

ENGLISH LIFE EXPECTATION: A NEW EXPERIENCE.

The London *Insurance Journal* presents a summary of interest to actuaries, relating to the recently issued supplement to the 75th annual report of the registrar-general of births, death and marriages. This gives some new English life tables of much interest. Two of the chief tables are English Life Tables No. 7 and 8. Table No. 7 is based upon the censuses of 1901 and 1911 and upon the deaths during 1901-1910. Table No. 8 is based upon the census of 1911 and on the deaths during 1910-1912. These tables relate to England and Wales and embody the changes in the incidence of death rates which have occurred in the population since the preceding English Life Table No. 6 was issued. This No. 6 table was based upon the censuses of 1891 and 1901, and on the deaths during 1891-1900. The facts have been scientifically treated by Mr. George King, a distinguished past-president of the Institute of Actuaries.

It is interesting to compare the expectation of life according to these three English life tables, Nos. 6, 7, 8.

EXPECTATION OF LIFE, MALES, BY THREE ENGLISH LIFE TABLES.

Age.	No. 6 (1891-1900) Years.	No. 7 (1901-10) Years.	No. 8 (1910-12) Years.
0.....	44.1	48.5	51.5
10.....	49.6	51.8	53.1
20.....	41.0	43.0	44.2
30.....	33.1	34.8	35.8
40.....	25.6	27.0	27.7
50.....	18.9	19.8	20.3
60.....	12.9	13.5	13.8
70.....	8.0	8.4	8.5
80.....	4.6	4.9	4.9
90.....	2.6	2.6	2.9

The words "expectation of life" mean the total future lifetime which on the average will be passed through by males at the various ages stated in the above table. For example, and taking the most recent life table, No. 8, a male at his birth will, on the average, live for 51.5 years. It will be observed that the latest table generally shows a considerable advance in the expectation compared with previous tables.

These actuarial life tables, while too technical and complex for detailed explanation in a short article, contain material for a host of answers to really interesting questions relating to human life. Suppose, for example, a man aged forty wants to know what chance he has of living to age eighty. For this purpose one uses a column of the life table which may be called the "Number Living" at each age. Here are some of these results for various ages, taken from English Life Table No. 8 (1910-1912):

Age.	MALES. Number Living.
0.....	1,000,000
10.....	812,414
20.....	793,435
30.....	762,227
40.....	716,727
50.....	643,333
60.....	521,103
70.....	334,308
80.....	121,935
90.....	13,608

This column is purely technical. It does not mean, for instance, that there are 1,000,000 male babies or that there are 13,608 old men aged ninety.

But this column enables us to reply to the question above put, and to many others.

What is the chance of a man aged thirty attaining age fifty? The above column "Number Living" gives the means of answering this question. It is got by dividing the 643,333 at age fifty by the 762,227 at age thirty. The result is 84. In 100 chances there are 84 chances in his favor and 16 chances against him. Thus the odds in favor of a man aged thirty attaining age fifty are more than 5 to 1. The man of thirty has a good chance of attaining age 50.

Similarly, the chance of a male at birth attaining age ninety—a very small chance—is given by dividing 13,608 by 1,000,000. Working this out, as before, the odds will be found to be 72 to 1 against a male at birth living to age ninety.

THE EMPLOYERS LIABILITY.

A report of the examination of the United States branch of the Employers Liability Assurance Corporation of London by the New York and Massachusetts Insurance Departments, makes a very favorable showing. The examination was made as of December 31, 1914, and gives the Corporation's American branch total assets on that date as \$8,369,487, with total liabilities of \$5,736,579, and a surplus beyond the \$700,000 deposit capital of \$1,932,907, which is larger than the Company's figures by \$333,574. The examiners speak very highly of the Company's methods of operation and treatment of policyholders. They give a history of the Corporation, which is the pioneer company in employers' liability insurance, and show the importance of its American branch, which transacted \$7,100,000, out of the Corporation's total of \$9,600,000 in premium income in 1914.

THE BOND MARKET.

The interesting fact is noted in a circular issued by the National City Bank of New York that the placing of the recent Anglo-French loan does not appear to have yet affected investment values in the direction of higher interest rates or lower prices for bonds. It is said that concurrently with the offering of the Anglo-French loan, the demand for high grade bonds and short term notes has increased and the average price of bonds as measured by standard indices advanced during the past month; and this in face of some tightness in the money market and the demand for money for moving the great U.S. crops. One explanation given for this condition of affairs is that the large profits now being made in the United States as a result of industrial activities consequent upon the war are being largely invested in sound bonds in order to make present-day exceptional profits a basis for future and permanent incomes. Probably, also, the general unfamiliarity of American investors with foreign bonds has something to do with the phenomenon. American investors prefer to continue to buy their own bonds.

From a statement made by the Minister of Finance, it appears that the forthcoming domestic war loan will not be underwritten, but that opportunity will be given for a subscription to the loan by all classes on the same terms.