# NEW ZEALAND

# Government Life Insurance DEPARTMENT.

ANNUAL REPORT BY COMMISSIONER, 1891.

QUINQUENNIAL INVESTIGATIONS, 1890.

THIRD DIVISION OF PROFITS.



### WELLINGTON.

By Authority: George Didsbury, Government Printer.

1892.

# NEW ZEALAND GOVERNMENT INSURANCE DEPARTMENT.

ESTABLISHED 1870.

. . COMMISSIONER: JOSEPHUS H. RICHARDSON. ASSISTANT COMMISSIONER:

D. M. LUCKIE.

ACTUARY: MORRIS FOX. SECRETARY:

W. B. HUDSON.

CHIEF MEDICAL OFFICER: JOSEPH HENRY, L.R.C.P. (LOND.).

ACCOUNTANT: ROBERT J. S. TODD.

DISTRICT MANAGERS:

AUCKLAND . . W. J. SPEIGHT.

Wellington . . GEORGE ROBERTSON.

CHRISTCHURCH . J. C. PRUDHOE.

Dunedin . . R. S. McGOWAN.

HEAD OFFICE:

GOVERNMENT INSURANCE BUILDINGS, CUSTOM-HOUSE QUAY, WELLINGTON, N.Z.

# ANNUAL REPORT

OF THE

# GOVERNMENT INSURANCE COMMISSIONER

FOR THE YEAR ENDED 31st DECEMBER, 1891.

Presented to both Houses of the General Assembly pursuant to the provisions of the Acts relating to Government Life Insurance.

Government Insurance Office,

Wellington, 20th June, 1892.

I have the honour to submit herewith the usual accounts and statements of business of the

department for the calendar year 1891.

New Business.—During the period above referred to 3,834 proposals, for a total amount of £927,934, were received. Of these, 3,284 were in the General and 550 in the Temperance Section. Of the whole of the proposals received, 365 were declined or deferred, 2,911 completed, and in the remaining cases the proponents did not close. Of every 100 proposals received, 76 were and in the remaining cases the proponents the not close. Of every 100 proposits received, 76 were accepted at ordinary rates, 14 were "loaded"—i.e., accepted with an extra premium—and 10 were deferred or declined. Of every 100 policies completed, 88 were at ordinary rates, and 12 with an extra premium, or the equivalent contingent debt. In the General Section the policies issued an extra premium, or the equivalent contingent dept. In the General Section the policies issued were 2,695, assuring £660,193; and in the Temperance Section 216, assuring £39,708; making, in all, 2,911 policies, for £699,901, of which 856, for £248,450, were tontine. The amount assured of policies issued exceeded that of the previous year by £15,659. The new premiums received amounted to £19,982 7s. 9d., including £1,697 5s. 7d., single payments. Twenty-three annuity policies were issued, the amount payable to the annuitants being £1,040 17s. 8d. per annum.

The purchase-money amounted to £11,661 158. 4d.

Interest.—The interest earned during the year amounted to £96,378 168., being an increase of £6,582 178. 10d. over the same item in the preceding period. It will be observed that the interest outstanding at the end of the year is somewhat in excess of that at the end of 1890. This is explained by the fact that advice of the payment of the interest on some of the Government

securities was received on the 2nd January, 1892, instead of the 31st December, 1891.

Total Revenue.—The total revenue was £330,895 6s. 9d., being an increase of £17,469 16s. 6d.

over that received in 1890.

Death Claims. - Claims by death under assurance policies, including bonus additions, amounted to £84,507 gs., or, after the deduction of contingent debts imposed in lieu of extra premiums on under-average lives, to £84,074 7s. 8d. The mortality of the preceding year—1890—was abnormally light, and although this year's death claims appear heavy by comparison they still fall far short of what is provided for in the tables of the department.

Claims under Policies matured .- Endowment assurances matured, including bonus additions

and simple endowments matured on the lives of children, amounted to £16,554 13s. 11d.

Expenses of Management.—The expenses of management, of which £12,954 is. 5d. is represented by commission and £7,112 15s. 7d. by property-tax, amounted to £53,234 8s. 8d., the ratio to premium income showing a further decline. During the two years 1890 and 1891 the total

reduction has been nearly 3 per cent.

Accumulated Funds.—The funds have increased by £132,603 4s. 10d. The addition is in every respect a highly satisfactory one, and would have been still greater had it not been for the fact that the distribution of the bonus, which was commenced shortly before the end of the year, entailed the payment of over £10,000 to those policyholders who surrendered their bonuses for cash.

Quinquennial Investigation.—The fourth quinquennial investigation has been completed in London, and the Consulting Actuaries—Messrs. Bailey, Hardy, and King—have reported the result of the valuation as showing a surplus of £239,475, and, in accordance with their recommendation, the sum of £200,000 has been divided amongst the participating policyholders. Full particulars regarding the investigation will be found in the Consulting Actuaries' report, but it may be mentioned that the surplus is large, notwithstanding that the rate of interest assumed in the valuation has been reduced from  $4\frac{1}{2}$  to 4 per cent., making, of course, the valuation much more stringent.

The department's Actuary, Mr. Fox, has also made a valuation of the net liability under policy contracts, which was completed by him as early as April of last year. The surplus reported by Mr. Fox was £6,823 less than that of Messrs. Bailey, Hardy, and King, the relatively trifling difference being due to extreme caution on the part of Mr. Fox in estimating the liabilities under the department's policies, leading him to constitute some small additional reserves which the

London Actuaries do not appear to have thought it essential to provide.

No time was lost by the Actuary and his department in allocating the surplus; indeed, the bonus certificates were in the hands of policyholders in less than two months after the receipt of

the cable from the Agent-General intimating the divisible surplus.

General Remarks.—The accounts and statements appended are given in such detail that there is little for me to add. I may, however, state that the Actuary has made a valuation as at 31st December last, and that the result shows that the rate of profit is being maintained, and that a satisfactory bonus is accruing for distribution amongst policyholders at the end of the present triennium.

The London Actuaries, in their report, allude to the fact that the ratio of expenses, including commission, to the premium income is greater than in the last-preceding valuation period. Competition has admittedly been much more severe than formerly, but, as for several years the ratio of expenses had shown a practically continuous increase, I had already considered it advisable to make determined efforts to effect a reduction. Alterations in this respect, without material contraction of the volume of new business, have been effected, as will be seen from what I have said in regard to the expenses of management. My opinion is that there is a point in regard to expenditure beyond which it is against the interests of the general body of the policyholders to go. The question is a most material one for consideration in the management of a life office, and during the last year or two great attention has been given to it not only by eminent insurance officials but by the insurance Press throughout the world, especially in connection with expenses incurred in the procuration of new business; and there is at present an unmistakeable tendency on the part of the best offices to refrain from unduly competing for new business at a high cost. It is remarked by one leading journal that that office is wise which devotes its energies to the care of the business it has on its books, looking after the interests of the policyholders, aiming only for a healthy increase in business from year to year, and reducing expenses to lessen the cost of assurance to each one. During the year under review it is pleasant to be able to chronicle that, whilst there has been an increase in the accession of new business to the department, both the expense and lapse rates have been still further reduced. It is also satisfactory to be able to state that steps have been taken which I feel confident will result in the continuance of a favourable tendency in these directions.

Josephus H. Richardson, Commissioner. REVENUE ACCOUNT of the GOVERNMENT LIFE INSURANCE DEPARTMENT for the Year ended 31st December, 1891.

## Amount of Funds at 31st December, 1890 1,715,198 5 9 Renewal premiums — Assurance, Annuity, and Endowment  1.		0.2.00		,,,,,							
Amount of Funds at 31st December, 1890   1,715,193   5   9		£	8. (	đ. I					£	s.	d.
Renewal premiums — Assurance, Annuty, and Endowment   New premiums on 2,911 policies, assuring £699,901, and yielding an annutal revenue of £20,566 st. 2d. (including instalments of first year's premium falling due in the year)   18,295 2 2	Amount of Eunds at 31st December 1890				Death claims under policies.						
Nuity, and Endowment   202,851 16 10   202,851 16   202,851 16 10   202,851 16   2			v	٠,							
New premiums on 2,911 policies, assuring £699,901, and yielding an annual revenue of £20,566 4s. 2d. (including instalments of first year's premium falling due in the year)			16 1		7711	•			94 074	7	Q
tured, including bonus additions			TO T	LO		• •			04,014	•	0
revenue of £20,566 &s. 2d. (including instalments of first year's premium falling due in the year)				1							
instalments of first year's premium falling due in the year)	ing £699,901, and yielding an annual				tured, including bonus ad-						
instalments of first year's premium falling due in the year)	revenue of £20,566 4s. 2d. (including				ditions				15,971	17	0
Tailing due in the year   18,285 2 2   Single premiums—Assurance and Endowment.				- 1	Endowments matured				582	16	11
Single premiums			2	2							
Consideration for annuities			~1	-					195	5	7
Consideration for annuities	7		×	-							Α.
Interest   96,878   16   0   0   0   0   0   0   0   0   0						• •					
Loans released by surrender						• •					
Commission, new   11,471 6 10   renewal   1,482 14 7   12,954 1 5   7,112 15 7	Interest										
Tenewal	Fees	20	10 1	10	Loans released by surrender				16,294	2 :	10
Tenewal					Commission, new	11,471	6 1	10			
Property-tax					· ·	1.482	14	7			
Property-tax				ı	,				12.954	1	5
Losses on properties fore- closed					Property toy						
Closed				1		• •			1,112	10	٠.
Expenses of management— Salaries—Head Office  Branch Offices and Agents. 4,697 8 10  Extra clerical assistance Medical fees and expenses 4,575 10 2  Travelling-expenses 1,542 15 5  Advertising . 939 17 1  Printing and stationery 1,494 6 2  Rent . 1,064 17 11  Postage . 1,764 14 6  Telegrams . 530 10 4  Exchange . 242 15 5  Office-furniture depreciation . 411 11 8  General expenses . 1,596 4 1  Quinquennial expenses . 1,528 11 0  Compensation for loss of office . 1,147 4 8  Amount of funds at 31st  December, 1891 . 1,847,796 10 7					, ,				400	10	10
Salaries—Head Office . 10,947 0 5  Branch Offices and Agents . 4,697 8 10  Extra clerical assistance 689 4 0  Medical fees and expenses 4,575 10 2  Travelling-expenses . 1,542 15 5  Advertising				İ		• •			483	18.	10
## Branch Offices and Agents 4,697 8 10  Extra clerical assistance											
and Agents. 4,697 8 10  Extra clerical assistance 689 4 0  Medical fees and expenses 4,575 10 2  Travelling-expenses 1,542 15 5  Advertising . 939 17 1  Printing and stationery . 1,494 6 2  Rent . 1,064 17 11  Postage . 1,764 14 6  Telegrams . 530 10 4  Exchange . 242 15 5  Office-furniture depreciation	*				Salaries—Head Office	10,947	0	5			
Extra clerical assistance Medical fees and expenses Travelling-expenses . 1,542 15 5 Advertising					" Branch Offices						
Extra clerical assistance Medical fees and expenses Travelling-expenses . 1,542 15 5 Advertising				- 1	and Agents	4.697	8 1	10			
Medical fees and expenses 4,575 10 2 Travelling-expenses . 1,542 15 5 Advertising											
Travelling-expenses . 1,542 15 5 Advertising . 939 17 1 Printing and stationery . 1,494 6 2 Rent 1,064 17 11 Postage 1,764 14 6 Telegrams 530 10 4 Exchange 242 15 5 Office-furniture depreciation											
Advertising 939 17 1 Printing and stationery 1,494 6 2 Rent 1,064 17 11 Postage 1,764 14 6 Telegrams 530 10 4 Exchange 242 15 5 Office-furniture depreciation 411 11 8 General expenses 1,596 4 1 Quinquennial expenses 1,523 11 0 Compensation for loss of office 1,147 4 8  Amount of funds at 31st December, 1891 1,847,796 10 7				- 1							
Printing and stationery . 1,494 6 2 Rent 1,064 17 11 Postage 1,764 14 6 Telegrams 530 10 4 Exchange 242 15 5 Office-furniture depreciation						,		_			
Rent 1,064 17 11 Postage 1,764 14 6 Telegrams 530 10 4 Exchange 242 15 5 Office-furniture depreciation											
Postage 1,764 14 6 Telegrams 530 10 4 Exchange 242 15 5 Office-furniture depreciation				- [			_				
Telegrams 530 10 4 Exchange 242 15 5  Office-furniture depreciation 411 11 8  General expenses 1,596 4 1 Quinquennial expenses 1,523 11 0  Compensation for loss of office 1,147 4 8  Amount of funds at 31st December, 1891 1,847,796 10 7				- 1				11			
Exchange				- 1	Postage	1,764	14	6			
Office-furniture depreciation				J	Telegrams	530	10	4			
Office-furniture depreciation				]	Exchange	242	15	5			
tion		·									
General expenses 1,596 4 1 Quinquennial expenses 1,523 11 0 Compensation for loss of office 1,147 4 8  Amount of funds at 31st December, 1891 1,847,796 10 7						411	11	R			
Quinquennial expenses 1,523 11 0 Compensation for loss of office 1,147 4 8  Amount of funds at 31st December, 1891 1,847,796 10 7				İ							
Compensation for loss of office 1,147 4 8  Amount of funds at 31st December, 1891 1,847,796 10 7				ļ							
office 1,147 4 8  Amount of funds at 31st December, 1891 1,847,796 10 7						1,523	TT	U			
Amount of funds at 31st December, 1891 1,847,796 10 7				į				_			
Amount of funds at 31st December, 1891 1,847,796 10 7				-	office	1,147	4	8			
Amount of funds at 31st December, 1891 1,847,796 10 7				į					33,167	11	8
December, 1891 1,847,796 10 7					Amount of funds at 31st						
								1.8	47.796	10	7
£2,046,088 12 6				_		•		_, _			
\$2,040,000 12 0		65 048 066	19	6				30 0	ME 000	10	G
AND THE PROPERTY OF THE PROPER	•	22,040,000	14	_ :				∪, ⊿ن	40,000	12	, D
	•						•				

BALANCE-SHEET of the GOVERNMENT LIFE INSURANCE DEPARTMENT on 31st December, 1891.

LIABILITIES.	£	s.	d.	Assets.	£	s.	đ.
Total Assurance, Annuity, and Endow	-			Loans on policies	295,032	3	2
ment Funds (as per Revenue Account	) 1,847,796	10	7	Government securities	791,993	.0	0
Claims admitted, proofs not yet com	-			Railway debentures (guaranteed by Go-			
pleted				vernment)	79,850	0	0
Surrenders	14	11	3	Municipal Corporation debentures	87,572	0	0
Commission			7	County securities	1,000	0	0
Medical fees			0	Otago University debentures	15,000	0	0
Premium deposits			1		10,000	0	0
Valuation-fee deposits		17	6	River Board debentures	935		0
Fire-insurance and mortgage-moneys in				Landed and house property	,		11
suspense	. 158			,	3,704	5	2
Tontine Savings Fund		13	8		381,524	0	
Reserve for possible depreciation in free				Properties acquired by foreclosure	33,348	8	4
hold and mortgage securities .	25,000	0	0	Overdue premiums on poli-			
				cies in force £4,416 8 11		,	
				Outstanding premiums due			
				in December, 1891 23,109 16 1			
					27,526	5	0
				Interest outstanding 5,354 14 2			
				Interest accrued but not due 21,661 7 0			
,					27,016	1	2
				Agents' balances	2,906	10	7
				Sundry accounts owing	1,411	0	11
				Cash on current account	44,593	2	6
	£1,899,891	12	7	£1:	899,891	12	7
				O.C., 1	555,051	14	-
				1	-		

Government Insurance Office, 13th May, 1892.

JOSEPHUS H. RICHARDSON, Commissioner. W. B. Hudson, Secretary.

Audited and found correct.

JAMES C. GAVIN, Assistant Controller and Auditor.

# Statement of Business

### POLICIES ISSUED AND DISCONTINUED

						AS	SSUI	RANCE	S.					
YEAR 1891.		Whole-life	e and	Term A	lssur	ances.			End c	nwment	Assura	inces		
	No.	Sum Assured.	d. Bonus. Ordinary. Extra					No.	Sum Assured,	Rever- sionary	Anr	ual P	remium.	
		Assureu.	Bonus.	Ordin	ary.	Ext	·a.		Assureu.	Bonus.	Ordin	ary.	Ext	а.
Policies in force at	ĺ	£	£	£	s. d	£	s.d.		£	£	£	s. d	. £	s. d.
31st Dec., 1890 Bonus allotted as at	17,172	5,171,537	195,783	133,862	16	$3^{1}4,092$	4 6	10,292	2,345,831	67,979	84,844	18 8	898 1	4 9
31st Dec., 1890			282,678	•			!			113,761	•			.
New Business, 1891	1,588	444,607	••	10,764	15 (	272 1	18 2	1,288	249,109		9,122	19 10	1441	6 3
Total	18,760	5,616,144	478,461	144,627	11 8	4,365	2 8	11,580	2,594,940	181,740	93,967	18 8	1,0431	1 0
Policies discontinued during 1891	1,114	323,026	37,871	8,717	16 4	311 1	1 11	<b>6</b> 03	134,941	14,261	5,217	15 8	61	0 7
Total Policies in force at 31st Dec., 1891	17,646	5,293,118	440,590	135,909	14 11	4,0531	.0 9	10,977	2,459,999	167,479	88,750	3 (	982 1	.0 5

# PARTICULARS OF POLICIES DISCONTINUED

How Discontinued.		ļ											
By Death Maturity Surrender	177  165  771 1	62,484 48,209 212,133 200	2,919 16,876 10,852	1,268 9		58 7 8 141 2 3	56 49 108  390 	13,573	2,375 $1,458$ $5,273$	793 6 10 810 12 3		5	0 8 5 8
	1,114	323,026	37,871	8,717 16	4	311 11 11	603	134,941	14,261	5,217 15 3	3	61	0 7

# PROGRESS OF BUSINESS OF THE GOVERNMENT INSURANCE

Total issued Total void										4,704,718 2,244,719					
Total in force	••	17,646	5,293,1	8 440,59	135,909	14 11	4,053 10	9	10,977	2,459,999	167,479	88,750	3 0	982 10	) 5

Note.—The Ordinary Premium is the premium at the true age; the

Wellington, 28th March, 1892.

# at end of Year 1891.

# DURING THE YEAR 1891.

	SIMP DOWME ESTMEN	NTS, IN-		ANNUIT	TES.				_	ГОТА	L.						
No.	Sum Assured.	Annual Premium.	No.	Annual Premium	Annuity.		No.	Sum	Rever-	Ann	ual E	remiu	m.		Ann	uity	7.
	Assured.	Freimum.		Fremum				Assured.	Bonus.	Ordin	ary.	Ex	tra.				
	£	£ s. d.		£ s.d.	£ s. c	1.		£	£	T;	s. d	£	s.	d.	£	s.	d.
536	26,662	1,139 1 6	102	10 16 0	5,668 14	4	28,102	7,544,030	263,762	219,857	12 2	4,990	19	3	5,668	14	4
	••	••			• •				396,439	•	,	1			•		ļ
35	6,185	260 14 11	23		1,040 17	8	2,934	699,901		20,148	9 9	417	14	5	1,040	17	8
571	32,847	1,399 16 5	125	10 16 0	6,709 12	o	31,036	8,243,931	660,201	240,005	1 11	5,408	13	8	6,709	12	0
89	3,230	151 3 11	4	••	362 11	4	1,810	461,197	52,132	14,086	15 6	372	12	6	362	11	4
482	29,617	1,248 12 6	121	10 16 0	6,347 0	8	29,226	7,782,734	608,069	225,919	6 5	5,036	1	2	6,347	0	8

### DURING THE YEAR 1891.

	583 2,302  345	33 11 0 105 0 7 12 12 4	4		362 11 4	237 71 335  1,1666	14,156 73,645 	2,375 4,377 22,149 14,728		5 7 8 61 8 4 180 17 8	
89	3,230	151 8 11	4	••	362 11 4	1,810	461,197	52,132	14,086 15 6	372 12 6	362 11 4

# DEPARTMENT SINCE DATE OF ESTABLISHMENT TO DECEMBER 31st, 1891.

1,741 1,259		4,165 2,917	17 4	5 11	172 51	124 113	11 15	38,662 32,315	7 7	10 2	53,027 23,801	14,245,302 6,462,568	840,354 232,285	425,280 199,361	7 0	4 11	12,082 7,045	0	2	8,662 2,315	7 1	0
482	29,617	1,248	12	6	121	10	16	06,347	0	8	29,226	7,782,734	608,069	225,919	6	5	5,036	1	2	6,347	0	8
<del></del>							-					ium by Bo		5,036 230	19	2 6						-
extr	a, the add	itional p	ren	aiur	n impos	ed fo	r an	y reason	wh	atsc	ever.			£231,186	7	1						

JOSEPHUS H. RICHARDSON, Commissioner. MORRIS FOX, Actuary.



# REPORT BY THE ACTUARY

ON THE

# VALUATION

Coveringent

Huzurance

Pepartment,

As at 31st December, 1890.

Sir,— Wellington, 30th April, 1891.

I have the honour to report to you upon the results of the now completed office valuation for the quinquennial period ending 31st December, 1890.

In 1887 the Consulting Actuaries indicated their opinion that it would be desirable to lower the rate of interest assumed in future valuations; and, in conformity with that opinion, which accords with my own, I have valued the liabilities by the  $H^{M}$  Table of Mortality, with 4 per cent. interest, so far as concerns the participating assurances, which number 27,447 policies for £7,508,718, out of a total of 28,102 policies for £7,544,030.

The immediate annuities have been valued by the 1884 experience of the English Government annuitants, with 4 per cent. interest; and for simple endowments and investments the amount of premiums paid, accumulated at 4 per cent. interest, has been reserved as the net liability.

The proper additional reserve for the immediate payment of claims has been made by suitable modifications of the valuation formulæ.

The pure premiums only have been considered as an asset, leaving the total loading, amounting to £35,139 per annum—equal to 16·1 per cent. of the office premium income, and worth £468,394—as a provision for future expenses and contingencies. This is exclusive of the extra premiums, amounting to £4,990 per annum, which have not been reckoned on at all. The results are contained in the following

Summary of Valuation as at 31st December, 1890.

						వ
Value of £7,508,718, sum	ıs assured (participatiı	ng)				3,515,108
Value of £263,761, revers	sionary bonus addition	s, and reduc	tions of p	remium		142,684
Reserve for extra premit	ıms of £4,990 per annı	ım	••	• •		2,495
Reserve of loading on lin	nited-premium and pa	id-up policie	s		• •	15,388
						3,675,675
Value of annuities of £5	,668 per annum					43,341
Reserve for 553 miscella	neous policies (non-pa	rticipating)	••	••	• •	10,517
						3,729,533
Deduct value of £18	3,562 per annum, futu	ire pure pren	niums	••		2,246,992
	Net liability					£1,482,541

### ACTUARY'S REPORT.

The resulting Valuation Balance-sheet stands thus:-

Dr. To Net value of Surplus	liabilities ••	 	£ 1,482,541 232,652	Cr. By Accumulated funds	••	••	£ 1,715,193
			£1,715,193				£1,715,193

I attach a detailed statement of the valuation of the several classes of policies.

In order to inaugurate the new system of allotting bonuses it was necessary to make a detailed valuation as at 31st December, 1885, on the basis of  $H^M$  4 per cent., of all the participating policies issued before that date and remaining in force on the 31st December, 1890. This has been done; but the present valuation—which has also been made in detail, as well as in classes where possible—will obviate the necessity for a similar duplicate valuation at the end of the present triennium.

The extensive preliminary calculations necessary to effect the change in the method of allotting bonuses are now in progress, and will be completed in time for a speedy distribution on receipt of an intimation from the Consulting Actuaries as to the amount of the divisible surplus.

During the course of the valuation I have made arrangements which will in future enable a satisfactory office valuation to be performed at the end of each year with the least possible expenditure of labour.

I have the honour to be, Sir,

Your most obedient servant,

MORRIS FOX,

The Government Insurance Commissioner.

Actuary to the Department.

STATEMENT RESPECTING THE VALUATION OF THE LIABILITIES UNDER LIFE POLICIES AND ANNUITIES OF THE GOVERNMENT INSURANCE DEPARTMENT.

Question 1.—The date up to which the valuation is made.

Answer.—The 31st of December, 1890.

Question 2.—The principles on which the valuation and distribution of profits among the policyholders are made.

Answer.—(a.) The Principles adopted in the Valuation.—The valuation has been strictly a "net premium valuation" at true age, with adequate extra reserves for limited-premium policies and prompt payment of claims. No extra premiums or loadings whatever have been treated as an asset in the valuation.

Valuation of Ordinary Whole-life Assurances, comprising 63 per cent. of the total sum assured. It being found that the total premium income of the office fell due on the average about six months and one week from the date of valuation, the addition of  $\frac{1}{2}$  was made to the annuity in the valuation formula.

The pure premium valued was the yearly premium, or equivalent annual premium where the policy was renewable more often than once a year, for an assurance payable at the moment of death.

The reversion used for valuing the sums assured and bonuses was the reversion payable at the moment of death.

The valuation formula was therefore—

$$\overline{\mathbf{A}}_{x+n} - \mathbf{P}_x^{(m)} (\cdot 5 + a_{x+n}).$$

The valuation age, x+n, was obtained by deducting the year of birth from the year of valuation, and adding half a year.

The entry age, x, is the true age at entry.

Negative values amounting to £86 only were discovered in the detailed valuation, and these were struck out.

The ordinary class valuation by the method of year-of-birth groupings resulted in a net liability of £654,927, whilst the detailed valuation gave a net liability of £654,953; the difference being only £26.

The following table shows the amount reserved on ordinary whole-life policies payable by whole-life premiums for every £100 of sum assured:—

Age Entry.						Dvi	RATION O	F Роглсу						Age
at El	½ Year.	1½ Years.	2½ Years.	3½ Years.	4½ Years.	$5\frac{1}{2}$ Years.	6½ Years.	7½ Years.	8½ Years.	9½ Years.	10½ Years.	15½ Years.	$20\frac{1}{2}$ Years.	A to
15	0'942	1.766	2.574	3.341	4.020	4.718	5.362	6.020	6.702	7.428	8.194	12.387	17.121	15
20	0.979	1.625	5.331	3'042	3.795	4.592	5.423	6.581	7.124	8.044	8.949	13.869	19.454	2
25	1.124	2.012	2.903	3.808	4.730	5.669	6.629	7.618	8.637	9.687	10.765	16.22	23.284	2.
30	I.323	2.357	3.395	4.456	5.222	6.682	7.836	9.014	10.551	11.420	12.735	19.773	27 509	39
35	1.602	2.822	4.063	5.336	6.640	7.986	9.380	10.826	12.319	13.846	15.407	23.262	32.493	3.
10	1.934	3.420	4.960	6.549	8.179	9.844	11.230	13.540	14.975	16.739	18.232	28.053	38.089	4
15	2.367	4.193	6:046	7.924	9.834	11.780	13.768	15.800	17.867	19.963	22 084	32.954	43.802	4
50	2.885	5.023	7.310	9.585	11.892	14.227	16.282	18.965	21.363	23.279	26.193	38.132	50.023	5
55	3,295	6.242	8.018	11.612	14.327	17.040	19.757	22.457	25.141	27.808	30.463	43.825	55.957	5
ōo	4.478	7.607	10.216	13.806	16.877	19.932	22.993	26.056	29'144	32.532	35.312	49.287		6
55	5.285	6.101	12.803	16.445	20.001	23.725	27.298	30.759	34.060	37.188	40.192			6
70	7.227	11.222	15.483	19.798	23.602	27.263	30.817	34.283	37.671	40.996		• •	•••	7
75	9.052	13.495	17.829	22.064	26.222		•••	•••	• •	• • •	••	}		7

Valuation of Endowment Assurances, comprising 31 per cent. of the total sum assured. Every policy was separately valued as at the next renewal date, assuming the next premium just due and unpaid.

The premium valued was the net premium that would have been charged if the policy had been renewable yearly.

The valuation formula used was

$$A_{x+n}: \overline{t-n}| - P_{x:\overline{t}|} (1+a_{x+n}: \overline{t-n-1}).$$

The valuation age, x+n, was obtained by deducting the year of birth from 1891.

The unexpired term, t-n, was obtained by subtracting 1891 from the year of maturity, and adding that fraction of a year corresponding to the premiums falling due between 31st December and the anniversary of the policy.

The following table will show the amount reserved on endowment assurances for every £100 of sum assured:—

	III	<b>I</b> <sub>10</sub> .		II	I <sub>20</sub> .			I	II <sub>35</sub> .			
Age at Entry.	Dura	ation.		Dur	ation.			Dui	ation.		Age at Entr	
	1 Year.	9 Years.	1 Year.	5 Years.	10 Years.	19 Years.	1 Year.	5 Years.	10 Years.	20 Years.		
15	8.296	87.924	3'413	18.052	39.439	92.605	1.235	7.762	16.136	39'243	15	
20	8.094	87.812	3.179	17.290	38.934	92.508	1.306	6.999	15.666	38.809	20	
25	8.091	87.789	3.192	17.410	38.899	92.462	1.364	7:323	15.992	39.175	25	
30	8.020	87.731	. 3'172	17.285	38.678	92.385	1.393	7.477	16.313	39.652	30	
35	8.023	87.664	3.122	17.211	38.612	92.284	1.485	7.859	17:205	40.651	35	
40	7.967	87.281	3.178	17.349	38.545	92.138		••			40	
45	7.950	87.431	3.549	17.358	38.398	91.896	••	• •	• •	••	45	
50	7 <sup>.8</sup> 34	87.207	3.277	17.223	38.359	91,219	••	• •		• • •	50	
55	7.741	86.844	••	••		••	••	* *			55	
бо	7.566	86.241	• • •	• •					• •		бо	

Limited-premium Policies, comprising 5 per cent. of the total sum assured, were valued in the same manner as ordinary whole-life policies for the sum assured, and like endowment assurances for the pure premiums, except that the premium is for an assurance payable at the moment of death.

- (b.) The Principles adopted in allotting the Surplus.—The divisible surplus was allotted amongst the policyholders thus:—
  - (1.) The profit arising from the excess of interest realised over the valuation rate of 4 per cent. was divided amongst those participating policies in force at the last valuation date which remained in force at the present valuation, in proportion to their  $H^{\text{M}}$  4 per cent. reserves at 31st December, 1885.
  - (2.) The remaining surplus was divided amongst all the participating policies in proportion to the loading on the premiums paid on each policy during the quinquennium, policies secured by a limited number of premiums being treated as though the premiums had been spread over the whole term of the policy. The approximate profit from favourable mortality in the General Section and Temperance Section respectively was ascertained, and

specially divided amongst the members of the respective sections. The result was that general and temperance policies which were alike in all respects received equal reversionary bonuses on this occasion.

The divisible surplus was converted into reversionary bonuses by means of the  $H^{M}$  table of mortality with 4 per cent. interest.

In all cases of rated-up lives, such lives were treated as though they had been of the higher age for bonus purposes.

- Question 3.—The table or tables of mortality used in the valuation.
  - Answer.—For assurances, the Institute of Actuaries' Healthy Males (H<sup>M</sup>) Table was used; and for annuities the Government Annuitants' Experience, 1884.
- Question 4.—The rate or rates of interest assumed in the calculations.

Answer.—The rate of interest assumed throughout was 4 per cent.

- Question 5.—The proportion of the annual-premium income (if any) reserved as a provision for future expenses and profits.
  - Answer.—The whole of the loading, amounting to £35,139 per annum, has been reserved for future expenses and profits, in addition to a special reserve of £15,388 for limited-premium policies.
- Question 6.—The Consolidated Revenue Account since the last valuation.
  - Answer.—The Consolidated Revenue Account since the last valuation is given in Appendix No. 2.
- Question 7.—The liabilities of the Department under life policies and annuities at the date of the valuation, showing the number of policies, the amount assured, and the amount of premiums payable annually under each class of policies, both with and without participation in profits; and also the net liabilities and assets of the Department, with the amount of surplus or deficiency.
  - Answer.—The liabilities under life policies and annuities are shown in Appendix No. 1. The net liabilities and assets of the Department, with the surplus, are shown in Appendix No. 3.
- Question 8.—The time during which a policy must be in force in order to entitle it to share in the profits.
  - Answer.—Every participating policy which was in force on the 31st December, 1890, shared in the profits. The bonuses follow the sum assured, vesting immediately, but not acquiring a surrender value until the policy has been two years in force.
- Question 9.—The results of the valuation, showing—
  - (1.) The total amount of profit made by the Department:
  - (2.) The amount of profit divided among the policyholders, and the number and amount of the policies which participated:
  - (3.) Specimens of bonuses allotted to policies for £100 effected at the respective ages of 20, 30, 40, and 50, and having been respectively in force for five years, ten years, and upwards, at intervals of five years respectively, together with the amounts apportioned under the various modes in which the bonus might be received.
  - Answer.—(1.) The total amount of profit undivided on the 31st December, 1890, as shown by the valuation, was £232,652 5s. 9d. Interim bonuses amounting to £8,077 8s. 1d. were paid during the quinquennium.

(2.) The amount of profit divided amongst policyholders on this occasion was £200,000, the balance of surplus being reserved, in accordance with the recommendation of the Consulting Actuaries. The number and amount of policies which participated were —27,437 policies, for the sum of £7,506,568 10s. 2d.; or, including reversionary bonus additions, £7,772,480 5s. 2d. Ten policies assuring £2,150 were transferred to a non-profit section, in accordance with "The Government Life Insurance Acts Amendment Act, 1890."

### ANSWER TO QUESTION 9(3).

Specimen Bonuses in respect of the Period 1885 to 1890, allotted to Policies of £100 each.

		_			11								11							h					<del></del>			ī .
	5 Y	E	1R	s.		1	.0`	ΥE	AF	RS.					15	Y	EAR	s.			2	20	ΥE	CAF	₹S.			
Age at Entry	Во	NU	SES				В	ONT	SES							Вог	uses.					В	ont	JSES	•			Age at Entry
,	Rever- sionary.		Са	sh.		ever- nary.	(	Cas:	ı.		*			lever onary		Са	sh.		*		ver- nary.		Cas	h.		*		
							TA	AB.	ĹE	1	c	RI	OIN	AR	ΥV	NI	iol:	E-L	IFE.									
20	£ s. 8 6	2	ę i i	s. d. 5 o	$\frac{1}{8}$	s. 8	£	s. 0	d. 4	£	s. 14	d. O	7	( s. 5 8	1	1.	s. d.	£ 10	s. d.	£ 7	s. 4	£		d.	£	s. O	d. 0	20
30	7.4		ΙI	9 3	6	4	I	18	7	8	6	0		5 18	2	. (	9 4	9	0 0	8	o	3	5	7	10	0	0	30
40	6 4		2	4 4	5	14	2	6	9	7	12	0	'	5 18	3	4	10	81	6 0	8	0	4	5	6	10	o	0	40
50	5 14		2 I	3 7	5	14	3	0	II	7	8	0		ố 1 <b>0</b>	3	1	3 1	8:	18 0	8	0	5	6	II	10	0	0	50
					ΤA	BLI	E I	I <sub>20</sub>	_v	VH	OI	LE-	LI	FE,	LI	M	TEI	) F	REN	NUI	иs.							
20	8 6		1 1	5 o	IC	0	2	8	0	10	) С	0		96	2	: I	o 8	12	0 0	12	o	3	14	9	14	0	0	20
30	7 4		1 1	9 3	7	4	2	4	10	9	е	8 0		9 8	1	;	7 3	11	0 0	12	o	4	18	5	14	0	0	30
40	6 4		2	4 4	$  \epsilon$	16	2	15	9	8	12	2 0		9 0	4		1 7	11	0 0	II	o	5	17	6	13	0	0	40
50	5 14		2 I	3 7	$\mid \mid \epsilon$	8	3	8	5	8	3 C	0		8 o	4	. 1	5 I	10	0 0	10	0	6	13	8	13	0	0	50
						Т	AB	LE		I I 20.	.—]	EN.	DO	WM	EN	Т	ASS	SUF	RANC	CE.								
20	5 8		2 1	4 5	6	5 6	3	19	0	7	14	i 0		8 o	-	5	5 11	10	0 0	10	0	10	0	0	12	0	0	20
30	5 6		2 1	4 3	6	8	4	o	9	7	14	. 0		8 го	•	i i	4 2	10	0 0	10	0	го	0	o	12	0	0	30
40	5 8		2 1	6 11	(	5 6	4	0	II	7	14	i O		8 4		<b>i</b>	o I	10	0 0	10	o	10	0	О	12	О	0	40
50	5.8		3	0 7	6	5 10	4	6	7	7	18	3 O		7 4		; 1	5 6	10	0 0	9	6	9	6	О	12	0	0	50

### MORRIS FOX,

Actuary to the Department.



# REPORT

BY THE

# Covernment Kn

# Manyance

# Commissioner,

In terms of Section 43 of "The Government Insurance and Annuities Act, 1874." (See 5th Schedule.)

STATEMENT OF THE LIFE ASSURANCE AND ANNUITY BUSINESS OF THE GOVERN-MENT INSURANCE DEPARTMENT ON THE 31st DECEMBER, 1890.

Question 1.—The published table or tables of premiums which are in use at the date above mentioned.

**→**○

Answer.—The tables of premiums in use are contained in Appendix No. 4.

- Question 2.—The total amount assured on lives for the whole term of life which are in existence at the date above mentioned, distinguishing the portions assured with and without profits, stating separately the total reversionary bonuses, and specifying the sums assured for each year of life, from the youngest to the oldest ages.
- Question 3.—The amount of premiums receivable annually for each year of life, after deducting the abatements made by the application of bonuses in respect of the respective assurances mentioned under heading No. 2, distinguishing ordinary from extra premiums.
  - Answer to Questions 2 and 3.—This information is contained in Appendix No. 5, and similar information in respect of limited premium and endowment assurance policies is given in Appendices Nos. 6 and 7.

- Question 4.—The total amount assured under classes of assurance business other than for the whole term of life, distinguishing the sums assured under each class, and stating separately the amount assured, with and without profits, and the total amount of reversionary bonuses.
- Question 5.—The amount of premiums receivable annually in respect of each such special class of assurances mentioned under heading No. 4, distinguishing ordinary from extra premiums.
- Question 6.—The total amount of premiums which has been received from the commencement upon all policies under each special class under heading No. 4, which are in force at the date above mentioned.

Answers to Questions 4, 5, and 6 are contained in the following table:-

m 1.		er of ies.				Description	Annual P	REMIUMS.	Total Ordinary Premiums
Table.	Class of Assurance.	Number of Policies.	Sum assur	ed.		Reversionary Bonus.	Ordinary.	Extra.	Premiums Received.
	WITH PROFITS.		£	s. a	<i>t</i> .	£ s. d.	£ s. d.	£ s. d.	£ s. d.
II.	Whole Life: Limited Premiums and Paid up Policies	918	404,305	11 2	2	35,216 17 o	8,005 2 5	178 10 5	179,341 6 I
III.	Endowment Assurances	10,292	2,345,830	15 0	О	67,978 12 o	84,936 1 1	898 14 9	628,649 9 10
IV.	Joint Assurances	10	3,600	0 (	o	47 4 0	166 3 8	891	2,051 11 1
IVA.	Survivorship Assurances	I	500	0 (	о	••	16,10 0	2 IO O	4I 5 0
•	WITHOUT PROFITS,								
٧.	Endowments: Without return	4	800	0 0	э	••	33 1 0	••	458 18 I
VI.	Endowments: With return	157	16,799	0 0	0		692 9 6		5,167 13 11
XI.	Temporary Assurances	17	8,650	0 0	5	••	237 14 0	••.	450 I2 I
	Totals	11,399	£2,780,485	6 2	2	£103,242 13 0	£94,087 1 8	£1,088 4 3	£816,160 16 1

Question 7.—The total amount of immediate annuities on lives, distinguishing the amounts for each year of life.

### ANSWER TO QUESTION 7.

Total Amount of Immediate Annuities on Lives, distinguishing the Sex and the Amounts for each Year of Life.

Awant	tained.		Amount o	f Annuities.
Age at	tainea.		Female.	Male.
34		• •	£ s. d.	£ s. d.
36			·	52 0 0
42	• •			50 0 0
45		• •	62 18 4	
47			52 0 0	••
49	• •		33 18 4	••
50	• •	٠.		10 0 0
53	• •	• •		52 0 0
55	• •	• •		55 11 0
56	• •	• •	• • •	138 19 2
57	• •	• •		50 0 0
58	••	• •	••	38 1 8
59 60	• •	• •		100 19 9
61	• •	• •	10 16 5	40 19 0
62	• •	• •	••	171 19 8
63	• •	• •		17 18 4
64	• •	• •	175 0 0	238 8 4
66	• •	• •	3 8 0	
67	••	• •	3 8 0 122 12 10	639 3 4 207 9 0
68	• •	• •	13 0 0	128 18 10
69	••		27 1 9	205 3 8
70	• •		17 17 10	121 6 0
71			65 18 4	228 7 8
72			0, 10 4	52 0 0
73		- : :	157 17 1	64 2 8
74			72 I O	52 5 0
75			60 0 0	127 17 8
76			••	472 11 0
78			••	16 17 2
79			226 0 0	
8o			169 0 10	125 0 0
81			41 9 4	
83			140 16 4	,
84		•••	••	10 0 0
86			••	149 7 4
91	• •	•••	••	80 0 0
		Ì	1,479 8 1	3 710 6 3
Joint and Sur	vivorsh	ip.	1,479 8 1	3,749 6 3
51-52	••		• •	90 0 0
Totals	••		£1,479 8 1	£3,839 6 3

Question 8.—The amount of all annuities other than those specified under heading No. 7, distinguishing the amount of annuities payable under each class, the amount of premiums annually receivable, and the amount of consideration-money received in respect of each such class, and the total amount of premiums received from the commencement upon all deferred annuities.

### ANSWER TO QUESTION 8.

THE AMOUNTS OF ALL ANNUITIES OTHER THAN THOSE SPECIFIED UNDER HEADING No. 7.

Table.	Class of Annuity.	Amount of Annuities.	Annual Premiums.	Single Premiums.	Total Premiums received to 31st December, 1890.
VIII.	Survivorship	£ s. d.	£ s. d.	£ s. d.	£ s. d.
X.	Deferred	50 0 0	10 16 0	••	187 4 0
	Totals	£350 O O	£10 16 0	£1,137 0 0	£1,324 4 0

Question 9.—The average rate of interest at which the funds of the Department were invested at the close of each year during the period since the last investigation.

Answer.—At the close of each financial year the average rate of interest at which the funds of the Department were invested for that year

was as follows:---

			£	8.	d.
1886		•••	 <b>4</b>	19	9
1887			 5	3	8
1888		•••	 5	5	7
1889	•••		 5	7	3
1890		•••	 5	8	11

Question 10.—A table of minimum values, if any, allowed for the surrender of policies for the whole term of life, and for endowments and endowment assurances; or a statement of the method pursued in calculating such surrender values, with instances of its application to policies of different standing, and taken out at various interval ages, from the youngest to the oldest.

Answer.—The minimum surrender values for whole-life and endowment assurance policies issued at the present rates of premium are given in Appendix No. 8. In the case of children's endowments (premiums returnable) half the premiums paid are returned as surrender value after one year, and 90 per cent. after two years. Endowments without return of premium are treated specially.

Question 11.—A statement to be furnished of the manner in which policies on unhealthy lives are dealt with.

Answer.—When proposals are made on lives which, although not of such inferior quality as to merit total rejection, are considered not to reach the requisite standard for insurance at the ordinary rates of premium, such proposals are accepted at increased rates. Great refinement is not attempted in the assessment of lives, proposals being as a rule either accepted at par, with an extra premium of 10s. per cent. of the sum assured, an extra of 20s. per cent., or declined. The alternative of a fixed contingent debt in lieu of extra premium, if not remissible, is always offered.

The true age is taken as the basis of valuation and surrender calculations, excepting in the cases of bonuses and paid-up policies, the surrender values of which are calculated at the rated-up ages.

The Appendices alluded to above have been compiled under the immediate supervision of Mr. Morris Fox, the Actuary to the Department.

### JOSEPHUS H. RICHARDSON,

Government Insurance Commissioner.

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FOURTH

Appendix

# SUMMARY AND VALUATION OF THE POLICIES OF THE NEW

As at 31st

				PA	RTICULAR	S OF TI
DESCRIPTION OF TRANSACTIONS.	Number		enter and the contraction of the	Yearly Permanent	OFFIC	E YEAR
	of Policies.	Sums assured.	Bonuses.	Reduction of Premiums.	Ordine	ıry.
WITH PROFIT POLICIES.		£	£	£	£	s. d.
I. Whole Life Assurances Uniform Premiums	16,226	4,754,482.200	160,519'10	136.693	125,577	4 11
II. Whole Life Assurances: Limited and Single Premiums	918	404,305.558	35,216.85	3.246	8,005	2 5
III. Endowment Assurances, payable at Death or Maturity	10,292	2,345,830.750	67,978.60	91.136	84,936	I I
IV. Joint Life Assurances	10	3,600	47*20		166	3 8
IVA. Survivorship Assurances	ı	500	• •		16	to o
Reserve for Extra Premiums	••	••	• •	• •		
Total with Profits	27,447	7,508,718:508	263,761.75	231.075	218,701	2 1
WITHOUT PROFIT POLICIES.						
V. Endowments without Return of Premiums	4	800	••		33	1 0
VI. Endowments with Return of Premiums	157	16,799	••	<b>a</b> , •	692	96
XI. Temporary Assurances	17	8,650			237	t4 0
VII., VIII., X., and Special: Annuities	102	5,668.720*	• •		ro	16 o
V. Investments	320	8,107'142	• •	-	386	18 o
I.B. Industrial	55	955'750			26	13 0
Total without Profits	655	35,311.892 5,668.720*			1,387	11 6
Total of the Results	28,102	7,544,030'400 5,668'720*	263,761 75	231'075	220,088	13 7

\* Per annuni.

Note.—The ordinary premium is the prem um at the real age;

SCHEDULE.

No. 1.

# ZEALAND GOVERNMENT LIFE INSURANCE DEPARTMENT,

**December**, 1890.

P	OLICIES FO	OR V.	ALUATION.			VALUA	TION: H	Im. 4% for Wit	h-profit Policie	es.	
P	REMIUMS.				VAL	UE OF			VALU	E OF	
	Extra (not value	ed).	Pure Yearly Premiums.	Sums Assured.	Bonuses.	Yearly Permanent Reduction of Premiums.	Additional Reserve for Limited Premiums and Paid-up Policies.	TOTAL LIABILITY.	Office Ordinary Premiums.	Pure Premiums.	NET Liability.
	£s.	d.	£	£	£	£	£	£	£	£	£
	3,902 15	o	105,177.773	2,021,302	79,007	1,726		2,102,035	1,750,805	1,447,082	654,953
	178 10	5	6,868.158	194,319	17,222	20	15,003	226,564	39,182	32,657	193,907
	898 14	9	71,360.022	1,297,093	44,033	648	385	1,342,159	923,864	765,939	576,220
	8 9	I	142'970	2,299	28			2,327	1,454	1,246	1,081
	2 10	0	13.298	95				95	83	68	27
				2,495				2,495			2,495
	4,990 19	3	183,562-521	3,517,603	140,290	2,394	15,388	3,675,675	2,715,388	2,246,992	1,428,683
	,										
	••			619	. ••	••	••	619		••	619
	••		•••	6,596		••		6,596		••	6,596
	•••		••	119	•••		••	119		••	119
	••		•••	43,341		••		43,341			43,341
	•••			3,045				3,045 138		• •	3,045 138
						i	ļ	*3"		·	
			••	53,858		••		53,858			53,858
	4,990 19	3	183,562.521	3,571,461	140,290	2,394	15,388	3,729,533	2,715,388	2,246,992	1,482,541

the extra, the additional premium imposed for any reason whatsoever.

MORRIS FOX.

# Appendix No. 2.

# CONSOLIDATED REVENUE ACCOUNT

OF THE

# GOVERNMENT INSURANCE DEPARTMENT,

For the Period commencing 1st January, 1886, and ending 31st December, 1890.

Amount of Funds on 1st January, 1886	£ s. d.	Death Claims under Policies,	£, s. a	f, $f$ , $f$ , $f$
Transferred from Industrial Branch	23 18 1	Assurance, including Bonus Additions		
Renewal Premiums	910,451 3 8	Additions	313,112 11	5
New Premiums	101,097 18 11	tured, including Bonus		
Single Premiums	12,956 1 6	Additions	34,947 12	o
Consideration for Annuities granted	24,381 4 8	Endowments matured	4,654 8	
Interest	369,188 8 1	Premiums returned on En-	7,-57	T
Fees	236 5 O	dowments	212 14 6	5
		Bonuses surrendered for Cash	35,037 3	
		Annuities	20,376 13 11	
		Surrenders	124,593 6 1	
				532,934 10 7
		Commission, New	46,558 19	1
		" Renewal	6,252 1 6	
		·		- 52,811 o 10
•		Property-tax		26,111 3 8
		Losses on Property foreclosed	••	1,227 7 5
		Expenses of Management—		
		Salaries, Head Office	50,997 10 8	3
		" Branch Offices and		
		Agents	26,002 13 2	
		Extra Clerical Assistance	6,364 7 3	
		Medical Fees	19,828 18 11	
		Travelling Expenses	14,782 0	
		Advertising	4,447 2 9	
		Printing and Stationery	9,170 15 10	
		Rent	5,632 14 0	
		Postage	7,757 18 10	
		Telegrams	3,870 13 7	
		Exchange	956 16 (	
		Office Furniture Deprecia-	-	
		tion	2,099 6 4	
		General Expenses	8,805 7 6	
•		Quinquennial Expenses	4,801 6 7	,
		Compensation for loss of Office	AP:	
			974 10 9	
		Directors' Fees	600 o c	
		Investment Reserve Fund	••	- 167,092 3 7 25,000 0 0
		Amount of Funds on 31st Decer		1,715,193 5 9
		344 2000		.11-21-2 2 9
	£2,520,369 II IO	·	9	£2,520,369 II 10

# Appendix No. 3.

# VALUATION BALANCE-SHEET

OF THE

# GOVERNMENT INSURANCE DEPARTMENT,

As at 31st December, 1890.

Dr.	£	s. d.	Cr.	£	s.	d.
To Net value of Liabilities (as per Summary on pages 20, 21)	1,482,541	0 0	By Accumulated Funds (as per Consolidated Revenue Account on page 22)	715.103	5	a
To Surplus	232,652	5 9		7-51-55		
· ·	£1,715,193	5 9	<u>£1,</u>	715,193	5	<b>9</b>

FIFTH

Appendix

# THE PUBLISHED

Which were in Use on

	With Particip						ROFITS.					
	Pri	emiums to	SECURE £100, PAYABI	е ат Death.		Endow	MENT ASSUI	RANCE.—ANS	NUAL PREMI	UMS TO SE	CURE £160,	то
Age nearest Birthday.	Annual Premium during whole of Life.	Twenty	Fifteen Ten	Five	Single Payments.	In 10 Years.	In 15 Years.	In 20 Years.	In 25 Years.	In 30 Years.	In 35 Years.	Age nearest Birthday.
15 16 17 18 19	£ s. d. I II II I II II I I2 9 I I3 8 I I4 5	£ s. d. 2 6 11 2 7 11 2 9 0 2 10 1 2 10 11	£ s. d. £ s. d. 2 16 8 3 16 2 17 10 3 18 2 19 1 3 19 1 3 0 4 4 1 3 1 4 4 2 1	6 17 11 7 0 8 7 3 5 7 6 5	£ s. d. 29 8 0 29 19 0 30 10 0 31 3 0 31 12 0	£ s. d. 9 4 8 9 5 3 9 5 11 9 6 5 9 6 10	£ s. d. 5 17 3 5 17 9 5 18 3 5 18 9 5 19 2	£ s. d. 4 4 6 4 5 0 4 5 6 4 6 0 4 6 4	£ s. d. 3 5 8 3 6 2 3 6 8 3 7 2 3 7 6	f s. d. 2 13 10 2 14 4 2 14 10 2 15 4 2 15 9	£ s. d. 2 6 0 2 6 6 2 7 0 2 7 6 2 7 11	15 16 17 18 19
20 21 22 23 24	1 15 2 1 15 11 1 16 8 1 17 5 1 18 3	2 II 9 2 I2 7 2 I3 4 2 I4 2 2 I5 0	3 3 4 4 5 3 4 3 4 6 3 5 2 4 7 1	, ,	32 2 0 32 12 0 33 2 0 33 11 0 34 2 0	9 7 1 9 7 2 9 7 3 9 7 3 9 7 5	5 19 4 5 19 6 5 19 7 5 19 9 5 19 11	4 6 7 4 6 9 4 6 11 4 7 1 4 7 4	3 7 10 3 8 0 3 8 3 3 8 5 3 8 8	2 16 0 2 16 4 2 16 7 2 16 10 2 17 1	2 8 4 2 8 7 2 8 11 2 9 3 2 9 7	20 21 22 23 24
25 26 27 28 29	I 19 I 2 0 I 2 I I 2 2 I 2 3 2	2 15 10 2 16 11 2 17 11 2 18 11 3 0 0	3 8 4 4 12 3 9 7 4 13	8 7 8	34 II 0 35 4 0 35 16 0 36 7 0 37 0 0	9 7 6 9 7 9 9 8 0 9 8 3 9 8 7	6 0 1 6 0 4 6 0 8 6 0 11 6 1 3	4 7 7 4 7 10 4 8 2 4 8 6 4 8 10	3 9 0 3 9 4 3 9 9 3 10 1 3 10 6	2 17 6 2 17 11 2 18 4 2 18 10 2 19 4	2 10 I 2 10 7 2 II I 2 II 8 2 I2 3	25 26 27 28 29
30 31 32 33 34	2 4 3 2 5 5 2 6 8 2 7 II 2 9 3	3 1 1 3 2 3 3 3 5 3 4 8 3 5 11	3 14 7 5 0 3 15 11 5 1 1 3 17 4 5 3	ı	37 12 0 38 5 0 38 18 0 39 12 0 40 6 0	9 8 10 9 9 1 9 9 4 9 9 7 9 9 11	6 1 7 6 1 10 6 2 2 6 2 6 6 2 10	4 9 3 4 9 7 4 10 0 4 10 5 4 10 10	3 II 0 3 II 5 3 II II 3 I2 5 3 I3 0	2 19 10 3 0 5 3 1 0 3 1 8 3 2 4	2 12 11 2 13 7 2 14 4 2 15 1 2 16 0	30 31 32 33 34
35 36 37 38 39	2 10 8 2 12 2 2 13 9 2 15 4 2 17 1	3 7 3 3 8 7 3 10 1 3 11 6 3 13 1	4 3 5 5 II 4 5 0 5 I3	9 11 6 9 14 11 9 18 7 10 2 0 10 5 8	4I 0 0 4I I5 0 42 II 0 43 6 0 44 2 0	9 10 3 9 10 7 9 10 11 9 11 3 9 11 7	6 3 3 8 6 4 2 6 4 8 6 5 2	4 II 5 4 II II 4 I2 6 4 I3 I 4 I3 9	3 13 8 3 14 4 3 15 0 3 15 10 3 16 8	3 3 2 3 4 0 3 4 10 3 5 10 3 6 11	2 16 11 2 17 11 2 19 0 3 0 2 3 1 5	35 36 37 38 39
40 41 42 43 44	2 18 11 3 0 10 3 2 10 3 5 1 3 7 5	3 14 9 3 16 5 3 18 2 4 0 2 4 2 3	4 10 6 6 0 4 12 4 6 2 4 14 6 6 5	10 9 6 10 13 4 10 17 2 11 1 7 11 6 1	44 19 0 45 16 0 46 13 0 47 12 0 48 11 0	9 12 0 9 12 6 9 13 1 9 13 8 9 14 5	6 5 9 6 6 4 6 7 1 6 7 11 6 8 9	4 14 6 4 15 4 4 16 3 4 17 3 4 18 5	3 17 7 3 18 7 3 19 9 4 1 1 4 2 6	3 8 0 3 9 4 3 10 9 3 12 3 3 14 0	3 2 10	40 41 42 43 44
45 46 47 48 49	3 9 10 3 12 6 3 15 3 3 18 1 4 1 2	4 4 4 4 6 8 4 9 1 4 11 6 4 14 1	4 19 0 6 10 1 5 1 6 6 13 5 4 0 6 16 1 5 6 5 6 19 5 9 2 7 2 1	11 15 3 12 0 1 12 4 8	49 9 0 50 10 0 51 10 0 52 9 0 53 11 0	9 15 3 9 16 1 9 17 0 9 17 11 9 18 11	6 9 10 6 10 11 6 12 0 6 13 3 6 14 8	4 19 8 5 1 1 5 2 6 5 4 2 5 5 10	4 4 I 4 5 9 4 7 6 4 9 6 4 II 7	3 15 10		45 46 47 48 49
50 51 52 53 54	4 7 9 4 II 5 4 I5 4	4 19 9 5 2 10 5 6 3	5 14 11 7 9 5 18 1 7 12 1 6 1 5 7 16	5   12 19 9 1 13 5 1 3 13 10 8	54 II 0 55 I2 0 56 I4 0 57 I7 0 59 0 0	10 0 0 10 1 3 10 2 7 10 4 2 10 5 11	6 16 1 6 17 9 6 19 7 7 1 8 7 3 11	5 7 9 5 9 10 5 12 2 5 14 8 5 17 6	4 13 II			50 51 52 53 54
55 56 57 58 59 60	5 8 8 5 13 8 5 19 2 6 5 5	5 17 9 6 2 1 6 7 0 6 12 8	6 12 9 8 8 1 6 16 11 8 13 7 1 7 8 18 7 7 0 9 4	5   14 14 5 4   15 1 3 1 15 9 2	60 4 0 61 6 0 62 10 0 63 15 0 65 5 0 66 14 0	10 7 10 10 9 11 10 12 3 10 15 0 10 18 1 11 1 11	7 6 4 7 9 1 7 12 1 7 15 6 7 19 5 8 4 1	6 0 7				55 56 57 58 59 60

SCHEDULE.

No. 4.

# TABLES OF PREMIUMS

the 31st December, 1890.

Wı	ти Рк	OFITS.			Witi	HOUT PAR	TICIPATIO	N IN	Profits.			
Annual	! Premiu	IVES.	CHILD		H	IMMEDI I N U I T				RY ASS  I for assurin Life.		
the fa	ilure of a	, payable on tither Life.  Annual.	miums to be out Interest i	m to secure En- 100. The Pre- returned with- f Death occurs e specified Age.	paid Ann	showing the I for an Immuity of £1, f-yearly Inst	nediate Life payable by	Age nearest Birthday.	Annual Premium for 1 Year.	Annual Premium for 5 Years.	Annual Premium for 7 Years.	Age nearest Birthday.
20	20 25	£ s. d. 2 13 0 2 16 0	Age new transfer of the state o	Annual	Age last Birthday.	Males.	Females.	15 16 17	£ s. d. o 16 5 o 16 10 o 17 3	£ s. d. 0 17 5 0 17 10 0 18 3	£ s. d. o 17 6 o 17 11 o 18 4 o 18 8	15 16 17
	30 35 40 45 50 55 60	3 0 5 3 6 1 3 13 8 4 4 4 4 18 7 5 18 3 7 5 6	3 61 13	d. £ s. d. 11 5 12 2 4 6 4 5 1 6 19 2	40 41 42 43	£ s. d. 15 10 5 15 6 6 15 2 4 14 18 0	£ s. d. 16 9 11 16 5 11 16 1 11 15 17 8	18 19 20 21 22 23 24	0 17 7 0 17 10 0 18 0 0 18 2 0 18 4 0 18 6 0 18 9	0 18 7 0 18 10 0 19 0 0 19 2 0 19 4 0 19 6 0 19 9	0 18 8 0 18 11 0 19 1 0 19 3 0 19 5 0 19 8 1 0 0	18 19 20 21 22 23 24
25	25 30 35 40 45 50	2 18 9 3 2 11 3 8 4 3 15 8 4 6 0 5 0 1 5 19 6	7 73 <sup>15</sup> 8 77 <sup>2</sup>	5 7 16 8 8 8 18 3 6 10 5 3 0 12 0 1 3 14 6 8 5 17 11 11	44 45 46 47 48 49	14 13 5 14 8 7 14 3 7 13 18 5 13 13 1 13 7 8	15 13 4 15 8 10 15 4 3 14 19 6 14 14 7 14 9 7	25 26 27 28 29	0 19 1 0 19 6 0 19 11 1 0 4 1 0 9	1 0 0 1 0 5 1 0 10 1 1 4 1 1 10	I 0 5 I 0 II I I 5 I I II I 2 5	25 26 27 28 29
30	55 60 30 35 40 45 50 55	3 6 8 3 11 9 3 18 9 4 8 10 5 2 7 6 1 10	2 49 0 1 3 51 5 1 4 53 13 5 56 2 1	0 3 17 9 11 4 4 8 10 4 12 6 1 5 1 6	50 51 52 53 54 55	13 2 3 12 16 9 12 11 4 12 5 10 12 0 3 11 14 8	13 19 2 13 13 8 13 8 1 13 2 4 12 16 5	30 31 32 33 34 35 36	I I 3 I I 9 I 2 3 I 2 9 I 3 3	1 2 4 1 2 10 1 3 5 1 4 0 1 4 7 1 5 2 1 5 10	1 3 0 1 3 7 1 4 2 1 4 9 1 5 5	30 31 32 33 34 35 36
35	35 40 45 50 55 60	7 8 9 3 16 5 4 3 0 4 12 7 5 5 11 6 4 10 7 11 5	7 61 9 8 64 6 9 67 5 10 70 7 11 73 12 12 76 19	0 6 4 3 6 18 11 7 16 5 8 18 0 7 10 5 0 4 11 19 10 11 14 6 5 17 11 9	56 57 58 59 60 61 62 63	11 9 0 11 3 2 10 17 3 10 11 1 10 4 10 9 18 5 9 11 11 9 5 4	12 10 4 12 4 1 11 17 7 11 11 1 11 4 4 10 17 5 10 10 6 10 3 6	37 38 39 40 41 42 43 44	1 4 11 1 5 6 1 6 1 1 6 9 1 7 5 1 8 2 1 9 0 1 9 11	1 6 6 1 7 2 1 7 10  1 8 7 1 9 4 1 10 2 1 11 2 1 12 4	1 7 5 1 8 1 1 8 10 1 9 8 1 10 7 1 11 7 1 12 8 1 13 11	37 38 39 40 41 42 43
40	40 45 50 55 60	4 9 0 4 18 0 5 10 10 6 9 1 7 15 2	To be paid at t	he Age of 21.	64 65 66 67 68	8 18 9 8 12 3 8 5 9 7 19 5 7 13 3	9 16 6 9 9 7 9 2 8 8 15 10	45 46 47 48 49	1 10 11 1 12 1 1 13 5 1 14 11 1 16 7	1 12 4  1 13 8  1 15 2  1 16 10  1 18 8  2 0 8	1 15 4 1 16 11 1 17 8 2 0 7 2 2 8	44 45 46 47 48 49
45	45 50 55 60	5 6 4 5 18 5 6 16 0 8 1 5	3   44   7 4   46   8   1 5   48   12 6   50   18 7   53   6	3 II 4 3 I7 5 7 4 4 3 4 I2 2 0 5 I 2 0 5 II 7	69 70 71 72 73	7 7 3 7 1 4 6 15 7 6 9 11	8 9 1 8 2 4 7 15 9 7 9 1 7 2 7 6 16 1	50 51 52 53	1 18 5 2 0 5 2 2 7 2 4 11	2 2 10 2 5 2 2 7 8 2 10 4	2 4 II 2 7 4 2 9 II 2 I3 9	50 51 52 53
50 55	50 55 60 55	6 9 7 7 6 3 8 10 9	9 58 8 10 61 2 1	3 6 3 10 6 18 7 1 7 16 0 1 8 17 8	73 74 75 76 77	6 4 3 5 18 7 5 13 0 5 7 4 5 1 10	6 9 8 6 3 3 5 17 0	54 55 56 57	2 10 4 2 13 6 2 17 1	2 I3 3 2 I6 6 3 0 2 3 4 4	2 15 11 2 19 6 3 3 7 3 8 3	54 55 56 57
60	60 60	9 5 1	14 73 7	2 14 6 1	77 78 79 80	5 I IO 4 IG 6 4 II 5 4 6 8	5 10 11 5 5 0 4 19 4 4 13 11	58 59 60	3 I 2 3 5 IO 3 II 2	3 9 1 3 14 6 4 0 8	3 13 7 3 19 8 4 6 6	58 59 60

# Appendix No. 5.

# ASSURANCES FOR THE WHOLE TERM OF LIFE WITH WHOLE-LIFE PREMIUMS. TABLE I.

In force at 31st December, 1890.

Age	Number of	Amount	Bonus	OFFICE ANNUAL	PREMIUMS.*	Pure	Yearly Permanent	Age
attained	Policies.	assured.	Additions.	Ordinary.	Extra.	Premiums.	Reduction of Premium.	attaine
		£	£ s.	£ s. d.	£ s. d.		£ s. d.	
10	I	. 25	••	080	••	.232	• • • • • • • • • • • • • • • • • • • •	10
11 12	3	75	••	1 4 0	•••	705	••	11
13	. 7	230 155	•••	3 I2 9 2 IO 0	••	2.138 1.441	::	13
14	18	2,180	0 12	34 6 6	::	22.748		14
15	32	5,945	••	93 13 9	'от 8	63.913		15
16	65	12,205		194 19 0	1 10 0	134.649		16
17	115	23,275	• •	377 15 6	0 15 0	262.854	• • •	17
18 19	162 208	35,385	0 5	591 3 3 716 14 2	5 7 8	416.210	0 13 0	18 19
20	206	42,240 47,365	0 5 1 16	716 14 2 819 16 9	5 io o 6 i3 6	507.969 586.453	0 3 11	20
21	213	51,165	9 1	902 8 6	10 12 11	649.289		21
22	· 234	60,299	76 8	1,082 11 8	14 9 0	783.379	0 5 6	22
23	226	63,945	60 5	1,174 5 4	19 2 6	855.889		23
24	234	64,990	135 11	1,212 19 10	14 2 8	887.651		24
25 26	254	70,240	99 11	1,344 5 4 1,340 19 6	27 15 2 16 10 6	991.974	0 12 9	25 26
27	259 237	69,245 75,000	153 7 331 3	1,340 19 6 1,477 8 8	27 9 7	993.911	::	27
28	297	85,865	256 2	1,723 1 0	23 0 10	1,298.574	0 2 6	28
29	274	79,820	324 6	1,632 7 I	37 10 4	1,236.257		29
30	314	91,055	879 I	1,864 II 6	36 18 11	1,434.787	2 14 0	30
31	327	99,184	879 7	2,063 I3 I	28 18 4	1,599.786	4 7 6	31
32 33	401	112,724	1,203 19	2,395 I 2	76 11 8	1,871.837	0 4 8	32
34	427 414	111,197 122,273	1,173 15 2,125 11	2,418 2 7 2,651 6 8	67 18 2 75 12 10	1,900.451 2,108.060	0 3 2 6 II 1	33
35	414	122,273	2,125 11 2,232 7	2,657 4 4	75 12 10 67 15 3	2,103 000	2 19 9	35
36	479	137,555	2,887 I	3,104 15 1	75 9 5	2,494'384	0 13 4	36
37	470	137,382	3,577 14	3,046 3 6	69 2 0	2,474.358		37
38	488	139,576	3,655 8	3,213 7 7	99 8 o	2,623.636	5 2 0	38
39 40	466	148,299	4,032 11	3,511 17 0	101 19 8	2,879.040	4 13 10	39
41	483	147,056	4,445 19	3,514 10 0 2,893 18 6	101 5 8	2,892.426	2 7 8 5 8 L	40 41
42	43 <sup>1</sup> 473	118,061 132,121	3,229 14 4,063 10	2,893 18 6 3,375 11 9	85 o 6	2,396.184	5 8 1 3 1 8	42
43	404	130,112	5,362 I	3,255 4 5	98 18 8	2,728.977	0 2 4	43
44	425	111,472	4,366 10	2,880 14 9	118 9 0	2,424 316		44
45	440	135,124	6,718 5	3,483 2 4	125 2 10	2,936.531	1 5 11	45
46	523	159,490	6,784 2	4,295 8 0	155 5 2	3,642,492	11 14 5	46
47 48	449 484	137,883	6,488 10 7,106 11	3,748 17 6	115 7 7	3,198.833	2 6 4	47 48
49	492	144,501 146,858	8,333 4	4,094 I3 I0 4,168 I5 O	137 2 6	3,504,779 3,579,402	3 <sup>1</sup> 5 4 0 16 0	49
50	510	161,655	8,987 2	4,749 17 5	180 13 5	4,099.027	2 2 5	5ŏ
51	409	112,603	5,698 3	3,394 2 10	126 19 3	2,946.731	4 8 2	51
52	426	135,162	7,815 13	4,157 12 7	122 1 9	3,612.571	7 9 11	52
53 54	392	131,545	6,903 0	4,273 15 4	202 3 2	3,733.406	17 19 2	53
55	373 328	112,963 106,039	6,923 12 5,298 17	3,642 I O 3,619 I5 2	166 6 8 161 4 5	3,195.115	2 19 4 I 3 0	54 55
56	290	84,811	5,497 0	2,823 10 8	161 4 5 103 10 4	2,494 236	0 16 0	56
57	297	93,769	5,626 9	3,340 4 3	115 2 3	2,964'024	0 9 8	57
58	262	86,287	5,342 17	3,069 13 7	92 1 6	2,740.892	5 5 0	58
59	180	54,301	3,526 o	1,904 3 10	71 15 10	1,706.587	2 1 4	59
60 61	174 126	56,510	2,611 2	2,323 1 11	54 10 6	2,086.315		60
62	133	44,800† 43,335	3,016 9 2,797 13	1,695 13 5 1,712 19 2	76 8 3 40 19 10	1,535.688	3 8 8	61 62
63	108	33,956	1,754 10	1,455 10 4	54 18 1	1,329.059	1 19 6 1 13 10	63
64	85	23,731	1,521 10	985 18 11	37 16 9	906,391	2 3 8	64
65	66	27,151	1,407 0	1,140 13 7	37 8 7	1,054.130	17 9 10	65
66	36	13,807	748 13	756 19 9	18 16 7	686.360	••	66
67 68	42	14,237	906 2	734 0 2	29 9 5	676.402	0 6 4	67
68 69	32 32	9,308 8,953	500 13 589 4	483 O II	28 I 6 19 0 8	444 616	2 2 0	68
70	23	10,240	5 <sup>8</sup> 9 4 740 12	474 II 0 573 4 0	16 4 8	439'3 <sup>1</sup> 7	I 5 II	70
71	17	5,553	498 11	279 6 4	8 18 4	258.875	1 5 4	71
72	13	5,489	349 I	299 10 9	14 10 10	279.127		72
73	10	4,727	3бі о	246 0 0	8 14 0	231 066		73
74 75	3	220	10 12	12 10 6	0 14 8	11.473	••	74
76	3 1	700 500	40 5 54 0	38 o o 27 18 4	2 15 4	36·468 26·325		75 76
Total	16,226	£4,754,482†	£160,519 2	£125,577 4 11	£3,902 15 0	105,177'773	£136 13 10	

<sup>\*</sup> Note.—The Ordinary Premium is the premium at the real age; the extra, the additional premium imposed for any reason whatsoever. † And 4s.

# Appendix No. 6.

# ASSURANCES FOR THE WHOLE TERM OF LIFE BY LIMITED AND SINGLE PREMIUMS.

TABLE II.

In force at 31ST December, 1890.

Age	ber of cies.	Amount	Bonus	Year of Expiry of Premiums.	Number of Policies.	Iverage Age attained.	OFFICE A PREMI	ANNUAL UMS.*	Pure Premiums.	Yearly Permanent Reduction
attained.	Number of Policies.	assured.	Additions.	Yes Exp Pren	Num	Avera	Ordinary.	Extra.	Tromitano.	Premiums.
15		£ s. d.	£ s. d.				£ s. d.	f -s. d.		£ s. d.
16 17	1 2	25 0 0 732 0 0	9 7 0	1891	42	21.0	556 0 10	10 8 4	500.402	1 10 3
18 19	1 2	500 0 0 597 0 0		1892	45	49.7	714 18 3	6 14 6	627:126	
20	6 3	3,371 0 0 1,042 0 0	249 0 0 48 0 0	1893	82	48.2	1,169 3 11	39 18 7	1,037.560	
22 -	.2	. 620 0 0 106 0 0	68 0 0	1894	63	46.9	847 4 8	13 8 6	746.907	
24 25	8	4,200 0 0 3,400 0 0	293 4 0 304 0 0	1895	37	48.5	675 19 5	33 0 11	606.871	
26	14 10	8,507 0 0 2,330 0 0	681 4 0 186 15 0	1896	32	47.5	720 0 2	10 7 7	642.256	
27 28	10 12	6,072 0 0 5,769 0 0	514 2 0 318 17 0	1897	27	43'4	491 2 4	8 15 6.	403.254	••
29 30	14	4,888 0 0	363 9 0 1,117 14 0	1898	42	43'4	494 13 0	6 10 0	407.21	
31 32	24 8	12,034 0 0 4,847 0 0 6,581 0 0	454 17 0 527 17 0	1899	18	43.7	281 11 11	13 14 7	233.696	••
33 34	15 25	14,670 0 0	1,185 10 0	1900	22	40.0	371 10 8	5 3 0	306.757	
35 36	21 32	9,742 0 0	1,485 5 0	1901	12	40'4	164 2 10	8 4 5	134.870	• •
37 38	40 51	18,137 0 0 21,895 14 2	1,630 15 0	1902	14	41.3	188 9 0	3 1 8	154.687	••
39 40	. 33 53	13,656 0 0 20,993 0 0	1,197 6 0 2,259 2 0	1903	19	40.5	320 13 7	4 11 8	264.354	·
41 42	55 38	25,508 0 0 15,039 17 0	2,671 12 0 1,915 6 0	1904	13	43.2	300 6 8	3 10 5	251.644	
43 44	54 48	23,003 0 0 21,076 0 0	2,045 7 0 2,319 2 0	1905	12	35.0	199 3 3	1 15 0	161 638	
45 46	30 28	15,789 0 0	1,240 15 0 1,221 17 0	1906	4	35.8	76 6 3	, 0 10 0	58.340	
47 48	34 44	16,936 o o	1,765 9 0 1,786 7 0	1907	11	33.5	153 3 7	r 6 8	110.381	1 14 8
49 50	30 14	7,610 0 0	979 I2 0 742 I 0	1908	6	34'3	55 8 8	171	42.498	
51 52	17 11	6,363 o o 5,903 o o	478 9 0 348 18 0	1909	10	31.5	86 6 o	I 2 0	63.879	••
53 54	10	3,012 0 0 6,664 0 0	141 2 0 311 7 0	1910	II	26.5	138 17 5	5 0 0	104.247	•••
55 56	16 9	6,546 0 0 2,716 0 0	365 0 0 210 8 0							
57 58	12 2	5,150 0 0	33I O O 2 3 O							
59	3	750 0 0	10 0 0				1			
60 61	6	2,400 0 0	50 0 0			Í	) }			
62 63	4 4	3,100 0 0 954 0 0	49 7 0		1	İ	!			
64 65	8. I	3,350 0 0 1,000 0 0	86 0 0							
66	3	1,700 0 0	97 0 0 25 0 0				į			
67 68	3 6	850 0 0 3,300 0 0	63 0 0							
69	1	250 0 0			(					. :
70 71	3 3	1,450 0 0								
72	• •	••	'	}						
73 74	2	800 0 0	::							
75	1	300 <b>0 0</b>							<u> </u>	·
Totals	918	404,305 II 2	35,216 17 0		522	44.8	8,005 2 5	178 10 5	6,868.158	3 4 11

<sup>\*</sup>Note.—The Ordinary Premium is the premium at the real age; the extra, the additional premium imposed for any reason whatsoever.

# Appendix No. 7.

# ENDOWMENT ASSURANCES.

TABLE III.

In force at 31ST December, 1890.

Year	Number of	Average Age	Amount	Bonus	OFFICE ANNUAL	L PREMIUMS.*	Pure	Yearly Permanent	Year
of Maturity.	Policies.	attained.	assured.	Additions.	Ordinary.	Extra.	Premium,	Reduction of Premium.	of Maturity
			£	£ s.	£ s. d.	£ s. d.		£ s. d.	_
1891	50	52.2	13,752	1,082 19	811 6 2	5 7 8	725.197	4 16 o	1891
1892	74	47.8	19,523	1,432 11	1,207 9 11	13 11 5	1,083.859	•••	1892
1893	100	21,3	27,000	1,659 13	1,563 3 0	25 3 I	1,387.440	7 3 5	1893
1894	86	47.8	22,503	1,493 4	1,248 17 2	6 II I	1,103.709	15 18 2	1894
1895	91	48·1	25,050	1,813 18	1,229 14 8	16 16 6	1,088.779	1188	1895
1896	89		23,600	1,422 1	2,418 18 8	17 0 8	1,043'033	•••	1896
1897	210	45.8	53,233	3,475 12 3,489 6	2,887 10 10	51 9 9	2,119.160	I I ·8	1897
1898	219	45°5 44°6	62,393 64,804	3,489 6 3,788 14		28 2 5 30 6 9	2,531.686	18 12 11	1898
1899	237		!				2,674.062	0 1 4	1899
1900	233	44'4	63,894 44,880	3,323 7	1	37 3 1	2,604.967	••	1900
1901	189 386	41.2	91,060	2,074 5	2,070 7 3 3,851 16 5	20 5 3	1,787.088		1901
1902	418	40.1		4,361 3		40 9 6	3,326.666	14 0 0	1902
1903		40°0 38°0	88,514	3,695 o	3,629 0 2	44 5 10	3,135.218	0 10 8	1903
1904	379		89,377	3,903 3	3,597 5 9	34 13 11	3,092.308	0 3 7	1904
1905	426	37.2	92,590	3,221 16	3,694 19 2	34 15 7	3,164.483	7 11 10	1905
1906	279	36.2	61,273	1,642 15	2,439 3 6	25 19 5	2,047.318		1906
1907	447	36.0	103,976	3,865 o	3,761 0 7	40 5 3	3,170.613	0 10 11	1907
1908	513	35.0	113,339	3,478 3 2,621 5	3,992 3 10	30 13 9	3,366.510	2 3 4	1908
1909	508 621	32.7	114,086	, ,	4,229 9 11	40 9 11	3,548.502	4 6 4	1909
1910		31.0	133,974		4,849 15 3	51 14 3	4,056.931	4 15 7	1910
1911	377	32.3	80,739	, 5	2,644 2 10	19 14 9	2,160,371	0 7 2	1911
1912	544	32'4	126,215	3,139 14	3,861 13 2	36 3 5	3,163.197	I 9 5	1912
1913	469	31.6	103,425	2,405 6	3,089 0 3	. 23 I5 I	2,543'615	2 2 8	1913
1914	597 668		129,600	1,373 17	4,133 4 0	36 3 3	3,364.233	130	1914
1915		27.9	144,219	1,100 11	4,566 7 9	43 ÍI 9	3,716.430	070	1915
1916	242	29.3	56,513	1,020 11	1,565 1 10	13 0 0	1,234,382		1916
1917 1918	275	-	62,075 59,800	945 6	1,697 15 11	12 18 0	1,341.990	066	1917
_	277	27.4	ŀ	472 16 375 8	1,649 14 9	12 10 7	1,304.160	0 17 8	1918
1919 1920	374 398	24'5	79,300 89,250	0,5	2,166 9 10	14 16 3 26 2 8	1,707'427	0 3 4	1919
1921	129	26.7	30,100	• •		1	1,932'961	0 5 2	1920
1922	85	26.3	17,550	35 19	, , ,	",	578.182		1921
1923	63	26.0	17,350	77 4 6 11	135 1		333.031	064	1922
1924	53	23.3	12,800		1	10 17 4 5 12 6	232'215	• •	1923
1925	56	22.4	13,650		317 II 3 338 3 0	9 10 6	242·070 256·980		1924
1926	12	25'3	2,650		64 0 0	3 7 8			1925
1927	11	23.6	3,075		71 2 9	3 4 2	47'901		1926
1928	9	23.1	2,100		46 19 10	2 19 8	53.370	• •	1927
1929	9	21.8	1,675		37 19 5	5 9 2	35°234 27°678		1928
1930	6	21'0	1,300		28 17 0	3 18 11	20.653		1929
1931	2	20.0	250		5 13 0	•	3.894	••	1930
1932	ı	19.0	100		2 2 0	0 9 4	i		1931
1933	1	18.0	50		1 1 8		1.499 .499		1932
Single Premium	79	43.8	8,623†	740 16			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	••	Single Premium
		34.1							

<sup>\*</sup>Note.—The ordinary premium is the premium at the real age; the extra, the additional premium imposed for any reason whatsoever. ! † And 15s.

ထံ	
No.	
Appendix	

		TABLE	LE I.			TABL	TABLE III15.		TABLE III25.	III <sub>25</sub> ,				TABLE	TABLE III85.			
True Age at Entry.	By	By Equal Annual Premiums for the Whole Term of Life.	Equal Annual Premi for the Whole Term of Life.	miums fe.		Endc Assuranc in Fifteen previou	Endowment Assurances payable in Fifteen Years, or at previous Death.		Endowment Assurances payable in Twenty-five Years, or at previous Death.	Assurance y-five Years Death.	s, or at		I payat	Endowment Assurances payable in Thirty-five Years or at previous Death.	owment Assurand in Thirty-five Year previous Death.	s or at		
						MINIMUM		SURRENDER		VALUES	AT	THE EN	END OF					
	5 Years.	10 Years.	. 15 Years.		20 Years.	5 Years.	10 Years.	5 Years.	10 Years.	15 Years.	20 Years.	5 Years.	10 Years.	10 Years. 15 Years.	20 Years.	3. 25 Years.		30 Years.
·	£ s. d.	£ s. d.	જ જ	d.	s. d.	ક. વે.	£ s. d.	æ. &. d.	ક્ટ ક. s. d.	සි. ය.	£ s. d.	£ s. d.	£ s. d.	ક્ષ ક. વ.	£ s. d.	es es	-i-	s. d.
20	2 8 1	6 1 10	10 5	11 15	2 11	24 13 7	7 57 2 9	10 17	0 25 8 11	43 18 0	67 11 7	5 14 4	19 13 7	23 9 5	85.14	0 51 5	7 7	5 9
25	3 1 11	6 8 1	12 9	0 18	3.7.6	24 11 5	5 56 17 5	10.16 11	1 25 5 8	43 11 8	67 3 11	5 17 4	13 16 4	23 11 7	35 16	6 51 3	1 70	7 71 (
30	3 13 8	8 18	2 15 1	9 22	0 4	24 5 4	4 56 9 8	10 12 10	24 19 10	43 5 5	66 14 9	5 17 5	13 19 4	23 19 1	36 1	8 51 2	9 70	9 2
35	4 9 1	10 19	0 18 4	9 26	3 6 7	23 17 9	9 56 0 11	10 9	3 24 18 0	42 19 2	66 3 11	8 0 9	14 12 5	24 14 11	36 16	6 51 9	4 70	1 11
40	5 12 7	13 7	6   21 19	7 31	1 4 7	23 12 1	1 55 10 8	10 10 11	1 24 18 3	42 14 8	65 11 11	:	:	•	•	:		:
45	6 15 1	16 1	2 26 1	2 38	3 4 2	23 0 11	1 54 15 2	10 10 4	1 24 19 11	42 10 9	64 15 6	:	:	:	;	:		:
20	8 5 4	4 19 5 1	1 30 8	1 41	12 2	22 10 3	3 53 17 5	•	:	:	•	:	;	:	:	:		:
ខ្	9 18 6	22 9	0 35 0	8 46	3 16 2	21 16 11	1 52 11 3	•	:	:	:	:	:	•	:	:		. •

FIFTH

Appendix

# Movement of Business during

			<del></del>		OL				D AND	DISC	ONTI	NU.	ED		
Years 1886,								RANCE							
1887, 1888,	И	hole Lif	e and	Term A	ssur	ances.			$End\phi$	noment	Assura	nce	s. 		
1889, 1890.	No.	Sum Assured.	Rever- sionary Bonus.			emium		No.	Sum Assured.	Rever- sionary Bonus.			Premiu		
1000.				Ordina	ry.	Ext	ra. ———	<u>                                     </u>	1	1	Ordin	ary.	E	xtra.	_
Policies in force at 31st Dec., 1885	13,519	£ 4,334,680	£ 70,222	£ 114,784	s. d. 17 11	£ 4,340	s. d. 6 11	8,592	£ 2,093,763	£ 15,743	£ 75,402	s. ( 15			
as at 31st Dec.,	• •	••	228,847	••			į		••	90,547	••			• •	
New Business of \ the Quinquen.	9,679	2,585,669		66,182	10 7	1,139	13 9	5,614	1,135,812	٠.	41,629	11 1	10 36	1 18	_
Total	23,198	6,920,349	299,069	180,967	8 6	5,480	0 8	14,206	3,229,575	106,290	117,032	7	3 1,22	2 3	
Policies discon- tinued during the Quinquen.)	6,026	1,748,812	103,286	47,104	12 3	1,387	16 2	3,914	883,744	38,311	32,187	8 1	10 32	8 8	
Fotal Policies in force at 31st Dec., 1890	17,172	5,171,537	195,783	133,862	16 3	4,092	4 6	10,292	2,345,831	67,979	84,844	18	5 89	3 14	
in force at 31st Dec., 1890	17,172	5,171,537	195,783			<u> </u>			2,345,831 LICIES					3 14	-
	17,172 685	5,171,537 218,320		· 1	DET	'AILS		F POI	LICIES	DISC		IUI	E <b>D</b>	1 14	
How Discontinued.  By Death Maturity Surrender			13,396	6,490 : 8,715 :	<b>DET</b>	'AILS	S 0:	F POI	72,260 31,655	3,460 2,758 4,510	ONTII	9 14	<b>ED</b> 7 3 9 20	4 14 ) 10	
How Discontinued.  By Death Maturity Surrender Surr. Bonus Lapse	685  994 	218,320 337,406 1,185,986	13,396 9,508 59,379 20,972	6,490 : 8,715 : 28,942 :	<b>DET</b> 16 0  15 0  14 8	273 267 712	9 2 1 4 5 2	POI  262 123 886 2,643	72,260 31,655 230,652	3,460 2,758 4,510 19,406 8,177	2,792 2,111 8,152	9 14 13	<b>ED</b> 7 3 9 20	4 14 0 10 0 7	
How Discontinued.  By Death Maturity Surrender Surr. Bonus Lapse Expy. Policy Expy. Prem.	685  994  4,385 12	218,320 337,406 1,185,986 7,100	13,396 9,508 59,379 20,972	6,490 : 8,715 : 28,942 : 130 : 2,546 :	DET  16 0  15 0  14 3  2 3  19 2	273 267 712 5 25	9 2 1 4 5 2 0 0 4 11	262 123 886 8.6 2,643	72,260 31,655 230,652	3,460 2,758 4,510 19,406 8,177	2,792 2,111 8,152  18,926	9 14 13 4	7 8 9 20 99 8 14:	4 14 0 10 0 7 	
How Discontinued.  By Death Maturity Surrender Surr. Sour. Lapse Expy. Policy	685 994  4,335 12	218,320 337,406 1,185,986 7,100	13,396 9,508 59,379 20,972 	6,490 : 8,715 : 28,942 : 130 2,546 : 278	DET  16 0  15 0  14 3  2 3  19 2  5 7	273 267 712 5 25 104	9 2 1 4 5 2 0 0 4 11 15 7	262 123 886  2,643	72,260 31,655 280,652 549,177	3,460 2,758 4,510 19,406 8,177	2,792 2,111 8,152  18,926	9 14 13 4 6 1	7 3.9 2.0 0 9.8 14.	4 14 0 10 0 7	4
How Discontinued.  By Death Maturity Surrender Surr. Bonus Lapse Expy. Policy Expy. Prem.	685 994  4,335 12	218,320 337,406 1,185,986 7,100	13,396 9,508 59,379 20,972 	6,490 : 8,715 : 28,942 : 130 2,546 : 278	DET  16 0  15 0  14 3  2 3  19 2  5 7	273 267 712 5 25 104	9 2 1 4 5 2 0 0 4 11 15 7	262 123 886  2,643	72,260 31,655 230,652  549,177	3,460 2,758 4,510 19,406 8,177	2,792 2,111 8,152 18,926	9 14 13 4 6 1	7 3.9 2.0 0 9.8 14.	4 14 0 10 0 7 2 4 	
How Discontinued.  By Death Maturity Surrender Surr. Bonus Lapse Expy. Policy Expy. Prem.	685 994  4,335 12	218,320 337,406 1,185,986 7,100	13,396 9,508 59,379 20,972 	6,490 : 8,715 : 28,942 : 130 2,546 : 278	DET  16 0  15 0  14 3  2 3  19 2  5 7	273 267 712 5 25 104	9 2 1 4 5 2 0 0 4 11 15 7	262 123 886  2,643	72,260 31,655 230,652  549,177	3,460 2,758 4,510 19,406 8,177	2,792 2,111 8,152 18,926	9 14 13 4 6 1	7 3.9 2.0 0 9.8 14.	4 14 0 10 0 7 2 4 	
How Discontinued.  By Death Maturity Surrender Surr. Bonus Lapse Expy. Policy Expy. Prem.	685 994  4,335 12	218,320 337,406 1,185,986 7,100	13,396 9,508 59,379 20,972 	6,490 : 8,715 : 28,942 : 130 2,546 : 278	DET  16 0  15 0  14 3  2 3  19 2  5 7	273 267 712 5 25 104 1,387	9 2 1 4 5 2 0 0 0 1 45 116 2	262 123 886  2,643  3,914	72,260 31,655 230,652  549,177	3,460 2,758 4,510 19,406 8,177 	2,792 2,111 8,152  18,926  204 32,187	9 14 13 4 6 1	7 3 20 99 8 14 0 20 0 323	4 14 0 10 0 7 2 4 	
How Discontinued.  By Death Maturity Surrender Surr. Bonus Lapse Expy. Policy Expy. Prem. Miscellaneous	685 .994 4,335 12  6,026	218,320 337,406 1,185,986 7,100  1,748,812	13,396 9,508 59,379 20,972  31 103,286	6,490 : 8,715 : 28,942 : 130 : 2,546 : 278 : 47,104 :	DET  16 0 15 0 14 3 19 2 5 7 12 3	273 267 712 5 25 104 1,387	9 2 1 4 4 11 15 7 16 2 ROC	262 123 886 2,643  3,914	72,260 31,655 230,652  549,177  883,744	3,460 2,758 4,510 19,406 8,177  38,311	2,792 2,111 8,152 18,926  204 32,187	9 14 13 4 6 1 8 1 INC	7 3 9 20 9 9 8 14 0 20 32 CE	4 14 14 0 10 0 7	

SCHEDULE.

No. 9.

# the Quinquennium 1885-1890.

No.		PLE NTS, NTS,		ļ-		INA	IUI.	TIES.					тот	Άl							
	Sum		nual		No.	Ann		Ann	uity.	No.	Sum	Rever-	Anr	ual	Pr	emiu	m.		Annı	aitz	, ,
1	Assured.	Pren	nun	1.		Prem	14111				Assured.	Bonus,	Ordin	ary	.	Ex	tra.				
,044	£ 37,834	£ 1,892	s. 17		<b>6</b> 3	£ 19 1	s. d. .9 2	£ 3,911	s. č 10		£ 6,466,277	£ 85,965	£ 192,100	s. IO		£ 5,200	s. II		£ 3,911	s. IO	
••					••						• •	319,394				,	••				
230	13,525	588	13	0	66	• •		2,812	13	115,589	3,735,005		108,400	15	5 2	,501	12	o!	2,812	13	]
,274	51,359	2,481	10	10	129	19 1	9 2	6,724	3	2,38,807	10,201,283	405,359	300,501	5	90	5,702	3	10	6,724	3	2
738	24,697	1,342	9	4	27	9	3 2	1,055	8 1	0 10,705	2,657,253	141,597	80,643	13	7 1	711	4	7	1,055	8	10
		,																-		11	
536						<del>, -, -</del>					7,544,030	263,762	219,857	12	2	4,990 	19	3	5,668	14	
104	<b>DU</b>	RIN   345	<b>G</b>	TI 6		<del>, -, -</del>			NN	IUM. 6 973	290,580 36,309	16,856	9,283	5 14	7 3	308	3 10	6 4	1,019		
104 246	 4,654 10,890	RIN 345 526	G  19 8	<b>TF</b>	26 	QUI	:NC	QUE1	<b>NN</b> 6	<b>IUM.</b> 6 973 227 2,126	290,580 36,309 578,948	16,856 2,758 14,018 78,785	9,283 2,457 17,394	5 14 16	7 3 5	308 20 366	3 10 8	6 4 7	1,019	6	6
104 246 	 4,654 10,890 9,153	345 526 469	G  19 8	TI 6	26  	QUI		QUE1	6	<b>IUM.</b> 6 973 227 2,126	290,580 36,309 578,948  1,744,316 7,100	16,856 2,758 14,018 78,785 29,149	9,283 2,457 17,394 48,347	5 14 16	7 3 5 6 3	308 20 366 854 5	3 10 8  9	6 4 7 6 0		6	6
104 246 	 4,654 10,890 9,153	345 526 469	G  19 8 	<b>TF</b>	26  	9 	:NC	QUE1	6	973 227 2,126 0 7,367	290,580 36,309 578,948 	16,856 2,758 14,018 78,785 29,149	9,283 2,457 17,394 48,347	5 14 16 5 2	7 3 5 6	308 20 366 854	3 10 8  9	6 4 7 6	1,019	6	6



# REPORT BY THE CONSULTING ACTUARIES

ON THE

# FINANCIAL CONDITION OF THE AFFAIRS

OF THE

# NEW ZEALAND

# Government Insurance Department,

As on the 31st day of December, 1890,

Made under "The Government Life Insurance Act, 1886."



REPORT by the Consulting Actuaries, Messrs. Arthur Hutcheson Bailey, Ralph Price Hardy, and George King, on the Financial Condition of the Affairs of the New Zealand Government Insurance Department, as on the 31st December, 1890, made under "The Government Life Insurance Act, 1886."

Sir,— London, 4th January, 1892.

- 1. Pursuant to the instructions we had the honour to receive, and in accordance with the Acts constituting and regulating the New Zealand Government Insurance Department, we have made an investigation into the financial condition of the affairs of the Department as on the 31st December, 1890, and we now submit our report.
- 2. In our last valuation report a short statement of the history of the Department from its commencement was given. At the date of the valuation made as on the 31st December, 1885, there were two branches, the Ordinary and the Industrial, each of these branches being divided into two sections, the General and the Temperance, the accounts of all four sections being kept distinct. Shortly afterwards the Industrial business was discontinued, and it appears, from the annual accounts for the year 1887, that the small remaining fund of the Industrial had been merged in that of the Ordinary Branch, and that thereupon the Industrial Branch ceased to exist. There are still in force fifty-five Industrial policies, which have now been included in the valuation of the Ordinary Branch.

Having been consulted by the Colonial Government upon the question of whether the Temperance should be kept separate from the General Section, we reported on the 27th December, 1887, that in our opinion an amalgamation of the two would be practicable, and not unjust; and, accordingly, an Act was passed on the 10th September, 1890, carrying out this arrangement.

3. It appears from the particulars, which were supplied to us from the Department in 130 books, that on the 31st December, 1890, there were in force exactly 28,000 policies, assuring £7,544,030 8s., with reversionary bonuses of £263,761 15s., and 102 annuities of £5,668 14s. 5d. in all.

The following statement shows, in a few principal groups, particulars of the outstanding

### CONSULTING ACTUARIES' REPORT.

Nature of Contract.	Number of Contracts.	Amounts assured, and Bonuses.	Annual Premiums now payable.
Assurances: Sums payable at death; premiums payable for life	16,226	£ s. d. 4,915,001 6 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Assurances: Sums payable at death; premiums payable for fixed terms	918	439,522 8 2	8,180 7 11
Endowment Assurances: Premiums payable during term of contract	10,211	2,404,244 16 0	85,733 10 11
Endowment Assurances: Special cases	81	9,564 11 0	$10 \ 2 \ 3$
Special and Industrial Assurances	244	31,351 19 0	1,183 10 3
Investment Policies	320	8,107 2 10	386 18 0
	28,000	7,807,792 3 0	224,837 15 5
Annuities, including those deferred	102	5,668 14 5*	10 16 0

\* Per annum.

- 4. It will be observed from the above statement, that the great majority (94·1 per cent.) of the risks are of two classes—namely, (1) assurances of sums payable at death, subject to premiums during life; and (2) endowment assurances, subject to premiums during the terms of the contracts: these two groups comprising no less than 26,437 policies. The data supplied are in such detail, and have been so carefully compiled, that we have been able to make a minute analysis of the business of these classes, and to ascertain the number and amounts of the contracts effected in each year since the origin of the Department, and which remain in force; distinguishing those which belong respectively to the General and to the Temperance Sections, those under the Tontine scheme, and those taking the ordinary bonus; those on female lives; and, lastly, those subject to annual, half-yearly, quarterly, and monthly premiums respectively. It may be useful from the point of view of the social condition of the colony to have the means of making an investigation of these matters, and we have therefore, at considerable pains, prepared the eight tables, lettered from B to I, which are given in the Appendix, and which we hope may be of interest and value.
- 5. The following Consolidated Revenue Account gives the income and the outgo for the quinquennium:—

			T	_				
			Incomi	Ξ.		£		d.
Fund, 1st Jan	11ary 18	96	*			1,102,034		
Transferred fr			Branch	••	• • • • • • • • • • • • • • • • • • • •		18	
T						1,024,505	4	1
Annuity purel		ev	•••	••		24,381		
<b>-</b>		••				369,188		
Fees						236	5	0
						-		
						£2,520,369	11	10
			Outgo					
			Ourgo	•		£	o	ā.
Claims						352,714		9
d 1		•	••	• • • • • • • • • • • • • • • • • • • •		124,806		
Bonuses surre						35,037		6
						20,376		11
Property-tax						26,111	3	8
Commission .						52,811	0	10
Expenses .						167,092	3	7
Losses on inve						1,227		5
Investment R						25,000	0	0
Fund, 31st De	cember,	1890				1,715,193	5	9

### CONSULTING ACTUARIES' REPORT.

- 6. The ratio of expenses, including commission, to the premium income is greater than in the last-preceding valuation period. We learn that competition has recently been much more severe in the colony than formerly, and that a great portion of the increase arises from this cause.
- 7. The property-tax, the burden of which was unimportant five years ago, has now become a serious item, being 2.55 per cent. of the premium income during the quinquennium, with a certainty of material increase. The accumulation of the funds of a comparatively young life assurance institution increases more rapidly than the premium income, so that the property-tax, being levied upon the capital, becomes every year a heavier charge.
  - 8. The result of the valuation is as follows:-

		,		£
Fund on the 31st December, 1890, a	s above		٠	1,715,193
Estimated liability				1,475,718
Surplus	••	••	••	£239,475

- 9. Of the above surplus of £239,475, we recommend that £200,000 be divided, and that £39,475 be retained.
- 10. Five years ago the valuation of the assurances was made by the Institute of Actuaries' Healthy Males Table, and of the annuities by the British Government Annuitants 1884 Tables, interest at  $4\frac{1}{2}$  per cent. having been assumed throughout. A further reserve of £92,556 was then made, one of the reasons for which was that the assumed rate of interest might, if thought desirable, be reduced at future valuations. Accordingly, on the present occasion the rate of interest adopted has been 4 per cent., the mortality tables assumed for assurances having been the Institute of Actuaries' Healthy Males Table, as before. For the annuities, the table adopted has been that now in use in the Department for the granting of annuities. Thus, both as regards assurances and annuities, the present valuation has been carried out on a more stringent basis than formerly, and it is the more satisfactory that nevertheless the surplus is large.
- 11. The whole of the loading has been reserved for future expenses and profits, and provision has been made for the payment of claims immediately on proof of title. For underaverage lives, in some cases, an extra premium is payable, and in others the policies are subject to a debt. In the former the amount of such extra premiums, and in the latter the debts falling to be deducted, will form a fund out of which the probable additional claims will be met.
- 12. The sum of £92,556 which was reserved at the last valuation would have accumulated at the 31st December, 1890, to about £120,000. Of this, about £80,000 has, according to our estimate, been absorbed by the strengthening of the valuation basis; so that, of the present surplus, about £200,000—the amount now recommended for division—has been actually earned during the quinquennium, exclusive of the intermediate bonuses paid, the amount of which is not stated in the particulars supplied to us. The balance, £39,475, which we now recommend to be reserved, was surplus existing at the beginning of the valuation period.
- 13. The divisible surplus of £200,000 will be distributed in accordance with the method explained in our report of the 27th December, 1887, namely,—
  - First. The amount of surplus arising from interest on the reserve made five years ago for participating assurances which are still in existence should be set aside and distributed in proportion to their respective reserves at the beginning of the quinquennium.

### CONSULTING ACTUARIES' REPORT.

Second. In accordance with the scheme and by means of the tables given in our report above mentioned, the surplus attributable to favourable mortality should be ascertained for the General and Temperance Sections respectively, and should be allocated to them accordingly, and divided among the policyholders of each section in proportion to the loading on their premiums paid during the quinquennium.

Third. The balance of the £200,000 should be distributed among all the policy-holders of the Department in proportion to the loading on their premiums paid during the quinquennium.

14. By "loading" is meant, in whole-term cases where premiums are payable annually throughout life, the difference between the premiums set out in the policies and the corresponding  $H^{M}$  4-per-cent, premiums. If an extra has been charged on account of the life being under average, it is intended that the loading at the increased age be taken; but, if the policy has been charged with a fixed or sliding debt, then the loading at the true age.

15. To policies secured by a limited number of premiums the sum apportioned in cash under the second and third headings above should be the same as if the policies had been effected by premiums payable throughout life; and in the case of policies subject to half-yearly, quarterly, or monthly premiums the equivalent annual premium should be employed.

16. The same principles should be applied to policies of all classes.

17. Where the bonus is to be applied to increase the sum assured, or to reduce the future premiums, we recommend that the conversion of the cash appropriation should be calculated by the Institute of Actuaries' Healthy Males Table, at 4 per cent. interest.

18. The deferred-bonus policies must have their proper cash allotments on the above principles, and these will have to be converted into reversionary amounts vesting at the end of the stipulated periods.

19. In view of the method of distributing surplus which has now been adopted by the Department, we have thought it desirable (although the labour has been much greater) to value each contract separately, instead of in groups as formerly.

We return the 130 books containing the particulars for valuation. Against each policy has been placed its value on the 31st December, 1890. This information will be useful on the occasion of the next distribution of surplus.

20. In Table A of the Appendix will be found a statement summarising the contracts as valued, and the results of the valuation.

We are, Sir,

Your obedient servants,

A. H. BAILEY. RALPH P. HARDY. GEORGE KING.

The Hon. the Colonial Secretary.

## TABLES.

- A. SUMMARY AND VALUATION OF THE POLICIES.
- B. Whole-life Policies.—Percentages, Ordinary and Tontine, Male and Female.
- C. Endowment Assurances.—Percentages, Ordinary and Tontine, Male and Female,
- D. Analysis of Whole-Life Business.
- E. Analysis of Whole-Life Business, General Section.
- F. Analysis of Whole-Life Business, Temperance Section.
- G. Analysis of Endowment-assurance Business.
- H. Analysis of Endowment Assurances, General Section.
- I. Analysis of Endowment Assurances, Temperance Section.

CONSULTING

#### Table

## SUMMARY AND VALUATION OF THE POLICIES OF THE NEW

As at 31st

				PARTICULARS
Number of Policies.	Sum assured.	Reversionary Bonuses.	Office Yearly Premiums.	Extra Premiums.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
. 16,226	4,754,482 4 0	160,519 2 0	125,577 4 11	3,902 15 0
. 918	404,305 11 2	35,216 17 0	8,005 2 5	178 10 5
. 10,292	<b>2</b> ,345,830 15 0	67,978 12 0	84,936 1 1	898 14 9
. 10	3,600 0 0	47 4 0	<b>166</b> 3 8	8 9 1
. I	500 O O	••	16 10 0	2 10 0
27,447	7,508,718 10 2	263,761 15 0	218,701 2 1	4,990 19 3
1				
le 4	800 0 0	••	33 I O	
. 157	16,799 0 0		<b>692</b> 9 6	
. 17	8,650 0 0	••	237 14 0	
. 320	8,107 2 10	••	386 18 o	
- 55	955 I5 O	••	26 13 0	••
. 553	35,311 17 10	••	1,376 15 6	
. 28,000	7,544,030 8 0	263,761 15 0	220,077 17 7	4,990 19 3
102	5,668 14 5*		10 16 0	••
	of Policies.  16,226 918 10,292 10 17 27,447  1e 4 157 17 320 555 553	Number of Policies.  £ s. d.  16,226 4,754,482 4 0  404,305 11 2  10,292 2,345,830 15 0  10 3,600 0 0  10 500 0 0  27,447 7,508,718 10 2  10 8,650 0 0  17 8,650 0 0  17 8,650 0 0  17 8,650 0 0  17 8,650 0 0  17 8,650 0 0  320 8,107 2 10  55 955 15 0  553 35,311 17 10  28,000 7,544,030 8 0	Number of Policies.  Let S. d. Let S. d. 16,226 4,754,482 4 0 160,519 2 0 918 404,305 11 2 35,216 17 0 10,292 2,345,830 15 0 67,978 12 0 10 3,600 0 0 47 4 0 10 500 0 0 27,447 7,508,718 10 2 263,761 15 0  10 8,650 0 0 17 8,650 0 0 17 8,650 0 0 17 8,650 0 0 17 8,650 0 0 18 55 955 15 0 19 553 35,311 17 10 28,000 7,544,030 8 0 263,761 15 0	Number of Policies.         Sum assured.         Reversionary Bonuses.         Office Yearly Premiums.           £         s. d.         £         s. d.         £         s. d.           .         16,226         4,754,482 4 0 160,519 2 0 125,577 4 II         35,216 17 0 8,005 2 5         8,005 2 5           .         10,292         2,345,830 15 0 67,978 12 0 84,936 I I         84,936 I I         10 166 3 8           .         10         3,600 0 0 47 4 0 166 3 8         16 10 0           .         27,447         7,508,718 10 2 263,761 15 0 218,701 2 1           Y         800 0 0 33 I 0 692 9 6           .         157 8,650 0 0 237 I4 0 366 18 0           .         320 8,107 2 10 386 18 0           .         55 955 15 0 26 13 0           .         553 35,311 17 10 1,376 15 6           .         28,000 7,544,030 8 0 263,761 15 0 220,077 17 7

<sup>\*</sup> Per annum.

#### ACTUARIES' REPORT.

### A.

## ZEALAND GOVERNMENT LIFE INSURANCE DEPARTMENT,

**DECEMBER**, 1890.

			i		VALUATI	ON.		
FOR VALUATI	ON.		Value by the	Institute of Ac Annuities by	tuaries' Healthy the Tables in th	y Males Table he Office Pros	e. Interest, 4 pectus.	per cent.
Net Yearly Premiums.	Reduction of Premium by Bonus.	Reduction of Premium by Old Policy.	Sum assured and Bonuses.	Office Yearly Premiums.	Net Yearly Premiums.	Reduction of Premium.	Special Reserve of Loading.	Net Liability:
•								
£	£ s. d.	£ s. d.	£	£	£	£	£	£
105,203.4	81 to 4	55 3 6	2,100,668	1,751,118	1,449,449	1,726	••	652,94
6,869.5	1 10 3	I 14 8	213,924	37,356	31,755	19	13,387	195,57
71,374.5	33 9 6	57 13 2	1,338,884	935,723	767,880	651	382	572,03
145.8		••	2,373	1,420	1,271			1,10
13.7	••	••	97	81	69	••		2
183,606 9	116 10 1	114 11 4	3,655,946	2,725,698	2,250,424	2,396	13,769	1,421,687
			711	56	56			655
••	••	••	6,469			•••		6,469
• •	••	••	92 1	••	• •	•••	••	92
••	••	••	2,986	••	••			2,986
••	• •		185	309	151			34
: ••	••		10,443	365	207	• •		10,236
183,606'9	116 10 1	114 11 4	3,666,389	2,726,063	2,250,631	2,396	13,769	1,431,928
••	••	• •	43,795	••	:			48,795

Total Net Liability

.. £1,475,718

A. H. BAILEY. RALPH P. HARDY. GEORGE KING.

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#### Table

# Whole-life Policies.—Percentages of Business

(Table I. of

		***		NU	MBE	R O	F PO	LICII	ES.			
Year of Entry.	5	тот	AL.			GENE	CRAL.			темре	RANCE.	
	Ordinary.	Tontine.	Males.	Females.	Yearly.	Half-yearly.	Quarterly.	Monthly.	Yearly.	Half-yearly.	Quarterly.	Monthly.
1870	100.0		96.9	3·1	21.5	48·4	24.7	5.4	66.7		33.3	••
1871	98.4	1.6	95.3	4.7	17.8	52 6	26.8	2.8			100.0	
1872	99.4	0.6	96.4	3.6 *	14.1	43.5	38·1	4.3		33.3	66.7	
1873	99.4	9.0	98.0	2.0	29.2	40.4	25.8	4.6	100.0	• •	••	
1874	98.8	1.2	98.6	1.4	29.9	50.0	17.1	3.0	33.3	33.3	33.4	
1875	98.0	2.0	98.0	2.0	27.3	48.8	21.9	2.0	••	• •	••	
1876	98.9	1.1	97.3	2.7	23.2	45.3	28.5	3.0			100.0	
1877	98.4	1.6	96.2	3.8	17.4	49.2	31.8	1.6	••	33.3	66.7	••
1878	97.5	2.5	96.6	3.4	29 6	39·1	25.5	5.8	75.0	• •	25.0	  . ••
1879	98.7	1.3	96.7	3.3	18.6	47.2	24.1	10.1	33.3	33.4	33.3	••
1880	97.6	2.4	96.2	3.8	17.5	51.9	20.5	10.1	25.0	25.0	50.0	••
1881	96.7	3.3	96.5	3.5	21.6	<b>44</b> ·8	22•	10.8	20.0	40.0	40.0	
1882	96.6	3.4	95.8	4.2	18.5	37.1	35.2	9.2	12.8	33·3	42.8	11.1
1883	96.9	3.1	92.7	7.3	13.4	33.0	41.7	11.9	9.8	31.0	49.0	10.2
1884	96.0	4.0	95.1	4.9	13.1	37.9	37∙8	11.2	12.8	43.6	35.0	8.6
1885	95.1	4.9	88.0	12.0	10.7	37.7	42.0	9.6	13.7	32.0	43.6	10.7
1886	95.5	4.5	80.0	20.0	10.7	31.4	48.8	9.1	7.6	25.4	59.7	7.3
1887	77.3	22.7	91.9	8.1	13.2	40.5	35.1	11.2	14.1	33.0	46.6	6.3
1888	35.3	64.7	94.6	5.4	17:0	48.7	23.8	10·5	20.1	43.8	24.9	11.2
1889	23.8	76.2	91.8	8.2	14.5	64.3	8.7	12.5	15.7	64.4	13.4	6.5
1890	32.4	67.6	94.2	5.8	16.1	64.3	9.8	9.8	17.8	61.5	10.1	10.6
·	76.1	23.9	93.1	6.9	17:0	46.5	27:4	9.1	13.5	39.3	38.3	8.9

ACTUARIES' REPORT.

in Various Departments to Total Business.

Prospectus.)

					SUI	M AS	SUR	ED.				
Year of		тот	AL.			GENE	CRAL.			темре	RANCE.	
,	Ordinary.	Tontine.	Males,	Females,	Yearly.	Half-yearly.	Quarterly.	Monthly.	Yearly.	Half-yearly.	Quarterly.	
1870	100.0		97.9	2·1	18.9	49.0	26.2	5.9	93.3		6.7	
1871	97.9	2.1	98.0	2.0	18.8	56.0	21.9	3.3			100.0	
1872	99.6	0.4	98.2	<b>1</b> ·8	17.9	43.5	31.8	6.8		33.3	66.7	
1873	99.5	0.5	97.7	2.3	32.5	43.1	19.3	5.1	100.0			
1874	98.5	1.5	99.1	0.9	31.8	47.5	15.7	5.0	66.7	22.2	11.1	
1875	97.6	2.4	98-2	1.8	27.8	51.8	18.7	1.7		••	••	
1876	98.9	1.1	97.6	2.4	27.3	45.9	24.4	2.4		••	100.0	
1877	97.3	2.7	98.9	1.1	21.0	46.4	31.9	0.7	••	30.0	70.0	
1878	97.1	2.9	97.2	2.8	36.1	37.6	21.0	5.3	95.2	٠	4.8	
1879	98.9	1.1	96.7	3.3	22.4	47.0	23.3	7.3	10.0	70.0	20.0	
1880	97.0	3.0	96.0	4.0	21.1	50.3	20.1	8.5	18.2	45.4	36.4	
1881	96.7	3.3	95.6	4.4	23.6	46.0	$21\cdot 1$	9.3	23.1	30.8	46.1	
1882	96.0	4.0	96.3	3.7	23.0	38.3	30.2	8.5	13.8	37.3	41.3	
1883	95.3	4.7	93.9	6.1	18.6	40.8	30.5	10.1	8.6	36.6	46.0	
1884	95.7	4.3	96.2	3.8	18.8	40.6	30.8	9.8	10.1	49.8	31.4	
1885	94.5	5.5	92.5	7.5	13.1	44.6	33.4	8.9	16.9	34.5	39.1	
1886	92.9	7.1	93.3	6.7	15.7	42.8	30·1	11.4	13.7	40.8	35.9	
1887	70.8	29.2	95.4	4.6	15.7	45.5	29.0	9.8	18.2	38.8	36.2	
1888	34.6	65.4	94.5	5.5	21.0	48.6	21.5	8.9	21.4	49.4	21.0	
1889	22·1	77.9	93.0	7.0	18.7	64.0	7.6	9.7	18.4	61.6	13.3	
1890	31.1	68.9	95.2	4.8	21.0	61.9	9.5	7.6	21.2	60.8	9.6	
	75.8	24.2	95.5	4.5	21.4	48.5	22.4	7.7	16.4	45.3	30.2	

CONSULTING

Table

## Endowment Assurances.—Percentages of Business

(Table III. of

lear of		TOT	ral.			GENI	ERAL.			TEMPE	CRANCE.	
Entry.	Ordinary.	Tontine.	Males.	Females.	Yearly.	Half-yearly.	Quarterly.	Monthly.	Yearly.	Half-yearly.	Quarterly.	Monthly.
1870	100.0	••	100.0	••	50.0	50.0		••	• •			
1871	98.2	1.8	92.9	7.1	14.6	49.1	32.7	3.6			100.0	
1872	98.9	1.1	96.7	3.3	20.7	41.3	33.7	4.3				
1873	100.0	••	98.9	1·1	24.2	39.0	28.4	8.4	• •	••		••
1874	99.4	0.6	100.0	••	29.1	49.7	16.8	4.4	••			
1875	99.4	0.6	99.4	0.6	22.1	50.9	23.3	3.7	••			••
1876	99.6	0.4	98.9	1.1	33.2	38.5	25.3	3.0	••	100.0		
1877	99-3	0.7	97.8	2.2	22.5	46.9	25.1	5.5		100.0	••	
1878	98.6	1.4	97.9	2.1	33.0	32.6	25.1	9.3	••		100.0	
1879	98.6	1.4	97.7	2.3	21.5	42.7	20.3	15.5	75.0	25.0		
1880	98.3	1.7	95.8	4.2	19.8	48.0	23.2	9.0	••	100.0		••
1881	96.6	3.4	95.9	4·1	22.9	42.2	21.9	13.0	25.0	25.0	50.0	
1882	97.4	2.6	97.0	3.0	18.0	40.4	32.5	9.1	15.2	34.8	37.7	12.3
1883	97.5	2.5	94.2	<b>5</b> ·8	13.6	30.0	42.1	14.3	10.3	27.0	54.0	8.7
1884	97.3	2.7	94.5	5.5	14.4	40.1	32.2	13.3	13.7	40.2	32.9	13.2
1885	96.8	3.2	91.4	8.6	12.2	37.0	38-3	12.5	16.7	34.6	38.1	10.6
1886	96.6	3.4	86.7	13.3	14.0	32.2	40.6	13.2	10.0	37.3	41.7	11.0
1887	90.1	9.9	92.0	8.0	13.1	43.9	31.6	11.4	15.8	40.2	34.6	9.4
1888	71.0	29.0	93.9	6.1	10.9	57.5	18.9	12.7	17.1	57.4	20.2	5.3
1889	43.5	56.5	91.0	9.0	12.3	69.9	7.3	10.5	17.4	- 56∙0	13.6	13.0
1890	56.6	43.4	93.9	6.1	11.8	60.4	8.0	19.8	18.5	61.9	7.9	11.7
,	85.4	14.6	93.9	6·1	16.7	46.2	25.3	11.8	14.6	41.3	33.4	10.7

ACTUARIES' REPORT.

# in Various Departments to Total Business.

Prospectus.)

						M AS					<del>-</del>	
Year of		тот	TAL.			GENE	ERAL.			TEMPE	RANCE.	
	Ordinary.	Tontine.	Males.	Females.	Yearly.	Half-yearly.	Quarterly.	Monthly.	Yearly.	Half-yearly.	Quarterly.	
1870	100.0		100.0	• • •	37.5	62.5	••	••	••		• •	
1871	98.7	1.3	95.3	4.7	18.4	49.3	26.9	5.4	••		100.0	
1872	98-9	1.1	98.3	1.7	27.0	37.9	32.0	3.1				
1873	100.0		99.7	0.3	27.7	37∙9	23.4	11.0				
1874	98.3	1.7	100.0		31.3	47.5	17.0	4.2				
1875	98.1	1.9	99.8	0.2	22.5	49·1	24.8	3.6	••	••		
1876	99.4	0.6	98.8	1.2	34.2	37.6	24.2	4.0		100.0		
1877	99.0	1.0	98.5	1.5	25.1	45.2	22.6	7.1		100.0		
1878	98.6	1.4	97.6	2.4	32.7	35.8	21.4	10·1			100.0	
1879	98.1	1.9	98.2	1.8	24.1	41.4	19.5	15.0	50.0	50.0		
1880	98.4	1.6	96.8	3.2	21.4	45.8	22.9	9.9	••	100.0		
1881	96.6	3.4	94.3	5.7	24.4	42.4	21·1	12.1	47.6	19.1	33.3	
1882	96.9	3.1	97.8	2.2	18.8	43.2	28.9	9.1	15.7	36.6	37.3	1
1883	96.6	3.4	96.1	3.9	16.0	33.9	35.7	14.4	12.6	28.4	49.4	
1884	96.7	3.3	95.3	4.7	16.5	40.3	29.7	13.5	14.1	41.2	29.2	]
1885	96.6	3.4	94.5	5.5	13.1	40.3	33·6	13 <sup>.</sup> 0	19-6	34.3	34.4	]
1886	95.8	4.2	92.2	7.8	17.1	32.7	36.9	13.3	13.7	39-8	34.6	]
1887	88.4	11.6	95.3	4.7	16.8	43.6	28.3	11.3	17.4	43.7	26.3	1
1888	69.5	30.5	94.9	5.1	12.5	57.0	17.1	13.4	16.7	59.4	18.8	
1889	40.7	59.3	92.0	8∙0	13.3	71.4	6.4	8.9	20.6	55.7	10.7	1
1890	54.6	45·4	95·1	4.9	14.5	62.0	7.3	16.2	19.9	61.0	7.5	1
	85.7	14.3	95.8	4.2	19.6	46.6	22.8	11.0	16.7	42.5	29.3	1

			C	ONS	UL	TING ACTU	JARIES' R	EPORT.			
		Average	assured.	ಈ	317	177 192 429 233 329	336 117 314 358 366	417 234 212 210 143	68 152 307 234 238	190	
	FEMALES.	ĺ	assured.	ಚ	950	2,650 2,500 3,000 1,400 2,300	2,350 1,639 5,029 7,150 6,962	7,500 11,250 18,420 10,100	16,404 15,200 22,725 34,625 20,437	213,204	
SS.			Policies.		က	15 13 7 6	14 16 20 19	18 48 87 48 137	240 100 74 149 86	1,114	
ス 田 田		Average	assured.	ಈ	486	416 386 377 361 355	379 402 378 352 346	332 274 256 274 243	237 276 299 273 291	301	
USIN	MALES.	Rum	assured.	ದೆ	45,225	127,650 132,900 129,700 153,450 122,600	97,480 141,126 172,957 207,278 166,994	164,897 296,567 283,755 256,125 243,056	227,668 313,970 391,255 458,300 409,325	4,542,278	
BB		No. of	Policies.		66	307 344 344 425 345	257 351 458 589 482	496 1,083 1,107 934 1,001	962 1,138 1,309 1,678 1,409	15,112	
江			assured.	약	:	540 250 350 480 428	350 633 429 308 438	330 312 381 292 256	321 342 303 276 293	596	
e <b>D.</b> E-LI Prospectus.)	TONTINE.	S. S.	assured.	33	:	2,700 500 700 2,400 3,000	1,050 3,800 5,150 2,461 5,250	5,605 12,159 14,100 11,400 14,350	17,350 96,100 270,750 383,900 296,050	1,148,775	
ble 1			Policies.		:	<b>~</b> 0 € 0 € 0 € 0 € 0 € 0 € 0 € 0 € 0 € 0	3 6 12 12 12	17 39 37 39 56	54 281 895 1,393 1,010	3,883	
I (		Average	assured.	ಛ	481	403 380 378 358 358	378 387 374 353	336 271 249 270 230	197 244 294 251 276	292	
F W I	ORDINARY.	ans	assured.	33	46,175	127,600 134,900 132,000 152,450 121,900	98,780 138,965 172,836 211,967 168,706	166,792 295,658 288,075 254,825 248,319	226,722 233,070 143,230 109,025 133,712	3,605,707	
0		No. of	Policies.		96	317 355 349 426 345	261 359 462 601 489	497 1,092 1,157 943 1,082	1,148 957 488 434 485	12,343	
IS			Present Age.		54.84	55.30 55.16 54.52 53.41 51.85	51.30 50.16 49.35 48.31 47.57	48.03 45.04 43.53 42.64 42.23	39.24 35.58 34.72 33.11	:	
YS	SS.	Average	Age at Entry.		34.34	35·80 36·66 37·02 36·91 36·35	36·80 36·66 36·85 36·85 36·81 37·07	38·53 36·54 36·03 36·14 36·14	34·74 32·08 32·22 31·61 30·05		
AL	BUSINESS		Sum assured.	ಚಿ	481	405 379 378 359 355	378 391 375 352 347	335 272 253 271 231	203 266 299 270 287	293	
A	TOTAL	iii iii ii  assured.	сk	46,175	130,300 135,400 132,700 154,850 124,900	99,830 142,765 177,986 214,428 173,956	172, 397 307, 817 302, 175 266, 225 262, 669	244, 072 329, 170 413, 980 492, 925 429, 762	4,754,482		
		No. of	Policies.		96	322 357 351 431 352	264 365 474 609 501	514 1,131 1,194 982 1,138	1,202 1,238 1,383 1,827 1,495	16,226	
·		Year of Entry.			1870	1871 1872 1873 1874 1875	1876 1877 1878 1879 1880	1881 1882 1883 1884 1885	1886 1887 1888 1889 1890		

		C	ONS	ULI	TING ACTU	JARIES' R	EPORT.		
		Average Sum assured.	ch	525	478 607 425 592 300	294 175 343 255 294	288 253 221 243 219	280 242 259 210 225	257
ON.	MONTHLY.	Sum assured.	વર	2,625	4,300 9,100 6,800 7,700 2,100	2,350 1,050 9,250 15,543 14,676	15,860 23,572 24,950 20,150 17,775	21,300 28,285 32,900 42,450 28,600	331,336
SECTION		No. of Policies.		π	9 15 13	8 6 27 61 50	55 93 113 83 83	76 117 127 202 127	1,291
		Average Sum assured.	ભ	509	331 317 283 283 331 303	325 392 307 342 341	310 237 191 227 188	138 226 276 240 285	248
GENERAL	QUARTERLY	Sum assured.	c <sub>3</sub>	11,700	28,500 42,850 25,500 24,150 23,350	24,354 45,129 36,842 49,900 34,743	36,000 84,519 75,505 63,350	56,176 83,250 79,620 33,575 35,850	961,857
		No. of Policies.		23	86 135 90 73	75 115 120 146 102	116 357 396 279 356	406 368 289 140 126	3,875
0F	Y.	Average Sum assured.	#	487	431 381 405 342 376	384 370 359 350 350	346 285 323 298 298 280	2008 2008 2008 2008 2008 2008	316
BUSINESS of Prospectus.)	HALF-YEARLY	Sum assured.	다	21,900	72,900 58,650 57,050 73,100 64,750	45,722 65,786 66,134 100,228 87,013	78,785 107,101 101,150 83,525 89,425	79,808 130,500 179,500 282,050 234,062	2,079,139
ь рай (рай (рай (рай (рай (рай (рай (рай	H	No. of Policies.		45	169 154 141 214 172	119 178 184 286 258	228 376 313 280 319	261 424 592 1,036 827	6,576
		Average Sum assured.	33	423	430 484 423 383 361	447 473 456 423 419	368 343 363 398 288	329 327 377 354 384	385
OF WHOLE-LIFE	YEARLY.	Sum assured,	- ಆತ	8,450	24,500 24,200 43,100 49,000 34,700	27, 254 29, 800 63, 450 47, 757 36, 424	40,452 64,425 46,100 38,600 26,170	29, 290 45, 150 77, 710 82, 400 79, 550	918,482
VH0]		No. of Policies.		20	57 50 102 128 96	61 63 139 113 87	110 188 127 97 91	89 138 206 233 207	2,403
)F V	ESS.	Average Sum assured.	લ	480	406 981 380 360 355	379 392 374 352 348	336 276 261 278 237	222 272 205 273 294	303
	TOTAL BUSINESS	Sum assured.	ಈ	44,675	130, 200 134, 800 132, 450 153, 950 124, 900	99,680 141,765 175,676 213,428 172,856	171,097 279,617 247,705 205,625 200,864	186,574 287,185 369,730 440,475 378,062	4,290,814
ANALYSIS	TO,	No. of Policies.		86	321 354 349 428 352	263 362 470 606 497	509 1,014 949 739 847	832 1,047 1,214 1,611 1,287	14, 144
AN		Year of Entry.		1870	1871 1872 1873 1873 1874	1876 1877 1878 1879 1880	1881 1882 1883 1884 1884	1886 1887 1888 1889 1890	

				CON.	SUL	TING $ACT$	'UARIES'	REPORT.		
		,	Average Sum assured.	<b>a</b>	:	:::::	:::::	 165 192 250 190	204 238 192 250 198	206
	SECTION	MONTHLY.	Sum assured.	್ಕ	:	:::::	:::::	2,150 4,800 5,250 5,900	25,500 25,850 3,650 4,500 4,350	87,950
	SEC		No. of Policies.		:	:::::	:::::	13 25 31 31	27 12 19 22 22	184
	NCE		Average Sum assured.	વર	100	2000 : 1000 :	150 350 110 200 200	300 233 209 224 192	93 171 221 241 236	175
	TEMPERANCE	QUARTERLY.	Sum assured,	대	100	100 400 100	150 700 110 200 400	600 11,650 25,050 19,000 24,330	20,628 15,185 9,300 7,000 4,950	139,953
	EMI		No.of Policies.		H	. : :	нанна	2 50 120 85 127	221 89 42 29 21	798
		Y.	Average Sum assured.	ಛ	:	200	300 300 700 500	200 269 263 285 231	250 259 295 232 246	256
	BUSINESS OF	HALF-YEARLY	Sum assured.	લર	:	. : 500	300	400 10,500 19,950 30,200 21,525	23,470 16,300 21,850 32,300 31,450	209,845
Table	SIN of P	H	No.of Policies.		:	: ; ; ;	: : :	2 39 76 106 93	94 63 74 139 128	819
H	BI		Average Sum assured.	સ	700	125	 733 100 200	300 260 195 198 264	282 283 278 284 296	270
	LIE	YEARLY.	Sum assured.	વર	1,400	.:. 250 600	2,200 100 200	300 3,900 4,670 6,150 10,550	7,900 7,650 9,450 9,650 10,950	75,920
	WHOLE-		No. of Policies.		<b>C1</b>	:: 07 77 ::	ന <sub>െ</sub> പെ	15 24 31 40	28 27 34 34 37	281
		SS.	Average Sum assured.	<b>ੂ</b>	200	100 200 125 300	150 333 578 333 275	260 241 222 249 249 214	155 220 262 243 249	223
	S OF	TOTAL BUSINESS	Sum assured.	વર	1,500	100 600 250 900	150 1,000 2,310 1,000 1,100	1,300 28,200 54,470 60,600 62,305	57,498 41,985 44,250 52,450 51,700	463,668
	LYSI	TOJ	No. of Policies.		က		16464	5 117 245 243 291	370 191 169 216 208	2,082
	ANALYSIS		Year of Entry.		1870	1871 1872 1873 1874 1875	1876 1877 1878 1879 1880	1881 1882 1883 1884 1884	1886 1887 1888 1889 1890	

		CO.	NSU	LTI	NG ACTUA	ARIES'RE	PORT.		
		Average Sum assured.	ಈ	:	175 150 100 	367 200 383 225 213	373 167 129 184 126	113 120 170 184 167	158
•	FEMALES.	Sum assured.	ಞ	•	700 450 100 	1,100 1,200 2,300 1,800 3,200	4,850 4,500 7,250 6,800 9,840	12,214 6,715 6,275 17,675 11,500	98,569
	-	No. of Policies.		:	4 co	3 6 6 13 13	13 27 56 37 78	108 56 37 96 69	624
SS.		Average Sum assured.	ಭ	400	273 288 319 320 331	341 306 331 280 278	264 233 198 220 203	205 213 204 209 213	283
Business.	MALES.	Sum assured.	ભર	800	14, 200 25, 650 30, 000 57, 200 53, 650	89,684 81,394 94,600 96,717 95,752	80,809 202,115 180,583 139,223 168,810	144,960 136,715 116,320 204,000 225,256	2,238,438
		No. of Policies.		C3	52 89 94 179 162	263 266 286 345 344	306 869 911 633 832	707 643 570 974 1,060	9,587
ran( s.)		Average Sum assured.	ૠ	:	200 300 1,000 1,000	500 400 838 380 267	268 283 269 267 211	235 241 213 217 219	224
nt - Assurance of Prospectus.)	TONTINE.	Sum assured.	ಚಿ		200 300 1,000 1,000	500 800 1,350 1,900 1,600	2,950 6,500 6,450 4,800 6,130	6,570 16,600 37,400 131,475 107,400	334,925
0 0 .		No. of Policies.		:	ਜਜ ਜਜ	H 01 41 70 90	11 23 24 18 29	28 69 176 605 490	1,495
Tan (dowm( Table III		Average Sum assured.	cts	400	267 284 317 316 326	341 303 332 278 276	269 229 192 217 196	191 201 198 194 202	530
Ende	ORDINARY.	Sum assured.	ch3	800	14,700 25,800 30,100 56,200	90,284 81,794 95,550 96,617 97,352	82,709 200,115 181,383 141,223 172,520	150,604 126,830 85,195 90,200 129,356	2,002,082
0f		No. of Policies.	,	<b>C3</b>	55 91 95 178 162	265 270 288 348 353	308 873 943 652 881	787 630 431 465 639	8,716
lysis	SS.	Average Sum assured.	લર	400	266 284 317 320 330	341 304 332 279 276	269 231 194 218 196	193 205 202 207 207	229
Analysis of	TOTAL BUSINESS	Sum assured.	വു	800	14,900 26,100 30,100 57,200 53,750	90,784 82,594 96,900 98,517 98,952	85,659 206,615 187,833 146,023 178,650	157,174 143,430 122,595 221,675 236,756	2, 337, 007
	TOT	No. of Policies.		61	56 92 95 179	266 272 292 353 353	319 896 967 670 910	815 699 607 1,070 1,129	10,211
		Year of Entry.		1870	1871 1872 1873 1874 1875	1876 1877 1878 1879 1880	1881 1882 1883 1884 855	1886 1887 1888 1888 1890	

		CC	NSU	LT	ING ACTU	ARIES' RE	PORT.		
on.		Average Sum assured.	ಚ	:	400 200 413 325 325	454 390 363 271 307	250 232 199 231 207	201 210 216 177 174	222
Section.	MONTHLY.	Sum assured.	ಚ	:	800 800 3,300 2,400 1,950	3,628 5,850 9,800 14,636 9,815	10,258 15,990 20,265 14,300 15,550	13,650 13,650 14,050 16,500 32,375	219,567
		No. of Policies.		:	014000	8 15 27 32 32	41 69 102 62 75	68 65 65 93 186	066
General		Average Sum assured.	сt3	:	219 269 261 325 350	327 273 284 267 272	259 206 168 209 176	181 189 185 182 195	213
of G	QUARTERLY.	Sum assured.	- ಆ	:	3,950 8,350 7,050 9,750 13,300	21,906 18,580 20,700 18,969 22,599	17,861 50,600 50,508 31,375 40,375	37,865 34,160 17,920 11,800 14,600	452,218
		No. of Policies.		•	18 31 27 30 38	67 68 73 71 83	69 246 301 150 229	209 181 97 65	2,128
Business	Υ.	Average Sum assured.	ದೆಸೆ	200	269 261 308 305 318	334 292 865 271 263	270 248 223 227 219	202 210 203 214 218	239
Sc	HALF-YEARLY.	Sum assured.	લરૂ	200	7,250 9,900 11,400 27,150 26,400	34,100 37,090 34,650 40,412 45,169	35,857 75,850 47,900 42,523 48,450	33,565 52,700 59,800 132,425 123,631	926,722
Table Uranc	Н	No. of Policies.		H	27 38 37 89 83	102 127 95 149 172	133 306 215 187 221	166 251 295 619 568	3,881
Assurance (Table III. of Pr		Average Sum assured.	ct3	300	338 371 363 344 336	352 337 330 313 297	287 241 234 259 216	243 270 235 227 261	279
+	YEARLY.	Sum assured.	ದ್ಯ	300	2,700 7,050 8,350 17,900 12,100	30,950 20,574 31,650 23,500 21,069	20,633 33,000 22,650 17,375 15,800	17,500 20,250 13,150 24,700 28,950	390,151
/me		No. of Policies.		-	10 13 52 36	88 61 96 75	72 137 97 67	72 75 56 109 111	1,399
dow	ess.	Average Sum assured.	сця	400	267 284 317 320 330	342 303 333 279 276	269 231 198 227 201	199 211 205 209 212	237
of Endowmen	TOTAL BUSINESS	Sum assured.	ಈ	800	14,700 26,100 30,100 57,200 53,750	90,584 82,094 96,800 97,517 98,652	84,609 175,440 141,323 105,573 120,175	102,580 120,760 104,920 185,425 199,556	1,988,658
	TOJ	No. of Policies.		63	55 92 95 179 163	265 271 291 349 358	315 758 715 466 598	515 572 513 886 940	8,398
Analysis		Year of Entry.		1870	1871 1872 1873 1874 1874	1876 1877 1878 1879 1880	1881 1882 1883 1884 1884	1886 1887 1888 1889 1890	

		CC	NSUL	TI	NG ACTU	ARIES' RE	PORT.		
ci		Average Sum assured.	<b>43</b>	:		:::::	 191 202 233 208	197 238 180 196 195	206
Assurance Business of Temperance Section. (Table III. of Prospectus.)	MONTHLY.	Sum assured.	લર	:	:::::	:::::	3,250 4,450 6,300 6,850	6,500 2,850 900 4,700 4,300	40,100
ce S		No. of Policies.		:	:::::	:::::	 17 22 27 33	33 12 24 22 22	195
ran		Average Sum assured.	c+3	:	500 : : : :	::00:::	175 224 169 176 169	151 136 175 156 187	168
èmpe	QUARTERLY.	Sum assured.	<b>्र</b>	:	::::	100	350 11,625 22,985 11,800 20,140	18,969 5,970 3,325 3,900 2,800	102,104
of T		No. of Policies.		•	-::::	::"::	2 52 136 67 119	125 44 19 255 15	909
less 1s.)	<b>5</b> ;	Average Sum assured.	લા	:	:::::	200 500 500 300	200 238 194 203 186	194 194 194 196 194	198
Busine Prospectus.)	HALF-YEARLY.	Sum assured.	್ಕು ಇ	:	:::::	200 500 500 300	200 11,400 13,225 16,650 20,035	21,735 9,900 10,500 20,200 22,700	148,045
<b>Table</b> fance iii. of F	茁	No. of Policies.		:	:::::	:	1 48 68 82 108	112 51 54 108 117	7.48
Te SSUTA (Table II		Average Sum assured.	CH2	•	:::::	167	200 233 204 204 204 204	248 198 184 233 211	220
	YEARLY.	Sum assured.	c <sub>k</sub>	:	:::::	::::	500 • 4,900 • 5,850 • 5,700 11,450	7,450 3,950 2,950 7,450 7,400	58,100
men		No. of Policies.		:	:::::	::::	22 28 28 52	30 32 32 35 35	264
dow	SSS.	Average Sum assured.	ct3	:	500 : : : :	200 200 100 250 300	263 226 185 198 187	182 179 188 197 197	192
of En	AL BUSINESS.	Sum assured.	त्र	:	500	200 500 100 1,000 300	1,050 31,175 46,510 40,450 58,475	51,594 22,670 17,675 36,250 37,200	348,349
sis	TOTAL	No. of Policies.		:	-::::		138 252 204 312	300 127 94 184 189	1,813
Analysis of Endowment		Year of Entry.	0840	200	1871 1872 1873 1874 1875	1876 1877 1878 1879 1880	1881 1882 1883 1884 1884	18884 18884 18884 18889 0	

Approximate Cost of Paper.—Preparation, nil; printing (1,400 copies), £52.