Transactions of the Actuarial Society of Edinburgh

<http://journals.cambridge.org/TAS>

Additional services for *Transactions of the Actuarial Society of Edinburgh*:

Email alerts: [Click here](#)

Subscriptions: [Click here](#)

Commercial reprints: [Click here](#)

Terms of use : [Click here](#)

The Progress of Life Assurance Business in the United Kingdom during the last Fifty Years

David Deuchar

Transactions of the Actuarial Society of Edinburgh / Volume 2 / January 1891, pp 136 - 172
DOI: 10.1017/S2046056200000215, Published online: 22 April 2013

Link to this article: http://journals.cambridge.org/abstract_S2046056200000215

How to cite this article:

David Deuchar (1891). The Progress of Life Assurance Business in the United Kingdom during the last Fifty Years. Transactions of the Actuarial Society of Edinburgh, 2, pp 136-172 doi:10.1017/S2046056200000215

Request Permissions : [Click here](#)

*The Progress of Life Assurance Business
in the United Kingdom during
the last Fifty Years*

BEING

THE INAUGURAL ADDRESS

FOR SESSION 1887-88

BY

DAVID DEUCHAR, F.I.A., F.F.A.

MANAGER AND ACTUARY OF THE CALEDONIAN INSURANCE COMPANY

HONORARY PRESIDENT OF THE SOCIETY.

The Progress of Life Assurance Business in the United Kingdom during the last Fifty Years.

AT so striking an epoch in the history of our times as the Jubilee of our Most Gracious Queen, it seems natural that those who are engaged in any special branch of trade, or commerce, or science, should look back with interest at the records of the progress of that branch during the period then completed; and I therefore venture to hope that the particulars which I have collected regarding the progress of Life Assurance Business in the United Kingdom during the last half-century, and which I propose to lay before you this evening, may prove in some degree interesting to you.

Before submitting to you these particulars, I think it may be useful if I refer for a few minutes to the condition of the United Kingdom in 1837, and to the changes which have occurred since then in matters which have had an important, though indirect, bearing on Life Assurance Business.

For a considerable number of years anterior to 1837 there had been a steady advance in the population, notwithstanding the greatly increased emigration towards the end of the period. The following statement shows the actual population of the United Kingdom of Great Britain and Ireland in 1821 and 1831, with the estimated figures for 1837 and 1887:—

Year.			Population.
1821	...	...	21,193,458
1831	...	...	24,306,719
1837	...	...	25,800,000
1887	...	...	37,200,000

The period from the date of the peace of 1815 up to 1837 was, on the whole, one of much prosperity, although there had been more than one great crisis in the money market during that time, while towards the end of the period there was extraordinary

distress in certain of the manufacturing districts, eventually attaining such proportions as to compel the adoption of Free Trade in 1846 as a desperate remedy. The general condition of the country for some years prior to 1833 is well shown in the evidence which was submitted to two important committees appointed in that year. One of these committees was intrusted with the duty of inquiring into the alleged agricultural distress, which was supposed to be due to the considerable fall in the price of corn after four years of comparatively high prices ; but the result of the evidence was to show that the agricultural labourers, who were believed to have been the chief sufferers, were then really in a better position than they had ever occupied during the period of high prices of corn. The other committee was appointed to investigate the condition of manufactures, commerce, and shipping, which were alleged to be in so depressed a state as to require the attention and assistance of Parliament ; but, contrary to expectation, the evidence showed in the most conclusive manner that the trade and manufactures of the country were then in a thoroughly sound and healthy condition, that there had been remarkably few failures, that a considerable accumulation of wealth had been made, and that there was a vast deal of money obtainable for permanent or temporary investment. Further testimony to the advancement of the middle classes in wealth and comfort about that time is afforded by the returns for successive years of the number of persons assessed for keeping male domestic servants, and of the proceeds of the carriage tax during the same time.

But while many conditions at that time were very favourable for Life Assurance business, there were some serious difficulties to be contended with. The age of locomotion had scarcely commenced. Although prior to 1837 a few short lines of railway, with cars drawn by steam-power, had been in operation the ordinary mode of land-travelling at that time was still by the royal mail, or by stage-coach. On referring to Oliver and Boyd's *Edinburgh Almanac* for the year 1837, I notice that the royal mail coach from Edinburgh to London started every morning from the Black Bull Hotel, Catherine Street, calling at Princes Street, and performing the whole journey of 392 miles in forty-five hours. Four other coaches also started daily from Edinburgh for London, and two steamships and six sailing smacks sailed weekly from Leith for London. Notwithstanding the admirable way in which the mail-coach service was worked, travelling from place to place was then a very tedious, fatiguing, and expensive affair, and it is not sur-

prising that country agents of Life Assurance Companies were few in number in those days, and that the idea of periodically visiting them rarely entered the official mind. From information which I have obtained from old prospectuses and other sources, I am disposed to think that the total number of country agents of Life Assurance Companies in the United Kingdom in 1837 did not exceed 6000. I am almost afraid to hazard a conjecture as to what the number is now. Probably 100,000 is much below the mark.

Another difficulty which then seriously interfered with the development of agencies was the rate of postage. The penny post, although suggested in 1837, was not actually organised and introduced until 1840, and the changes which had been made since the commencement of the century in the rates of postage had been chiefly in the direction of increase in the cost. The postal charges in 1837 for single letters ranged from 4d. for a distance not exceeding 15 miles to 1s. 5d. for a distance exceeding 700 miles. These rates were for letters consisting of a single sheet without any enclosure. For a letter weighing one ounce four single rates were charged.

The following estimates, which, as regards the earlier figures, are deduced chiefly from facts obtained from Porter's *Progress of the Nation*, published in 1847, show the effect of the increases of postage between 1801 and 1836 in restricting the amount of correspondence per head of the population, while the later figures show the vast extension of the correspondence which has resulted from the introduction of cheap postage :—

Year.		Total Number of Letters.		Number per Head of the Population.
1801	...	55,000,000	...	3½
1836	...	66,000,000	...	2½
1841	...	135,000,000	...	5
1846	...	192,000,000	...	6
1886	...	1,500,000,000	...	40

I shall not take up your time by describing the other scarcely less striking developments which have taken place during the last fifty years in the arts and manufactures, in foreign trade, in physical science, and in inventions of all kinds; but I must not omit to allude to the widespread depression of trade which has prevailed for the last seven or eight years, and which seems to have affected, to a greater or less extent, nearly all our important

industries. Several causes have contributed to bring about this result, but the chief among these causes is, I think, the circumstance that other great nations are no longer content to allow Great Britain to occupy the position of being the manufacturer for the greater part of the civilised world. We have no right to blame other nations or our colonies for seeking to develop their industries so long as they do so in a fair and legitimate manner; and it is well for us to bear in mind that much of our depression is due to legitimate action on the part of foreign nations. Some of it, however, is due to bounties and protection, which cannot be described as legitimate; and one of the problems with which our nation may have to deal in the future is how to regulate its commercial relations with the countries which adopt these methods.

Passing from these introductory remarks to matters falling directly within the scope of my subject, I think it will be convenient if I divide what I have to say about the progress of Life Assurance business into five parts; the *first*, relating to the number of companies established, discontinued, and existing; the *second*, to the progress of their funds, and income, and amount of assurances; the *third*, to the rate of interest; the *fourth*, to the changes in the official practice which have taken place; and the *fifth*, to the legislation affecting Life Assurance Companies.

NUMBER OF COMPANIES ESTABLISHED, DISCONTINUED, AND EXISTING.

Omitting from consideration the speculative and evanescent schemes which were the precursors of Life Assurance Companies, and taking into account only the properly constituted Life Offices, we find that up to 1st January 1837 the total number of such companies which had been established was 94, of which 20 had ceased to exist, leaving 74 then in operation. The average age of these 74 companies was $17\frac{3}{4}$ years. Not more than 18 of them had been 25 years in existence, while the remaining 56 had only attained an average age of 7 years. It at first strikes us as a very remarkable circumstance that only 20 offices out of a total of 102 had succumbed in the long period of 131 years, dating from 1706, when the Amicable was founded; but it has to be borne in mind that in 1837 the great majority of the offices had not attained an age sufficient to test their stability.

The following table shows the number of Ordinary Life Assurance Companies existing at the end of each period of five years

during the last half-century, with the numbers discontinued and established during that time. [An extended table, with particulars for each year, and information as to the sources from which the table has been compiled, is given on pages 163 and 164.]

PERIOD.	NUMBER OF ORDINARY LIFE ASSURANCE COMPANIES			
	Existing at commencement of Period.	Discontinued during Period.	Established during Period.	Existing at end of Period.
1 Jan. 1837 to 31 Dec. 1841	74	9	41	106
„ 1842 „ „ 1846	106	22	42	126
„ 1847 „ „ 1851	126	24	50	152
„ 1852 „ „ 1856	152	58	86	180
„ 1857 „ „ 1861	180	73	13	120
„ 1862 „ „ 1866	120	46	40	114
„ 1867 „ „ 1871	114	38	38	114
„ 1872 „ „ 1876	114	15	3	102
„ 1877 „ „ 1881	102	9	2	95
„ 1882 „ „ 1886	95	10	4	89
„ 1887	89	—	—	—

The highest number reached was at the commencement of the year 1856, when there were 193 companies in existence. [See extended table, page 163.] From that time a gradual and rarely interrupted decline set in. The decline was in great part due to the exposure of the excessively sanguine, and, in some instances, fraudulent character of the schemes of certain of the new companies. The worst of these was the *Independent and West Middlesex*, which, according to Mr. Walford, succeeded in obtaining from the public during its brief existence of four years a sum between £200,000 and £250,000, consisting of premiums in life assurances and prices of annuities, obtained chiefly from clergymen, half-pay officers, and ladies. The inducement offered consisted of a reduction of 30 per cent. on the terms charged by the other companies. I have here a copy of the prospectus of the Society, which I shall hand round for your inspection. You will observe that the words “Fire Insurance, Instituted 1696” are so displayed as to make it appear that the *Independent and West Middlesex* was founded for fire insurance business in that year. You will also notice that the device of a guardian angel, which appears on the prospectus, is copied from that of the Guardian Assurance Company. In a foot-note it is stated that the company

has a fire-proof safe in which securities of all kinds and family plate-chests may be deposited by the public. The list of directors appears to have been almost wholly fictitious, well-known London names having been selected, but with the initials altered.

The distrust caused by the disclosures relating to the above-named company had not long subsided, when a new cause arose to shake the public confidence in Life Assurance institutions. This was the publication, under the original provisions of the Joint Stock Companies Act of 1844, of the accounts of all the Life Assurance Companies which had been established under the provisions of that Act. Much public attention was directed to these accounts, and a crushing exposure was made of the enormous expenditure of some of the companies. As the result, the number of new companies formed in succeeding years became materially diminished, and many failures of small and weak companies occurred, the five years ending with 1861 producing only thirteen new companies, while they yielded no fewer than seventy-three failures and amalgamations. Thereafter a partial recovery took place, as during the next five years the new companies were within six of the number of discontinuances; and, during the five years immediately succeeding, the new companies were equal in number to the discontinuances. That recovery, however, was reversed by the effect of the Life Assurance Companies Act, 1870, which, by its requirement of a deposit of £20,000, effectually put a stop to the formation of Life Assurance Companies of a speculative and unsubstantial character.

The number of ordinary Life Assurance Companies shown in the preceding table as existing on 1st January 1887 is 89, which agrees with the number of such Life Assurance Companies included in the summary appended to the latest return made by the Board of Trade.¹ This shows an increase of only fifteen companies in the whole period of fifty years.

PROGRESS OF THE LIFE ASSURANCE FUNDS AND LIFE PREMIUM INCOMES OF THE COMPANIES BETWEEN 1837 AND 1887.

In 1837 the existing Life Offices were not in the habit of publishing particulars of their funds and incomes. The most complete reticence on such subjects was then the all but invariable rule.

¹ See Statement in Appendix, page 172.

² The Equitable Society from an early date issued for the private information of its members a copy of its annual cash account, with a statement of the stock held in the funds, and the amount laid out on mortgages; the London Life Association also, I believe, adopted a similar course; but,

Accordingly, in endeavouring to obtain particulars on these points, and as to the rate of interest earned by the companies, it was necessary to make special application to each office. In doing so I undertook to treat as confidential the individual figures supplied to me, and to use them solely in bringing out total results and averages. After using the figures for these purposes, I have therefore destroyed all the schedules and lists. I have to express my thanks to the chief officers of the various companies for their courtesy in replying to my inquiries, and for the considerable amount of trouble which in numerous instances they have taken to supply me with information. Through their kind assistance I am able to give the following estimate of the total Life Premium Incomes and Life Assurance Funds in 1837 of the 82 Life Assurance Companies which were then in existence :—

Total Life Assurance Funds, exclusive of paid-up capital, and of the value of re-assurances,	£27,720,272
Total Life Premium Incomes, deducting sums paid for re-assurances,	3,070,752

These figures, to the extent of £27,279,847 of Life Assurance Funds, and £2,962,602 of Premium Incomes, are based on actual facts applicable to 54 companies, of which 47 are still in existence, and 7 have been absorbed by companies which still exist. The remaining £440,425 of Life Assurance Funds, and £108,150 of Life Premium Incomes are based on approximations applicable to 28 companies, of which 3 now exist, and 25 have disappeared (in most cases after a very brief existence). Of the 28 cases for which approximations were made, 18 consisted of companies which had been established for a shorter period than five years.

If we assume that the average rate of premium was 3 per cent., then the sums assured, exclusive of bonus additions, must have amounted to £102,358,400, equal to about £4 per head of the population of the United Kingdom.

The Scottish companies then in existence were twelve in number, but one of these had not actually commenced business. The figures applicable to the other eleven Scottish companies at that date are :—

after carefully going over the contents of the interesting volume of old prospectuses (now in the Library of the Institute of Actuaries) collected by the late Mr. Samuel Brown in January 1838, I have only been able to find one company (the Scottish Widows' Fund) which at that date published in its prospectus the amounts of its income, funds, and existing assurances.

		Percentage of amount for the whole 82 offices.
Total Life Assurance Funds exclusive of paid-up capital and value of re-assurances,	£1,279,943	4.62
Total Life Premium Incomes, de- ducting sums paid for re-assurance,	272,269	8.86
Estimated sums assured, exclusive of bonus additions,	9,075,633	8.86

It may perhaps be interesting if I give here some of the estimates which have been made at various dates between 1837 and 1872, as to the extent of business of the Life Offices.

In 1839 it was estimated in Chambers's *Tract on Life Assurance* that there were 80,000 life policies in force in the United Kingdom. Mr. Walford, in his *History of Life Assurance*, quoted that statement; but, while expressing the opinion that it was probably an underestimate, he used it in bringing out the total sum assured at that date as £40,000,000, on the assumption that the average amount assured at that date was £500. From the information now before me as to the year 1837, I think it probable that the number of policies existing in 1839 was nearly 100,000, and that the average sum assured at that date was probably over £1000, instead of £500, as assumed by Mr. Walford.

In 1843 Mr. Ansell and other actuaries estimated that there were in force in Great Britain 100,000 life policies, for the sum of £100,000,000, and that the funds of the Life Offices amounted to £50,000,000.

In 1847 Mr G. R. Porter, F.R.S., in his well-known work *The Progress of the Nation*, estimated the total sums accumulated in the hands of the various Life Assurance Offices at £40,000,000.

In 1849 Mr W. T. Thomson estimated the total sum assured in English offices at £150,000,000. In Volume II. of the *Journal* of the Institute of Actuaries the following approximations, applicable to the business of Life Assurance Companies in Great Britain and Ireland in the year 1849, are given by Mr Samuel Brown, as having been furnished to him by a friend :—

Existing Assurances,	£150,000,000
Number of existing Policies,	300,000
Number of Lives,	225,000

In 1851 Mr F. Hendriks estimated the total sum assured in Great Britain and Ireland at £150,000,000.

In 1852 Mr W. T. Thomson estimated the sum assured in Scottish Offices at £50,000,000.

In 1856 Mr Joseph Bentley collected information from the various Life Offices as to their funds, income, and extent of business, and published the results of his inquiries. The following is an abstract of the information which he obtained :—

Funds, including capital (127 offices) . . .	£53,789,431
Income, including interest (126 offices) . . .	7,285,639
Existing Assurances, including bonuses (124 offices),	179,923,328

In 1861 the Scottish Life Offices united in making the following return of their position :—

Accumulated Funds,	£12,807,057
Income, including interest,	2,200,933
Sums assured and bonus additions,	54,692,877

Passing on to the date when exact information became obtainable as to all the existing offices, we get the following facts (applicable for the most part to the year 1870) from the first volume of the Accounts and Statements of Life Assurance Companies lodged under the Act of 1870, and ordered by the House of Commons to be printed on 12th Feb. 1872 :—

Total Life Assurance and Annuity Funds of 101 ordinary companies, ¹ exclusive of paid-up capital and value of re-assurances,	£87,767,203
Total Life Assurance and Annuity Funds of 15 Scottish offices ² [equal to 24·2 per cent. of the amount for the whole 101 offices],	21,256,080
Total Life Premium Incomes of 101 ordinary companies,	9,749,508
Total Life Premium Incomes of 15 Scottish offices [equal to 25·7 per cent. of the amount for the whole 101 offices]	2,506,435

¹ The Blue Book gives the accounts of 111 companies. The 10 companies omitted in arriving at the above figures are accounted for thus :—*Industrial Offices and Friendly Societies*, 5 ; *Annuity Society*, 1 ; *Reversionary Company*, 1 ; *American Life Offices*, 3.

² The English and Scottish Law Life Assurance Association was treated as an English office, its annual meetings being held in London. The North British and Mercantile and Northern Companies were treated as Scottish offices, their annual meetings being held in Edinburgh and Aberdeen respectively.

Estimated sum assured, exclusive of bonus additions, in 101 ordinary companies, . . .	£292,557,343
[This is equal to about £9 per head of the whole population of the United Kingdom.]	
Estimated sum assured, exclusive of bonus additions, in 16 Scottish companies [equal to 25·7 per cent. of the amount for the whole 101 offices],	83,547,833

Taking now the latest figures—namely those contained in the return which was ordered by the House of Commons to be printed on 1st March 1887, and which for the most part apply to the financial year ending at 31st December 1885—we get the following particulars :—

Total Life Assurance and Annuity Funds of 91 ordinary companies, ¹	£141,852,838
Total Life Assurance and Annuity Funds of 17 Scottish companies, ² included in the 91 ordinary companies [equal to 30·8 per cent. of the amount for the whole 91 companies], . . .	43,630,351
Total Life Premium Incomes of 91 ordinary companies,	12,798,480
Total Life Premium Incomes of 17 Scottish companies, included in the 91 ordinary companies [equal to 32·1 per cent. of the amount for the whole 91 companies],	4,105,696
Estimated sum assured, exclusive of bonus additions, in 91 companies,	426,616,000
[This is equal to about £11, 10s. per head of the whole population of the United Kingdom.]	
Estimated sum assured, exclusive of bonus additions, in 17 Scottish offices [equal to 32·1 per cent. of the amount for the whole 91 companies],	136,856,533

Now let us glance for a moment at the department of Industrial Life Assurance, which has been excluded in arriving at the foregoing figures. According to the summary appended to the latest

¹ The Blue Book gives the accounts of 106 companies. In arriving at the above figures 15 companies have been omitted, viz. *purely Industrial Offices*, 9; *Annuity Societies*, 3; *Reversionary Company*, 1; *American Life Offices*, 2.

² See note ² on preceding page.

return relative to Life Assurance Companies, eight companies are classed as purely industrial, and one company is classed both as an ordinary company and as an industrial company. The *London, Edinburgh, and Glasgow*, however, whose premiums in the ordinary branch amount to £15,782, and in the industrial branch to £25,039, has been classed in the summary solely as an ordinary company, instead of appearing in both classes; and the *Methodist and General*, which seems to be a purely industrial company, has been classed as an ordinary company in the summary. Adding the industrial figures of the former company, and the total figures of the latter company, to those given in the summary in the Blue Book, we get the following:—

Industrial Business of 11 Companies, per Accounts lodged in 1886.

Industrial Assurance Funds,	say	£4,397,871
Industrial Premium Income,		3,575,346
Estimated amount of Industrial Assurances, assuming the average rate of premium to be £4 per cent. per annum in that class,		89,383,650

This large extent of business is very remarkable, when it is considered that it has grown up within the last twenty years, and that three-fourths of the premium income and nine-tenths of the funds belong to one company, whose history affords a striking example of what may be accomplished by energy and perseverance under the guidance of high administrative skill.

Adding the figures applicable to the Industrial business to those relating to Ordinary business, we get the following grand totals:—

Life Assurance Funds,	£146,250,709
Life Premium Incomes,	16,373,826
Estimated Sums Assured (exclusive of bonus),	515,999,650

RATE OF INTEREST EARNED IN 1837, AND FROM 1865 TO 1886.

I made an attempt to ascertain by special inquiries the rates of interest earned in 1837 on the Life Assurance Funds of the offices then in existence, and I obtained replies in the case of 46 companies, among which were included all the companies which had funds of any important amount in 1837. The following abstracts show the information obtained:—

I.—Results arranged according to the Rate of Interest realised.

English, Scottish, and Irish Offices.

Rate of Interest.	No. of Offices.	Total Life Assurance Funds.	Total amount of Interest.
Over 5 per cent., . . .	3	£682,888	£35,279
4·6 to 5 per cent., . . .	7	1,012,298	48,140
4·1 „ 4·5 „ . . .	6	2,846,328	118,764
3·6 „ 4·0 „ . . .	13	4,589,017	173,858
3·1 „ 3·5 „ . . .	11	17,316,641	578,610
3·0 and under, . . .	6	91,575	2,730
	46	£26,538,747	£957,381

Rate of Interest per £100 invested, . . . 3·6 per cent.

Average of the 46 individual rates, . . . 4·0 „

Scottish Offices only.

Rate of Interest.	No. of Offices.	Total Life Assurance Funds.	Total Amount of Interest.
Over 5 per cent., . . .	1	£99,848	£5,094
4·6 to 5 per cent., . . .	3	198,178	9,626
4·1 „ 4·5 „ . . .	3	714,978	30,707
3·6 „ 4·0 „ . . .	3	256,047	10,240
3·0 „ 3·5 „ . . .	1	10,891	327
	11	£1,279,942	£55,994

Rate of interest per £100 invested, . . . 4·4 per cent.

Average of the 11 individual rates, . . . 4·3 „

II.—Results arranged according to the Amounts of Funds of the Offices.

Amount of Life Assurance Fund.	No. of Offices.	Total Life Assurance Funds.	Total amount of Interest.	Rate per £100.
Over £1,000,000, . . .	6	£17,910,610	£609,880	Per cent.
£600,000 to £1,000,000, . . .	7	5,074,507	193,084	3·4
£100,000 to £500,000, . . .	12	2,732,916	120,933	3·8
Under £100,000, . . .	21	820,714	33,484	4·4
	46	£26,538,747	£957,381	4·1
				3·6

Scottish Offices only.

Amount of Life Assurance Fund.	No. of Offices.	Total Life Assurance Funds.	Total amount of Interest.	Rate per £100.
Over £100,000, . . .	3	£946,152	£40,791	Per cent. 4·3
Under £100,000, . . .	8	333,790	15,203	4·6
	11	£1,279,942	£55,994	4·4

It will be seen that the above information applies to $26\frac{1}{2}$ millions of funds out of a total of $27\frac{3}{4}$ millions.

The circumstance that the average rate of interest realised on the investments of Life Assurance Companies in 1837 was only £3, 12s. per cent., is scarcely in accordance with our preconceived notions. At present one hears so much about the fall which has taken place in the rate of interest, that it seems startling to find that the rate realised fifty years ago was lower than that now earned by the funds of Life Offices. Further inquiry, however, shows the low average rate in 1837 to be almost wholly due to the fact that the older and larger companies then confined their investments chiefly to consols and other Government securities, which yielded rates of 3 to $3\frac{1}{2}$ per cent., with a small proportion of mortgages of the highest class, which yielded 4 per cent. The information before me indicates that probably as much as 15 millions sterling were at that time invested by the companies in British Government securities. A desire for safety was, no doubt, one of the reasons which induced the companies to select consols for the investment of their funds. Another reason was, perhaps, the facility with which the existence of such investments could be verified at any moment. But probably the original cause, leading to a preference for that description of investment, dates back to the experimental stages of the older companies, when fear of the plague or of some other epidemic, which might carry off a large proportion of their policyholders at once, was always present to the minds of the directors, and made them desirous of having their funds so invested as to be capable of being realised at once.

While the older and larger companies seem to have adhered chiefly to consols, the younger offices appear to have broken loose to some extent from the old traditions, as in 1837 a fair proportion of them were earning rates which would now be considered high.

I shall now pass on to the period in regard to which information is obtainable from the Returns under the Life Assurance Companies Act, 1870. Question 9 of the 6th Schedule of that Act requires a statement of the average rate of interest at which the life assurance fund of the company was invested at the close of each year during the period since last investigation. From the answers to that question recorded in the first sixteen volumes of the Returns the following statement has been drawn up; but in order to avoid giving undue weight to the experience of the smaller companies, I have omitted all those whose life assurance funds were less than £100,000.

STATEMENT OF THE AVERAGE RATE OF INTEREST earned on the Life Assurance Funds from 1865 to 1885 by Companies having over £100,000 of such funds, deduced from the Answers to Question 9 of the 6th Schedule of the Life Assurance Companies Act, 1870.

Year.	Average Rate of Interest.	Year.	Average Rate of Interest.
	%		%
1865	4·5	1876	4·4
1866	4·5	1877	4·4
1867	4·5	1878	4·4
1868	4·5	1879	4·4
1869	4·4	1880	4·4
1870	4·5	1881	4·3
1871	4·5	1882	4·4
1872	4·5	1883	4·3
1873	4·5	1884	4·3
1874	4·5	1885	4·2
1875	4·5		

It will be observed that although there is a tendency to a fall in the rate of interest in recent years, it is not very marked. The decline would certainly have been greater but for the movement which has been made by some of the companies towards securing enlarged powers of investment, including permission to lend in the Colonies.

I may remark that on carefully examining the answers given by different companies as to the rates of interest realised, I find considerable want of uniformity in the mode of arriving at the replies. There can be no doubt that the question in the Act cannot be properly answered if unproductive assets be left out of account, and I think it is also clear that what is wanted is the rate which the fund is expected to yield for the next year, not the rate which

has been earned during the preceding year. The proper rate can be very conveniently and rapidly ascertained by classing together the loans and investments producing the same rates, and there can therefore be no sufficient excuse for giving a different answer from that which the question requires. On the subject of the mode of dealing with income-tax, however, some guidance is wanted, and I think the most satisfactory arrangement would be to state the interest under deduction of income-tax, both in the revenue account and in the answer to Question 9 of the 6th Schedule.

In these remarks as to want of uniformity in the replies, what I have had in view is the circumstance that different companies answer the question in different ways; but I have likewise observed that several offices have introduced changes in their method of dealing with reversionary transactions which have materially affected their rates of interest for successive years. These variations of treatment detract to some extent from the value for statistical purposes of the information given as to the rate of interest in the Returns of Life Assurance Companies under the Act of 1870.

CHANGES IN OFFICIAL PRACTICE DURING THE LAST FIFTY YEARS.

To enumerate all the changes which have been introduced into the practice of Life Assurance Companies since 1837 would occupy too much of your time. I shall therefore only refer to a few of these.

There is a considerable difference between our present mode of carrying through assurances and that which was in vogue in the early part of the century. Under the old plan, which was still acted on by some offices in 1837, an examination by the medical officer of the company was not prescribed as a necessary preliminary to the granting of a life policy, for the very good reason that in early times such a functionary was not attached to the staff of the companies. Nor was a certificate from the medical attendant always asked for in these days. The by-laws of the Amicable Society required every applicant for membership who resided within fifteen miles of London to appear in person before the Court of Directors, and to make oath "that he or she is in a good state of health, and hath no distemper which, according to the best of his or her knowledge, judgment, or belief, may tend to the shortening of his or her days." The attendance of applicant

resident more than fifteen miles from London was dispensed with if they submitted certificates by the minister and churchwardens of their parish, and by the minister of an adjoining parish "inserting therein the good state of health, age, and title of the parties proposed, together with an affidavit of the person to be admitted to the same effect, and also that he or she hath been in a good state of health for six months then past." In December 1837 new by-laws were passed at a special meeting of the Amicable Society, under which every person proposing to effect an assurance with that corporation "is required to give in writing reference to two or more persons of respectability (of whom one at least shall be a medical practitioner), who may be inquired of touching the state of health of the party." The old rule requiring personal attendance before the Court of Directors was, however, left unaltered.

The original forms of proposal were very simple in character. Several of the companies did not supply a schedule to be filled up, but merely gave a specimen form in their prospectus. The following is an example of a proposal given in the prospectus of the Albion :—

"John Adams, of Park Street, Bristol, Merchant, proposes to insure with the Albion Fire and Life Insurance Company £2000 for the whole of life [or for one year, or for seven years] on his own life [or on the life of Edward Johnson of the Market Place, Gloucester, Woollen Draper]. The said John Adams [or Edward Johnson] was born at York on the 27th of June 1780, and will be aged therefore on his next birthday 26, has had the small-pox, is not in the Army or Navy, is not subject to gout, nor to any other disease or infirmity.

(Signed)

JOHN ADAMS."

Apparently, however, the company required references to some medical or other persons ; and after the acceptance of the proposal they required the proposer to sign a declaration embodying the statement of facts which he had made.

The tendency to make detailed inquiries into the health of applicants for assurance, which showed itself about the year 1837, became more fully developed in later years. By degrees the proposal form was added to, and the questions addressed to the medical referee or examiner became more and more numerous and searching, until now in 1887 a point has been reached at which one feels inclined to pause and consider whether, after all, there is not some danger in trying to make the forms absolutely perfect, and in relying too much upon them ; and whether the companies might not be safer with simpler warranties, if for no other reason

than that they may keep more prominently before them the importance of having trustworthy agents and medical officers, and of making very careful inquiries where the applicants are unknown to the officials or to the agent or medical officer. While making these remarks I do not wish to suggest that questions have been added to the forms without good and sufficient reason. If we had time this evening to go over the history of Life Assurance frauds, we should be able readily to trace the origin of some of the questions which have been added to the simple proposal forms which were in use half a century ago. The additions and alterations in the forms of medical report are nearly all due to improved medical skill, and to the progress of knowledge on the subject of heredity of disease.

While the proposal and medical report have been increased in stringency, the contrary has been the case with the form of policy, the penal conditions of which have been greatly modified and relaxed since 1837. Take, for instance, the conditions as to foreign travel. The old "free limits" included permission to sail to Ireland and the Channel Islands and to ports on the Continent of Europe between the Elbe and Brest, or the Texel and Brest, or between Hamburg and Bordeaux. If the life assured desired to sail to Norway, Sweden, Denmark, Spain, or Portugal, it became necessary for him to obtain the consent of the company, and to pay such extra premiums as the Directors chose to impose. Compare this with the present conditions under which all persons, not seafaring men, are permitted to travel to or reside in any part of Europe, North America to the northward of 33° N. latitude, South America to the southward of 30° S. latitude, South Africa, Australia, New Zealand, etc., without any extra charge.

The following table shows some of the rates per cent. per annum on the sum assured of extra premium, for foreign residence charged by the Scottish offices in 1841, as compared with those now usually charged for the same places :—

	1841.	1887.
North America to north of } 38° N. latitude, . . }	£1 first year ; 10s. thereafter. }	Free.
North America, between 35° } and 38° N. latitude, . . }	£3.	Free.
North America to south of } 35° N. latitude, . . }	About £5, 5s.	{ New Orleans, £4. Texas, £1 to £2. Other parts gener- ally free.

	1841.	1887.
South America, between 20° and 25° S. latitude, . . . }	£3, 3s.	10s.
South America to the south of 25° S. latitude, . . . }	£2, 2s. first year ; £1 thereafter.	Free in most cases.
East Indies, }	Military, £4, 4s.; Civil, £2, 2s.	Military, £1, 10s. to £2; Civil, £1 to £1, 10s.
West Indies, }	£3, 3s. to £9, 9s., ac- cording to age of the assured and healthi- ness of the island where he is located.	£1 to £2 if accli- matised; £2 to £3, 10s. for unac- climatised lives.
South Africa (Cape of Good Hope only), }	£1, 10s. first year ; 10s. thereafter.	Free.
Australia and New Zealand, {	£1, 10s. first year ; 10s. thereafter.	Free.

I may remark that while in the case of extra premiums for foreign residence and travel or for seafaring occupation, there has been a steady movement in one direction, namely, towards the reduction or abandonment of the extras ; no similar movement has taken place in the case of the extra premiums imposed on account of family history or personal condition. Fifty years ago family history was scarcely recognised as an element to be taken into account in fixing the premium of a life assurance, and the ailments then chiefly feared seemed to be gout and asthma. At that date persons engaged in the retail sale of intoxicating liquor were generally accepted without addition to the ordinary rate of premium, as also were female lives (indeed one company now existing struck out a special course for itself by advertising in its prospectus of 1837 that it insured female lives at materially lower rates than those charged for male lives). In course of time a change took place, until a period was arrived at, twenty or twenty-five years ago, when cases of unfavourable family history were generally declined by the more prudent offices, or, if accepted at all, were charged at largely increased rates. At that date much attention was directed to the condition of the heart, but as a rule all cases where heart affection of any kind was detected were declined. At the present time the prevailing rates of extra premium for family history or personal condition are more lenient than those of twenty or twenty-five years ago, and many cases of heart affection are now accepted with an extra premium instead of being declined. There is

however, a tendency to much greater strictness in inquiries into kidney ailments. On the whole it may fairly be claimed for the present practice that it exhibits greater discrimination in dealing with points of personal health and family history than that shown at any former period.

Among the most important of the improvements introduced into Life Assurance business during the last half-century is the general adoption of the principle of allowing a surrender value for discontinued policies. In recent years there has been a movement in favour of the increase and more equitable adjustment of these values, and of the curtailment of the period during which no surrender value is payable. The conditions for the revival of lapsed policies have also recently been relaxed in an important degree by many offices, but it may be mentioned that 150 years ago the Amicable adopted rules permitting the revival of a lapsed policy where the premium was not more than fifteen months in arrears, without any evidence of health, and on payment of a rate of fine which bears favourable comparison with that charged at a recent date by many offices. The Amicable at first allowed three months' grace for payment of the premium, but this was found to be too long. It is important, however, to bear in mind that previous to the year 1858 the offices did not hold themselves liable to pay the sum assured if death occurred during the days of grace and while the premium remained unpaid.

Between 1846 and 1860, the late Mr. W. T. Thomson, Manager of the Standard and Colonial Offices, who, as you are aware, was the originator and first Honorary President of this Society, took a leading part in introducing improvements into Life Assurance business. Chief among these were the reduction and classification of extra premiums for foreign residence, which was inaugurated by the Colonial Life Assurance Company; and the entire exemption from such extra premiums after a probationary period of five years (subsequently dispensed with) of persons who were in a position to declare that they had no prospect or intention of proceeding abroad, which was inaugurated by the Standard.

Among the first offices which published their surrender values was the Scottish Widows' Fund; and that office, I think, divides with the Standard the credit of having originated the plan by which unclaimed surrender values are carried to a separate fund for a period of five years, during which time the parties interested may obtain payment of the values.

In looking over some old prospectuses, many years ago, I came

across an early one of the Scottish National, in which a plan was promulgated by Mr. M'Candlish, the present President of the Faculty of Actuaries, whereby when three yearly premiums had been paid, the fourth might lie over at interest without application to the company, and, when six premiums had been paid, the next two might lie over in a similar manner, and so on. This plan has long ago passed out of sight, and I mention it now merely because it seems to me to be not very far off in principle from the system of applying the surrender value to meet overdue payments of premium, which was subsequently devised by Mr. Morrice A. Black, and at a later date was introduced by him into the practice of the Australian Mutual Provident Office, and by means of which, in that office alone, as many as 44,995 policies have been prevented from lapsing during the last thirteen years.

Although I have referred here chiefly to the changes introduced by Scotch actuaries, I hope it will not for a moment be thought that I undervalue the many improvements which we owe to our English brethren.

In 1837 the number of skilled actuaries was small, and there was no recognised standard by which the qualifications of persons claiming to be actuaries could be tested. At that time the life assurance companies had only a limited amount of data to go upon. The life tables then chiefly used were the Northampton, the Carlisle, the Equitable Experience Tables, and various hypothetical tables. Professor de Morgan's essay on probabilities and on their application to life contingencies and insurance offices was not published until 1838 ; and David Jones' well-known work on Annuities and Assurances did not appear until two years later. In 1843 the first English Life Table was issued by the Registrar-General, and in the same year the Seventeen Offices' Table—the first life table deduced from the combined experience of a number of life offices—was completed and issued.

The year 1848 was signalised by the formation of the Institute of Actuaries, which from that time onwards has been of immense service to Life Assurance Companies and the public. Under its auspices a system of examinations was established with a view to the granting of certificates of competency ; meetings were held for the discussion of actuarial questions ; a valuable library was formed ; and in 1850 the *Assurance Magazine* was started. That publication, now known as the *Journal of the Institute of Actuaries*, enjoys a world-wide reputation, and its twenty-six volumes contain many scientific and practical papers of great value in the various depart-

ments of actuarial research. Much of the success of the *Journal* is due to its first Editor, Mr. Jellicoe, who at his own personal risk started it, and subsequently carried it on for eighteen years, and to his immediate successor, Mr Sprague, who conducted it with great ability for the next fifteen years.

The Faculty of Actuaries in Scotland, which was founded in 1856, has also done important service in establishing examinations, forming an actuarial library, and in encouraging, through the Actuarial Society, the reading of papers on actuarial subjects.

The most valuable additions made within the last twenty-five years to the Life Tables previously available have been the English Life Table No. 3, and the Institute of Actuaries' Table. The former was published in 1864, and was based on the returns of two censuses and on 6,470,720 deaths registered in seventeen years. The latter was published in two parts in 1869 and 1872, and was based on the mortality experience of 20 offices (10 English and 10 Scotch) embracing 160,426 lives, and 26,721 deaths. The experience of the 10 Scottish offices, which was separately tabulated and exhaustively treated by Mr Meikle, also added materials of great value on certain points which were not included in the inquiry made by the Institute of Actuaries.

Among the subjects which have occupied a large share of the attention of actuaries during the last fifty years, I may mention the following:—

The proper method of estimating the liabilities of a Life Assurance Company.

The effect of the selection of life exercised by the Life Assurance Company, and of that exercised by the policyholder.

New plans of graduation of life tables.

Improved methods of distributing profits.

The magnitude of the reserves required by different mortality tables.

LEGISLATION AFFECTING LIFE ASSURANCE COMPANIES.

I shall now enumerate in their order the principal Acts of Parliament affecting Life Assurance Companies which have been passed during the last half-century, namely:—

Joint Stock Companies' Registration Act, 1844, which was the first Act enabling Life Assurance Companies to obtain a common legal constitution.

Companies Act, 1862, under which a form of incorporation could

be had, and at the same time a limitation of the liability of shareholders could be secured.

Policies of Assurance Act, 1867, under which the assignment of Life Assurance policies was simplified.

Life Assurance Companies Act, 1870, on which I shall make a few remarks further on.

Married Women's Property Acts of 1870 and 1882, under which a married woman may effect a policy on her own life or on the life of her husband for her separate use, the contract to be as valid as if made with an unmarried woman ; and a married man may effect a policy on his life for behoof of his wife or his wife and children, or of his children, such policy, if effected while the insured was solvent, being exempt from seizure by creditors.

Married Women's Policies of Assurance Act (Scotland) 1880, extending similar benefits to policies effected by married women and married men in Scotland.

The Life Assurance Companies Act, 1870, was the result of the widespread alarm caused by the failure of the Albert Life Office in 1869, and by the rumours as to the condition of the European, which subsequently failed in 1872. The objects of the Act were the following : (1) To require a deposit of £20,000 from all new companies, to prevent the formation of what have been aptly termed "bubble companies" ; (2) to make certain provisions relating to Life Assurance Companies which transact also fire, marine, or accident insurance business ; (3) to require the lodgment with the Board of Trade of revenue accounts and balance-sheets, prepared according to certain prescribed forms, with a view to their being published ; (4) to require periodical valuations to be made, and the results to be reported, with detailed statements of the ordinary life assurances arranged according to the age of the lives, with a view to their publication by the Board of Trade ; (5) to require full disclosure of the proposed terms of amalgamation or transfers, and the approval, or at least the tacit consent, of the policyholders, before such transactions are allowed to be carried out ; (6) to provide for the winding-up of insolvent Life Assurance Companies.

There can be no doubt that the Act has effectually prevented the formation of Life Assurance Companies of the "bubble" order. Company-promoters, however, still flourish ; but those who devote themselves to founding Insurance Companies have ceased to take any interest in the department of Life Assurance. There has conse-

quently been a great deal of attention paid to the formation of Fire, Marine, and Accident Insurance Companies. During the sixteen years ending with 1886 no fewer than 619 new Insurance Companies were registered, but only 11 of these were life companies. Had it not been for the passing of the Act we might to-day have had a very large number of new Life Assurance Companies competing for business. This would have been a serious evil; but the absolute prohibition of new Life Assurance Companies would have been an evil of scarcely less magnitude. A monopoly is seldom a good thing for the community; and, as has been pointed out by Mr. Sprague and others, there seems ground for believing that but for the energy and enterprise of new companies, and the stimulating effect which they exercise on the older companies, many of the most important improvements which have been introduced into Life Assurance business would never have seen the light. In that view it is very satisfactory to find that the requirement of a deposit of £20,000 has not stopped the formation of *bona-fide* life companies, and that several of those formed since the passing of the Act have made a very good start.

As to the effect of the other leading requirements of the Act, we may, I think, without hesitation, say that the publication of accounts and valuation statements has been of great benefit to the public. It is true that the import of these statements is not always correctly understood by the public, or by journalists who make them the subject of comment, but they afford to actuaries the means of judging of the position of the companies; and in that way, when an office gets into a bad condition, the truth soon becomes known. The regulations regarding amalgamations and transfers have also been very useful in putting a stop to a class of proceedings which at one time threw discredit on insurance business. I allude to the cases in which the directors and manager of an insolvent company received considerable sums of money by way of compensation for the loss of their appointments on the transfer of the business to another company in little better position, the interests of the policyholders in both offices being completely disregarded in the transaction.

CONCLUSION.

Although I have not been able to collect any statistical information as to the average rate of expenses in 1837, or as to the average standard of reserve at that date, I should like to make a

few brief remarks on the subjects of expenses and reserves before concluding my paper.

Probably many of the offices which have been over fifty years in existence may be able to show a lower rate of expenses at this date than they could have shown in 1837. This, however, must be chiefly because they were then for the most part young, with a moderate amount of existing business, on which the necessary expenses of keeping up an office and staff pressed heavily. I feel quite certain that if the rates of expense in 1837 of offices of fifteen or twenty years' standing were compared with the rates of expense at this date, of offices of similar standing, the result would be to show that the expenses now materially exceed those of fifty years ago. In the early part of this century the business of Life Assurance was chiefly in the hands of mutual companies, which had no agents and paid no commission. Later on, when shareholding companies became more numerous, much of the business which they secured at the outset consisted of assurances obtained with little or no expense from their shareholders, each of whom was bound to introduce an amount of Life Assurance business proportionate to his holding of shares. The plan of charging entry-money, which was common in those days, must also have assisted in lightening the pressure of expenses on the premiums. Matters are very different now. Competition is keener, and we work at higher pressure. Expenses are incurred which would not have been thought of fifty years ago. We are compelled to put down branch offices in the leading cities, to employ a staff of inspectors or canvassers, and to advertise and send out circulars to the public. If we neglect these measures we run serious risk not merely of making no progress, but of falling behind, and gradually losing our existing connections. The subject of expenses demands careful watching, especially in the case of companies which have weak reserves. But where a company has prescribed for itself a very high reserve, the necessity for maintaining that standard may generally be relied on as a wholesome and effectual check on any undue expenditure. I would only add here that the increase of competition and of working expenses, referred to above, is not peculiar to Life Assurance business. It is to be seen in every department of trade at the present day.

As to the standard of Reserve, so far as I am able to judge, the average reserves now are stronger than those made fifty years ago; and the full disclosure of the valuation basis required by the Act of 1870 has a decided tendency to favour the maintenance of high

reserves by inducing the offices to vie with each other in showing the safest basis rather than in declaring the largest bonuses.

A large proportion of the number of companies now existing adopt the Institute of Actuaries' Life Tables, and make their valuations at such a rate of interest as to afford an ample margin for adverse fluctuations; and I believe the financial position of the great majority of the Life Assurance Companies of the United Kingdom to be both sound and strong at the present time. This is a highly satisfactory state of matters, and I think we must all be prepared to admit that the present position of the Life Assurance Companies in this realm, and their steady growth and development during the last half-century, are in no small degree due to the wise laws and settled government which have prevailed during the reign of Queen Victoria.

APPENDIX.

TABLE OF THE NUMBER OF COMPANIES EXISTING, ESTABLISHED,
AND DISCONTINUED DURING THE LAST HALF-CENTURY.

YEAR.	NUMBER OF ORDINARY LIFE ASSURANCE COMPANIES				INCREASE.	DECREASE.
	Existing at beginning of Year.	Dis-continued during Year.	Established during Year.	Existing at end of Year.		
1837	74	0	8	82	8	0
1838	82	0	5	87	5	0
1839	87	2	9	94	7	0
1840	94	4	11	101	7	0
1841	101	3	8	106	5	0
1842	106	9	4	101	0	5
1843	101	1	5	105	4	0
1844	105	5	8	108	3	0
1845	108	0	13	121	13	0
1846	121	7	12	126	5	0
1847	126	5	12	133	7	0
1848	133	8	11	136	3	0
1849	136	3	7	140	4	0
1850	140	5	7	142	2	0
1851	142	3	13	152	10	0
1852	152	7	17	162	10	0
1853	162	9	22	175	13	0
1854	175	14	26	187	12	0
1855	187	8	14	193	6	0
1856	193	20	7	180	0	13
1857	180	30	4	154	0	26
1858	154	16	1	139	0	15
1859	139	7	3	135	0	4
1860	135	12	3	126	0	9
1861	126	8	2	120	0	6
1862	120	10	7	117	0	3
1863	117	5	7	119	2	0
1864	119	5	10	124	5	0
1865	124	9	7	122	0	2
1866	122	17	9	114	0	8
1867	114	7	9	116	2	0
1868	116	8	8	116	0	0
1869	116	10	4	110	0	6
1870	110	10	17	117	7	0
1871	117	3	0	114	0	3
1872	114	5	0	109	0	5
1873	109	1	0	108	0	1
1874	108	2	0	106	0	2

[TABLE continued on next page.]

TABLE *continued*—

YEAR.	NUMBER OF ORDINARY LIFE ASSURANCE COMPANIES				INCREASE.	DECREASE
	Existing at beginning of Year.	Dis-continued during Year.	Established during Year.	Existing at end of Year.		
1875	106	3	2	105	0	1
1876	105	4	1	102	0	3
1877	102	0	0	102	0	0
1878	102	3	0	99	0	3
1879	99	1	0	98	0	1
1880	98	2	0	96	0	2
1881	96	3	2	95	0	1
1882	95	4	1	92	0	3
1883	92	1	1	92	0	0
1884	92	1	1	92	0	0
1885	92	1	1	92	0	0
1886	92	3	0	89	0	3
1887	89	—	—	—	—	—
	...	304	319	...	140	125

CONSTRUCTION OF THE TABLE.

The foregoing Table was compiled from the following sources :—

As regards the period from 1837 to 1863, from the admirable chronological chart drawn up by Mr. Morrice A. Black in 1864 ;

As regards the period from 1864 to 1872, from the information published in the yearly issues of the *Post Magazine Almanac* ;

As regards the period from 1872 onwards, chiefly from the Annual Returns of Life Assurance Companies presented to Parliament.

The following classes of Companies have not been included :—

Purely Industrial Offices, and Friendly Societies.

Purely Annuity Societies.

Reversionary Companies.

Foreign Life Assurance Companies.

Changes between 1864 and 1871.—In recording these I have had difficulty in identifying some of the Companies, owing to change of name, or adoption of a name closely resembling that of a Company which had passed out of existence almost simultaneously with the birth of the new Company. I have also had considerable difficulty in deciding whether to include or exclude certain Companies which were projected or registered, but in regard to which I feel doubt as to whether they ever transacted business. In such cases my decisions were necessarily arbitrary, as I had not time to investigate each case thoroughly. It is probable, therefore, that another investigator might take a different view of some of these cases.

Dates of Discontinuance.—Those prior to 1864 were taken from Mr. M. A. Black's chart. Those between 1864 and 1872 were in some cases taken from the date of winding-up order, and in other cases they were assumed as occurring in the year prior to their being reported in the *Post Magazine Almanac*. In cases subsequent to 1872, where the exact date was not obtained, the discontinuance was frequently assumed to have taken place twelve months after the date of the latest balance-sheet printed in the Government returns. In cases of amalgamation or transfer occurring in recent years, the accurate date was of course obtained from the Government return.

Dates of Establishment.—In some cases Companies which did not commence business until after 1871 were identified as having been registered prior to the passing of the Life Assurance Companies Act 1870, through the circumstance that they did not appear to have made the deposit of £20,000.

In order to complete the information as to the construction of the Table, the following lists are given in this Appendix :—

- (1.) List of errors observed in Mr. Black's chart.
- (2.) List of the Companies in existence on 1st January 1864, as per Mr. Black's chart, and which were still in existence on 1st January 1887.
- (3.) List of the Companies in existence as per the chart, but which have subsequently passed out of existence.

- (4.) List of Companies established since 1st January 1884, and which still remained in existence on 1st January 1887.
- (5.) List of Companies established since 1st January 1864, and which have subsequently passed out of existence.
- (6.) Statement reconciling the number of Companies existing on 1st January 1887 as per my table with that as per the latest Government returns.

LIST OF ERRORS observed in Mr. Black's Chart.

Year 1821.	Numerical Table gives discontinuances as 0 instead of 1.					
„ 1829.	„	„	„	„	3	2.
„ 1830.	„	„	„	„	1	0.
„ 1831.	„	„	„	„	0	1.
„ 1838.	„	„	„	„	1	0.
„ 1839.	„	„	„	„	3	2.
„ 1852.	„	„	„	„	8	7.
„ 1853.	„	„	„	„	8	9.

[The above errors do not occur in the body of the Chart, but are confined to the Numerical Table. The overstatements exactly balance the understatements, which explains how the errors escaped detection.]

Year 1823. In the Chart the *Shamrock* is shown as discontinued in 1823, but this appears to be a misprint for 1825. The Numerical Table adopts the latter date.

Year 1859. The *British Protector*, founded 1853, is stated in the Chart to have been discontinued in 1859, but according to the *Post Magazine Almanac* for the years from 1865 (the earliest to which I have had access) to 1882, a Company named *Protector*, founded in 1853, was in existence up to 1882. I have, therefore, assumed, although with some hesitation, that the statement of the discontinuance in 1859 was made in error.

LIST OF THE COMPANIES which were in existence on 1st January 1864, as per Mr. Black's Chart, and which remained in existence on 1st January 1887.

Name of Company.	Life Department Founded	Name of Company.	Life Department Founded
1. Alliance,	1824	41. National Provident, .	1835
2. Argus,	1833	42. North British [and	
3. Atlas,	1808	Mercantile],	1823
4. British Empire, . .	1846	43. Northern,	1836
5. British Equitable, .	1854	44. Norwich Union Life,	1808
6. Caledonian,	1833	45. Patriotic,	1824
7. Church of England, .	1840	46. Pelican,	1797
8. City of Glasgow, . .	1838	47. Preserver,	1843
9. Clergy Mutual, . . .	1829	48. Provident,	1807
10. Clerical, Medical, and		49. Provident Clerks, . .	1840
General,	1824	50. Provincial,	1852
11. Commercial Union, .	1862	51. Prudential [British Pru-	
12. Crown,	1825	dential in 1863], . .	1848
13. Eagle,	1807	52. Queen,	1857
14. Economic,	1823	53. Reliance,	1840
15. Edinburgh,	1823	54. Rock,	1806
16. English and Scottish		55. Royal,	1845
Law,	1839	56. Royal Exchange, . .	1720
17. Equitable,	1762	57. Royal Farmers, . . .	1840
18. Equity and Law, . .	1844	58. Scottish Amicable, . .	1826
19. Friends' Provident, .	1832	59. Scottish Equitable, . .	1831
20. General,	1837	60. Scottish Provident, . .	1837
21. Gresham,	1848	61. Scottish Provincial, . .	1825
22. Guardian,	1821	62. Scottish Union [and	
23. Hand in Hand, . . .	1836	National],	1824
24. Imperial,	1820	63. Scottish Widows', . .	1815
25. Lancashire,	1852	64. Sovereign,	1845
26. Law Life,	1823	65. Standard,	1825
27. Law Property, . . .	1850	66. Star,	1843
28. Law Union,	1854	67. Sun Life,	1810
29. Legal and General, .	1836	68. Union,	1814
30. Life Association of		69. United Kent,	1824
Scotland,	1839	70. United Kingdom Tem-	
31. Liverpool and London		perance,	1840
[and Globe],	1836	71. Universal,	1834
32. London and Lancashire,	1862	72. University,	1825
33. London Assurance, . .	1720	73. Wesleyan & General,	1841
34. London Life Associa-		74. Western Counties &	
tion,	1806	London,	1861
35. Marine and General,	1852	75. Westminster and Gen-	
36. Metropolitan,	1835	eral,	1836
37. Midland Counties, . .	1851	76. West of England, . .	1807
38. Mutual,	1834	77. Whittington,	1855
39. National Life,	1830	78. Yorkshire,	1824
40. National of Ireland, .	1822		

LIST OF THE COMPANIES which were in existence on 1st January 1864, as per Mr. BLACK'S Chart, but which have since then disappeared.

	Life Department Founded.	Discontinued.	Transferred to or Amalgamated with
1. Albert,	1838	1867	<i>Norwich Union.</i>
2. Amicable,	1706	1866	
3. Birmingham and Midland [afterwards Birmingham Alliance], .	1862	1870	
4. Britannia,	1837	1865	<i>London and Birmingham.</i>
5. Britannia Mutual, . .	1837	1865	
6. British Mutual, . . .	1844	1868	
7. British Nation, . . .	1854	1865	<i>Prudential. European.</i>
8. British Union, . . .	1863	1870	
9. British Medical, . . .	1853	1886	<i>Sovereign.</i>
10. City,	1862	1866	
11. City and County, . .	1863	1866	
12. Colonial,	1846	1866	<i>Empire. Standard.</i>
13. Confident,	1855	1864	
14. Consolidated,	1846	1865	<i>General Provident, No. 1 British Prudential [now Prudential].</i>
15. Emperor,	1853	1885	
16. European,	1853	1872	
17. Friend in Need [founded as a Friendly Society in 1831, and as a Life Assurance Company in 1862],	1862	1866	<i>Empire.</i>
18. General Provident, No. 1,	1862	1864	
19. Globe,	1803	1864	<i>Liverpool and London [and Globe]. National of Ireland.</i>
20. Great Britain, . . .	1844	1882	
21. Hercules,	1863	1869	
22. Indisputable, . . .	1860	1866	<i>Prudential. Briton Medical.</i>
23. International, . . .	1837	1868	
24. Leeds and Yorkshire, .	1824	1864	<i>Hercules. Liverpool and London [and Globe].</i>
25. Life Association of England,	1863	1880	
26. London and Provincial Law,	1845	1881	<i>Guardian.</i>
27. London and Westminster,	1863	1865	
28. Minerva,	1836	1864	<i>British Prudential [now Prudential]. Standard.</i>
29. National Mercantile, .	1837	1866	

	Life Department Founded.	Discontinued.	Transferred to or Amalgamated with
30. National Union, . . .	1863	1868	<i>Great Britain.</i>
31. Norwich Provident, . .	1860	1874	
32. Nottinghamshire and Derbyshire, . . .	1835	1869	<i>Norwich Union Life.</i>
33. Protector [formerly British Protector], . .	1853	1882	
34. Royal Naval and Military,	1837	1866	<i>Crown.</i>
35. Scottish Friendly, . . .	1862	1867	
36. Scottish National, . .	1841	1876	<i>Scottish Union.</i>
37. Solicitors and General, .	1846	1866	
38. United Brothers, . . .	1854	1870	<i>Eagle.</i>
39. Victoria and Legal and Commercial,	1838	1865	
40. Volunteer Service, . .	1861	1865	<i>Standard.</i>
41. Western,	1842	1865	
			<i>North British.</i>
			<i>Albert.</i>

LIST OF ORDINARY LIFE ASSURANCE COMPANIES founded since
1st January 1864, and which remained in existence on 1st
January 1887.

	Founded in Year	
1. Blue Ribbon,	1884	Has also an Industrial Section.
2. London, Edinburgh, and Glasgow,	1876	
3. National Guardian, . .	1865	
4. Sceptre,	1865	
5. Scottish Life,	1881	
6. Scottish Economic, . .	1885	
7. Scottish Imperial, . .	1866	
8. Scottish Metropolitan, .	1876	
9. Scottish Temperance, .	1883	
10. Positive,	1870	
11. Victoria,	1882	Previously a Friendly Society, founded 1831.

LIST OF ORDINARY LIFE ASSURANCE COMPANIES founded after
1st January 1864, and which have subsequently disappeared.

	Date of Establish- ment.	Date of Discon- tinuance.	Transferred to or Amal- gamated with
1. Aid,	1870	1872	<i>Masonic.</i>
2. Albert Reconstruction, .	1870	1870	
3. Albion,	1864	1878	
4. Alexandra,	1868	1872	<i>United Ports.</i>
5. Ark,	1870	1878	
6. Amicable Mutual, . . .	1867	1868	
7. Bristol and London, . .	1869	1872	<i>Bristol and London.</i>
8. Britannia,	1868	1868	
9. British,	1870	1870	
10. British Alliance, . . .	1875	1876	<i>Marine.</i>
11. British Imperial, . . .	1868	1875	
12. British Standard, . . .	1864	1869	
13. British Universal, . . .	1869	1869	<i>London, Edinburgh, and Glasgow.</i>
14. Briton Life Association (Limited),	1876	1886	
15. Colonial Assurance Cor- poration (Limited), . . .	1867	1881	
16. County Life,	1864	1866	<i>Imperial Union.</i>
17. Empire,	1865	1867	
18. English,	1867	1871	
19. English Provident, . . .	1869	1869	<i>North America Life.</i>
20. Exchange,	1870	1884	
21. Financial,	1864	1866	
22. General Homœopathic [afterwards General Provident, No. 2], . . .	1865	1868	<i>Whittington.</i>
23. General Provincial, . .	1864	1867	
24. Home,	1869	1871	
25. Home and Colonial . . .	1864	1866	<i>Norwich Provident.</i>
26. Imperial Guardian, . .	1867	1869	
27. Imperial Union,	1866	1881	
28. Leviathan,	1870	1870	<i>Northern.</i>
29. Life Assurance Union, .	1868	1870	
30. Life Investment,	1864	1867	
31. Lion,	1881	1883	<i>Great Britain.</i>
32. London and Birmingham,	1870	1875	
33. London and Glasgow, . .	1870	1870	
34. London and Northern, . .	1865	1868	<i>London and Lanca- shire Life.</i>
35. London and Southwark,	1864	1869	
36. London, East India, and Colonial,	1870	1882	
37. Manchester Provident, . .	1866	1876	
38. Masonic,	1868	1886	

	Date of Establish- ment.	Date of Discon- tinuance.	Transferred to or Amal- gamated with
39. Mercantile Professional and General, . . .	1864	1865	<i>National Standard.</i>
40. Minerva, No. 2 [after- wards National Funds],	1870	1876	
41. Monarch, . . .	1868	1870	<i>London and Glasgow.</i>
42. Monthly, . . .	1870	1870	
43. National Equitable Provident, . . .	1860	1870	
44. National Standard, . .	1865	1870	<i>Financial.</i>
45. National Widows' Fund [afterwards National Widows' Life Assur- ance Fund, and sub- sequently British Guardian], . . .	1867	1876	
46. New Albert, . . .	1870	1882	
47. New Amicable, . . .	1873	1873	
48. Northern Patriotic, . .	1866	1866	
49. North London [after- wards British Provi- dent], . . .	1870	1873	
50. Permanent, . . .	1867	1867	
51. Planet [afterwards Citizen], . . .	1866	1874	<i>Provident Clerks.</i>
52. Prosperous, . . .	1866	1866	
53. Progress, . . .	1867	1867	<i>United Ports.</i>
54. Prudent, . . .	1868	1869	<i>Home.</i>
55. Reinsurance . . .	1867	1870	
56. Scottish Commercial . .	1865	1880	<i>Lancashire.</i>
57. Sheffield and Lincoln, .	1866	1866	
58. Unconditional, . . .	1867	1868	
59. United Counties, . . .	1864	1864	
60. United English and Scottish, . . .	1866	1867	
61. United Ports, . . .	1868	1869	<i>English.</i>
62. Universal, . . .	1866	1866	

STATEMENT RECONCILING THE NUMBER OF ORDINARY LIFE ASSURANCE COMPANIES EXISTING ON 1ST JANUARY 1887, AS PER THE TABLES ON PAGES 141 AND 163, WITH THE NUMBER AS PER THE LATEST GOVERNMENT RETURN OF ACCOUNTS OF LIFE ASSURANCE COMPANIES.

Total number of Companies as per Return of Accounts deposited with the Board of Trade during the year 1886, and ordered by the House of Commons to be printed on 1st March 1887, 106

ADD—*New Company whose Accounts were not due—*

Scottish Economic, 1

107

DEDUCT—*Companies in liquidation—*

Briton Medical, } 2
Masonic, }

Company transferred—

Briton Life Association Limited, 1

Foreign Companies—

Equitable of United States, } 2
New York Life Assurance Company, }

Companies whose business is exclusively industrial—

British Legal, }
British Workman's, }
Liverpool, Manchester, and Birmingham, }
London and Manchester, }
Methodist and General, } 9
Pearl, }
Refuge, }
United Kingdom, }
Yorkshire Provident, }

Annuity Societies—

Customs Fund, }
Itinerant Methodists, } 3
London Annuity, }

Reversionary Society—

Law Reversionary Interest Society, 1

18

Number of ordinary Life Assurance Companies existing
on 1st January 1887, as per the Tables on pages } 89
141 and 163, }

Namely—

Founded prior to 1864, and still in existence, 78

„ subsequently, „ „ 11

89