages, when the Poor Law apparently affords inadequate relief to the worn-out workman.

TABLE XVI.—NUMBER of MALES aged 20 Years and upwards in the under-mentioned Occupations living at the Census of 1851, and the Number in the same Occupations who died in the Year 1851, at different periods of age.

OCCUPATION.	20 Years of Age and upwards.	MALES—AGES.								
		20—	25—	35—	45—	55—	65—	75—	85 and upwards.	
Tailors	Living in 1851	96,633	15,529	30,187	23,316	13,321	8,234	4,407	1,449	190
	Died in 1851	1,931	167	351	330	223	232	337	225	66
Shoemakers	Living in 1851	173,932	27,963	49,436	39,464	27,943	16,799	9,070	2,864	393
	Died in 1851	3,236	269	451	418	420	482	590	471	135
Farmers and Graziers	Living in 1851	225,747	4,722	31,720	48,378	53,608	45,585	28,660	11,363	1,711
	Died in 1851	6,426	87	322	418	643	1,135	1,585	1,682	554
Carpenters and Joiners	Living in 1851	133,675	21,351	37,779	29,565	19,851	14,331	7,653	2,807	338
	Died in 1851	2,604	169	357	305	331	425	504	401	112
Butchers	Living in 1851	49,403	9,026	14,421	10,771	7,921	4,459	2,001	712	92
	Died in 1851	1,054	68	163	178	183	185	133	110	34
Persons engaged in the Wool, Cotton, and Silk Manufactures	Living in 1851	329,980	65,435	97,188	70,746	48,273	28,551	14,775	4,524	488
	Died in 1851	5,865	591	775	754	742	942	1,102	783	176
Bakers and Confectioners	Living in 1851	42,717	8,207	12,773	9,285	6,553	3,696	1,692	458	53
	Died in 1851	763	69	97	137	139	122	113	69	17
Inn and Hotel Keepers, Licensed Victuallers, and Beer-shop Keepers	Living in 1851	55,315	1,582	11,066	16,133	13,658	8,161	3,693	929	96
	Died in 1851	1,706	11	153	330	387	318	301	168	38
Grocers	Living in 1851	47,473	8,494	13,634	10,327	7,411	4,636	2,333	586	52
	Died in 1851	721	88	104	108	117	105	116	73	10
Miners, &c., viz. Coal, Iron, Copper, Tin, and Lead Miners; Persons engaged in Iron, Copper, and Lead manufacture, Workers and Dealers in Copper, Tin, and Lead	Living in 1851	238,782	56,601	80,184	49,781	30,027	14,958	5,664	1,416	151
	Died in 1851	3,609	498	681	565	605	516	456	253	35
Labourers, &c. viz., Agricultural Labourers, Farm Servants, and Shepherds; General Labourers; Railway Labourers, and Navvies; Stone, Slate, and Limestone Quarriers and other Workers in Stone and Clay; Bricklayers and Marble Masons	Living in 1851	1,192,909	208,383	320,025	243,701	190,074	128,889	72,507	26,009	3,321
	Died in 1851	25,801	1,729	3,133	3,052	3,289	3,763	4,923	4,524	1,383
Blacksmiths	Living in 1851	75,998	14,338	23,042	16,212	10,904	6,713	3,480	1,143	166
	Died in 1851	1,409	86	187	201	180	250	259	191	55
All MALES aged 20 and upwards in England	Living in 1851	4,720,904	784,823	1,323,621	1,017,018	734,314	482,788	268,052	97,008	13,280
	Died in 1851	94,366	7,029	12,531	12,547	13,104	14,609	17,116	13,612	3,813

NOTE.—The numbers "Living in 1851" are those enumerated at the Census (March 31st 1851); the numbers who "Died in 1851" comprise all in the several Occupations whose Deaths were registered during the year 1851. In the last line but one the numbers aged 20 and upwards living in 1851 are estimated for the middle of the year 1851; and in calculating the rate of mortality a correction has been made for 326 deaths of Males whose ages were not stated by distributing a proportional part over the different ages.

The four classes which on the whole experience the heaviest rates of mortality are *miners, bakers, butchers, and inn and beershop keepers*. Thus at the age 45-55 out of every 1000 farmers 12 died; of 1000 shoemakers 15 died; of 1000 weavers and others employed in the manufacture of cotton, silk, and wool 15 died; out of an equal number of grocers 16 died; of blacksmiths 17 died; of carpenters 17 died; of tailors 17 died; of labourers 17 died; of miners 20 died; of bakers 21 died; of butchers 23 died; of inn and beershop keepers 28 died;—the mortality at that age among the whole population of England being at the rate of 18 in 1000.

At every period of life the mortality of the inn and beershop keepers is in excess of the mortality of all the other classes except the *butchers* at the age of 55-65 who died at the rate of 41 in 1000; while the rate among the *inn and beershop keepers* of the same age was 39 in 1000; the rate among the whole population being 30.

Among the important class of men, 55315 in number, variously designated hotel keepers, inn keepers, licensed victuallers, and beershop keepers, distributed all over the kingdom, but concentrated especially in towns, the causes of this unusually heavy rate of mortality deserve careful and extensive investigation. Many highly respectable men of the class lead regular lives, and are of steady habits; but others, exposed by their business to unusual temptations, live intemperately, and enjoy less quiet at night than the rest of the community. They are exposed also to zymotic diseases, by intercourse with large numbers of people.

But in a matter of so much importance, these remarks *must* only be viewed as indications of the direction that the inquiry should pursue in the hands of competent persons.

TABLE XVII.—MORTALITY per Cent. of MALES aged 20 Years and upwards in the under-mentioned OCCUPATIONS in the Year 1851, at different Periods of Age.

OCCUPATION.	20 Years of Age and upwards.	MALES—AGES.							
		25—	35—	45—	55—	65—	75—	85 and upwards.	
Mortality per Cent.									
Tailors	1.998	1.163	1.415	1.674	2.818	7.647	15.528	34.737	
Shoemakers	1.860	.912	1.059	1.503	2.809	6.505	16.446	34.351	
Farmers and Graziers	2.847	1.015	.864	1.199	2.490	5.530	14.802	32.379	
Carpenters and Joiners	1.948	.945	1.032	1.667	2.966	6.586	14.286	33.136	
Butchers	2.133	1.130	1.653	2.310	4.149	6.647	15.449	36.957	
Persons engaged in the Wool, Cotton, and Silk Manufactures	1.777	.797	1.066	1.537	3.299	7.459	17.308	36.066	
Bakers and Confectioners	1.786	.759	1.475	2.121	3.301	6.678	15.066	32.075	
Inn and Hotel Keepers, Licensed Victuallers, and Beer-shop Keepers	3.084	1.383	2.045	2.834	3.897	8.151	18.084	40.860	
Grocers	1.519	.763	1.046	1.579	2.265	4.972	12.457	19.231	
Miners, &c., viz. Coal, Iron, Copper, Tin, and Lead Miners; Persons engaged in Iron, Copper, and Lead Manufactures; Workers and Dealers in Copper, Tin, and Lead	1.511	.849	1.135	2.015	3.450	8.051	17.867	23.179	
Labourers, &c., viz. Agricultural Labourers, Farm Servants, and Shepherds; General Labourers, Railway Labourers, and Navvies; Stone, Slate, and Limestone Quarriers, and other Workers in Stone and Clay; Bricklayers and Marble Masons	2.163	.979	1.252	1.730	2.920	6.790	17.394	41.795	
Blacksmith	1.854	.812	1.240	1.651	3.724	7.443	16.710	33.133	
All MALES aged 20 Years and upwards in England	2.009	.948	1.236	1.787	3.031	6.396	14.055	28.797	

Butchers.—This useful body of men amounted to 49403; and they experienced a much heavier rate of mortality than any other class except that preceding—at the ages under 65. Thus at the age 35–45 the rate of mortality per 1000 among farmers was 9, carpenters and joiners 10, shoemakers 11, blacksmiths 12, tailors 14, bakers 15, butchers 17. At the next decennial age (45–55) the mortality of butchers was 23; at 55–65 it was 41, or higher than the mortality that any other class suffered. The mortality of the old butchers of the age of 65 and upwards is near the average.

While much has been written about the diseases of shoemakers, weavers, tailors, miners, and bakers, the extraordinary mortality of butchers appears to have escaped observation. Calculation alone has taught us that the red, injected face of the butcher is an indication of a frail habit of body.

Here is an important problem for solution. On what does the great mortality of the butcher depend? On his diet, into which too much animal food and too little fruit and vegetables enter?—on his drinking to excess?—on his exposure to heat and cold?—or, which is probably the most powerful cause, on the elements of decaying matter by which he is surrounded in his slaughter-house and its vicinity?

Bakers and confectioners.—The habits of bakers in town and country differ considerably; but the mortality among the 42717 was at the ages from 35 to 65 much above the average. The young bakers of the age (25–35) experienced a low rate of mortality (7·59 in 1000).

Miners die in undue proportion, particularly at the advanced ages, when their strength begins to decline. In this particular they resemble labourers.

Tailors die in considerable numbers at the younger ages (25 to 45); but their mortality after the latter age, though higher than that of the former, is below the average of the people in general.

Carpenters, grocers, weavers, and shoemakers in early manhood, 25–45, do not experience a high rate of mortality; and subsequently the range of the rate below or above the average of all classes is not considerable.

Blacksmiths, 75998 in number, are distributed all over the kingdom in shops, where they work under peculiar conditions. Their mortality differs little from that of labourers, but it is excessive after the age of 55, and from the age of 55 to 75 it exceeds the mortality of labourers.

In the annexed Table (XVIII.) the several classes are arranged in the order of the mortality at the age (45–55). The facts deserve to be carefully studied.

Every occupation has its peculiar dangers, which in their results sometimes counterbalance each other. Thus, the tailor is not exposed to the explosions which are fatal to the miner; and the labourer has exercise which is denied to the tailor. It is hence probable that the diseases of classes that experience the same rate of mortality differ; so, necessarily, do the measures by which those diseases may be obviated.

TABLE XVIII. MORTALITY PER CENT.

		AGES.					
25–	35–	OCCUPATION.	45–	55–	65–	75–	
1·015	·884	Farmer - - - -	1·199	2·490	5·530	14·802	
·912	1·059	Shoemaker - - -	1·503	2·869	6·505	16·446	
·797	1·056	Weaver - - - -	1·537	3·259	7·459	17·308	
·783	1·046	Grocer - - - -	1·579	2·265	4·972	12·457	
·812	1·240	Blacksmith - - -	1·651	3·724	7·443	16·710	
·945	1·032	Carpenter - - -	1·667	2·966	6·586	14·286	
1·163	1·415	Tailor - - - -	1·674	2·818	7·647	15·528	
·979	1·252	Labourer - - - -	1·730	2·920	6·790	17·394	
·849	1·135	Miner - - - -	2·015	3·450	8·051	17·867	
·759	1·475	Baker - - - -	2·121	3·301	6·678	15·066	
1·130	1·653	Butcher - - - -	2·310	4·149	6·647	15·449	
1·383	2·045	Innkeeper - - -	2·834	3·897	8·151	18·084	
·948	1·236	All England - -	1·787	3·031	6·396	14·055	

Insurance offices and Friendly societies will probably find the facts in these Tables of use to them in their transactions. For it is evident that the lives of farmers, for example, may be safely insured at much lower rates than the lives of licensed victuallers. Life Tables may be constructed from Table XVII., showing the probabilities of life or the mean life-time of several classes on a wider basis of facts than those which were employed by the eminent actuary, Mr. Milne, in constructing the Carlisle Table. But before the Tables are constructed the inquiry must be extended over other years; and must embrace the diseases, and several other circumstances on which it is desirable to obtain satisfactory information before constructing new Tables on which large pecuniary investments may be made to depend.

The result of the inquiries which the facts that have been already analyzed suggest, will, I trust, lead to great reductions in the rate of mortality from which all the unhealthy professions now suffer.

The Causes of Death are briefly discussed by Dr. Farr in a letter addressed to me, which will be found in the Appendix.

I have the honour to be,

Sir,

Your faithful Servant,

GEORGE GRAHAM,

Registrar-General.