

The Census Up To Date.

(April 6th, 1895.)

BY J. HOLT SCHOOLING.

(Fellow of the Royal Statistical Society, etc.)



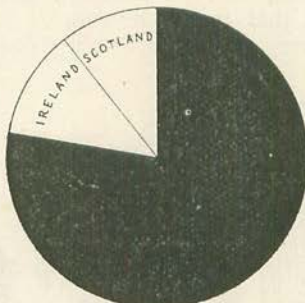
WHEN we have a mass of observed facts relating to the past, we can often use those facts as a means to forecast future events of a similar nature, with a degree of approximation to truth that comes near to certainty. This is specially the case when we deal with so large a mass of facts as is afforded by the population of such a country as the United Kingdom. Unstable and elusive of calculation as are facts relating to the individual—nothing is perhaps more reliable as a working base for computing future events than is the aggregate of past individual facts. The “chances” that individuals meet in life are merged and disappear in the mass, and apparent disorder and erratic “chance” are lost in the harmonious order of human events which stands revealed when we view them *en masse*. And so we will see how we now number as a population, without taking the trouble to issue the six or seven millions of schedules required by a modern census of the United Kingdom.

Before we look at any of the results of our 1895 census, let me say that in every possible instance I have gone to the original facts of April 6th, 1891, and that in no single case has any deduction from these facts been accepted second-hand. Every calculation has been independently made, and has moreover been stringently checked by processes that are sufficiently familiar to the actuary or to the statistician—in fact, while we may perhaps see our results in a more graphic and interesting form than is usually adopted for statistical results, we may also feel assured that they have been as carefully prepared as if intended for an

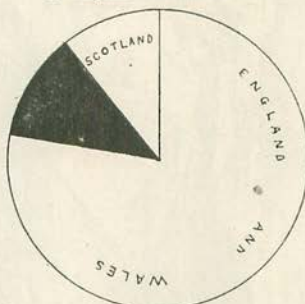
audience of statisticians, instead of for the much larger and more varied audience who themselves form no inconsiderable part of the subject-matter of this paper.

In No. 1 we see a diagrammatic picture of the following figures:—

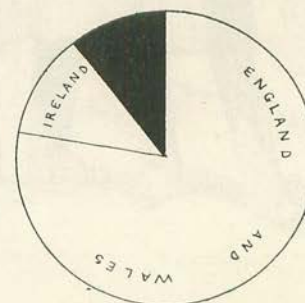
	Population, April 6th, 1895.	Per 1,000 of the Total Population.
England and Wales.....	30,270,817	778
Ireland.....	4,522,982	116
Scotland.....	4,142,471	106
United Kingdom.....	38,936,270	1,000



I.—England and Wales in black.



II.—Ireland in black.



III.—Scotland in black.

No. 1.—Each of the above circles represents the population of the United Kingdom on April 6th, 1895. The black part of each circle represents the population of: I. England and Wales. II. Ireland. III. Scotland.

and, in stating the present population at nearly 39 millions, we are probably very near the truth, because the rate of growth which actually operated during 1881–1891 may be used to compute the population four years later than 1891, with a chance of serious error which is so small that, for practical purposes, it becomes inappreciable. As regards the splitting-up of the population, we see that more than three-quarters of the whole are inhabitants of England and Wales, and that less than one-quarter are inhabitants of Ireland and Scotland combined.

It is interesting to note in connection with these distribution-rates that in 1821, when the first complete census of the United Kingdom was taken, the figures were:—

	Per 1,000 of the total population.
England and Wales.....	574
Ireland.....	325
Scotland.....	100
United Kingdom.....	1,000

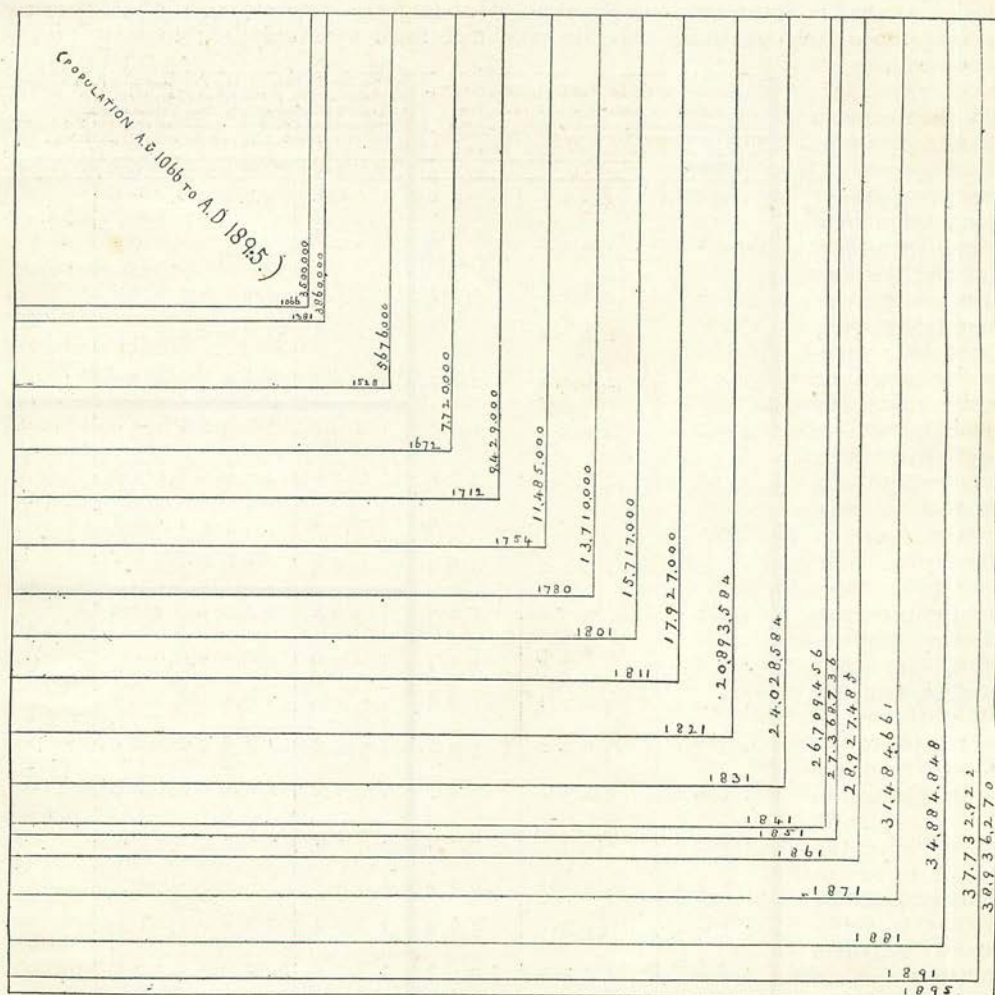
At each of the seven censuses since 1821 the percentage residing in England and Wales has increased, while the percentage residing in Ireland has continuously declined, the Scotch proportion remaining practically unchanged but for a slight tendency towards increase.

If we express the three black sectors of circles seen in No. 1 as parts of one hour on a clock-dial, we then find that the English and Welsh population equals 46 minutes 39 seconds; the Irish population 6 minutes 58 seconds; the Scotch, 6 minutes 23 seconds; *total, United Kingdom—one hour.* At no very distant date, *viz.*, in the year 1900, the inhabitants of Scotland will be as numerous as the inhabitants of Ireland, and so, at the next official census (1901), there will be recorded, for the first time in history, a numerical superiority of the Scotch over the Irish population.

The diagram No. 2 is a very carefully drawn series of squares, each of which represents by its area the total population of the countries which are now the United

Kingdom at various dates from A.D. 1066 to A.D. 1895. The successively increasing squares give us a better idea of the growing population than do the actual numbers which are written at the corners of the squares, and which, for the most part, are the results of censuses, the earlier populations being the most reliable estimates which have been made as to our numbers in the early days of our history.

The *rate* at which we have increased during these eight centuries has varied considerably. From the Norman Conquest up to the time of Richard II., about three centuries, the ranks of the troubled people were thinned by disease, pestilence, and war, to nearly the same degree that they were increased by the birth of children in those hazardous days,



No. 2.—A diagram consisting of eighteen squares, which illustrate by their respective areas the growth of the population of the United Kingdom from A.D. 1066 to April 6th, 1895.

and so the population had but a slow and stunted growth, which, for every ten thousand persons living in the January of a year, could add at the December of that year only three persons to the ten thousand on a yearly balance of gain over loss of population. The people grew more quickly during the succeeding one and a half centuries, *i.e.*, from Richard II. to Henry VIII., and also during the years which bring our history up to the second Charles. The net rate of growth was then over two persons added to a thousand during one year. And this quicker growth of our population went up to more than five per 1,000 per annum during the eighteenth century. As regards the present century, the quickest growth of the population of the United Kingdom occurred during 1811-1821, when, on the average, nearly fifteen and a half persons were annually added to every 1,000 of the population: this rate was almost as high up

to the year 1831, and then came a slower growth, which again quickened up to ten per 1,000 per annum during 1871-1881, and which is now somewhat less than eight persons added to a thousand during one year. Taking the whole period of 829 years from A.D. 1066 to A.D. 1895, the average yearly rate of growth has been just under three persons increase for every one thousand. In other words, if we merge all variations in the rate of growth, the $3\frac{1}{2}$ millions of population in the year 1066 would have increased to the 39 millions existing in 1895, by applying a uniform growth-rate of 2.9 persons per 1,000 per annum to the

population for each of the 829 years from 1066 to 1895.

No. 3 shows us pretty clearly in col. (1) the increasing numbers which, in later years than 1066, represented exactly one thousand persons living in that year. We see how the thousand became eleven hundred in the year 1381, over two thousand in 1672, nearly four thousand in 1780, more than eight thousand in 1861, and how, finally, there are now more than *eleven* thousand persons in our population for every *one* thousand existing at the time of the Norman Conquest. And in col. (2) of No. 3 this process is reversed, and it shows us the gradually decreasing numbers in years prior to 1895 which represented one thousand of our present population. Even so recently as 1871 there were only 809 persons for every thousand persons now inhabiting this country, and in 1801 we see that there were only 404 to every present

Showing for each year stated below :- (1) For every 1000 persons in A.D. 1066, the increased numbers in LATER YEARS (2) For every 1000 persons in A.D. 1895, the smaller numbers in EARLIER YEARS.			(1) THE DOUBLING of the Population from A.D. 1066. (2) THE HALVING of the Population from A.D. 1895. (3) THE YEARS in which the Population numbered (or will number) exactly 5 MILLIONS, 10 MILLIONS, ETC., up to 40 MILLIONS.		
YEAR	(1)	(2)	YEAR	POPULATION	N ^o OF YEARS
1066	1,000	90	1066	3,500,000	560
1381	1,103	99	1626	7,000,000	157
1528	1,622	146	1783	14,000,000	72
1672	2,206	198	1855	28,000,000	86
1712	2,694	242	1941	56,000,000	
1754	3,281	295	1895	38,936,270	79
1780	3,917	352	1816	19,468,135	98
1801	4,491	404	1718	9,734,068	249
1811	5,122	460	1469	4,867,034	
1821	5,970	537	1066	3,500,000	413
1831	6,866	617	1479	5,000,000	245
1841	7,631	686	1724	10,000,000	69
1851	7,820	703	1793	15,000,000	25
1861	8,245	743	1818	20,000,000	16
1871	8,996	809	1834	25,000,000	31
1881	9,967	896	1865	30,000,000	16
1891	10,781	969	1881	35,000,000	17
1895	11,124	1,000	1898	40,000,000	

No. 3.—A condensed statement of the growth, etc., of the population of the United Kingdom from A.D. 1066 to A.D. 1895.

thousand; and so we go back and back, as we read col. (2) from bottom to top, until we see that in the year 1066 there were only 90 persons for every thousand now living in the United Kingdom.

The other part of No. 3 contains some rather interesting results I have computed as to (1) *The Doubling of the Population from A.D. 1066 to A.D. 1941*; (2) *The Halving of the Population from 1895, backwards*; and (3) *The Years in which the Population numbered exactly 5 millions, 10 millions, etc.*

One often comes across statements about our population doubling itself in "fifty years." So far as I have been able to trace this still existing notion, it was originated by the late Dr. William Farr, at one time superintendent of the statistical department of the Registrar-General's office, who, when commenting forty years ago on the 1851 census, said that the population of England and Wales would double itself in fifty-one years provided that the rate of growth for the first half of this century should be maintained during the second half. A correct statement, but which does not justify the prevailing idea as to the doubling of our population in fifty years. We can see from the right-hand column in No. 3 that our present numbers were exactly one-half in the year 1816, so that seventy-nine years have been required for the most recent doubling of the population of the United Kingdom. As regards England and Wales only, I find that their 1895 population was one-half in the year 1837; so that fifty-eight years have been the doubling period for England and Wales alone.

I may say with reference to (1) *the doubling of the population from A.D. 1066*, No. 3, that the result for A.D. 1941 is based upon the assumption of a future rate of growth equal to that which took place during 1881-1891. Although we may forecast the near future with considerable precision, we cannot expect the same degree of accuracy in our results when we make a forecast of nearly fifty years, as is the case here, so the statement of population for the year 1941 is not entitled to the same degree of credence that may safely be extended to the less distant future events with which we are dealing. The balance of existing probability points to the conclusion that the rate of growth in the distant future will be less than that which has operated in the near past, and, therefore, this 1941 estimate may, perhaps, be too high. But we shall turn the scale at forty millions in the year 1898—three years

from now—and, at that date, it will have taken just eighty years (1898 *minus* 1818) for the then population to have doubled itself. We numbered twenty millions in 1818—see the concluding section of No. 3.

Next to the numbering of a people should come some account of the land upon which they live, so here is a brief statement of the area of the United Kingdom. These areas include inland water, but not tidal water or foreshore:—

	Area in square miles.	Percentage of total area.	Persons to 1 square mile.
England and Wales	58,310	48	579
Ireland	32,353	27	140
Scotland	30,406	25	136
United Kingdom ..	121,069	100	322

If we divide the country equally among its population, and assume that each person is temporarily placed in the middle of his or her plot of land, we obtain by calculation the following somewhat interesting results:—

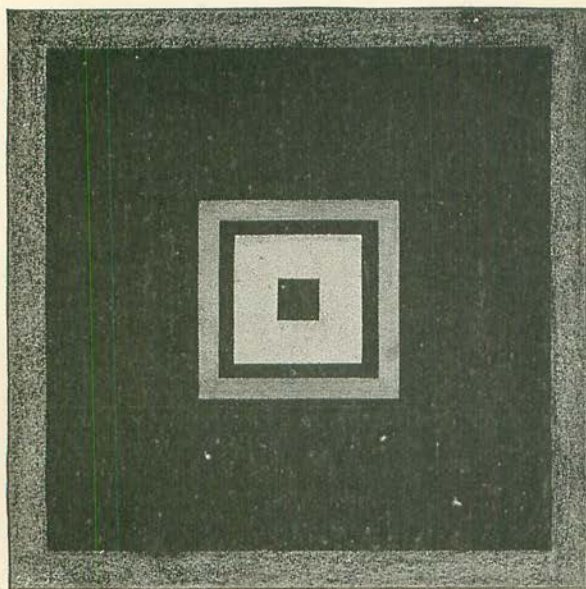
	Acres for each person.	Distance separating each person from his or her neighbours.
England and Wales ..	1½	83 yards.
Ireland	4½	160 "
Scotland	4½	162 "
United Kingdom ..	2	105½ "

Thus, we must not offer "three acres" to everybody, as the land wouldn't go round: we must be content with only 1¼ acres apiece in England and Wales, and if we each sat down on a chair in the centre of our plot of ground, and so presented the pretty spectacle of equal distribution of the English and Welsh population, the chairs would be eighty-three yards apart in every surrounding direction all over the whole country. [Ingenuous readers can puzzle their brains a little in finding out how this distance between the chairs has been calculated.]

Illustration No. 4 helps to show us of what kind of land our 1¼ acres apiece consist. England and Wales are composed as follows, according to the most recent and authentic official statement:—

	Per cent. of whole area.
II. Land under crops, bare fallow, permanent grass, nursery grounds	75
III. Houses, streets, roads, waste ground, etc. ..	12
IV. Mountain and heath, used for grazing ..	7½
V. Woods, plantations	5
VI. Inland water	½
I. Whole area of England and Wales	100

In No. 4, the large shaded square, of which only the edges are visible, represents the whole area; the large black square, which occupies three-quarters of the whole, stands for "II. Land under crops," etc.; the third square—the small, lightly-shaded one—denotes "III. Houses, streets," etc.; the small black square placed upon this, and nearly covering it, represents "IV. Mountain and



No. 4.—Six superimposed squares. These illustrate, by their respective areas, the areas of the different kinds of land and water which make up the Area of England and Wales. See text for description.

heath"; the plain white square stands for "V. Woods, plantations"; and the little black square in the centre shows the proportion of "VI. Inland water" to the whole area of England and Wales.

We see from this diagram that 75 per cent. of us would have to be content with $1\frac{1}{4}$ acres apiece of "crop-land," the more valuable "house-land" sufficing for only 12 out of every 100 persons.

Part I. of No. 5 shows how the people are distributed as regards their ages. From it we see that of the ten-year groups, the one at ages 5 to 14 contains the largest share of the population—228 out of every 1,000 being children of these ages. If we take all children under 15, we get 120 plus 228 = 348 per thousand, *i.e.*, more than *one-third* of the whole population are children under 15 years of age! If we consider the best period of life to be from ages 15 to 44, we can see that the best ages account for 456 persons out of every 1,000 of the population—a very satisfactory proportion, which may be still more increased if we include the *males* aged 45—54 under the head of "best" ages.

It is interesting to see how many persons there are to each male at the "working" ages 20 to 64. I find that the whole population is composed thus :—

Males aged 20 to 64	9,273,842
All other persons	29,062,428
Total population	38,936,270

so that on the average each of these males—who for practical purposes may be considered as the workers of the country—has dependent upon him rather more than three other persons; he has to maintain four persons if we include himself.

Part II. of No. 5 gives a synopsis of the

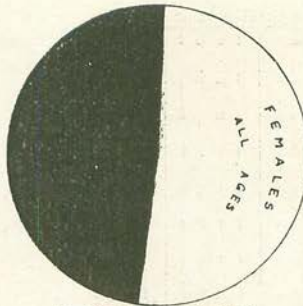
I		II			III		
AGES	PERSONS	AGES	PERSONS	POPULATION	AGES	PERSONS	POPULATION
0 - 4	120	0-100	1000	1000	0 - 4	120	1000
5 - 14	228	5-100	880	1000	0 - 14	348	1000
15 - 24	196	15-100	652	1000	0 - 24	544	1000
25 - 34	147	25-100	456	1000	0 - 34	691	1000
35 - 44	113	35-100	309	1000	0 - 44	804	1000
45 - 54	87	45-100	196	1000	0 - 54	891	1000
55 - 64	59	55-100	109	1000	0 - 64	950	1000
65 - 74	35	65-100	50	1000	0 - 74	985	1000
75 - 84	13	75-100	15	1000	0 - 84	998	1000
85-100	2	85-100	2	1000	0-100	1000	1000
POPULATION = 1000							

No. 5.—A concise statement of the proportional age-distribution of the population of the United Kingdom on April 6th, 1895. I., in individual groups of ages; II., in groups of ages which include the age specified and all older ages; III., in groups of ages which include the age specified and all younger ages.

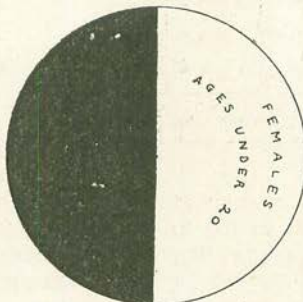
age-distribution of the people in large groups of ages, which extend from the age stated right up to the end of life. It shows us, for example, that fewer than one-half of us (456 per 1,000) are aged 25 and older, that five in every 100 are old people aged 65 and older, etc. Part III. reverses the process given in Part II., and tells us, among other things, that more than one-half the population (544 per 1,000) are young people under 25 years of age.

It is no unusual thing to hear various random statements about the extra females in this country — such as “there are three women to every man,” etc. In No. 6 we have black and white representations of the actual facts as regards the sex-distribution of the population, and as they have been most carefully drawn, they are worth some attention.

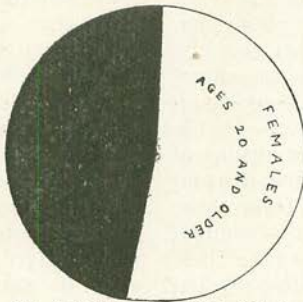
If we compare females with males, and make no distribution as regards age—*i.e.*, if we simply split up the people into males and females in two big groups — we obtain the result shown in I. of No. 6, which is equivalent to saying that out of every 100 people, $48\frac{1}{2}$ are males and $51\frac{1}{2}$ are females — not a very alarming difference, although quite appreciable when taken in connection with a large population. Parts II. and III. of No. 6 show us the numerical relations of the sexes in two large groups of age, *viz.*, *ages under 20* and *ages 20 and older*. As regards the young ages, we see that there are nearly as many males as there are females, for the black portion of Part II. is almost equal to its white portion. Expressed in figures there are, at ages 0 to 19, $49\frac{3}{4}$ males to $50\frac{1}{4}$ females in every 100 of the population under 20 years of age—a difference so small that it is not of much practical account. Coming to the second group of ages, 20 and older, we see that here lies the greatest difference between the sexes, *viz.*, $52\frac{1}{2}$ women to $47\frac{1}{2}$ men in every 100 of



I.—All ages. Males in black.



II.—Ages under 20. Males in black.



III.—Ages 20 and older. Males in black.

No. 6.—This diagram illustrates the numerical proportion of Females to Males in the population of the United Kingdom on April 6th, 1895. I. For all ages. II. For ages under 20. III. For ages 20 and older. White represents females; black represents males.

the adult population. But this excess of women is not nearly sufficient to justify the random statements to which I have just referred—and a very good thing it is that facts entirely contradict this popular and mistaken notion as to the vast numerical superiority of women over men: they are, we are told, really so superior in all other ways, that if their numbers were so great as is popularly supposed, the men — of no importance — would be completely eclipsed.

We may see in No. 7 to what extent females are relatively more numerous than males at the various ages therein stated, and also at the large groups of ages given in the second part of No. 7.

After ages 5 to 14, where there are more males than females, the gap between the two sexes widens nearly constantly right up to the end of life. We read this table thus: At ages 0-4 there are 1,002 female children to every 1,000 male children; at ages 25 to 34 there are 1,098 women to 1,000 men; while at the advanced ages of life the old women outnumber the old men to a degree that increases from 1,217 per 1,000 at the ages 65 to 74, to 1,706 old women aged 95 to 100, for every 1,000 old men of those ages.

Looking at the second part of No. 7, we see that for all ages combined (0 to 100) there are just 1,060 females per 1,000 males. For ages 25 and older there are 1,116 females to every 1,000 males; for ages 65 and older there are 1,246 females per 1,000 males, etc.

We have now been able to see how far women are relatively superior to men in point of numbers, and I give in No. 8 a concise statement of the actual numbers of “surplus” women from age 20 and upwards in the population of the United Kingdom. The total number of extra women is over one million, and more than one-quarter of the total excess is in respect of women aged

AGES	FEMALES	MALES	AGES	FEMALES	MALES
0-4	1002	1000	0-100	1060	1000
5-14	995	1000	5-100	1069	1000
15-24	1050	1000	15-100	1096	1000
25-34	1098	1000	25-100	1116	1000
35-44	1078	1000	35-100	1124	1000
45-54	1108	1000	45-100	1151	1000
55-64	1147	1000	55-100	1191	1000
65-74	1217	1000	65-100	1246	1000
75-84	1293	1000	75-100	1317	1000
85-94	1479	1000	85-100	1490	1000
95-100	1706	1000	95-100	1706	1000

No. 7.—A bird's-eye view of the proportional distribution of the sexes in the population of the United Kingdom on April 6th, 1895. First, in individual groups of ages; second, in groups of ages which include the age specified and all older ages.

25 to 34, *viz.*, 268,291 surplus women at these ages. But it has occurred to me to make some test of quality as well as quantity, and I have gone carefully into the matter of the respective brain-weights of men and women. The results of several independent investigations by scientists go to show that, for practical purposes, we may say that the male brain weighs on the average 48 ounces and the female brain 43 ounces, giving an excess of five ounces of male brain. In the second part of No. 8 I show the results of applying these brain-weights to all the men and women aged 20 and older, and from these results we see that there is still a substantial predominance of male brain at the best period of life (20 to 54), despite the marked numerical excess of women at those same ages: in all, there are in the country 559 tons of male brain, at picked ages, in excess of female brain, and against this predominance of male brain there is only an excess of female brain at advanced ages amounting to 108 tons. Now, facts of this kind have really a good deal of significance attached to them, and until these 559 tons of extra male brain become very appreciably fewer, it is not at all probable that the possessors of the heavier brains will be able to fully indorse certain current opinions as to the equality of women and men—even if it were

desirable to bring to terms of equality personalities that are and must always remain essentially different and non-equal.

The occupation of the people is a matter worth looking into, and in No. 9 we have a diagram which bears on this point and which illustrates the following figures:—

Class.	Per 1,000 of the population.
II. Children, and Adults with no specified occupation	555
III. Industrial	239
IV. Agricultural and Fishing	67
V. Domestic	62
VI. Commercial	44
VII. Professional	33
I. Total population of the United Kingdom	1,000

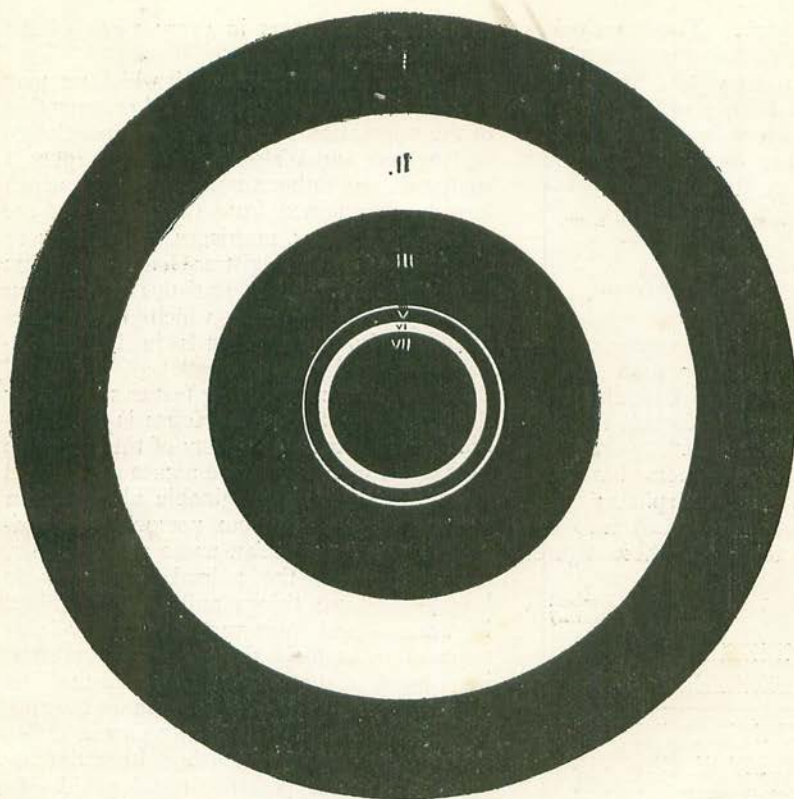
These are the proportions actually ascertained to exist in 1891, and we may use them now without much risk of any important error.

The discs in No. 9 are numbered I. to VII., and correspond with the above classes of occupation. We see that Class II., represented by the large white circle II., contains more than one-half of the population. It consists largely of children, and of women who have no occupation—who are for the most part dependent upon the exertions of the classes represented by the smaller circles.

The Industrial Class III. contains nearly one quarter of the population, and there remain only four relatively small classes, of which Agriculture and Fishing combined claim 67 per 1,000 of the total population.

AGES	NUMBER OF SURPLUS WOMEN	BRAIN-WEIGHT OF THE ADULT POPULATION			
		MALE BRAINS (TONS)	FEMALE BRAINS (TONS)	MALE BRAINS IN EXCESS (TONS)	FEMALE BRAINS IN EXCESS (TONS)
20-24	86,019	2,325	2,135	190	.
25-34	268,291	3,661	3,521	140	.
35-44	166,445	2,832	2,674	158	.
45-54	169,335	2,167	2,096	71	.
55-64	156,848	1,435	1,440	.	5
65-74	133,341	824	877	.	53
75-84	63,926	292	330	.	38
85-94	13,512	38	49	.	11
95-100	1,005	2	3	.	1
20-100	1,058,722	13,576	13,125	559	108

No. 8.—An unsugared pill for "advanced" women. The above statement illustrates the superiority of women over men as regards quantity, and—notwithstanding the inferior numbers of the males—the superiority of men over women as regards quality: taking the aggregate brain-weight of the two sexes as a broad criterion of quality. The facts relate to the adult population of the United Kingdom on April 6th, 1895.



No. 9.—Seven superimposed discs, numbered I. to VII., four of which are black discs and three are white discs. These discs respectively represent, by the area of each, the proportional distribution on April 6th, 1895, of the population of the United Kingdom (I.) in six main classes of occupation (II. to VII.). For description see text.

The Domestic class numbers 62 per 1,000, and it consists almost entirely of servants and washerwomen. The Commercial class accounts for 44 out of every 1,000 of the population, and the Professional class for only 33 per 1,000. Under "Professional" are included the Civil Service, defence of the country, the clerical, legal, medical, and educational sections of the people, *plus* some miscellaneous professions. Members of four professions may be interested in the following figures:—

Profession.	Number of Persons to One Professional.			
	England & Wales.	Scot- land.	Ire- land.	United Kingdom.
Clergyman, Priest, Minister	788	812	750	786
Barrister, Solicitor	1,452	1,294	2,262	1,499
Physician, Surgeon, General Practitioner	1,523	1,551	2,052	1,577
Teacher	145	193	222	150

Taking the facts for the United Kingdom, there are 786 men, women, and children to occupy the attention of each clergyman, there are 1,499 clients for each lawyer, if we include juvenile clients, and 1,577 patients for every medical man, while the teachers would have

Vol. ix.—73.

an average of 156 scholars if they were to extend their teaching to adults as well as to children. As regards the very useful class of domestics, of whom there are now nearly $2\frac{1}{2}$ millions, there would be rather more than sixteen persons for each to serve, if everybody had the services of a domestic, or rather of one-sixteenth part of a domestic.

The birthplaces of the present population can be estimated with considerable precision by means of the facts obtained in 1891. Thus, the 39 millions of persons stated at the commencement

of this article were born (approximately) as follows:—

74'39	per 100	were born in	England and Wales.
10'60	"	"	Scotland.
13'87	"	"	Ireland.
98'86	"	"	The United Kingdom.
0'44	"	"	Colonies and Dependencies.
0'69	"	"	Foreign Countries.
0'01	"	"	at Sea.

100'00

It by no means follows that all of the 0'69 per cent. who were born in foreign countries (268,660 persons) were not British subjects, although we cannot say exactly how many of these were foreigners by nation as well as by birth. The 1891 returns were defective in this respect, and thus we do not possess the necessary data upon which to work.

As regards England and Wales, we can make a fairly close estimate of the number of foreigners in the country—who are foreigners by nationality and by birth. There are now about 244 thousand persons in this country who were born in foreign States, and of these, 37 thousand are British subjects, leaving 207 thousand who are foreigners by

nationality and by birth. These estimates are probably rather below than above the actual numbers, but they are sufficiently reliable to give us a fairly good idea of the number of foreigners now living in England and Wales. The 207 thousand foreigners may be thus classed by their nationality:—

852 per 1,000 foreigners are natives of European States.			
133	"	"	America.
9	"	"	Asia.
5	"	"	Africa.
1	"	"	other parts.

1,000

Of the 133 per 1,000 foreigners who belong to America, no fewer than 100 of these 133 are natives of the United States, *i.e.*, one out of every ten foreigners in England is a native of "the States."

But the European foreigners have the most interest for us. Let us split up their numbers (approximately 176,420) into the European countries to which these figures belong:—

	(In England and Wales.)
Germans	52,875
Russians and Poles	47,106
French	21,735
Italians	10,356
Swiss	6,915
Dutch	6,636
Norwegians	6,550
Austrians and Hungarians	5,929
Swedes	4,832
Belgians	4,094
Danes	3,253
Spaniards	2,345
Other Europeans	3,794

April 6th, Total European Foreigners in)
1895. England and Wales) 176,420

As the majority of these and other foreigners are here for business purposes, or as sailors on board ships trading with this country, we should expect to find the largest proportions of them in large towns and centres of industry, or in the ports.

And this is actually the case, for nearly one-half of the 207 thousand foreigners (of all kinds) are to be found in London, while Cardiff, South Shields, and Manchester all rank pretty high as regards the sprinkling of foreigners in their populations.

We are not so much over-run by foreigners as is popularly supposed, for even in London, where they are thickest, they number only about 23 in every 1,000 of the population. Taking the whole of England and Wales, there are

not quite 7 foreigners in every 1,000 of the population.

An interesting feature with which we may fitly end our present inter-censal enumeration of the population is the family nomenclature in England and Wales. For this purpose I shall use some rather surprising results, which have been obtained from the indexes of the registers of births, marriages, and deaths in the charge of the Registrar-General, who has informed me that the statistics in question are the most recent which have been extracted from the records in his department.

One of the most striking features shown by the indexes at Somerset House is the extraordinary number and variety of the surnames of *English* people. These names are derived from almost every imaginable object—from places, from trades, from personal peculiarities, from the Christian name of the father, from objects in the animal and vegetable kingdoms, from things animate and things inanimate—and their varied character is as remarkable as their singularity is often striking. Some of the names are so odd that it is difficult to assign any valid reason for their use in the first instance as family names, unless they were nicknames, which neither the first bearers nor their posterity could avoid. In Wales, however, the same variety is not shown, most of the Welsh surnames having been formed in a simple manner from the Christian or fore-name of the father in the genitive case, *son* being understood. Thus, Evan's son became Evans, John's son became Jones, etc. Others were derived from the father's name mingled with a form of the word *ap* or *hab* (son of), by which Hugh ap

1	Smith	18	Green	35	James
2	Jones	19	Lewis	36	Morgan
3	Williams	20	Edwards	37	King
4	Taylor	21	Thompson	38	Allen
5	Davies	22	White	39	Clarke
6	Brown	23	Jackson	40	Cook
7	Thomas	24	Turner	41	Moor
8	Evans	25	Hill	42	Parker
9	Roberts	26	Harris	43	Priest
10	Johnson	27	Clark	44	Phillips
11	Robinson	28	Cooper	45	Watson
12	Wilson	29	Harrison	46	Shaw
13	Wright	30	Davis	47	Lee
14	Wood	31	Ward	48	Bennett
15	Hall	32	Baker	49	Carter
16	Waller	33	Martin	50	Griffiths
17	Hughes	34	Morris		

No. 10.—Fifty of the most common surnames in England and Wales, arranged in the order of their numerical importance.

Howell became Powell, Evan ap Hugh became Pugh, and so on.

Concerning the number of *different* surnames in England and Wales, an estimate based on the entries in the registers gives the approximate result of *forty thousand* different names. This number includes such variations of a name as are illustrated by the name Clerk being spelt Clark and Clarke, or by the name Smith being entered in the registers as Smyth, Smythe, and even as Smijth. Therefore, if we disregard these variations of a name, our total number of forty thousand would be considerably reduced: *not* disregarding these variations, we obtain the following results for England and Wales at the 6th April, 1895:—

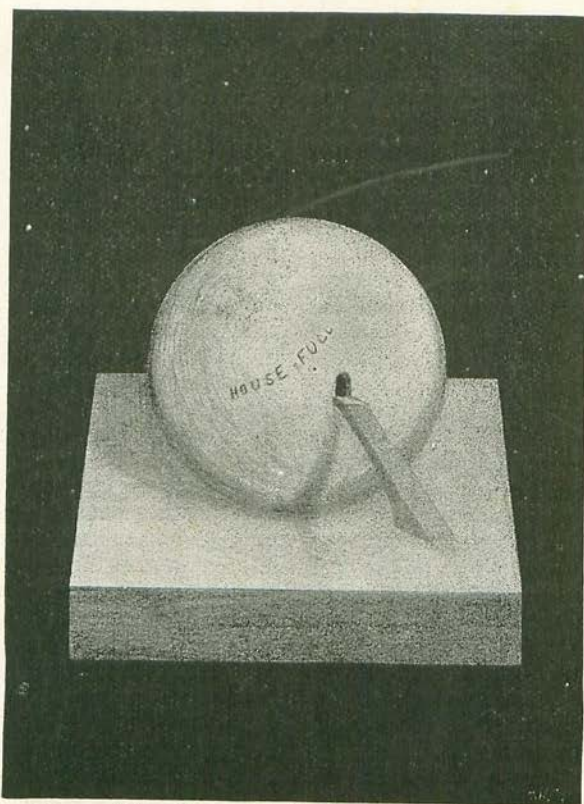
Population.	Different surnames.	Average number of persons to 1 surname.	Number of different surnames to every 10,000 persons.
30,270,817	40,000	757 (nearly)	13'2

But perhaps the most interesting information which the registers supply is that which tells us what are the most popular names amongst us: it is curious to notice the predominance of certain names which seem to have been preferentially adopted by large numbers of the people, and which now prevail in every county. I append in No. 10 a list of fifty of the most common surnames in England and Wales, arranged in the order of their numerical importance.

We see from this list that the popular idea is not correct which places Smith 1, Jones 2, Brown 3, Robinson 4; for the Browns come sixth instead of fourth, and Robinson is

certainly a bit of a fraud in having for so long a time occupied the fourth place in public estimation, when he is entitled to only the eleventh. The most remarkable thing in this list is the importance of Welsh names: the Jones family—who, by the way, are numerically nearly as important as the Smiths—are well backed up by the other Welsh names, Williams, Davies, Thomas, Evans, Roberts, etc. It is almost needless to say that all persons now bearing these Welsh names are not strictly Welsh people (because the whole population of Wales would not suffice to provide bearers for these prominent Welsh names), but it certainly does seem that Welshmen have somehow or other perpetuated their names in England to a surprisingly important degree. As regards the list generally, I may say that—on the average, and taking England and Wales—one person in 73 is a Smith, one in 76 a Jones, one in 115 a Williams, one in 148 a Taylor, one in 162 a Davies, and one in 174 a Brown.

Now that we have numbered the population, inquired their ages, sorted out the women from the men, glanced at their various occupations, and made our name distinctions, we will take our leave of them—or shall we say of each other?—to meet again in the round-house shown in No. 11. This house, which is infinitesimally small in comparison with the size of the country, shows us what a lot of spare room still exists here, for it could easily contain every one of us—resident foreigners included.



No. 11.—A Round-house, the inside diameter of which is only 421 yds., or less than a quarter of a mile: this house is nevertheless large enough to contain the entire population of the United Kingdom on April 6th, 1895—each person having twenty-seven cubic feet of space.