Reports on the Madras Medical Fund / by Francis G.P. Neison.

Contributors

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Madras Medical Fund.
Royal College of Physicians of Edinburgh

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MDCCCLVI.

EXTRACTS FROM THE PROCEEDINGS OF THE TRUSTEES OF THE MADRAS MEDICAL FUND, DATED MARCH 20, 1855.

" *Read the following Letter.*"

To

Francis G. P. Neison, Esq., *Actuary,*
Medical, Invalid, and General Life Assurance Society,
Head Office, 25, *Pall Mall, London.*

Sir,

1. The Resolution on the margin* has been come to by the Subscribers to the Madras Medical Fund, for the following reasons:—

2. It is now upwards of fifteen years since the Trustees had to ask Mr. Davies' opinion regarding the state of that Branch of the Fund which provides Annuities to the widows and orphans of deceased Subscribers. In the letter of instructions, then communicated, it was particularly laid down as the principle to be acted on, that each Subscriber shall contribute to the Fund in exact proportion to the benefits he expects to derive from it; and, from Mr. Davies' Report, it is evident that this point of the instruction did not entirely escape the Actuary's notice. Notwithstanding which, so early as the year 1847, only six years after the receipt of his Report, and on several occasions since then, indeed up to the present time, some Subscribers have advanced the position that, in securing contingent pensions for their widows, Assistant-Surgeons contribute a greater amount to

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* " That the necessary documents and information for a revaluation of " the assets and liabilities of the Charity Branch of the Medical Fund be " submitted to an Actuary for his Report; and further, that the subject of " Widows' Pensions be specially brought to the notice of the Actuary, in order " that the calculation be made without reference to rank; and that the " Trustees instruct an Actuary to calculate the Widow's Pension at *Rs.* 2000 or " £228 11*s.* 5*d.* a year, and also that the Trustees be empowered to incur the " necessary expenses."

Para. 13. " The requisite majority of four-fifths of the members of the " Institution having assented to the general principle, that ' each subscriber " ' shall contribute to the Fund in exact proportion to the benefits he expects " ' to derive from it,' no impediment now exists to the introduction of such a " constitution as shall afford complete security for the future." * * *

Para. 18. " To obviate all risk of misapprehension, it may be proper to " repeat here, in a tabular form, an enumeration of the contingent benefits for " which the future payments should provide." * * * * *

	Amount of Annual Allowance.					
II. Pensions to Widows :—	*Rs.*	*a.*	*p.*	*£.*	*s.*	*d.*
Widow of a Surgeon, or of an Assistant-Surgeon of 15 years' standing in the Fund . .	2,000	0	0	228	11	5
Widow of an Assistant-Surgeon under 15 years' standing in the Fund	1,400	0	0	160	0	0
* * * *						

Para. 20. " With respect to the *Pensions* to *Widows*, it is intended to " substitute an adequate *present payment*, on marrying, instead of the existing " rates of married subscriptions. It will, accordingly, be necessary to prepare " tables shewing the sums to be paid by Subscribers marrying, according to the " respective ages of themselves and their wives, in the same way as is done at " page 25 of the *Proceedings* (Volume 2nd), only the tables must be sufficiently " extensive to embrace all probable variations of age." * * * *

Para. 4. " I was much pleased to find by Paragraph 13 of Appendix I, " that your service had assented to the general principle of requiring each " Subscriber to contribute to the Fund in proportion to the benefits which he

" or his family expects to derive from it; and equally pleased in finding, by
" Paragraph 15 of same Appendix, that your Fund (like most of the other
" Indian Funds), is allowed an interest of 8 per cent. on its capital."

Para. 37. " The number opposite each age, in the column headed with
" the letter **E** in Appendix No. 12, represents the product arising by multiplying
" the *decrement* opposite that age in Table **1**, by the present value of £1
" to be received as many years hence as are equal to that age increased by
" unity as taken from Appendix 9. Thus, the number in column **E** at
" 16 = 294 + ·27026895 = 79·459072. The next column in the same Appendix
" is nothing more than the respective numbers in column **E** each multiplied by
" 1400 up to the age of 38 inclusive, and by 2000 after that age; and the use
" of it will be found hereinafter explained."

Para. 55. " In order further to explain the mode of proceeding with the
" formula deduced in the last Art., I would observe that, on the supposition of
" each member arriving in India about the age of 24, he must be either a
" Surgeon, or an Assistant-Surgeon, of 15 years' standing, about the age of 39;
" and on that account I have assumed that under the regulation stated in
" Paragraph 18 of Appendix No. **1**, each member who may die under the age of
" 39 will leave his widow a pension of 1400 Rupees, and that each member
" who may die after that age will leave his widow a pension of 2000 Rupees."

II. Pensions to Widows:—	Amount of Annual Allowance.					
	Rs.	*a.*	*p.*	£.	*s.*	*d.*
Widow of a Surgeon, or of an Assistant-Surgeon, of 15 years' standing in the Fund .	2,000	0	0	228	11	5
Widow of an Assistant-Surgeon under 15 years' standing in the Fund	1,400	0	0	160	0	0

* * * *

the charity branch of the Fund than their widows derive benefits therefrom.

3. The point seized upon has been that laid down in the 18th para. of the letter of instructions, where it was intimated that the pension of a Surgeon's widow should be £228 11*s.* 5*d.*, and of an Assistant-Surgeon £160 per annum, and the Actuary was required to make his calculations accordingly.

4. Although, by the Honourable Court's Rules, an Assistant-Surgeon cannot be admitted into the Medical Service, until he attain the age of 22 years, there has not until now, been established any maximum age*, and it may at any time have happened that an Assistant-Surgeon and a Surgeon of the same age may have married wives of the same age, and, in accordance with the 55th, &c. paras. of the Report, and with Table 7, must have paid the same amount of Donation and Subscription to secure contingent pensions for their widows; and yet, should these two Subscribers die, the widow of the Surgeon shall receive £228 11*s.* 5*d.* a

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* Note.—28 is now the maximum age.

year, while the Assistant-Surgeon's widow can receive only £160.

5. The printed Proceedings of the Fund, and other papers of which copies are sent, will shew you the light in which Subscribers* have looked on this rule of the Fund, and the explanations* that have been offered in support of it; but the sole object in bringing this correspondence to your notice is to make you acquainted with what has hitherto been the law, in order that the new† law, the introduction of which has been almost unanimously carried, may be prominently placed before you; for, by it, you will observe that, in future, and wholly irrespective of the ranks or length of service of the Subscribers, the full pension of the widow of each Subscriber is to be reckoned at *Rs.* 2000 or £228 11*s.* 5*d.* a year, leaving it, as hitherto, in the option of Subscribers, to secure a one-half, a two-thirds, or a full contingent pension. In the revaluation of the assets and liabilities of the charity branch of the Fund, which you are now asked to make, it will, therefore, be necessary for you to make your calculations to meet the provision of this new law, and that you also keep in view the principle that in securing a contingent pension for his wife or child, "each Subscriber shall "contribute to the Fund in exact pro-"portion to the benefits he expects to "derive from it." This principle was laid down in the instructions communicated to Mr. Davies for the former examination into the same branch of the Fund, but the triennial valuations of the Charity Branch made in 1838, 1841, 1844, 1847, 1850, and 1853, shew that a regular and rapidly increasing surplus has been accumulating ever since the whole of the arrears were paid up,

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* PROCEEDINGS, VOL. 3RD.

Quarterly Meeting Proceedings, dated 4th January, 1848, pp. 57, 58.
Do. do. do. dated 2nd January, 1849, p. 105.
Do. do. do. dated 6th April, 1852, pp. 228, 229, 230.
Do. do. do. dated 6th July, 1852, pp. 241, 242.

PROCEEDINGS, VOL. 4TH.

Quarterly Meeting Proceedings, dated 4th July, 1854, pp. 22, 23.
Do. do. do. dated 3rd October, 1854, pp. 27, 28.

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† "That the necessary documents and information "for a revaluation of the assets and liabilities of the "Charity Branch of the Medical Fund be submitted "to an Actuary for his Report; and further, that the "subject of Widows' Pensions be specially brought to "the notice of the Actuary, in order that the calcu-"lation be made without reference to rank; and that "the Trustees instruct an Actuary to calculate the "widow's pension at *Rs.* 2000, or £228 11*s.* 5*d.* a "year, and also that the Trustees be empowered to "incur the necessary expenses."

APPROVALS . . . 65
DISAPPROVALS . 2

"The above proposition is accordingly declared to be carried in the "affirmative."

On 1st July, 1838, Net Decrease	Rupees	5,50,941†
On 1st May, 1841, do	,,	1,79,414†
On 1st May, 1844, Net Increase	,,	57,740‡
On 1st May, 1847, do.	,,	38,462*
On 1st May, 1850, do.	,,	1,55,967‖
On 1st May, 1853, do.	,,	3,01,724§

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† Proceedings of 13th July, 1841, pp. 99, 100.
‡ Do. of 7th January, 1845, p. 196.
* Do. of 5th October, 1847, p. 39.
‖ Do. of 1st October, 1850, p. 173.
§ Do. of 4th October, 1853, pp. 280, 281.

and your present examination will no doubt shew what this has resulted from; whether the margin that Mr. Davies allowed in his* calculations was greater than is now needed;—whether the rate of mortality amongst married Subscribers has been less than what he found for the service generally, thereby leaving fewer widows and orphans to be provided for;—whether, since his valuation, the mortality amongst the wives and children may have been greater than it was before that time;—or whether the widow and orphan pensioners have, by death or other causes, remained on the Fund for a shorter period than before,×—whatever be the case, it will be requisite carefully to distinguish and shew the portion of the increase which has accrued from the subscriptions, &c., on account of wives' contingent pensions, and that accumulated from the subscriptions, &c., for children;—And if you report that the surplus or any portion of it is actually available, the subscribers would be pleased by receiving from you, your opinion as to the most just course for them to adopt, in disposing of the surplus money.

× Whether the same has not arisen from part of the arrears having been paid by [illegible] Board in Madras in 1841 to the extent of £ 11,000.

6. Allusion is made above to probable sources of the surplus, because, although well aware that with so small a body of subscribers as belong to the Fund, the annual fluctuations in the income and expenditure must be so considerable that it is only after a long lapse of years that a true average could be obtained,—(and were the surplus only a small sum, the fifteen years, which have elapsed since the first valuation, would be too short to justify any change in the rates of subscription,) but a surplus sum of *Rs.* 3,01,724 in the short space of nine years, is larger than can have resulted from any mere fluctuation and can have arisen solely from the subscriptions, &c., being, in some way higher than necessary.

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* Vide Para. 60 of Mr. Davies' Report.

I have been desired to give on the margin* an abstract, shewing the number of subscribers to the various amounts of contingent pensions for their families, by which you will observe that many subscribers, either for the wives or children, are not securing full rates of contingent pensions. This is supposed, and with much probability, to be from inability to secure higher rates, and this is another and a great reason why the state of the Charity Branch should now be inquired into, in order, somewhat, to relieve the subscribers from payments that are felt onerous by all. If, from your examination, it be found that these donations and subscriptions can be reduced, the result will be decidedly a very satisfactory one, because the Trustees are satisfied that the sums required from married subscribers, as subscriptions or as donations, to secure contingent full pensions for their wives, for the Assistant-Surgeons, and even for the junior Surgeons, could not be much increased without greatly inconveniencing them.

Rank of Subscriber.	Wives.			Children.		
	Total secured in Contingent Pensions.	In full Contingent Pensions.	In less than full.	Total secured in Contingent Pensions.	In full Pensions.	In less than full.
Surgeons . .	99	81	18	321	258	63
Asst. do. . .	69	35	34	108	42	66
Total .	168	116	52	429	300	129

7. You will also state your opinion as to what should be done with the surplus accrued on the subscriptions and donations for children's contingent pensions, if any portion of the surplus be found to have arisen from subscriptions and donations on their account.

8. Nearly all the surplus having accumulated since the year 1844, it is not considered necessary that any resolution to be come to, should have any retrospective effect.

9. When instructing Mr. Davies in 1839, the documents as per margin* were transmitted and I am directed to send now a similar series of documents for your information, in continuation.

10. With a view to make you fully

Minute by J. Shaw, Esq., *Trustee.*

I would suggest that a roll of all the married Subscribers with the sums they have paid for wives and children (shewn separately), since the introduction of the new law should be sent to the Actuary, and it appears to me that the calculation should be made from the same time—for if it is shewn that the sums now paid are too great, so were they prior to 1844.—J. Shaw.

I coincide heartily in this view of the case.—J. L. Geddes.

* 1. General List of Medical Officers, &c.
2. List of Married Subscribers, &c.
3. General List of Children.
4. List of Widows.
5. Annual enumeration of the Subscribers, &c.

6. Nominal List of Children who have been subscribed for the extended pension, according to the Regulations laid down in Mr. Davies' Report.

7. Nominal List of Children who have been subscribed for the extended pension since the date of the Letter of Instructions, viz.—26th April, 1839, but who had died prior to the laws prescribed in Mr. Davies' Report being put in operation.

8. Statement shewing separately the expenditure for widows and children.

9. List of Assistant-Surgeons' Widow Pensioners, who have been brought up on the Fund since the introduction of the payments introduced on Mr. Davies' Report.

10. Roll of all Married Subscribers with the sums they have paid for wives and children since the introduction of the new law.

11. List of widows, pensioners on the Madras Medical Fund, who have re-married since the promulgation of the law of 1841.

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† Report and valuation for the Madras Medical Fund, by G. Davies, Esq., Actuary.

Proceedings of the Madras Medical Fund, from 1837 to 1846, vol. 2nd.
Do. do. from 1846 to 1853, vol. 3rd.
Do. do. from 1854 to present time.

General valuation of the Assets and Liabilities of the Charity Branch of the Madras Medical Fund, on the 1st May, 1844.
Do. do. on the 1st May, 1847.
Do. do. on the 1st May, 1850.
Do. do. on the 1st May, 1853.

acquainted with the history of Madras Medical Fund, and the mode of calculating the value of the pensions, I am desired to send the printed documents as per margin†, and to direct your particular attention to the remarks of Dr. G. Harding and the Trustees, pp. 91–107, of Vol. II. of "Proceedings from 1837 to 1846," also to the Plan of carrying out the Law of July, 1838, pp. 120–123 of the same Vol.

11. We would also suggest to you, should there be any points that you require further information on, to apply to Messrs. G. Harding and H. S. Fleming, M.D., Annuitants in England, whom we have solicited to place themselves in communication with you, and the large extent of whose information might assist you in your investigations.

I have the honour to be,
Sir,
Your most obedient Servant,
EDWARD BALFOUR,
Secretary, Medical Fund.

" The Trustees determine that this be " printed and circulated to the subscribers " at large, asking them for any observa" tions they may have to offer. Intimating " at the same time that it is at present in" tended to dispatch the whole of the " documents to Mr. Neison, the Actuary, " by the 2nd mail of May, and asking the " Subscribers, therefore, to send their re" marks as early as possible."

(*True Extracts,*)
EDWARD BALFOUR,
Secretary, Medical Fund.

TO

THE SECRETARY OF THE MADRAS MEDICAL FUND.

SIR,

On the subject submitted for my opinion I have been almost constantly engaged, since receipt of the various documents referred to in your communication of the 21st May 1855, and now beg to bring under the consideration of the Trustees and Members of the Fund the results of my investigation.

(2.) In order to arrive at correct conclusions on several of the questions to which my attention is more particularly directed in the printed letter, contained in the proceedings of the Trustees, dated 20th of March of last year, it became necessary to ascertain the rate of mortality which has prevailed among the members, their wives and children, as well as amongst the widows, incumbents on the Fund, and to this part of the inquiry I will in the first place solicit your attention.

(3.) Until quite recently the most erroneous ideas have very generally been entertained on the subject of Indian mortality, and even now the question is but imperfectly understood by many persons giving considerable attention to such matters. It will hereafter be found that the experience of your own Fund, although limited in extent, offers a striking corroboration of this fact.

(4.) I have made a complete analysis of the data furnished in the Schedule No. 1, being a general list of the Honourable Company's Medical Establishment, under the Presidency of Fort St. George from about the year 1760 to the end of the year 1854, and the results are calculated to throw considerable light on the mortality of European lives employed in the military service of India. In order to thoroughly test this question the results will be presented under a variety of forms, and although they may, on a cursory view, appear unnecessarily elaborate, an attentive consideration of these will shew the advantages of so complete an analysis.

(5.) For reasons which will hereafter appear, I decided on abstracting the whole of the data, so as to exhibit the rate of mortality amongst those who entered the service in each of the three periods 1760–99, 1800–24, 1825–54, throughout the whole duration of their service, and in a subsequent analysis is shewn the rate of mortality in the medical service during the currency of the same periods of years, but irrespective of the dates of their admission.

(6.) The following Table I. has been prepared to shew the rate of mortality amongst those who entered the service prior to the commencement of the year 1800. Appointments made subsequent to that date do not appear in Table I., and it will be seen that of the 209 admitted into the Madras Medical Service prior to the year 1800, only three were alive at the beginning of the year 1855, all the others having disappeared from observation, namely, 130 died, 76 were removed from observation owing to their having resigned the service, having been dismissed, or from other causes.

Table I.

Rate of Mortality among the Members entering during the years 1760–99 *throughout the whole of their Service.*

Completed Years in the Service. (*a*)	Number under observation in each year. (*b*)	Died. (*c*)		Discontinued. Resigned, ceased to pay, and ejected. (*d*)	Alive in 1854. (*e*)	Total gone off. (*f*)	Half of Discontinued. (*g*)	Number exposed to risk of Mortality. (*h*)		Mortality per cent. (*i*)
0	209	10		2		2		310·5	104·5	3·221
1	207		10	2		12	1·		206·	
2	195	35	8	2		10	1·	872·5	194·	4·011
3	185		9	3		12	1·5		183·5	
4	173		7	2		9	1·		172·	
5	164		5	0		5	0·		164·	
6	159		6	0		6	0·		159·	
7	153	25	5	2		7	1·	695·	152·	3·597
8	146		4	1		5	·5		145·5	
9	141		7	2		9	1·		140·	
10	132		5	1		6	·5		131·5	
11	126		4	0		4	0·		126·	
12	122	21	4	1		5	·5	529·	121·5	3·970
13	117		3	4		7	2·		115·	
14	110		8	4		12	2·		108·	
15	98		5	4		9	2·		96·	
16	89		1	1		2	·5		88·5	
17	87	14	9	1		10	·5	364·	86·5	3·846
18	77		2	0		2	0·		77·	
19	75		2	7		9	3·5		71·5	
20	66		1	1		2	·5		65·5	
21	64		0	1		1	·5		63·5	
22	63	9	4	2		6	1·	248·5	62·	3·622
23	57		1	4		5	2·		55·	
24	52		3	5		8	2·5		49·5	
25	44		0	4		4	2·		42·	
26	40		1	0		1	0·		40·	
27	39	4	1	3		4	1·5	160·5	37·5	2·492
28	35		2	1		3	·5		34·5	
29	32		0	2		2	1·		31·	
30	30		0	1		1	·5		29·5	
31	29		1	2		3	1·		28·	
32	26	7	2	1		3	·5	101·5	25·5	6·896
33	23		3	0		3	0·		23·	
34	20		1	1		2	·5		19·5	
35	18		0	1		1	·5		17·5	
36	17		1	2		3	1·		16·	
37	14	5	2	0		2	0·	48·	14·	10·417
38	12		0	0		0	0·		12·	
39	12		2	3		5	1·5		10·5	
40	7		1	1		2	·5		6 5	
41	5			0		0	0·		5·	
42	5			0		0	0·	21·	5·	0·000
43	5			0		0	0·		5·	
44	5			1		1	·5		4·5	
45	4			1		1	·5		3·5	
46	3								3·	
47	3							15·	3·	0·000
48	3								3·	
49	3								3·	
50	3								3·	
51	3								3·	
52	3							15·	3·	0·000
53	3								3·	
54	3								3·	
55	3								3·	
56	3								3·	
57	3							15·	3·	0·000
58	3								3·	
59	3								3·	
60	3								3·	
61	3								3·	
62	3							13·	3·	0·000
63	3								3·	
64	3				1	1			3·	
65	2					0			2·	
66	2				1	1			2·	
67	1					0		2·	1·	0·000
68	1				1	1			1·	
69	0								0·	
Total...	3552	130		76	3	209	37·	3410·5		3·812

(7.) The headings of the different columns may suffice to make the construction of Table I. understood by some, but to those not familiar with such inquiries the following explanation may be useful:—

Column (*a*) Represents the years of service at which the various events connected therewith, and specified in the adjacent columns, took place.

(*b*) The number of medical officers coming under observations in the respective years of service. For example, 209 officers enter the service, and during the first year two of them "discontinue" the service, and therefore there remain 207, who enter on their second year of service. Of these ten die in that year, and two "discontinue" from assigned causes, and consequently there remain 195 to enter on the third year of service. In the third year eight deaths take place, and two "discontinuencies," leaving 185 to enter on the succeeding year of service, and in like manner throughout the whole of the Table.

(*c*) Represents the number of deaths which has taken place in each year of service.

(*d*) Those who "discontinue" from assigned causes.

(*e*) Represents the numbers alive on the 1st of January, 1855, and who have not become subject to any of the contingent events specified in columns (*c*) or (*d*).

(*f*) Contains the total of columns (*c*), (*d*), and (*e*), and represents the number of officers who cease to come under observation at more advanced periods of service; for example, of the 209 who entered the service during the period ending December 31st, 1799, fifty-two entered on the twenty-fifth year of service, but during that year eight ceased their connection with it, and therefore forty-four entered on the succeeding year.

(*g*) Represents one-half the numbers in column (*d*); and

(*h*) Which represents the number of lives exposed a complete year to the risk of mortality while connected with the service; and the figures in this column are produced by subtracting from the numbers in column (*b*) the numbers in column (*g*) opposite the same periods of service, as already stated. Column (*b*) containing the gross number under observation at some time or other in each year of service, and column (*d*) the officers, who from assigned causes have "discontinued" further connection with the service, and as these discontinuencies may one with another be supposed to take place in the middle of the year, the numbers in column (*g*) are exactly one half, and if deducted from those in column (*b*) gives the number exposed to the risk of a whole year's mortality; and

(*i*) The figures in the last column are deduced from those in column (*h*) and column (*c*), and shew the mortality per cent. per annum for quinquennial periods.

It will be observed from column (*f*) that of the 209 officers who entered the service prior to 1800 one was alive in 1855, and had entered on his sixty-fifth year of service, another on his sixty-seventh, and a third on his sixty-ninth, year of service.

(8.) Tables II. and III. have been constructed in precisely a similar manner, and exhibits the mortality amongst those entering the service in the years 1800–24 and 1825–54.

Table II.

Rate of Mortality among the Members entering during the Years 1800–24 *throughout the whole of their Service.*

Completed Years in the Service.	Number under observation in each Year.	Died.		Discontinued. Resigned, ceased to pay, and ejected.	Alive in 1854.	Total gone off.	Half of Discontinued.	Number exposed to Risk of Mortality.		Mortality per cent.
(*a*)	(*b*)	(*c*)		(*d*)	(*e*)	(*f*)	(*g*)	(*h*)		(*i*)
0	330	17	2			2		493·	165·	3·448
1	328		15			15			328·	
2	313		13	1		14	·5		312·5	
3	299		14	4		18	2·		297·	
4	281	63	13	2		15	1·	1410·	280·	4·468
5	266		8	2		10	1·		265·	
6	256		15	1		16	·5		255·5	
7	240		11	0		11	0·		240·	
8	229		5	3		8	1·5		227·5	
9	221	42	12	1		13	·5	1089·5	220 5	3 855
10	208		8	3		11	1·5		206·5	
11	197		6	4		10	2·		195·	
12	187		5	0		5	0·		187·	
13	182		8	1		9	·5		181·5	
14	173	38	6	2		8	1·	860·	172·	4 419
15	165		6	2		8	1·		164·	
16	157		13	3		16	1·5		155·5	
17	141		7	0		7	0·		141·	
18	134		4	2		6	1·		133·	
19	128	25	10	4		14	2·	617·	126·	4·052
20	114		2	4		6	2·		112·	
21	108		2	6		8	3·		105·	
22	100		1	9		10	4·5		95·5	
23	90		4	4		8	2·		88·	
24	82	9	1	4		5	2·	400·	80·	2·250
25	77		2	8		10	4·		73·	
26	67		1	7		8	3·5		63·5	
27	59		4	4		8	2·		57·	
28	51		2	3		5	1·5		49·5	
29	46	11	1	5		6	2·5	222·	43·5	4·955
30	40		2	2	2	6	1·		39·	
31	34		2	2	1	5	1·		33·	
32	29		0	2	2	4	1·		28·	
33	25		1	1	2	4	·5		24·5	
34	21	4	2	2	2	6	1·	99·5	20·	4·020
35	15		1	1		2	·5		14·5	
36	13		0	1		1	·5		12·5	
37	12		0	1		1	·5		11·5	
38	11		0	1		1	·5		10·5	
39	10	4	2	3		5	1·5	38·5	8·5	10·389
40	5		1	0		1	0·		5·	
41	4		1	2		3	1·		3·	
42	1			0		0	0·		1·	
43	1			0		0	0·		1·	
44	1			0		0	0·	3·5	1·	0·000
45	1			1		1	·5		·5	
46	0								0·	
Total...	5452	213		108	9	330	54·	5233·		4·070

Table III.

Rate of Mortality among the Members entering during the Years 1825–54, throughout the whole of their Service.

Completed Years in the Service. (a)	Number under observation in each Year. (b)	Died. (c)		Discontinued. Resigned, Ceased to Pay, and Ejected. (d)	Alive in 1854. (e)	Total gone off. (f)	Half of Discon-tinued. (g)	Number exposed to Risk of Mortality. (h)		Mortality per cent. (i)
0	411	14	1			1		614·5	205·5	2·278
1	410		13	2	22	37	1·		409·	
2	373	49	17	1	8	26	·5	1623·	372·5	3·019
3	347		10	5	10	25	2·5		344·5	
4	322		6	3	12	21	1·5		320·5	
5	301		8	2	4	14	1·		300·	
6	287		8	3	8	19	1·5		285·5	
7	268	33	6	1	1	8	·5	1192·5	267·5	2·767
8	260		7	2	11	20	1·		259·	
9	240		9	1	7	17	·5		239·5	
10	223		8	3	7	18	1·5		221·5	
11	205		3	0	5	8	0·		205·	
12	197	21	5	0	13	18	0·	793·	197·	2·648
13	179		7	3	9	19	1·5		177·5	
14	160		4	3	17	24	1·5		158·5	
15	136		2	0	10	12	0·		136·	
16	124		3	0	9	12	0·		124·	
17	112	11	3	0	6	9	0·	432·	112·	2·546
18	103		4	1	11	16	·5		102·5	
19	87		1	5	5	11	2·5		84·5	
20	76		2	7	4	13	3·5		72·5	
21	63		1	5	4	10	2·5		60·5	
22	53	1	1	6	4	11	3·	151·	50·	·662
23	42			8	5	13	4·		38·	
24	29			2	5	7	1·		28·	
25	22			1	7	8	·5		21·5	
26	14			1	2	3	·5		13·5	
27	11			2	6	8	1·	15·	10·	0·000
28	3				1	1			3·	
29	2				2	2			2·	
30	0								0·	
Total...	5060	129		67	215	411	33·5	4821·		2·676

(9.) In the next Table will be found the same data, arranged so as to exhibit the rate of mortality over the whole period of observation, and also during that part of it embraced in the years 1800–54. It will be observed that the first section of it is simply a combination for quinquennial ages of the data in Tables I., II., and III., and that the second section consists of a combination of Tables II. and III. only.

Table IV.

Mortality amongst the Madras Medical Officers who entered the Service during the

Ages.	Years 1760—1854.			Years 1800—54.		
	Number exposed to risk.	Died.	Mortality per cent.	Number exposed to risk.	Died.	Mortality per cent.
24 to 25	1418·0	41	2·891	1107·5	31	2·799
26 ... 30	3905·5	147	3·764	3033 0	112	3·693
31 ... 35	2977·0	100	3·359	2282·0	75	3·287
36 ... 40	2182·0	80	3·666	1653 0	59	3·569
41 ... 45	1413·0	50	3·539	1049·0	36	3·432
46 ... 50	799·5	19	2 377	551·0	10	1·815
51 ... 55	397·5	15	3·774	237·0	11	4·641
56 ... 60	201·0	11	5·472	99·5	4	4·020
61 ... 65	86·5	9	10·405	38·5	4	10·389
66 and upwards.	84·5	0	0·000	3·5	0	0·000
Total.....	13464·5	472	3·505	10054·0	342	3·401

Table IV.(*a*)

Rate of Mortality among the Members entering during the Years 1760–1854, *throughout the whole of their Service.*

Completed Years in the Service.	Died.		Number exposed to Risk of Mortality.		Mortality per cent.
0	41	3	1418·	475·	2·891
1		38		943·	
2	147	38	3905·5	879·	3·764
3		33		825·	
4		26		772·5	
5		21		729·	
6		29		700·	
7	100	22	2977·	659·5	3·359
8		16		632·	
9		28		600·	
10		21		559·5	
11		13		526·	
12	80	14	2182·	505·5	3·666
13		18		474·	
14		18		438·5	
15		13		396·	
16		17		368·	
17	50	19	1413·	339·5	3·539
18		10		312·5	
19		13		282·	
20		5		250·	
21		3		229·	
22	19	6	799·5	207·5	2·377
23		5		181·	
24		4		157·5	
25		2		136 5	
26		2		117·	
27	15	5	397·5	104·5	3·774
28		4		87·	
29		1		76 5	
30		2		68·5	
31		3		61·	
32	11	2	201·	53·5	5·472
33		4		47 5	
34		3		39·5	
35		1		32·	
36		1		28·5	
37	9	2	86·5	25·5	10·405
38		0		22·5	
39		4		19·	
40		2		11·5	
41		1		8·	
42			24·5	6·	
43				6·	
44				5·5	
45				4·	
46				3·	
47			15·	3·	
48				3·	
49				3·	
50				3·	
51				3·	
52			15·	3·	
53				3·	
54				3·	
55				3·	
56				3·	
57			15·	3·	
58				3·	
59				3·	
60				3·	
61				3·	
62			13·	3·	
63				3·	
64				3·	
65				2·	
66				2·	
67			2·	1·	
68				1·	
69				0·	
Total...	472		13464·5		3·505

Table IV(*b*).

Rate of Mortality among the Members entering during the Years 1800–54, *throughout the whole of their Service.*

Completed Years in the Service.	Died.		Number exposed to Risk of Mortality.		Mortality per cent.
0	31	3	1107·5	370·5	2·799
1		28		737·	
2	112	30	3033·	685·	3·693
3		24		641·5	
4		19		600·5	
5		16		565·	
6		23		541·	
7	75	17	2282·	507 5	3·287
8		12		486·5	
9		21		460·	
10		16		428·	
11		9		400·	
12	59	10	1653·	384·	3·569
13		15		359·	
14		10		330·5	
15		8		300·	
16		16		279·5	
17	36	10	1049·	253·	3·432
18		8		235·5	
19		11		210·5	
20		4		184·5	
21		3		165·5	
22	10	2	551·	145·5	1·815
23		4		126·	
24		1		108·	
25		2		94·5	
26		1		77·	
27	11	4	237·	67·	4·641
28		2		52·5	
29		1		45 5	
30		2		39·	
31		2		33·	
32	4	0	99·5	28·	4·020
33		1		24·5	
34		2		20·	
35		1		14·5	
36		0		12·5	
37	4	0	38·5	11·5	10·390
38		0		10·5	
39		2		8·5	
40		1		5·	
41		1		3·	
42			3·5	1·	0·000
43				1·	
44				1·	
45				·5	
46				0·	
47					
Total.....	342		10054·		3·401

The following Abstract will furnish a succinct view of the results, arrived at, in the four preceding Tables.

(10.) It is assumed that officers entering the medical service of the Indian Army do so, on an average at the age 24–25, and that there is no great disparity between the minimum and the maximum ages at admission. This assumption being admitted as sufficiently correct for all practical purposes, the figures in column (*a*) in the preceding Tables indicating the term of service, are in the following Abstracts, represented by the officers' ages, at the corresponding periods of service.

Abstract A.

Shewing the Mortality per cent. amongst Medical Officers in the Madras Presidency, who entered the Service during the undermentioned period of years.

Ages.	Mortality per cent. amongst Officers entering the Service during				
	1760—99. Table I.	1800—24. Table II.	1825—54. Table III.	1760—1854. Table IV.	1800—54. Table IV.
24 to 25	3·221	3·448	2·278	2·891	2·799
26 ... 30	4·011	4·468	3·019	3·764	3·693
31 ... 35	3·597	3·855	2·767	3·359	3·287
36 ... 40	3·970	4·419	2·648	3·666	3·569
41 ... 45	3·846	4·052	2·546	3·539	3·432
46 ... 50	3·622	2·250	0·662	2·377	1·815
51 ... 55	2·492	4·955		3·774	4·641
56 ... 60	6·896	4·020		5·472	4·020
61 ... 65	10·417	10·389		10·405	10 389
Total.....	3·812	4·070	2·676	3·505	3·401

[(11.) Nothing

(11.) Nothing could be more conclusive than these results in regard to the increased duration of life, which has taken place amongst those who have proceeded in the more recent periods to India. Within the thirty years 1825–54 to which the results in the fourth column of Abstract A relate, the improvement is very marked and satisfactory, and as compared with the rate of mortality, to which those were subject, who proceeded to India in the first period of years 1760–99, the diminution of the mortality is certainly very great. From an inspection of the second and third columns it will be found that in the active periods of service there had been no very material difference in the rates of mortality amongst those who went to India in the respective periods of years, to which the facts in these columns relate, but in the succeeding period, the difference is undoubtedly considerable, and should the results be corroborated by satisfactory collateral evidence, is calculated to throw doubt on the applicability of all antecedent data, for the guidance of your Fund, in respect to its present or future affairs.

(12.) Column 5 of the preceding Abstract exhibits the rate of mortality over the whole period of years to which the data relate, and column 6 includes only the results for those who entered the service within the present century, and it hence appears that the exclusion from this last series of observations of all officers who proceeded to India prior to 1800 has the effect of making a most material reduction in the rate of mortality throughout nearly the whole range of that column. It is quite necessary that it should be clearly understood that the preceding figures shew the rate of mortality only amongst those officers who proceeded to India within the respective periods mentioned at the top of each column, and takes therefore no cognizance of the mortality amongst those who may have gone to India in other periods.

(13.) For example in the results relating to the twenty-five years 1800–24 the 126 officers remaining out of the 209, who entered the service prior to the year 1800, do not come under observation, and therefore do in no way affect the results in column 3 of the preceding Abstract, nor does any portion of the 411, who became connected with the service subsequent to the year 1824, come under observation in the facts from which column 3 is deduced, and like explanations apply to all the other columns, except column 5, which includes the whole series of observations.

(14.) Results will however be immediately presented which were derived from observations, extending over all the members of the service, irrespective of the dates, at which they may have proceeded to India, but shewing the rate of mortality amongst the officers during the same three periods of years, or, in other words, the deaths happening within those years, amongst the whole existing population. In the first place, however, it may be interesting and instructive to direct attention to the rate of mortality found to prevail amongst the whole body of military officers in the Madras Presidency.

(15.) In the years 1847–8, and at different times since, under an order of the Honourable Court of Directors of the East India Company, permission was given me to have access to the records in the archives of the India House, and from the facts so collected, data, of which the following is a brief abstract, were obtained in regard to the mortality amongst the military officers in the Madras Presidency.

Abstract B.

Mortality amongst the Military Officers in the Madras Presidency who proceeded to India during the Years

Ages.	1800—19.			1820—47.		
	Died.	Number exposed to Risk.	Mortality per cent.	Died.	Number exposed to Risk.	Mortality per cent.
13 to 15	1	186·5	0·536		177·0	0·000
16 ... 20	120	4837·5	2·481	97	6258·5	1·550
21 ... 25	251	6881·0	3·648	290	9310·5	3·115
26 ... 30	229	5459·0	4·203	147	5969·0	2·463
31 ... 35	160	4063·5	3·937	111	3713·5	2·989
36 ... 40	127	3023·5	4·204	55	2257·0	2·437
41 ... 45	72	2117·5	3·400	20	837·0	3·584
46 ... 50	45	1155·5	3·894	1	80·0	1·287
51 ... 55	20	583·5	3·428			
56 ... 60	14	303·0	4·620			
61 ... 65	3	59·0	5·085			
Total...	1042	28659·5	3·636	731	28602·5	2·556

(16.) The data from which the preceding results are deduced were analysed with the utmost care, and every possible means taken to check and ensure accuracy in the records themselves, the rate of mortality indicated may therefore be fully relied on as in strict accordance with the facts. As in Abstract A it will be here seen that, of the officers amongst the whole body of military who proceeded to India within the years 1820–47 the rate of mortality is much less, at the corresponding ages, than amongst those who went to India in the preceding twenty years, and the difference quite as great as appeared amongst the section of medical officers only, and if from the last section of Abstract B were to be excluded those who entered the service in the ten years 1820–9, the experience of the eighteen years, 1830–47, would exhibit a still less rate of mortality.

(17.) If we now recur to the further consideration of the same data which entered into the construction of Tables I., II., III. and IV., a condensed resumé of which is given in Abstract A, and determine the rate of mortality within the respective periods of years amongst all officers, irrespective of the dates of their first proceeding to India, we shall find still more interesting illustrations of the improvement of European health in India during recent years.

(18.) The construction of the following three Tables differs only in one or two details from Tables I., II., and III.; for as the object of the Table V. is to determine the rate of mortality which prevailed in the period immediately antecedent to the year 1800, further observation ceases after the termination of the year 1799, and therefore column (*e*) contains the number of persons alive at the beginning of 1800. For example, of the 209 officers who entered the service prior to 1800, eleven were still alive in the beginning of the year 1800, and had entered on their second year of service; eleven had entered on their third, and twelve on their fourth year of service; while one was then alive, and entered on his thirty-sixth year of service at the beginning of the year 1800. In all, out of the whole 209 who at one time or other entered the service, there were 126 alive on the

Table V.

Mortality among the existing Members in the Service during the period

1760–99.

Years of Service. (*a*)	Number under observation in each year. (*b*)	Died. (*c*)		Discontinued. Resigned, ceased to pay, and ejected. (*d*)	Alive 31st Dec. 1799. (*e*)	Total gone off. (*f*)	Half of Discontinued. (*g*)	Number exposed to risk of Mortality. (*h*)		Mortality per cent. (*i*)
0	209	10		2		2		310·5	104·5	3·221
1	207		10	2	11	23	1·		206·	
2	184	26	8	2	11	21	1·	710·5	183·	3·659
3	163		6	3	12	21	1·5		161·5	
4	142		7	2	19	28	1·		141·	
5	114		2	0	1	3	0·		114·	
6	111		3	0	0	3	0·		111·	
7	108	14	4	1	11	16	·5	418·0	107·5	3·349
8	92		2	0	6	8	0·		92·	
9	84		4	0	6	10	0·		84·	
10	74		3	1	9	13	·5		73·5	
11	61		1	0	16	17	0·		61·	
12	44	5	2	0	3	5	0·	167·0	44·	2·994
13	39		2	2	3	7	1·		38·	
14	32		0	1	2	3	·5		31·5	
15	29		0	3	0	3	1·5		27·5	
16	26		1		1	2	0·		26·	
17	24	4	3		0	3		95·5	24·	4·189
18	21		1		0	1			21·	
19	20			1	3	4	·5		19·5	
20	16				1	1			16·	
21	15				1	1			15·	
22	14	1			3	3		44·0	14·	2·273
23	11				2	2			11·	
24	9		1	1	1	3	·5		8·5	
25	6			1		1	·5		5·5	
26	5								5·	
27	5							22·0	5·	0·000
28	5				1	1			5·	
29	4								4·	
30	4								4·	
31	4								4·	
32	4	1			1	1		10·	4·	10·000
33	3				1	1			3·	
34	2		1			1			2·	
35	1				1	1			1·	
36	0								0·	
Total..	1892		61	22	126	209	10·5	1777·5		3·432

Table VI.

Mortality among the existing Members in the Service during the period

1800–24.

Years of Service. (a)	Number entered in each year. (b)	Number remaining under observation from year preceding. (c)	Total Number under observation in each year. (d)	Died. (e)		Discontinued. Resigned, ceased to pay, and ejected. (f)	Alive 31st December, 1824. (g)	Total gone off. (h)	Half of Discontinued. (i)	Number exposed to risk of Mortality. (k)		Mortality per cent. (l)
0			330	17	2		4	6		489·	165·	3·477
1		324	324		15		11	26			324·	
2	11	298	309		12	1	21	34	·5		308·5	
3	11	275	286		16	3	23	42	1·5		284·5	
4	12	244	256	59	10	1	11	22	·5	1330·	255·5	4·436
5	19	234	253		10	2	12	24	1·		252·	
6	1	229	230		11	1	10	22	·5		229·5	
7	0	208	208		9	1	6	16	·5		207·5	
8	11	192	203		4	4	11	19	2·		201·	
9	6	184	190	34	9	3	4	16	1·5	954·5	188·5	3·563
10	6	174	180		8	1	2	11	·5		179·5	
11	9	169	178		4	0	11	15	0·		178·	
12	16	163	179		6	1	5	12	·5		178·5	
13	3	167	170		6	2	2	10	1·		169·	
14	3	160	163	41	12	4	5	21	2·	783·5	161·	5·233
15	2	142	144		8	1	2	11	·5		143 5	
16	0	133	133		9	3	2	14	1·5		131·5	
17	1	119	120		11	1	8	20	·5		119·5	
18	0	100	100		1	0	3	4	0·		100·	
19	0	96	96	22	9	7	11	27	3·5	446·	92·5	4·933
20	3	69	72		1	2	6	9	1·		71·	
21	1	63	64		0	2	4	6	1·		63·	
22	1	58	59		4	2	1	7	1·		58·	
23	3	52	55		1	4	0	5	2·		53·	
24	2	50	52	9	3	4	4	11	2·	236·5	50·	3·805
25	1	41	42		0	3	4	7	1·5		40·5	
26		35	35		1	0	3	4	0·		35·	
27		31	31		0	3	2	5	1·5		29·5	
28		26	26		2	1	4	7	·5		25·5	
29	1	19	20	3	0	1	2	3	·5	108·5	19·5	2·765
30		17	17		0	0	0	0	0·		17·	
31		17	17		1	0	0	1	0·		17·	
32		16	16		2	1	2	5	·5		15·5	
33	1	11	12		2	0	0	2	0·		12·	
34	1	10	11	5	0	1	1	2	·5	56·	10·5	8·927
35		9	9		0	0	1	1	0·		9·	
36	1	8	9		1		1	2			9·	
37		7	7		1		1	2			7·	
38		5	5		0		0	0			5·	
39		5	5	3	1		0	1		23·	5·	13·043
40		4	4		1		1	2			4·	
41		2	2								2·	
42		2	2								2·	
43		2	2								2·	
44		2	2			1		1	·5	6·	1·5	
45		1	1			1		1	·5		0·5	
46		0	0								0·	
Total	126		4629		193	62	201	456	31·		4433·	4 353

Table VII.

Mortality among the existing Members in the Service during the period

1825–54.

Years of Service. (*a*)	Number entered in each Year. (*b*)	Number remaining under observation from Year preceding. (*c*)	Total Number under observation in each Year. (*d*)	Died. (*e*)		Discontinued. Resigned, Ceased to Pay, and Ejected. (*f*)	Alive 31st Dec., 1854. (*g*)	Total gone off. (*h*)	Half of Discontinued. (*i*)	Number exposed to Risk of Mortality. (*k*)		Mortality per cent. (*l*)
0			411	14	1			1		618·5	205·5	2·263
1	4	410	414		13	2	22	37	1·		413·	
2	11	377	388	62	18	1	8	27	·5	1865·	387·5	3·324
3	21	361	382		11	6	10	27	3·		379·	
4	23	355	378		9	4	12	25	2·		376·	
5	11	353	364		9	2	4	15	1·		363·	
6	12	340	361		15	3	8	26	1·5		359·5	
7	10	335	345	52	9	1	1	11	·5	1604·5	344·5	3·241
8	6	334	340		10	2	11	23	1·		339·	
9	11	317	328		15	1	7	23	·5		327·5	
10	4	305	309		10	5	7	22	2·5		306·5	
11	2	287	289		8	4	5	17	2·		287·	
12	11	272	283	34	6	0	13	19	0·	1231·5	283·	2·768
13	5	264	269		10	4	9	23	2·		267·	
14	2	246	248		6	4	17	27	2·		246·	
15	5	221	226		5	2	10	17	1·		225·	
16	2	209	211		7	1	9	17	·5		210·5	
17	2	194	196	24	5	0	6	11	0·	871·5	196·	2·754
18	8	185	193		8	3	11	22	1·5		191·5	
19	3	171	174		4	8	5	17	4·		170·	
20	11	157	168		4	10	4	18	5·		163·	
21	6	150	156		3	10	4	17	5·		151·	
22	4	139	143	9	2	15	4	21	7·5	519·	135·5	1·734
23	1	122	123		4	12	5	21	6·		117·	
24	0	102	102		0	6	5	11	3·		99·	
25	4	91	95		2	9	7	18	4·5		90·5	
26	4	77	81		1	8	2	11	4·		77·	
27	3	70	73	12	5	6	6	17	3·	267·	70·	4·494
28	2	56	58		2	3	1	6	1·5		56·5	
29	4	52	56		1	6	2	9	3·		53·	
30	2	47	49		2	3	2	7	1·5		47·5	
31	0	42	42		2	4	1	7	2·		40·	
32	0	35	35	5	0	2	2	4	1·	135·	34·	3·704
33	2	31	33		2	1	2	5	·5		32·5	
34	0	28	28		2	2	2	6	1·		27·	
35	1	22	23		1	2		3	1·		22·	
36	1	20	21		0	3		3	1·5		19·5	
37	1	18	19	6	1	1		2	·5	63·5	18·5	9·449
38	1	17	18		0	1		1	·5		17·5	
39	0	17	17		3	6		9	3·		14·	
40	0	8	8		1	1		2	·5		7·5	
41	1	6	7		1	2		3	1·		6·	
42		4	4			0		0		18·5	4·	
43		4	4			0		0			4·	
44		4	4			0		0			4·	
45		4	4			1		1	·5		3·5	
46		3	3								3·	
47		3	3							15·	3·	
48			3								3·	
49			3								3·	
50			3								3·	
51			3								3·	
52			3							15·	3·	
53			3								3·	
54			3								3·	
55			3								3·	
56			3								3·	
57			3							15·	3·	
58			3								3·	
59			3								3·	
60			3								3·	
61			3								3·	
62			3							13·	3·	
63			3								3·	
64			3				1	1			3·	
65			2				0	0			2·	
66			2				1	1			2·	
67			1				0	0		2·	1·	
68			1				1	1			1·	
69			0								0·	
Total	201		7543	218		167	227	612	83·5		7254·	3·005

1st of January, 1800, and passing through the various periods of service, indicated by the figures in column (*e*).

(19.) Again, Table VI. resembles in construction Table V., only that column (*d*) takes the position of column (*b*), and shews that in the period 1800–24 330 new entrants were admitted into the service, of these two died in the first year, and four remained alive at the beginning of 1825, having just completed their first year of service, leaving 324 to enter on the second year of service. Column (*b*) in this Table contains the numbers which appeared in column (*e*) of Table V.

(20.) For example of those who entered the service prior to 1800, it appeared from column (*e*), Table V., that eleven were alive, and had completed their second year of service, and therefore they come under observation in the next period in Table VI. as entering on the third year of service, and in like manner have the other figures in column (*b*) been transferred from column (*e*) of the preceding Table. After the explanations given of the former Tables, the remaining portions of this Table will be easily understood. In like manner the figures in column (*b*), Table VII., have, for similar reasons, been transferred from column (*g*), Table VI. It hence appears that, in the period ending 1799, the number of persons under observation was 209, and there were amongst them 1777·5 complete years of risk. In the period 1800–24 there were 456 persons under observation for 4433 complete years of life, and in the third period of years, 1825–54, there were 612 persons under observation for a total of 7254 complete years of life, or risk of mortality.

(21.) The data for the whole period of years 1760–1854, which consists of the aggregate of Tables V., VI., and VII. constitutes the first section of the following Table, and the results, although thus consisting of a combination of a different analysis from the particular combination of elements forming the first section of Table IV., still agree exactly with it. This, amongst other tests, shews that the construction of both series of Tables must be correct. The second section of next Table consists of a combination of Tables VI. and VII. for quinquennial ages, but will not of course agree with the results in the second section of Table IV.

Table VIII.

Mortality amongst the Madras Medical Officers during the

Ages.	Years 1700—1854.			Years 1800—54.		
	Number exposed to risk.	Died.	Mortality per cent.	Number exposed to risk.	Died.	Mortality per cent.
24 to 25	1418·0	41	2·891	1107·5	31	2·799
26 ... 30	3905·5	147	3·764	3195·0	121	3·787
31 ... 35	2977·0	100	3·359	2559·0	86	3·361
36 ... 40	2182·0	80	3·666	2015·0	75	3·722
41 ... 45	1413·0	50	3·539	1317·5	46	3·491
46 ... 50	799·5	19	2·377	755.5	18	2·382
51 ... 55	397·5	15	3·774	375·5	15	3·995
56 ... 60	201·0	11	5·472	191·0	10	5·236
61 ... 65	86·5	9	10·405	86.5	9	10·405
66 ... 92	84·5	0	0·000	84·5	0	0·000
Total.....	13464·5	472	3·505	11687·0	411	3·517

Table VIII.(*a*)

Mortality among the existing Members in the Service during the period

1760–1854.

Years of Service.	Died.		Number exposed to Risk of Mortality.		Mortality per cent.
0	41	3	1418·	475·	2·891
1		38		943·	
2	147	38	3905·5	879·	3·764
3		33		825·	
4		26		772·5	
5		21		729·	
6		29		700·	
7	100	22	2977·	659·5	3·359
8		16		632·	
9		28		600·	
10		21		559·5	
11		13		526·	
12	80	14	2182·	505·5	3·666
13		18		474·	
14		18		438·5	
15		13		396·	
16		17		368·	
17	50	19	1413·	339·5	3·539
18		10		312·5	
19		13		282·	
20		5		250·	
21		3		229·	
22	19	6	799·5	207·5	2·377
23		5		181·	
24		4		157·5	
25		2		136·5	
26		2		117·	
27	15	5	397·5	104·5	3·774
28		4		87·	
29		1		76·5	
30		2		68·5	
31		3		61·	
32	11	2	201·	53·5	5·472
33		4		47·5	
34		3		39·5	
35		1		32·	
36		1		28·5	
37	9	2	86·5	25·5	10·405
38		0		22·5	
39		4		19·	
40		2		11·5	
41		1		8·	
42			24·5	6·	
43				6·	
44				5·5	
45				4·	
46				3·	
47			15·	3·	
48				3·	
49				3·	
50				3·	
51				3·	
52			15·	3·	
53				3·	
54				3·	
55				3·	
56				3·	
57			15·	3·	
58				3·	
59				3·	
60				3·	
61				3·	
62			13·	3·	
63				3·	
64				3·	
65				2·	
66				2·	
67			2·	1·	
68				1·	
69				0·	
Total...	472		13464·5		3·505

Table VIII.(*b*)

Mortality among the existing Members in the Service during the period

1800–54.

Years of Service.	Died.		Number exposed to Risk of Mortality.		Mortality per cent.
0	31	3	1107·5	370·5	2·799
1		28		737·	
2	121	30	3195·	696·	3·787
3		27		663 5	
4		19		631·5	
5		19		615·	
6		26		589·	
7	86	18	2559·	552·	3·361
8		14		540·	
9		24		516·	
10		18		486·	
11		12		465·	
12	75	12	2015·	461·5	3·722
13		16		436·	
14		18		407·	
15		13		368·5	
16		16		342·	
17	46	16	1317·5	315·5	3·491
18		9		291·5	
19		13		262·5	
20		5		234·	
21		3		214·	
22	18	6	755·5	193·5	2·382
23		5		170·	
24		3		149·	
25		2		131·	
26		2		112·	
27	15	5	375·5	99·5	3·995
28		4		82·	
29		1		72·5	
30		2		64·5	
31		3		57·	
32	10	2	191·	49 5	5·236
33		4		44·5	
34		2		37·5	
35		1		31·	
36		1		28·5	
37	9	2	86·5	25·5	10·405
38		0		22·5	
39		4		19·	
40		2		11·5	
41		1		8·	
42			24·5	6·	
43				6·	
44				5·5	
45				4·	
46				3·	
47			15·	3·	
48				3·	
49				3·	
50				3·	
51				3·	
52			15·	3·	
53				3·	
54				3·	
55				3·	
56				3·	
57			15·	3·	
58				3·	
59				3·	
60				3·	
61				3·	
62			13·	3·	
63				3·	
64				3·	
65				2·	
66				2·	
67			2·	1·	
68				1·	
69				0·	
Total...	411		11687·		3·517

(22.) The last column in each of these Tables indicates the rate of mortality peculiar to its particular period of years ; but the following condensed Abstract of them will still further assist in obtaining a correct view of the results. The data, in the whole series of observations, is composed of 950 members of the medical service of the Madras Presidency, and extending over 13464·5 years of life, as appears by column 2, Table VIII. It will be seen that the mortality in the period of thirty years, 1825–54, is very decidedly under that of either of the two preceding periods.

(23.) In fact so decided is the difference, that it cannot fail to throw doubt on the applicability of all data relating to remote experience in India for any present or future purpose.

(24.) In the following Abstracts, the results for the whole experience, as well as for the present century, are also given.

Abstract C.

Shewing the Mortality per cent. amongst the Medical Officers in the Madras Presidency during the following periods of years, but irrespective of their dates of appointment.

Ages.	Mortality per cent. amongst Medical Officers.				
	Table V. 1760—99. Table I.	Table VI. 1800—24. Table II.	Table VII. 1825—54. Table III.	Table VIII. 1760—1854.	Table VIII., Sec 2. 1800—54. Table IV., Sec. 2.
24 to 25	3·221 3·221	3·477 3·448	2·263 2·278	2·891	2·799 2·799
26 ... 30	3·659 4·011	4·436 4·448	3·324 3·019	3·764	3·787 3·693
31 ... 35	3·349 3·597	3·563 3·855	3·241 2·767	3·359	3·361 3·287
36 ... 40	2·994 3·970	5·233 4·419	2·768 2·648	3·666	3·722 3·569
41 ... 45	4·189 3·846	4·933 4·052	2·754 2·546	3·539	3·491 3·432
46 ... 50	2·273 3·622	3·805 2·250	1·734 0·662	2·377	2·382 1·815
51 ... 55	0·000	2·765 4·955	4·494	3·774	3·995 4·641
56 ... 60	10·000	8·927 4·020	3·704	5·472	5·236 4·020
61 ... 65		13·043 10·389	9·449	10·405	10·405 10·389
Total.....	3·432 3·839	4·353	3·005	3·505	3·517

(25). It is highly important to compare the results in this Abstract with those in Abstract A. and which are inserted above in red ink.

(26.) If patiently considered, they are calculated to throw much light on the changes taking place in the value of European life in India. For example, if columns 2 of the respective

[Abstracts be

Abstracts be compared, it will be found that, with the exception of the initiative years of age, 24–5, the mortality in Abstract A is remarkably higher than in the preceding Abstract C. The aggregate mortality between ages 26–50 in the one being 3·839 per cent, and in the other only 3·484.

(27.) The explanation of this difference is important. On referring to Table I. which is the basis of column (2) Abstract A, it will be found to contain 3410·5 years of life; but Table V. which is the basis of the corresponding column in Abstract C, contains only the experience of 1777·5 years of life, and this difference arises from such officers as entered the service in the latter period of the years 1760–99 ceasing from observation, after the beginning of the year 1800 in Table V. but continued under observation to a more advanced period of life in the former Table, and hence, on referring to these Tables, it will be seen that at ages 26–30, the number of years risk is 872·5, but in Table V. only 710·5, and on referring to column (*e*), of which it will be found that this is occasioned by fifty-four members having been withdrawn from observation within 1 to 6 years of service. And as I have said it is most important to judge of the effect of these and of similar withdrawals, on the rate of mortality in the two Tables. At the term of life 26–30, the mortality is 4·011 in the one, and only 3·659 in the other, so that the effect of continuing under observation in Table I., such officers as are withdrawn in Table V. between ages 26–30 is to increase the mortality at that term of life in the former by (4·011—3·659) = 0·352 per cent., and from the like operation similar results appear at the more advanced ages in these two Tables. For the same reason, however, that there is a reduced rate of mortality from withdrawals in column 2 in the preceding Abstract is the rate of mortality in columns 3 and 4 greatly increased beyond the rates in the corresponding columns in Abstract A, the difference will be found most remarkable, on comparing the fourth columns of the respective Abstracts, or Tables III. and VII. from which they are derived.

(28.) Between the ages 26–50 the aggregate mortality in Table III. is 2·744 per cent. but in Table VII. the mortality is as high as 2·971 per cent. being an increase on the former rate of 8·273 per cent. Hence two important conclusions are obviously deducible from the facts now presented, and having an important bearing on the financial condition of all the Indian funds as well as your own.

(29.) Observations made with a view to determine the rate of mortality likely to prevail for the future, will be delusive if extended over any considerable period, as is clearly established by the difference between the results in the fourth columns of Abstracts A and C, and the two preceding columns of these Abstracts. So also will observations made on the existing European population in India during even a recent period of years be found delusive, as is shewn by a comparison of the fourth column of Abstract A with the corresponding column of Abstract C. A cursory survey of these remarks may not generally suffice to make the true nature of the circumstances under which these differences arise clearly understood; but as already stated a patient and careful reading and study of Tables I. to IV. inclusive, and the nature of the elements with which they are constructed and compared with the different conditions under which Tables V. to VIII. inclusive have been formed, cannot fail to satisfy the mind of the causes of these differences, and the vital importance of their being thoroughly understood by every one taking a lively and deep interest in the Indian funds.

(30.) These results are not peculiar to your own branch of the Indian service. It is shewn in Abstract B preceding, that the same features are strongly characteristic of the experience of the whole of the Madras Military Service, and if reference be made to my Report on the Bengal Military Fund of August 1849, the most conclusive evidence will be found for the existence of the same characteristic features in the rate of mortality which has prevailed in that presidency; a further illustration may, however, here be given of the decrease of mortality in recent years. The data in that Report commenced with the year 1800 only, but in the following Abstracts I have given the results from the year 1760, and for that term of life which includes the most active period of service.

Abstract D.

Mortality per cent. amongst those Officers of the Bengal army who have received their appointments during the years

Ages.	1760—99.	1800—19.	1820—39.	1800—47.	Ages.
16 to 20	3·058	1·732	1·301	1·448	16 to 20
21 ... 25	3·428	2·548	2·182	2·324	21 ... 25
26 ... 30	3·740	2·538	2·503	2·501	26 ... 30
31 ... 35	3·298	2 975	2·652	2·779	31 ... 35
36 ... 40	3·161	2·928	2·630	2·864	36 ... 40
41 ... 45	4·141	2·845	3·317	2·970	41 ... 45

(31.) In addition to the above evidence on the decrease of the mortality of military lives in the Bengal Presidency, it will be found on referring to Abstracts V. VI. VII. and VIII. pp. 9–14 of the printed copy of my Report on the Bengal Civil Fund, that the average mortality for the term of life 21–40 for members of the civil service who went out to India in the years 1790–1819 was 1·962 per cent. but for those who went out in the subsequent years 1820–42, the rate of mortality was 1·773 per cent. being a difference in favour of recent years of about 9 600 per cent. The same subject will, however, be found more completely treated in my first Report of December 1852, on the Madras Civil Fund, of which a copy may no doubt be obtained in Madras. Pages 6–17 of that Report may be read with interest by those wishing to enter fully on the consideration of the question now under discussion. It may also be mentioned, that in my first Report on the Bombay Medical Retiring Fund, dated December 1852, I found similar evidence in the materials then submitted to me of diminished mortality amongst the members in recent years. The Abstracts made by me in the India House in 1847–8 of the Bombay Presidency affords like evidence in regard to the whole of the Military Service of that Presidency. Taking all these facts into consideration, it appears to me that no conclusion in vital statistics is now better established than the reduced rate of mortality to which Europeans have in recent years been subject in India, and particularly Europeans who have proceeded there within the last twenty or thirty years.

(32.) It may, before concluding this part of the question, be satisfactory to point out how these results agree with those obtained by the late Mr. Davies in his very able Report on the state of your fund. In the following Abstract are given the actual results arrived at by him in Appendix 10, and formed by the summation of the figures in columns 5 and 6, page 35, of that Report, although he relinquishes the use of them, and finally uses a rate of mortality which he employed in the Report on the Madras Military Fund, shewing the state of its affairs at the close of the year 1836, and which he makes appear to correspond very closely with the following figures:—

Table IX.

Shewing the rate of Mortality as deduced in the late Mr. Davies' Report—the Observations including Admissions to the Service until the year 1832, *but the Mortality extending to the* 1st *of July,* 1838.

Ages.	Number exposed to risk.	Died.	Mortality per cent. Table VII.
24 to 25	992	27	2·722 2·263
26 ... 30	2738	100	3·652 3·324
31 ... 35	1930	76	3·938 3·241
36 ... 40	1271	58	4·563 2·768
41 ... 45	768	28	3·646 2·754
46 ... 50	481	14	2·910 1·734
51 ... 55	229	9	3·930 4·494
56 ... 60	117	8	6·838 3·704
61 ... 65	38	5	13·158 9·449
Total.....	8564	325	3·795 3·005

(33.) After age thirty these results are throughout higher than those arrived at in Tables IV. and VIII., which brings the observations up to 1855, and this is in accordance with the fact that the duration of life has, in recent years, been much prolonged, and the inclusion of a large number of better lives, since the period when Mr. Davies' observations terminated, has had the effect of reducing the average mortality to the extent shewn by the results in Tables IV. and VIII. Had he terminated his observations at any period anterior to 1838, in the year 1824 for example, the results would have shewn a still higher mortality than that which he arrived at, when reporting on the state of your fund. This will be conclusively proved by combining the results of Tables V. and VI., which will embrace the period of years 1760–1824 only.

Table X.

Mortality per cent. in the Madras Medical Service during the years

Ages.	1760–1824. Tables V. and VI.			1760–1838.	1760–1854.
	Number exposed to risk.	Died.	Mortality per cent.	Table IX. DAVIES.	Tables IV. and VIII.
24 to 25	799·5	27	3·377	2·722	2·891
26 ... 30	2040·5	85	4·166	3·652	3·764
31 ... 35	1372·5	48	3·497	3·938	3·359
36 ... 40	950·5	46	4·839	4·563	3·666
41 ... 45	541·5	26	4·801	3·646	3·539
46 ... 50	280·5	10	3·565	2·910	2·377
51 ... 55	130·5	3	2·299	3·930	3·774
56 ... 60	66·0	6	9·090	6·838	5·472
61 ... 65	23·0	3	13·044	13·158	10·405
Total......	6204·5	254	4·094	3·795	3·528

(34.) This Table is very instructive on the mortality of European life in India, and satisfactorily shews its prolonged duration within recent years. The difference between the ratios in columns 4 and 6 is marked and well defined, the results in the 5th column holding an intermediate place. Had Mr. Davies, therefore, either extended or limited the period of his observations, he would have arrived at a very different rate of mortality; but it is at the same time satisfactory to find that his results, as given in Table IX. preceding, should so strongly confirm the general principle evolved by the rest of the data now brought under consideration, namely, that a rapid improvement in the duration of life has, for the last thirty years at least, been taking place in India.

(35.) A further analysis of Mr. Davies' data, in the latter portion of this Report, will be found still more conclusive on this point.

(36.) A careful comparison, however, of the results contained in Tables I. II. and III., with those in Tables V. VI. and VII., will shew that the mode of investigating such a question, by extending the observations over the European population, irrespective of the dates at which they proceeded to India, as is usually done, and of which examples are furnished in the three last-mentioned Tables, is inaccurate for the purpose of eliciting the real amount of improvement which has taken place within the interval under examination. A striking example in confirmation of this fact will be found if a comparison be made between the results of Table VII. for the thirty years 1825–54, and the results of Table III. for the same period of thirty years. These results are also given in the fourth columns of Abstracts A and C respectively, and it will be found that for the whole range of Table III. above the age of twenty-five, the rate of mortality in Table VII. is higher, varying, at the different periods of life, from about five to seventeen per cent., as shewn in the following Abstract, the average difference being upwards of eight per cent.

Abstract E.

Shewing the difference of mortality amongst the Madras Medical Officers, as determined by the modes of investigation adopted in the construction of Tables III. and VII.

Ages.	Mortality per cent. during 1825—54.			Excess per cent. of Table VII. over Table III.
	Table VII.	Table III.	Difference.	
24 to 25	2·263	2·278	— 0·015	— ·658
26 ... 30	3·324	3·019	+ 0·305	+ 10·103
31 .. 35	3·241	2·767	0·474	17·130
36 ... 40	2·768	2·648	0·120	4·532
41 ... 45	2·754	2·546	0·208	8·169
46 ... 50	1·734	0·662	+ 1·072	+ 161·933
24 ... 50	2·906	2·684	+ 0·222	+ 8·271

(37.) On referring to Table VII. it will be seen that of the 612 persons who come under observation in that Table, no less than 201, or nearly thirty-three per cent., were officers who entered the service prior to 1825; but excluding Annuitants according to Schedule No. I., only nine of the whole of the present members of the Fund were admitted prior to 1825, and none prior to 1820. Seeing, therefore, that there is so much difference between the rate of mortality of officers who entered the service prior to 1825, and those who have proceeded to India since that time, the rate of mortality, deduced from the experience of those who have received their appointments within the last thirty years, can only be fairly applicable to the affairs of the Fund. The full force of this argument is not disclosed by the preceding illustration in Abstract E. A comparison of the rate of mortality amongst officers appointed in the period 1800–24, as given in Table II., with the mortality amongst those appointed subsequent to that period, is better calculated to shew the importance of the distinction now urged.

Abstract G.

Shewing the difference of Mortality between Officers appointed in the period 1800-24, *and those appointed during* 1825-54.

Ages.	Mortality per cent.			Excess per cent. of Table II. over Table III.
	Table II. 1800—24.	Table III. 1825—54.	Difference.	
24 to 25	3·448	2·278	1·170	51·361
26 ... 30	4·468	3·019	1·449	47·996
31 ... 35	3·855	2·767	1·088	39·321
36 ... 40	4·419	2·648	1·771	66·881
41 ... 45	4·052	2·546	1·506	59·152
46 ... 50	2·250	0·662	1·588	239·879
24 ... 50	3·984	2·684	1·300	48·435

(38.) The remarkable difference between the results of the two classes of observations is here clearly shewn. The mortality in the more remote period being upwards of forty-eight per cent. in excess of that of the last thirty years. In consequence of Mr. Davies' observations, as given in Table IX. preceding, extending to the year 1838, the rate of mortality deduced by him does not exhibit so great a difference as that just pointed out. It is in excess of that of Table III., for the term of life 24–50, exactly 38·003 per cent. It may be here remarked, that although the rate of mortality deduced by Mr. Davies shewed an excess of 38·003 per cent. beyond that now found to prevail at the term of life 24–50, the difference arose from an unavoidable circumstance at the time of making his investigation; as no doubt he considered the whole body of data placed at his disposal of too limited a character to admit of classification into different epochs.

(39.) At an advanced part of this report, in Tables LXXVII., LXXVIII., and LXXIX, and Abstracts W, W(*a*), W(*b*), and X, a further analysis will be found of the facts recorded in Schedule No. I., having reference to the social condition of the members, which is calculated to throw much additional light on the subject now under consideration, and that portion of the Report may now be conveniently referred to. The rate of mortality for married members being very much below the rate of mortality of any other class of results heretofore presented in connection with European life in India.

(40.) Having thus analysed the whole of the data connected with the Medical Service of the Madras Presidency, and endeavoured to point out the principal features and characteristics of the results arrived at, the next point is to consider how far they are applicable to the purposes of your Fund. After the most careful and deliberate consideration, I have come to the conclusion, and that without any hesitation or doubt, that a ratio of mortality approximating closely to that of Table III. will be best calculated to apply fairly and safely to the determination of the Assets and Liabilities of the Fund.

(41.) I find this rate, if properly adjusted, so as to form a Mortality Table, to be so close an approximation to the rate of mortality which, after a most elaborate analysis, I found to prevail amongst the Military Service in the Bengal Presidency, that the one may be used for the other without the chance of any material difference in the ultimate results by the application of either. Finding, however, greater regularity in the Table deduced from the Bengal data which I collected from the records of the India House here, I have considered it better to adhere to that as a basis for your calculations, in so far as the mortality of members is concerned, rather than adjust your own data, and which, from its paucity at advanced ages would, under any circumstances, need to be incorporated with the Bengal or other data.

(42.) The following are the unadjusted results of both classes of data; and I have found that out of 1000 persons alive at the age of twenty-four, there would, according to your own data, be 528 who survive the age of forty-five, and by the Bengal data 524, and when adjusted for retirements, as in the last section of the following Abstract, about 552, as shewn in the second column of the finally adjusted Tables. From Abstract X following it will be found that since the first day of July, 1838, the number of members who have died is 158, while that which would have happened in the same period, according to the adjusted results in the following Table XI., would have been 156·985.

Abstract H.

Ages.	Mortality per cent.		
	Table III.	Bengal Military.	Adjusted for Retirements.
24 to 25	2·278	2·324	2·271
26 ... 30	3·019	2·501	2·383
31 ... 35	2·767	2·779	2·575
36 ... 40	2·648	2·864	2·629
41 ... 45	2·546	2·970	2·661

(43.) The preceding illustrations, it is hoped, will make this part of the question sufficiently understood; and we are now prepared to submit a Table of Mortality the construction of which depends on the following principles, and a practical example of the mode of working out the details will be found subsequently given in Tables XVII. and XIX.

Let d = The mortality per cent. per annum at a given age; then

$\frac{d}{100}$ = Probability of the death of a single individual; but as the sum of the probabilities of two incompatible events equals unity, therefore

$1 - \frac{d}{100}$ = Probability of a person of the given age living one year, and in like manner in respect to the probabilities of either of these events at other ages.

Let $d_x, d_{x+1}, d_{x+2}, d_{x+3}, \ldots \ldots d_{x+n}$ represent the mortality per cent. at the ages x, $x+1$, $x+2$, $x+3$, &c. up to $x+n$; and

Let l_x denote the number living at the age x, and

l_{x+n} the number living at age $x+n$, then

$$l_{x+n} = l_x \left(1 - \frac{d_x}{100}\right) \cdot \left(1 - \frac{d_{x+1}}{100}\right) \cdot \left(1 - \frac{d_{x+2}}{100}\right) \cdot \ \cdot \ \cdot \ \cdot \ \cdot \left(1 - \frac{d_{x+n-1}}{100}\right)$$

(44.) Make x the initial age of the Table, and let l_x be the radix, which in the next Table at age 24 = 86544, then the numbers living at each successive age in Table XI., column 2, are found by the process just given.

Table XI.

Mortality amongst the Members of the Fund.

Age x	Living $=l_x$	$\lambda . l_x$	Dying $=\delta_x$	$\lambda . \delta_x$	Age x	Living $=l_x$	$\lambda . l_x$	Dying $=\delta_x$	$\lambda . \delta_x$
24	86544	4·93724	1960	3·29226	63	30277	4·48111	1229	3·08955
25	84584	·92729	1958	·29181	64	29048	·46312	1268	·10312
26	82626	·91712	1931	·28578	65	27780	·44373	1303	·11494
27	80695	·90685	1907	·28035	66	26477	·42287	1334	·12516
28	78788	·89646	1885	·27531	67	25143	·40042	1365	·13513
29	76903	·88594	1864	·27045	68	23778	·37618	1393	·14395
30	75039	·87529	1846	·26623	69	22385	·34996	1417	·15137
31	73193	·86447	1828	·26198	70	20968	·32156	1435	·15685
32	71365	·85349	1806	·25672	71	19533	·29077	1445	·15987
33	69559	·84235	1779	·25018	72	18088	·25739	1450	·16137
34	67780	·83110	1749	·24279	73	16638	·22110	1447	·16047
35	66031	·81975	1714	·23401	74	15191	·18159	1435	·15685
36	64317	·80833	1677	·22453	75	13756	·13849	1411	·14953
37	62640	·79685	1639	·21458	76	12345	·09149	1375	·13830
38	61001	·78534	1602	·20466	77	10970	4·04021	1324	·12189
39	59399	·77378	1565	·19451	78	9646	3·98435	1260	·10037
40	57834	·76218	1528	·18412	79	8386	·92355	1183	·07298
41	56306	·75055	1491	·17348	80	7203	·85751	1096	·03981
42	54815	·73890	1456	·16316	81	6107	·78583	1001	3·00043
43	53359	·72721	1423	·15320	82	5106	·70808	900	2·95424
44	51936	·71547	1391	·14333	83	4206	·62387	796	·90091
45	50545	·70368	1361	·13386	84	3410	·53275	692	·84011
46	49184	·69182	1332	·12450	85	2718	·43425	591	·77159
47	47852	·67990	1296	·11261	86	2127	·32777	495	·69461
48	46556	·66798	1253	·09795	87	1632	·21272	404	·60638
49	45303	·65613	1204	·08063	88	1228	3·08920	323	·50920
50	44099	·64443	1150	·06070	89	905	2·95665	252	·40140
51	42949	·63295	1092	·03822	90	653	·81491	193	·28556
52	41857	·62177	1048	·02036	91	460	·66276	143	·15534
53	40809	·61076	1018	3 00775	92	317	·50106	108	2·03342
54	39791	·59978	999	2·99957	93	209	·32015	80	1·90309
55	38792	·58874	992	·99651	94	129	2·11059	57	·75587
56	37800	·57749	994	2·99739	95	72	1·85733	37	·56820
57	36806	·56592	1007	3·00303	96	35	·54407	21	·32222
58	35799	·55387	1030	·01284	97	14	1·14613	10	1·00000
59	34769	·54119	1061	·02572	98	4	0·60206	3	0·47712
60	33708	·52773	1100	·04139	99	1	0·00000	·89	9·94939
61	32608	·51332	1144	·05843	100	·11	9·04139	·11	9·04139
62	31464	4·49781	1187	3·07445					

(45.) On the rate of mortality indicated by the preceding Table the subsequent auxiliary Tables, so far as concerns members, have been calculated.

(46.) The next part of this inquiry to which I would direct your attention is the mortality of the wives of members, of widows, and of children, and first in regard to the mortality of the wives of members. In your own records, I can find information complete of the deaths of thirty-seven first wives only, with notice of two other cases without date of death, in addition to which the date of death is given for three cases of second wives, making in all forty-two cases; but there are seven instances in which mention is made of the re-marriage of members, in which the deaths of the first wives are not noticed, as well as two cases of third marriages, with the death of only one wife in each case recorded. These data are so inadequate as to be entirely worthless as affording even an approximate estimate of the rate of mortality amongst the members' wives, that I have necessarily had recourse to sources unconnected with your Fund for information and data on this subject. Of late I have analysed the whole experience of the Bengal Military Fund, which contains the largest number of married members of all the Indian Funds, and having regard to these results, and at the same time keeping in view the experience of the other Indian Funds, I am of opinion that Table 2 of Mr. Davies' Report on your own Fund slightly modified at ages twenty-six and under, where he has adopted too large a ratio of deaths, will fairly apply to the valuation of your Assets and Liabilities. The following Table, so adjusted, exhibits the rate of mortality amongst members' wives.

Table XII.

Number living according to the expected Mortality for the Wives of Members.

Age. y.	Number living $= l_y$.	λ. of Number living, or $\lambda . l_y$.	Number living in middle of next year.	λ. of Number living in middle of next year.	Age. y.	Number living $= l_y$.	λ. of Number living, or $\lambda . l_y$.	Number living in middle of next year.	λ. of Number living in middle of next year.
14	2271	3·35622	2260	3·35411	56	1090	3·03743	1072	3·03019
15	2249	·35199	2238	·34986	57	1054	·02284	1036	·01536
16	2227	·34772	2216	·34557	58	1018	3·00775	1000	3·00000
17	2205	·34341	2194	·34124	59	982	2·99211	964	2·98408
18	2183	·33905	2172	·33686	60	946	·97589	928	·96755
19	2161	·33465	2150	·33244	61	910	·95904	892	·95036
20	2139	·33021	2128	·32797	62	874	·94151	856	·93247
21	2117	·32572	2106	·32346	63	838	·92324	820	·91381
22	2095	·32118	2084	·31890	64	802	·90417	784	·89432
23	2073	·31660	2062	·31429	65	766	·88423	748	·87390
24	2051	·31197	2040	·30963	66	730	·86332	712	·85248
25	2029	·30728	2018	·30492	67	694	·84136	676	·82995
26	2007	·30255	1996	·30016	68	658	·81823	640	·80618
27	1985	·29776	1974	·29535	69	622	·79379	603	·78032
28	1963	·29292	1952	·29048	70	585	·76716	567	·75358
29	1940	·28780	1928	·28511	71	548	·73878	529	·72346
30	1916	·28240	1903	·27944	72	511	·70842	493	·69285
31	1891	·27669	1878	·27370	73	474	·67578	455	·65801
32	1868	·27068	1852	·26764	74	437	·64048	419	·62221
33	1838	·26435	1824	·26102	75	401	·60314	383	·58320
34	1811	·25792	1797	·25455	76	365	·56229	348	·54158
35	1783	·25115	1769	·24773	77	330	·51851	313	·49554
36	1755	·24428	1741	·24080	78	296	·47129	279	·44560
37	1726	·23704	1711	·23325	79	263	·41996	247	·39270
38	1697	·22968	1682	·22583	80	231	·36361	216	·33445
39	1667	·22194	1652	·21801	81	201	·30320	187	·27184
40	1637	·21405	1622	·21005	82	172	·23553	158	·19866
41	1606	·20575	1590	·21040	83	145	·16137	133	·12385
42	1574	·19700	1558	·19257	84	120	2·07918	108	2·03342
43	1542	·18808	1525	·18327	85	97	1·98677	87	1·93952
44	1509	·17869	1493	·17406	86	77	·88649	69	·83885
45	1476	·16909	1459	·16406	87	60	·77815	53	·72428
46	1442	·15897	1425	·15381	88	46	·66276	40	·60206
47	1408	·14860	1391	·14333	89	35	·54407	31	·49136
48	1374	·13799	1357	·13258	90	26	·41497	22	·34242
49	1340	·12710	1322	·12123	91	19	·27875	17	·23045
50	1305	·11561	1288	·10992	92	14	·14613	12	1·07918
51	1270	·10380	1252	·09760	93	10	1·00000	8	0·90309
52	1234	·09132	1216	·08493	94	6	0·77815	4	·60206
53	1198	·07846	1180	·07188	95	3	·47712	2	·30103
54	1162	·06521	1144	·05843	96	1	0·00000	1	0·00000
55	1126	3·05154	1108	3·04454					

Table XIII.

Widows.—*Years* 1807–55.

Ages.	Number entered at each Age.	Number remaining under Observation from Age preceding.	Total Number under Observation at each Age.	Died.		Discontinued.				Alive 1st May, 1855.	Total gone off.	Half of Discontinued.	Number exposed to Risk of Mortality.		Mortality per cent.	
						Remarried.		Pension ceased.	Total.							
17	1		1			1							8·	·5		
18	2	1	3				1		1		1	·5		2·5		
19	0	2	2											2·		
20	1	2	3											3·		
21	2	3	5			3							49·5	5·		
22	5	5	10				1		1		1	·5		9·5		
23	2	9	11											11·		
24	0	11	11				1		1		1	·5		10·5		
25	4	10	14				1		1		1	·5		13·5		
26	4	13	17	3		3	1		1	3	4	·5	108·5	16·5	2·765	
27	4	13	17											17·		
28	4	17	21											21·		
29	5	21	26							1	1			26·		
30	4	25	29		3		2		2		5	1·		28·		10·714
31	6	24	30	1		1				1	1		188·5	30·	·530	0·
32	5	29	34							2	2			34·		0·
33	3	32	35							1	1			35·		0·
34	3	34	37											37·		0·
35	16	37	53		1		1		1		2	·5		52·5		1·905
36	1	51	52	5	1	4	1		1	1	3	·5	258·	51·5	1·938	1·942
37	3	49	52		1		1		1	2	4	·5		51·5		1·942
38	6	48	54		1		2		2	2	5	1·		53·		1·887
39	2	49	51		2						2			51·		3·921
40	2	49	51							1	1			51·		0·
41	1	50	51	2	1	1	1		1	1	3	·5	242·	50·5	·826	1·980
42	4	48	52		1					3	4			52·		1·923
43	1	48	49							6	6			49·		0·
44	3	43	46							1	1			46·		0·
45	0	45	45					1	1	3	4	·5		44·5		0·
46	2	41	43	6		1				3	3		194·5	43·	3 085	0·
47	3	40	43		2		1		1	4	7	·5		42·5		4·706
48	1	36	37							1	2			37·		2·703
49	2	35	37		1					2	2			37·		0·
50	0	35	35		3					2	5			35·		8·571
51	1	30	31	1						3	3		132·	31·	·758	0·
52	0	28	28		1					1	2			28·		3·571
53	2	26	28							3	3			28·		0·
54		25	25							5	5			25·		0·
55		20	20							1	1			20·		0·
56	2	19	21	1	1					1	2		93·	21·	1·075	4·762
57		19	19							1	1			19·		0·
58		18	18							2	2			18·		0·
59	1	16	17											17·		0·
60	1	17	18											18·		0·
61	1	18	19	0						2	2		84·	19·	0·	0·
62	1	17	18							1	1			18·		0·
63		17	17							1	1			17·		0·
64			16							2	2			16·		0·
65			14							3	3			14·		0·
66			11	2						1	1		39·	11·	5·128	0
67			10		1					3	4			10·		10·000
68			6											6·		0·
69			6											6·		0·
70			6		1						1			6·		16 667
71			5	2						1	1		16·	5·	12·500	0·
72			4							1	1			4·		0·
73			3		1						1			3·		33·333
74			2											2·		0·
75			2		1						1			2·		50·000
76			1	0									5·	1·	0·	0·
77			1											1·		0·
78			1											1·		0·
79			1											1·		0·
80			1											1·		0·
81			1	1									2·	1·	50·000	0·
82			1		1						1			1·		100·000
Total	111		1428	*24		14		1	15	72	111	7·5	1420·			1·612

* See paragraph No. 2 of the Second Report, dated 29th May, 1856, appended hereto.

(47.) A careful analysis has been made of the data furnished in regard to the mortality amongst widows, and the ratio of re-marriages, from which it appears that of 108 widows who have been on your Fund since the year 1807, three re-entered on account of second widowhood, making, in all, 111 cases. It will be further seen, that of these 108 widows fourteen remarried, and the pension of another ceased at the age of forty-five, from some cause not specified. The results of this analysis are given in Table XIII. preceding, the construction of which will be easily understood by any one giving attention to the first eight Tables of this Report.

(48.) The following is a condensed summary of the preceding Table, shewing the ratios of mortality and re-marriages amongst the widows of the Fund.

Abstract I.

Rates of Mortality and Re-marriages.

Ages.	Experience of the Fund itself as in Table XIII.									Other Experience.	
	Number Exposed to Risk.	Died. (*a*)	Σ (*a*)	Remarried. (*b*)	Σ (*b*)	Mortality per cent.		Re-marriages per cent.	Total Decrements per cent.	Σ, Deaths Vit: Stat.	Σ Re-marriages Bengal Fund.
17 to 20	8·0			1	1			12·500	12·500	0·065	·548
21 ... 25	49·5			3	4		1·898	6·061	6·061	1·577	3·073
26 ... 30	108·5	3	3	3	7	2·765		2·765	5 530		6·685
31 ... 35	188·5	1	4	1	8	0·530	1·344	0·530	1·061	6·676	12 070
36 ... 40	258·0	5	9	4	12	1·938		1·550	3·488		16·335
41 ... 45	242·0	2	11	1	13	0·826	1·833	0·413	1·240	12·490	18·319
46 ... 50	194·5	6	17	1	14	3·085		0·514	3·599		20·035
51 ... 55	132·0	1	18			0·758	0·889		0·758	17·064	
56 ... 60	93·0	1	19			1·075			1·075		
61 ... 65	84·0	0	19				1·626			21·654	
66 ... 70	39·0	2	21			5·128			5·128		
71 ... 75	16·0	2	23			12·500	9·524		12·500	22·392	
76 ... 80	5·0										
81 ... 82	2·0	1	24			50·000	50·000		50·000	23·419	
Total...	1420·0	24		14							

(49.) The data in the above are of course much too limited to form the basis of a Table by which to regulate your financial operations; still, however limited the data, it is at all times important to know how far the actual results, in the experience of the Fund, fluctuate from any recognised law or standard. A comparison of columns four and eleven, headed with the sign of summation, Σ, shews that although in the aggregate the mortality of the widows on the Fund is almost identical with that which would have taken place, according to the ratio of mortality for female lives in England and Wales, as given in Table C, pp. 5–6, "Contributions to Vital Statistics;" the actual mortality being twenty-four, while the calculated amount, in column eleven, is 23·419; still, great fluctuations are observable at particular periods of life, the mortality under age fifty being greater, but after that age much less. This would, however, appear to be an accidental circumstance, due to the limited numbers over which the observations extend; for if the data in regard to unmarried daughters within the same period of life were included, as is done in Abstract N, following, it will be found that while the actual deaths between ages 16–50 were eighteen, that the calculated number amounted to 18·867. Again,—

(50.) In Abstract I, preceding, it will be seen that while the actual re-marriages of widows between ages 17–50 was fourteen, the estimated number was twenty. This variation is likewise, in all probability, due to the small number over which the observations extend; for if the experience of daughters all of whom are married under age 25 be included, as in Abstract N, the variation will be found much less, the actual number of re-marriages between ages 16–25 being forty-five, and the calculated number 46·450.

(51.) While engaged on the affairs of the Bengal Military Fund, the Bengal Civil Fund, and the Madras Civil Fund, whose Reports are printed, and of which you may easily obtain copies, it will be found it became highly important to determine the mortality of widows. In the course of these investigations no reason appeared to lead to the belief that the mortality of the widows of the one presidency, or of any one branch of the service, should differ in any important degree from those of another; and as a very accurate register has been kept of the widows of the Bengal Military Fund, that which is very much the largest in extent, its experience necessarily contains, in this particular, the most valuable data. The whole of the data, from the institution of that Fund to the beginning of 1847, were thoroughly and completely analysed by me for the purposes of my first report, and I have ever since, from year to year, continued to watch its experience, in order to see whether in the ratio of deaths, or in the ratio of re-marriages, any material perturbation be taking place; and although during the past year I have made several reports on the state of that Fund, I have not had any reason to conclude that the rate of mortality originally found to prevail has in any important way altered.

(52.) On the mortality of widows the following Abstract is not only interesting, but highly important. The first section of it shews the actual mortality which has taken place for quinquennial ages, and the second section shews that which would have been the mortality for the corresponding ages, according to the rate of mortality for the female population of England and Wales, as given in Table C, pp. 5–6, " Contributions to Vital Statistics."

Abstract K.

Ages.	Mortality among the Widows of the Bengal Military Fund.			Deaths that would have happened, according to the Mortality of England and Wales. Female Population.		Ages.
	Number exposed to risk.	Actual Number of Deaths in each period. (*a*)	$\Sigma(a)$ in decennial periods.	Number of Deaths in each period.	$\Sigma(b)$ in decennial periods.	
17 to 20	57·0	1	1	·421	·421	17 to 20
21 ... 25	330·5	2		2·971		21 ... 25
26 ... 30	647·0	8	11	6·451	9·843	26 ... 30
31 ... 35	902·0	9		9·823		31 ... 35
36 ... 40	1032 0	10	30	12·160	31·826	36 ... 40
41 ... 45	961·0	13		11·991		41 ... 45
46 ... 50	774·0	13	56	10·921	54·738	46 ... 50
51 ... 55	543·0	7		9·177		51 ... 55
56 ... 60	415·5	10	73	9·203	73·118	56 ... 60
61 ... 65	241·0	12		7·249		61 ... 65
66 ... 70	133·0	2	87	5·829	86·196	66 ... 70
71 ... 75	69·0	4		4·515		71 ... 75
76 ... 80	25·5		91	2·518	93·229	76 ... 80
81 ... 85	10·0	1	92	1·467	94·696	81 ... 85
	6140·5	92		94·696		

(53.) The results of this Abstract are not a little remarkable; for not only does the aggregate mortality amongst the widows of the Fund shew a close approximation to that which would have taken place had it been precisely the same as the ratio for the female population generally of England and Wales, but the results in the respective summation columns for the various terms of life, shew a striking agreement. It is thus obvious, so far as data and experience go, the mortality of widows is not widely different from that of the female population of the country. In the construction, therefore, of the subsequent auxiliary Tables, so far as the element of mortality is concerned, the ratio for females to be found in pp. 5–6 of "Contributions to Vital Statistics" will be employed at Ages "ten and upwards," and the mortality per cent. will be found in the second columns of Tables XVIII. and XIX. under the symbol d_y.

(54.) The next question of mortality coming under consideration is that in regard to the children of members. The whole of the data contained in the Schedules forwarded have been analysed, and the results will be found in Tables XIV. and XV. The total number of sons coming under observation will be found to be 480; of these, sixty-six are recorded as having died before completing age eighteen, eleven were either not subscribed for or displaced. The pensions of 132 ceased, and 271 still remained under observation in May 1855.

(55.) Again: of 426 daughters it appears that seventy-one died prior to completion of the eighteenth year of age, being a somewhat greater mortality than that of the sons. There were five, either not subscribed for, or displaced; the pensions of twenty-eight ceased at age twenty-one. Between the ages of sixteen and twenty-six forty-one married; and in May 1855, there were 281 still alive and under observation.

Table XIV.

SONS.—*Years* 1824–55, *deduced from Appendix* 3.

Ages.	Number Entered at each Age in 1824.	Number remaining under Observation from Age preceding.	Total Number under Observation at each Age.	Died.	Discontinued.		Total discontinued.	Alive May 1855.	Total gone off.	Half of discontinued.	Number exposed to risk of Mortality.	Mortality per cent.
					Pension ceased.	Not Subscribed for or displaced.						
0 to 1			427	30		1	1	13	44	·5	426·5	7·026
1 ... 2	13	383	396	12		1	1	17	30	·5	395·5	3·034
2 ... 3	8	366	374	8		0	0	13	21	0·	374·	2·139
3 ... 4	3	353	356	5		1	1	16	22	·5	355·5	1·407
4 ... 5	5	334	339	1		2	2	18	21	1·	338·	0·295
5 ... 6	6	318	324	2		2*	2	13	17	1·	323·5	0·617
6 ... 7	3	307	310	0		1	1	20	21	·5	309·5	0·000
7 ... 8	1	289	290	2		1	1	10	13	·5	289·5	0·690
8 ... 9	1	277	278	0		1	1	5	6	·5	277 5	0·000
9 ... 10	3	272	275	0				14	14		275·	0·000
10 ... 11	3	261	264	2				10	12		264·	0·758
11 ... 12	1	252	253	0				10	10		253·	0·000
12 ... 13	1	243	244	0				8	8		244·	0·000
13 ... 14	2	236	238	1		1†	1	14	16	·5	237·5	0·420
14 ... 15	1	222	223	1				19	20		223·	0·448
15 ... 16	1	203	204	0				19	19		204·	0·000
16 ... 17	1	185	186	1				12	13		186·	0·538
17 ... 18		173	173	1				14	15		173·	0·578
18 ... 19			158		67		67	8	75	33·5	124·5	
19 ... 20			83		0		0	8	8	0·	83·	
20 ... 21			75		0		0	10	10	0·	75·	
21 ... 22			65		65		65		65	32·5	32·5	
22 ... 23			0								0·	
Total...	53		5535	66	132	11	143	271	480	71·5	5463·5	1·207

* One of these is entered as "Died and not Subscribed for," but as no date of death is given, and he is placed on the Books for the period of six years, the case is put in this column.

† Ditto, but on the Books for fourteen years.

Table XV.

Daughters.—*Years* 1824–55, *deduced from Appendix* 3.

Ages.	Number Entered at each Age in 1824.	Number remaining under Observation from Age preceding.	Total Number under Observation at each Age.	Died.	Discontinued.			Total Discontinued.	Alive May, 1855.	Total gone off.	Half of Discontinued.	Number exposed to Risk of Mortality.	Mortality per cent.
					Not Subscribed for or Displaced.	Pension ceased.	Married						
0 to 1			386	25					11	36		386·	6·510
1 ... 2	5	350	350	13	1			1	11	25	·5	349·5	3·720
2 ... 3	5	325	330	11	1			1	12	24	·5	329·5	3·338
3 ... 4	1	306	307	4					12	16		307·	1·303
4 ... 5	6	291	297	3					6	9		297·	1·010
5 ... 6	4	288	292	5	2			2	10	17	1·	291·	1·718
6 ... 7	0	275	275	1					13	14		275·	0·364
7 ... 8	3	261	264	1					13	14		264·	0·758
8 ... 9	5	250	255	1					14	15		255·	0·392
9 ... 10	2	240	242	1					17	18		242·	0·413
10 ... 11	3	224	227	3					9	12		227·	1·321
11 ... 12	2	215	217	0	1			1	13	14	·5	216·5	0·000
12 ... 13	3	203	206	0					19	19		206·	0·000
13 ... 14	2	187	189	0					19	19		189·	0·000
14 ... 15	1	170	171	1					11	12		171·	0·585
15 ... 16	0	159	159	1					11	12		159·	0·629
16 ... 17	1	147	148	0			2	2	16	18	1·	147·	0·000
17 ... 18	1	130	131	1			4	4	13	18	2·	129·	0·775
18 ... 19	1	113	114				10	10	11	21	5·	109·	
19 ... 20		93	93				7	7	9	16	3·5	89·5	
20 ... 21			77				8	8	10	18	4·	73·	
21 ... 22			59			28	2	30	4	34	15·	44·	
22 ... 23			25				4	4	2	6	2·	23·	
23 ... 24			19				0	0	2	2	0·	19·	
24 ··· 25			17				2	2	2	4	1·	16·	
25 ··· 26			13				1	1	4	5	·5	12·5	
26 ··· 27			8						2	2		8·	
27 ··· 28			6						0	0		6·	
28 ... 29			6						0	0		6·	
29 ... 30			6						1	1		6·	
30 ... 31			5				1	1	2	3	·5	4·5	
31 ... 32			2						0	0		2·	
32 ... 33			2						0	0		2·	
33 ... 34			2						0	0		2·	
34 ... 35			2						0	0		2·	
35 ... 36			2						1	1		2·	
36 ... 37			1						0	0		1·	
37 ... 38			1						0	0		1·	
38 ... 39			1						1	1		1·	
39 ... 40			0									0·	
Total...	40		4907	71	5	28	41	74	281	426	37·	4870·	1·458

(56.) There are some important considerations connected with the results of these two Tables. For example, in the first year of life the mortality of sons is 7·026 per cent., and of daughters only 6·510 per cent.; but on referring to Appendix No. 11 of Mr. Davies' Report, it will be seen that the results arrived at by him shew a somewhat less rate of mortality, that for sons being

6·818 per cent., and for daughters 6·358 per cent. All these rates of mortality for children are, however, unprecedentedly low, and not corroborated by any other experience with which I am acquainted.

(57.) My attention has been drawn to Article 11 of the Law of October, 1841, page 121, of proceedings in regard to another subject, but it seems to me that it has an important bearing on the question of mortality now under consideration; and the nature of this influence may, perhaps, be more distinctly understood after examination of the following facts. The number of male children born in England and Wales during the year 1850, was 302,834, and the number of female children, 290,588, exclusive of still born; and during the same year there died

	Males.		Females.		Males and Females.
Under the age of three months	25,732	+	19,722	=	45,454
Three, and under six	8,895	+	7,209	=	16,104
Six, ... twelve	13,760	+	10,984	=	24,744
Total under One Year	48,387	+	37,915	=	86,302

(58.) Hence, according to the above figures of the total deaths taking place within the first twelve months after birth,—

52·669 per cent. die under the age of three months.
18·660 ... ... aged between three and six months.
And 28·671 ... ... six and twelve ...

(59.) It thus appears, from the public records of this country, that of those dying within the first twelve months after birth, more than one half die before attaining the age of three months; and from private records hereafter referred to, it will be found that of the whole number of deaths during the first year, upwards of one fourth die under one month old; but on examination of the schedules which you have submitted to me of fifty-five deaths taking place during the first year of life, I find only six to have happened during the first month, and only fourteen during the first three months after birth. This leads me to suppose that there must be many children who die during the first month after birth, of which no notice is ever given to the secretary of the Fund. It is scarcely possible to avoid this conclusion, not only in regard to the results heretofore deduced from your own records, but also those of the other Indian Funds. The following is an Abstract of the deaths of children, not more than a year old, as entered in the schedules, namely:

Died under one month	= 6
... above one month and under three . . .	= 8
... ... three ... ... six . . .	= 12
... ... six ... ... twelve . . .	= 29
Total deaths under one year of age	= 55

(60.) It is obvious that the number of deaths recorded as having taken place in the last six months of the year, is quite at variance with all correct experience on this subject. Nearly fifty-three per cent. of all the deaths are said to have taken place between the first six and twelve months of life, while the usual proportion, as already stated, is not more than twenty-nine per cent.; or in other words, while, according to the records of the Fund, about forty-seven per cent. of all the deaths which have taken place during the first year of life are assigned to the first six months of that year, the average, in other communities, would be at least seventy-one per cent. If, therefore, the entries made in regard to children dying in the last six months of the year be really reliable, seeing that the law of 5th October, 1841, would exclude those from certain privileges unless enrolled prior to that age, then it is easy to deduce, on the assumption that deaths take place, not with the same intensity in different communities, but in something like the same proportions or gradations at relative ages, what should have been the deaths recorded as having taken place before attaining the age of six months? They should be

$\frac{52{\cdot}669 \times 29}{28{\cdot}671} =$ 52 corrected deaths under 3 months.

$\frac{18{\cdot}660 \times 29}{28{\cdot}671} =$ 19 corrected deaths from 3 to 6 months.

But in the direct results 29 deaths are recorded from 6 to 12 months. Therefore

100 = the corrected number of deaths for the first year of life, and on referring to Tables XIV. and XV. it will be seen that the total number of children exposed to a complete year of risk is 812·5, and consequently $\frac{100}{812{\cdot}5} = 12{\cdot}308$ per cent.

(61.) Which agrees more nearly, as will immediately be seen with the rate of mortality indicated for the first year of life, by Tables of recognised authority.

(62.) There is, however, another feature to which we may refer in this place, in regard to the results of Appendix No. 11 in Mr. Davies' Report. It is obvious from an inspection of the first portion of that Appendix, namely, that in page 36, that from the manner in which he deduces his results, he assumes all the sons and daughters to have come under observation at the date of birth. This is further shewn to be so by the figures in the last column of Appendix No. 3; but this mode of construction is evidently wrong, for by the heading of Appendix No. 3 itself, as shewn in the printed copy pp. 9–19, it is stated that the list takes effect only from 1824, and therefore all the children born prior to that year should only come under observation at their particular age in 1824, and not at birth, as is done in Appendix No. 11. For example, the children Nos. 51 and 58 respectively in the male and female lists of Appendix 3 were born in the year 1810, but did not come under observation in Appendix 3 until 1824, when both were fourteen years of age; but in Appendix 11 they are entered at birth instead of at age fourteen, and consequently so far as the deaths are concerned, the number of years of life exposed to risk, for which no corresponding deaths are entered, is in consequence exaggerated.

(63.) There are in all ninety-three similar cases erroneously entered, extending over 587 complete years of life or risk, against which, on examination of Appendix 3, not a single death will be found entered; all the deaths actually noticed will be found in the last section of Abstract L following. The consequence is, that the total year's risk of sons and daughters is represented at

1823 + 1498 = 3321 complete years of risk, but the erroneous entries at birth of ninety-three cases which should have been entered at advanced ages, renders it necessary to make deductions to the extent of 587 years or upwards of 17 per cent. It is on the mortality at the younger ages, however, at which the effect will be most manifested.

(64.) In the case of male children, for example, the number of lives exposed to a complete year's risk under age one, Appendix 11, is 220; but it will be seen from Abstract L following, that at birth fifty-three erroneous male entries were made, and therefore the correct number of year's risk is 220 − 53 = 167.

(65.) But the number of male deaths in the first year of life is fifteen, therefore $\frac{1500}{167} = 8{\cdot}982$ per cent. instead of 6·818 per cent. as in Appendix 11, being an increase of no less than 31·446 per cent., arising from this simple oversight in the construction of that Appendix. In the same way has the rate of mortality, when corrected for the female children, been increased from 6·358 per cent. to 8·271 per cent.

(66.) As the question of the mortality of children now under consideration is one of great importance to the Fund, and should be therefore well understood. I have distinguished the erroneous entries in the following Abstract.

Abstract L.

Years' risk to be deducted on account of erroneous entries.		Year.	Number in Appendix 3 of each case which is erroneously entered. Males in Black Ink = 53 cases. Females in Red Ink = 40 cases.	Deaths.		
				Number recorded.		Years.
	18	1806	1,	3	2	1824
	17	1807	2,	4	2	1825
16	16	1808	6, 15,	2		1826
15		1809	13,	1	1	1827
14	14	1810	51, 58,	4	1	1828
26	26	1811	52, 77, 16, 53,	1		1829
12	36	1812	68, 3, 12, 43,	1	1	1830
11	22	1813	14, 4, 54,	3	1	1831
30	30	1814	7, 38, 46, 19, 55, 62,			1832
27	18	1815	15, 18, 78, 5, 44,	2	3	1833
8	40	1816	69, 17, 38, 45, 52, 63,	2	5	1834
7	21	1817	70, 6, 39, 59,	3	1	1835
18		1818	8, 19, 47,	2	3	1836
30	20	1819	39, 48, 62, 71, 79, 104, 21, 46, 71, 85,	2	1	1837
20	24	1820	1, 11, 42, 72, 90, 7, 22, 40, 42, 77, 103,	4	5	1838
9	3	1821	63, 106, 129, 64,			
16	10	1822	2, 37, 43, 49, 54, 80, 94, 105, 8, 20, 23, 72, 176,	34 + 26 =		
13		1823	9, 16, 28, 44, 57, 64, 67, 73, 81, 95, 107, 130, 135.	Number of Deaths.		
272 + 315 = 587 complete Years of Risk.						

(67.) The above cases, which have undoubtedly been inadvertently entered at birth by Mr. Davies in Appendix 11, instead of at the ages they had respectively attained in the year 1824, will be found to be entered in the second columns of Tables XIV. and XV. of this Report, at their proper ages in 1824, the date they come under observation for the purpose of analysis, and for which the Schedules were prepared.

(68.) With these remarks we shall now return to a further consideration of the results obtained in Tables XIV. and XV. It is evident that the rate of mortality formerly deduced for the guidance of the Fund in respect to infant life was even according to the correct analysis of your own records understated in Appendix 11, and also in the younger ages of Table 2 derived therefrom. Overlooking for the present the obvious necessary corrections in your records in respect to deaths in the first months of life, let us consider the relation in which the results obtained in these Tables bear to those deduced from other data.

(69.) In the following Abstract M are given the results of seven different classes of observations on the mortality of infant life, all of which bear more or less on the question as it applies to your own Fund. The data, the results of which are given in the second column, were very carefully collected, and every means taken to conduct the analysis with accuracy, but in this as in your own case some suspicion rested on the returns for the first month of life; still the rate of mortality is much greater than that indicated by your own records; and I cannot suppose that there is any sufficient distinction in the positions occupied by the class of families contrasted to account for so diverse results.

(70.) Again, the figures in the third column of Abstract M giving the results deduced from the Foundling Hospital here, although differing widely in the first and second years of life, agree pretty closely subsequently to the second year.

(71.) The fourth column contains the results of a very extensive investigation, conducted by myself, into the mortality of the industrious working classes of an important district of the metropolis, the characteristic feature of which is a high rate of mortality in the first three years of life, and immediately afterwards an unprecedentedly low mortality, as if all the sick and delicate children had been cut off in the three first years, and those of hardy, tried constitutions only, survived.

(72.) In the fifth column is given the results of the rate of mortality found to prevail in one of the healthiest districts in England, and these are less anomalous than any of the preceding three classes, and might, perhaps, be very safely used for the purposes of your Fund, were it not for the very rapid change from the mortality of the first to that for the second and third years.

(73.) The seventh and eighth columns of the next Abstract contain the rate of mortality found to prevail in the Madras Military, and in your own Fund; the results for the former being throughout much higher than your own. The figures in column (8) being deduced from the combined data of Tables XIV. and XV., and therefore give the mortality of both sexes.

(74.) After the best consideration I can give this subject, and keeping distinctly in view the most favourable circumstances for health, in which it will no doubt be said the children of your Fund are placed in common with those whose experience is given in column (2), and having duly weighed every other circumstance which appeared to me likely to affect the question, I am of opinion that the rate of mortality contained in column (6) of the following Abstract is that which most correctly applies to the purposes of your Fund.

(75.) For other Indian Funds I have for like considerations adopted the same rate of mortality for infant life, and the present investigation into the data collected by yourselves, further confirms my conviction that I have taken the right course in this matter. It seems to me impossible to reconcile the low rate of mortality which apparently prevails in the Indian Funds with the circumstances in which it is known the children are placed. The results are at variance with every other data in regard to infant life; and I need scarcely state that I have arrived at the conclusion of adopting the rate of mortality in column (6) of Abstract M after the most careful and patient deliberation, and having thoroughly sifted your own data. In the following Tables, therefore, the rate of mortality under ten years of age is that which prevails in England and Wales generally, as described in "Contributions to Vital Statistics."

Abstract M.

Ages.	Mortality per cent. deduced from							Ages.
	Family experience, being the result of nearly 10,000 children born in respectable families.	The Records of the Foundling Hospital, being the result of 2975 children admitted in the years 1778—1844.	The experience of the families of the Industrious Working Classes, resident in St. George's-in-the-East, during a period of upwards of 60 years. See "Journal of the Statistical Society," Vol. XI.	The County of Surrey, one of the healthiest Districts in England.	England and Wales generally.	Madras Military Fund.	Madras Medical Fund. Tables XIV and XV.	
0 to 1	10·395	17·915	11·860	14·729	14·631	7·714	6·782	0 to 1
1 ... 2	5·923	8·049	11·039	4·386	6·170	5·156	3·362	1 ... 2
2 ... 3	3·098	2·314	8·468	2·284	3·383	3·171	2·418	2 ... 3
3 ... 4	2·121	1·425	0·599	1·716	2·394	2·127	1·358	3 ... 4
4 ... 5	1·526	1·312	1·051	1·437	1·771	1·347	0·629	4 ... 5

(76.) On the only remaining point connected with the elementary data on which the valuation of the Assets and Liabilities of the Institution depends, there is much less discordance in the experience of the Indian Funds than has been observed in regard to the rates of mortality. The

Abstract N.

Ratio of Marriages among Widows and Daughters.

Ages.	WIDOWS.			DAUGHTERS.			WIDOWS AND DAUGHTERS.		
	Number exposed to risk.	Re-Married.	Marriages per cent.	Number exposed to risk.	Married.	Marriages per cent.	Number exposed to risk.	Married.	Marriages per cent.
16 to 20	8·	1	12·500	547·5	32	5·845	555·5	33	5·941
21 ... 25	49·5	3	6·061	114·5	9	7·860	164·	12	7·317
26 ... 30	108·5	3	2·765	30·5		0·000	139·	3	2·158
31 ... 35	188·5	1	0·530	10·		0·000	198·5	1	0·504
36 ... 40	258·	4	1·550	3·		0·000	261·	4	1·533
41 ... 45	242·	1	0·413				242·	1	0·413
46 ... 50	194·5	1	0·514				194·5	1	0·514
Ages.	Number exposed to risk.	Died and Re-Married	Ratio per cent.	Number exposed to risk.	Died and Married.	Ratio per cent.	Number exposed to risk.	Died and Married.	Ratio per cent.
16 to 20	8·	1	12·500	547·5	33	6·027	555·5	34	6·121
21 ... 25	49·5	3	6·061	114·5	9	7·860	164·	12	7·317
26 ... 30	108·5	6	5·530	30·5		0·000	139·	6	4·316
31 ... 35	188·5	2	1·061	10·		0·000	198·5	2	1·008
36 ... 40	258·	9	3·488	3·		0·000	261·	9	3·448
41 ... 45	242·	3	1·239				242·	3	1·240
46 ... 50	194·5	7	3·599				194·5	7	3·599

tendency to marriage and re-marriage in the different Funds shews a remarkable agreement, considering the limited numbers to which some of the observations are confined. The preceding Abstract exhibits the ratio of marriages amongst widows and daughters, as well as the ratio of dimissions on account of both death and marriage.

(77.) The total number of marriages, it will be observed, is but fifty-five, and of these no more than fourteen are re-marriages of widows. Sometime since I had submitted to me an official document, prepared by the Secretary of the Bombay Military Fund, from which it appears that from the 30th April, 1818, to the 30th April, 1851, the whole number of widows admitted on the Fund was 242, and of these fifty-one re-married*. But in the Bengal Military Fund it will be found, that from its establishment in November 1824, until the beginning of 1854, there were admitted 883 widows, of whom 161 re-married, 155 died, and five were removed from other causes; the greater magnitude and more recent origin of the data of the Bengal Fund, render the results more applicable to the purposes now under consideration, than the more limited data of the Bombay or other Funds, but that the difference of the various classes of results may be distinctly seen, the following Abstract is given, shewing the dimissions from all causes, namely, the combined ratios of deaths and marriages.

Abstract O.

Ages.	Combined Ratios of Death and Marriage per cent.						Ages.
	Bombay Military Fund. Widows and Daughters.	Madras Military Fund.			Madras Medical Fund. Widows and Daughters.	Bengal Military Fund Widows.	
		Widows.	Daughters.	Widows and Daughters.			
15 to 20	4·7	6·5	10·9	7·7	6·1	7·6	15 to 20
21 ... 25	8·4	6·5	9·0	7·1	7·3	6·0	21 ... 25
26 ... 30	6·1	6·3	3·2	5·3	4·3	4·3	26 ... 30
31 ... 35	4·2	5·3	1·5	3·8	1·0	3·9	31 ... 35
36 ... 40	3·3	4·6			3·4	2·8	36 ... 40
41 ... 45	2·4	4·0			1·2	2·1	41 ... 45
46 ... 50	2·4	3·4			3·6	2·3	46 ... 50

(78.) The preceding results for the Bengal Military Fund, are founded on observations made to the close of the year 1846, but its more recent experience I have found to be quite in accordance with the above ratios of dimissions from death and re-marriage.

(79.) In column (2) of the following Abstract is given the number of widows on the Fund on the 31st December, 1847, and also on the 31st December, 1851, in the aggregate, which will consequently represent very nearly twice the mean number of lives at risk for each of the four years, 1848, 9, 50, and 51. Column (3) exhibits the dimissions per cent. as given in the seventh column of the preceding Abstract, and also in column (2) of Table XVIII. Column (5) shews the calculated dimissions for each term of life for the whole period 1848–51, and which amounts to very nearly fifty-five; but on referring to the annual reports of the Fund, it will be found that during the same period thirty-one widows died and twenty-four re-married, in all fifty-five, agreeing with the calculated number.

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* There is a circumstance influencing the re-marriages in the Bombay Military Fund, which does not exist in your own, or in the Bengal Military Fund. *See* paragraph No. 4 of Second Report, dated 25th May, 1856, hereto appended.

Abstract P.

Ages.	Number living.	Dimissions per cent. from Death and Re-marriage.	Number of Dimissions in 2 Years.	Number of Dimissions in 4 Years.
17 to 20	3	7·635	·229	·458
21 ... 25	36	6·001	2·160	4·321
26 ... 30	64	4·326	2·769	5·537
31 ... 35	103	3·946	4·064	8·129
36 ... 40	121	2·820	3·412	6·824
41 ... 45	161	2·055	3·309	6·617
46 ... 50	133	2·288	3·043	6·086
51 ... 55	130	2·949	3·834	7·667
56 ... 60	52	2·686	1·397	2·793
61 ... 65	35	3·008	1·053	2·106
66 ... 70	25	4·383	1·096	2·192
71 ... 75	12	6·543	·785	1·570
76 ... 80	3	9·876	·296	·593
Total......	878	2·750	27·447	54·893

(80.) The second column of the following Table shews the tendency to re-marriage for quinquennial periods of life, as deduced from the experience of the Bengal Military Fund, and which ratios it is proposed to adopt in the valuation of your Assets and Liabilities.

(81.) In order to determine the four intermediate terms of each interval, Tables XVI. and XVII. have been calculated from the following formula, on the hypothesis that third differences are constant, and therefore the fourth differences vanish.

$$\delta u = \frac{\Delta u}{5} - 2\frac{\Delta^2 u}{5^2} + 6\frac{\Delta^3 u}{5^3} - 21\frac{\Delta^4 u}{5^4}$$

$$\delta^2 u = \cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\frac{\Delta^2 u}{5^2} - 4\frac{\Delta^3 u}{5^3} + 16\frac{\Delta^4 u}{5^4}$$

$$\delta^3 u = \cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\frac{\Delta^3 u}{5^3} - 6\frac{\Delta^4 u}{5^4}$$

$$\delta^4 u = \cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\frac{\Delta^4 u}{5^4}$$

(82.) This formula and its practical application are fully explained in pp. 205–13 of the third edition of "Contributions to Vital Statistics," now going through the press. It is, however, at the same time hoped that the details of manipulation exhibited in Tables XVI. and XVII. will be clearly understood by any one giving their construction careful attention.

(83.) The intermediate terms to be inserted between the original quantities in Table XVII. may obviously, seeing that the interval is one-fifth, be more easily found by substituting the equivalent fractions of the powers of five, and thereby determining the differences by multiplication, thus:—

$$\delta u = {\cdot}2\,\Delta u - 2\,({\cdot}04\,\Delta^2 u) + 6\,({\cdot}008\,\Delta^3 u)$$

$$\delta^2 u = \cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;{\cdot}04\,\Delta^2 u - 4\,({\cdot}008\,\Delta^3 u)$$

$$\delta^3 u = \cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;\cdot\;{\cdot}008\,\Delta^3 u$$

(84.) The rate

Table XVI.

Age.	Ratio of Re-Marriage. (u)	Δ_u $\frac{\Delta_u}{5}$	Δ_u^2 $\frac{\Delta_u^2}{5^2}$	Δ_u^3 $\frac{\Delta_u^3}{5^3}$
18	6·849	— 1·747	— ·026	+ 1·327
		— ·3494	— ·0010	+ ·0106
23	5·102	— 1·773	+ 1·301	— 2·033
		— ·3546	+ ·0520	— ·0163
28	3·329	— 0·472	— ·732	+ 1·085
		— ·0944	— ·0293	+ ·0087
33	2·857	— 1·204	+ ·353	+ ·573
		— ·2408	+ ·0141	+ ·0046
38	1·653	— 0·851	+ ·926	— ·619
		— ·1702	+ ·0370	— ·0050
43	0·802	+ 0·075	+ ·307	— 1·477
		+ ·0150	+ ·0123	— ·0118
48	0·877	+ 0·382	— 1·170	+ 1·488
		+ ·0764	— ·0468	+ ·0119
53	1·259	— 0·788	+ ·317	
		— ·1576	+ ·0127	
58	0·471	— 0·471		
		— ·0942		
63	0·000			

Table XVII.

Age.	Ratio of Re-Marriage.	δ_1	δ_2	δ_3	Age.	Ratio of Re-Marriage.	δ_1	δ_2	δ_3
18	**6·849**	— ·2838			**43**	**0·802**	— ·0804	— ·0042	
19	6·5652	·3272	— ·0434		44	0·7216	— ·0209	+ ·0595	
20	6·2380	·3600	·0328	+ ·0106	45	0·7007	+ ·0268	·0477	— ·0118
21	5·8780	·3822	·0222		46	0·7275	·0627	·0359	
22	5·4958	·3938	·0116		47	0·7902	·0868	·0241	
23	**5·102**	·5564	— ·1626		**48**	**0·877**	·2414	+ ·1546	
24	4·5456	·4392	+ ·1172		49	1·1184	·1470	— ·0944	
25	4·1064	·3383	·1009	— ·0163	50	1·2654	+ ·0645	·0825	+ ·0119
26	3·7681	·2537	·0846		51	1·3299	— ·0061	·0706	
27	3·5144	— ·1854	·0683		52	1·3238	·0648	— ·0587	
28	**3·329**	+ ·0164	+ ·2018		**53**	**1·259**	·0168	+ ·0480	
29	3·3454	— ·0477	— ·0641		54	1·2422	·0754	— ·0586	
30	3·2977	·1031	·0554	+ ·0087	55	1·1668	·1458	·0704	— ·0118
31	3·1946	·1498	·0467		56	1·0210	·2280	·0822	
32	3·0448	·1878	·0380		57	0·7930	·3220	— ·0940	
33	**2·857**	·2414	·0536		**58**	**0·471**	·1672	+ ·1548	
34	2·6156	·2457	— ·0043		59	0·3038	·1426	·0246	
35	2·3699	·2454	+ ·0003	+ ·0046	60	0·1612	·1061	·0365	+ ·0119
36	2·1245	·2405	·0049		61	0·0551	— ·0577	·0484	
37	1·8840	·2310	+ ·0095		62	0·0026	+ ·0026	+ ·0603	
38	**1·653**	·2742	— ·0432		**63**	**0·000**			
39	1·3788	·2172	+ ·0570						
40	1·1616	·1652	·0520	— ·0050					
41	0·9964	·1182	·0470						
42	0·8782	— ·0762	+ ·0420						

Table XVIII.

The expected Rate of Mortality, combined with the Ratio of Marriage, for the Widows and Daughters of the Fund.

Age y	Mortality per cent. $= d_y$ Marriages per cent. $= m_y$	$d_y + m_y$ $1-\frac{d_y+m_y}{100}$	$5 + \Sigma(c) = \lambda . l_y$ $\lambda.\left(1-\frac{d_y+m_y}{100}\right)=(c)$	Number living Unmarried $= l_y$	Number Dying or Marrying	Age y	Mortality per cent. $= d_y$ Marriages per cent. $= m_y$	$d_y + m_y$ $1-\frac{d_y+m_y}{100}$	$5 + \Sigma(c) = \lambda . l_y$ $\lambda.\left(1-\frac{d_y+m_y}{100}\right)=(c)$	Number Living Unmarried $= l_y$	Number Dying or Marrying
0	14·631	14·631	5·0000000	100000	14631	24	·918	5·464	4·5868308	38622	2111
		·85369	9·9313002				4·546	·94536	9·9755972		
1	6·170	6·170	4·9313002	85369	5268	25	·938	5·044	·5624280	36511	1841
		·93830	·9723471				4·106	·94956	·9775224		
2	3·383	3·383	·9036419	80101	2708	26	·958	4·726	·5399504	34670	1639
		·96617	·9850535				3·768	·95274	·9789744		
3	2·394	2·394	·8886954	77393	1854	27	·977	4·491	·5189248	33031	1484
		·97606	·9894765				3·514	·95509	·9800443		
4	1·771	1·771	·8781719	75539	1338	28	·997	4·326	·4989691	31547	1364
		·98229	·9922397				3·329	·95674	·9807939		
5	1·411	1·411	·8704116	74201	1047	29	1·016	4·361	·4797630	30183	1317
		·98589	·9938285				3·345	·95636	·9806350		
6	1·140	1·140	·8642401	73154	834	30	1·035	4·333	·4603980	28866	1250
		·98860	·9950206				3·298	·95667	·9807622		
7	·935	·935	·8592607	72302	676	31	1·053	4·248	·4411602	27616	1173
		·99065	·9959202				3·195	·95752	·9811479		
8	·887	·887	·8551809	71644	636	32	1·073	4·118	·4223081	26443	1089
		·99113	·9961306				3·045	·95882	·9817371		
9	·839	·839	·8513115	71008	595	33	1·089	3·946	·4040452	25354	1001
		·99161	·9963409				2·857	·96054	·9825155		
10	·792	·792	·8476524	70413	558	34	1·107	3·723	·3865607	24353	906
		·99208	·9965467				2·616	·96277	·9835225		
11	·718	·718	·8441991	69855	501	35	1·123	3·493	·3700832	23447	819
		·99282	·9968705				2·370	·96507	·9845588		
12	·663	·663	·8410696	69354	460	36	1·138	3·263	·3546420	22628	739
		·99337	·9971110				2·125	·96737	·9855926		
13	·632	·632	·8381806	68894	435	37	1·153	3·037	·3402346	21889	654
		·99368	·9972465				1·884	·96963	·9866060		
14	·627	1·627	·8354271	68459	1115	38	1·167	2·820	·3268406	21225	599
	1·000	·98373	·9928759				1·653	·97180	·9875769		
15	·649	2·649	·8283030	67344	1784	39	1·181	2·560	·3144175	20626	528
	2·000	·97351	·9883404				1·379	·97440	·9887373		
16	·699	4·199	·8166434	65560	2753	40	1·194	2·356	·3031548	20098	473
	3·500	·95801	·9813700				1·162	·97644	·9896456		
17	·745	5·745	·7980134	62807	3608	41	1·212	2·208	·2928004	19625	434
	5·000	·94255	·9743044				·996	·97792	·9903003		
18	·786	7·635	·7723178	59199	4519	42	1·231	2·109	·2831037	19191	405
	6·849	·92365	·9655074				·878	·97891	·9907428		
19	·819	7·384	·7378252	54680	4038	43	1·253	2·055	·2738465	18786	386
	6·565	·92616	·9666860				·802	·97945	·9909823		
20	·844	7·082	·7045112	50642	3577	44	1·277	1·999	·2648288	18400	368
	6·238	·92918	·9680999				·722	·98001	·9912305		
21	·860	6·738	·6726111	47065	3180	45	1·307	2·008	·2560593	18032	362
	5·878	·93262	·9697047				·701	·97992	·9911906		
22	·878	6·375	·6423158	43885	2798	46	1·337	2·065	·2472499	17670	365
	5·496	·93625	·9713918				·728	·97935	·9909379		
23	·899	6·001	4·6137076	41087	2465	47	1·373	2·163	4·2381878	17305	374
	5·102	·93999	9·9731232				·790	·97837	9·9905031		

Table XVIII.—(*continued.*)

Age y	Mortality per cent. = d_y Marriages per cent. = m_y	$d_y + m_y$ $1-\frac{d_y+m_y}{100}$	$5 + \Sigma(c) = \lambda . l_y$ $\lambda.(1-\frac{d_y+m_y}{100})=(c)$	Number Living Unmarried = l_y	Number Dying or Marrying.	Age y	Mortality per cent. = d_y Marriages per cent. = m_y	$d_y + m_y$ $1-\frac{d_y+m_y}{100}$	$5 + \Sigma(c) = \lambda . l_y$ $\lambda.(1-\frac{d_y+m_y}{100})=(c)$	Number Living Unmarried = l_y	Number Dying or Marrying
48	1·411 ·877	2·288 ·97712	4·2286909 9·9899479	16931	388	75	7·711	7·711 ·92289	3·7907798 9·9651499	6177	476
49	1·455 1·118	2·573 ·97427	·2186388 9886793	16543	425	76	8·368	8·368 91632	·7559297 ·9620472	5701	477
50	1·503 1·265	2·768 ·97232	·2073181 ·9878092	16118	446	77	9·103	9·103 ·90897	·7179769 ·9585495	5224	476
51	1·558 1·330	2·888 ·97112	·1951273 ·9872729	15672	453	78	9·876	9 876 ·90124	·6765264 ·9548405	4748	469
52	1·617 1·324	2·941 ·97059	·1824002 ·9870358	15219	447	79	10·732	10·732 ·89268	·6313669 ·9506958	4279	459
53	1·690 1·259	2·949 ·97151	·1694360 ·9874473	14772	421	80	11·621	11·621 ·88379	·5820627 ·9463491	3820	444
54	1·768 1·242	3·010 ·96990	·1568833 ·9867270	14351	432	81	12·588	12·588 ·87412	·5284118 ·9415711	3376	425
55	1·866 1·167	3·033 ·96967	·1436103 ·9866240	13919	422	82	13·589	13·589 ·86411	·4699829 ·9365690	2951	401
56	1·982 1·021	3·003 ·96997	·1302343 ·9867583	13497	405	83	14·674	14·674 ·85326	·4065519 ·9310814	2550	374
57	2·100 ·793	2·893 ·97107	·1169926 ·9872505	13092	379	84	15·789	15·789 ·84211	·3376333 ·9253688	2176	344
58	2·215 ·471	2·686 ·97314	·1042431 ·9881753	12713	342	85	17·020	17·020 ·82980	·2630021 ·9189734	1832	312
59	2·348 ·304	2·652 ·97348	·0924184 ·9883270	12371	328	86	18·312	18·312 ·81688	·1819755 ·9121583	1520	278
60	2·479 ·161	2·640 ·97360	·0807454 ·9883806	12043	318	87	19·708	19·708 ·80292	3·0941338 ·9046723	1242	245
61	2·625 ·055	2·680 ·97320	·0691260 ·9882021	11725	314	88	21·162	21·162 ·78838	2·9988061 ·8967356	997	211
62	2·797	2·797 ·97203	·0573281 ·9876797	11411	319	89	22·706	22·706 ·77294	·8955417 ·8881458	786	178
63	3·008	3·008 ·96992	·0450078 ·9867359	11092	334	90	24·268	24·268 ·75732	·7836875 ·8792794	608	148
64	3·233	3·233 ·96767	·0317437 ·9857273	10758	348	91	25·846	25·846 ·74154	·6629669 ·8701346	460	119
65	3·492	3·492 ·96508	·0174710 ·9845633	10410	363	92	27·404	27·404 ·72596	·5331015 ·8609127	341	93
66	3·761	3·761 ·96239	4·0020343 ·9833511	10047	378	93	28·999	28·999 ·71001	·3940142 ·8512645	248	72
67	4·065	4·065 ·95935	3·9853854 ·9819771	9669	393	94	30·625	30·625 ·69375	·2452787 ·8412030	176	54
68	4·383	4·383 95617	·9673625 ·9805351	9276	407	95	32·193	32·193 ·67807	2·0864817 ·8312745	122	39
69	4·744	4·744 ·95256	·9478976 ·9788923	8869	420	96	33·724	33·724 ·66276	1·9177562 ·8213563	83	28
70	5·126	5·126 ·94874	·9267899 ·9771472	8449	434	97	35·223	35·223 ·64777	·7391125 ·8114208	55	19
71	5·563	5·563 ·94437	·9039371 ·9751422	8015	445	98	36·642	36·642 ·63358	·5505333 ·8018015	36	13
72	6·022	6·022 ·93978	·8790793 ·9730262	7570	456	99	37·971	37·971 ·62029	·3523348 ·7925948	23	9
73	6·543	6·543 ·93457	·8521055 ·9706118	7114	466	100	39·300	39·300 ·60700	1·1449296 9·7831887	14	
74	7·090	7·090 ·92910	3·8227173 9·9680625	6648	471						

(84.) The rate of re-marriage among the widows being thus found, and the rate of mortality also known, the duration of widowhood is at once determined, and the preceding Table has accordingly been prepared for that purpose, as well as to exhibit the decrements amongst the daughters of members, as deduced from the elements already fully described, namely, according to the rate of mortality among the female population generally in England and Wales, and the ratio of marriages according to the experience of the Bengal Military Fund. In Table XVIII. the first and each alternate line in the second column in red ink shew the ratios of marriage as determined in Table XVII. preceding. The remaining portion of the Table will be sufficiently understood, from the explanation already furnished of Table XI.

(85.) Table XVIII. is the basis of the Auxiliary Tables hereafter described, by which the values of widows' pensions and the benefits of female children are to be determined.

(86.) Before, however, quite leaving that part of the present inquiry which relates to the ratio of marriages, it may be as well to refer again to the facts in Abstract N. It will be seen from the upper section of that Abstract, that the whole number of marriages amongst daughters was only forty-one, and from the lower section that the ratio of dimissions from all causes amongst daughters in the interval of highest intensity, namely, ages 21–25, was not more than 7·860 per cent., and even this was deduced from the small number of nine marriages. In the preceding quinquennium, ages 16–20, the ratio was only 6·022 per cent., yet notwithstanding it will be found that Mr. Davies, in calculating the contingent benefits of daughters, has adopted what, so far as data and experience in such matters extend, seems to be an unprecedentedly high ratio of dimissions for the early ages, that is, in the period of life 16–25. It is therefore most important that this should be clearly understood, as it will hereafter be found to have had an important bearing on the values assigned to daughters' contingent pensions. The following is an Abstract from Mr. Davies' Table 4, the basis of his calculations, compared with the results of the preceding Table.

Age.	Dimissions per cent. according to	
	Davies' Table 4.	Table XVIII.
16	5·417	4·199
17	9·415	5·745
18	10·907	7·635
19	11·200	7·384
20	11·489	7·082
21	10·807	6·738
22	9·997	6·375
23	8·998	6·001
24	7·581	5·464
25	5·683	5·044

(87.) The next Table corresponds with the preceding one, only that the element of marriage is excluded. It therefore simply represents the rate of mortality assumed to prevail amongst the widows and children of the Fund, and on it is founded the Auxiliary Tables by which the benefits to male children are determined. The rate of mortality is derived from Table C, pp. 5–6 " Contributions to Vital Statistics."

(88.) Having

Table XIX.

Decrements, and expected Mortality, among the Widows and Children on the Fund.—Marriages excluded.

Age y	Mortality per cent. $=d_y$ $1-\frac{d_y}{100}$	$(5+\Sigma(c)=\lambda.l_y$ $\lambda.\left(1-\frac{d_y}{100}\right)=(c)$	Number living $=l_y$	Number dying.	Age y	Mortality per cent. $=d_y$ $1-\frac{d_y}{100}$	$5+\Sigma(c)=\lambda.l_y$ $\lambda.\left(1-\frac{d_y}{100}\right)=(c)$	Number living $=l_y$	Number dying.
0	14·631 ·85369	5·0000000 9·9313002	100000	14631	26	·958 ·99042	4·7932887 9·9958194	62128	595
1	6·170 ·93830	4·9313002 ·9723417	85369	5267	27	·977 ·99023	·7891081 ·9957361	61533	602
2	3·383 ·96617	·9036419 ·9850535	80102	2710	28	·997 ·99003	·7848442 ·9956484	60931	607
3	2·394 ·97606	·8886954 ·9894765	77392	1853	29	1·016 ·98984	·7804926 ·9955650	60324	612
4	1·771 ·98229	·8781719 ·9922397	75539	1338	30	1·035 ·98965	·7760576 ·9954816	59712	618
5	1·411 ·98589	·8784116 ·9938285	74201	1047	31	1·053 ·98947	·7715392 ·9954026	59094	623
6	1·140 ·98860	·8642401 ·9950206	73154	834	32	1·073 ·98927	·7669418 ·9953148	58471	627
7	·935 ·99065	·8592607 ·9959202	72320	676	33	1·089 ·98911	·7622566 ·9952446	57844	630
8	·887 ·99113	·8551809 ·9961306	71644	636	34	1·107 ·98893	·7575012 ·9951656	57214	633
9	·839 ·99161	·8513115 ·9963409	71008	595	35	1·123 ·98877	·7526668 ·9950953	56581	636
10	·792 ·99208	·8476524 ·9965467	70413	558	36	1·138 ·98862	·7477621 ·9950294	55945	637
11	·718 ·99282	·8441991 ·9968705	69855	501	37	1·153 ·98847	·7427915 ·9949635	55308	637
12	·663 ·99337	·8410696 ·9971110	69354	460	38	1·167 ·98833	·7377550 ·9949020	54671	638
13	·632 ·99368	·8381806 ·9972465	68894	435	39	1·181 ·98819	·7326570 ·9948405	54033	638
14	·627 ·99373	·8354271 ·9972684	68459	429	40	1·194 ·98806	·7274975 ·9947833	53395	638
15	·649 ·99351	·8326955 ·9971722	68030	442	41	1·212 ·98788	·7222808 ·9947042	52757	639
16	·699 ·99301	·8298677 ·9969536	67588	473	42	1·231 ·98769	·7169850 ·9946207	52118	641
17	·745 ·99255	·8268213 ·9967524	67115	500	43	1·253 ·98747	·7116057 ·9945239	51477	646
18	·786 ·99214	·8235737 ·9965730	66615	523	44	1·277 ·98723	·7061296 ·9944183	50831	649
19	·819 ·99181	·8201467 ·9964285	66092	541	45	1·307 ·98693	·7005479 ·9942864	50182	656
20	·844 ·99156	·8165752 ·9963190	65551	554	46	1·337 ·98663	·6948343 ·9941543	49526	662
21	·860 ·99140	·8128942 ·9962489	64997	559	47	1·373 ·98627	·6889886 ·9939958	48864	671
22	·879 ·99121	·8091431 ·9961657	64438	566	48	1·411 ·98589	·6829844 ·9938285	48193	680
23	·899 ·99101	·8053088 ·9960780	63872	574	49	1·455 ·98545	·6768129 ·9936346	47513	691
24	·918 ·99082	·8013868 ·9959948	63298	582	50	1·503 ·98497	·6704475 ·9934230	46822	704
25	·938 ·99062	4·7973816 9·9959071	62716	588	51	1·558 ·98442	4·6638705 9·9931804	46118	719

Table **XIX.**—(*continued.*)

Age y	Mortality per cent. $= d_y$ $1-\frac{d_y}{100}$	$5+\Sigma(c)=\lambda.l_y$ $\lambda.\left(1-\frac{d_y}{100}\right)=(c)$	Number living $= l_y$	Number dying.	Age y	Mortality per cent. $= d_y$ $1-\frac{d_y}{100}$	$5+\Sigma(c)=\lambda.l_y$ $\lambda.\left(1-\frac{d_y}{100}\right)=(c)$	Number living $= l_y$	Number dying.
52	1·617 ·98383	4·6570509 9·9929201	45399	734	77	9·103 ·90897	4·2268774 9·9585495	16861	1535
53	1·690 ·98310	·6499710 ·9925977	44665	754	78	9·876 ·90124	·1854269 ·9548405	15326	1531
54	1·768 ·98232	·6425687 ·9922530	43911	777	79	10·732 ·89268	·1402674 ·9506958	13813	1483
55	1·866 ·98134	·6348217 ·9918195	43134	805	80	11·621 ·88379	·0909632 ·9463491	12330	1433
56	1·982 ·98018	·6266412 ·9913058	42329	838	81	12·588 ·87412	4·0373123 ·9415711	10897	1372
57	2·100 ·97900	·6179470 ·9907827	41491	872	82	13·589 ·86411	3·9788834 ·9365690	9525	1294
58	2·215 ·97785	·6087297 ·9902722	40619	900	83	14·674 ·85326	·9154524 ·9310814	8231	1208
59	2·348 ·97652	·5990019 ·9896811	39719	933	84	15·789 ·84211	·8465338 ·9253688	7023	1109
60	2·479 ·97521	·5886830 ·9890981	38786	961	85	17·020 ·82980	·7719026 ·9189734	5914	1006
61	2·625 ·97375	·5777811 ·9884475	37825	993	86	18·312 ·81688	·6908760 ·9121583	4908	899
62	2·797 ·97203	·5662286 ·9876997	36832	1030	87	19·708 ·80292	·6030343 ·9046723	4009	790
63	2·008 ·96992	·5539083 ·9867359	35802	1077	88	21·162 ·78838	·5077066 ·8967356	3219	681
64	3·233 ·96967	·5406442 ·9857273	34725	1123	89	22·706 ·77294	·4044422 ·8881458	2538	576
65	3·492 ·96508	·5263715 ·9845633	33602	1173	90	24·268 ·75732	·2925880 ·8792794	1962	477
66	3·761 ·96239	·5109348 ·9833511	32429	1219	91	25·846 ·74154	·1718674 ·8701346	1485	383
67	4·065 ·95935	·4942859 ·9819771	31210	1269	92	27·404 ·72596	3·0420020 ·8609127	1102	302
68	4·383 ·95617	·4762630 ·9805351	29941	1312	93	28·999 ·71001	2·9029147 ·8512645	800	232
69	4·744 ·95256	·4567981 ·9788923	28629	1359	94	30·625 ·69375	·7541792 ·8412030	568	174
70	5·126 ·94874	·4356904 ·9771472	27270	1397	95	32·193 ·67807	·5953822 ·8312745	394	127
71	5·563 ·94437	·4128376 ·9751422	25873	1440	96	33·724 ·66276	·4266567 ·8213563	267	90
72	6·022 ·93978	·3879798 ·9730262	24433	1471	97	35·223 ·64777	·2480130 ·8114208	177	62
73	6·543 ·93457	·3610060 ·9706118	22962	1502	98	36·642 ·63358	2·0594338 ·8018015	115	42
74	7·090 ·92910	·3316178 ·9680625	21460	1522	99	37·971 ·62029	1·8612353 ·7925948	73	28
75	7·711 ·92289	·2996803 ·9651499	19938	1537	100	39·300 ·60700	1·6538301 9·7831887	45	
76	8·368 ·91632	4·2648302 9·9620472	18401	1540					

(88.) Having now submitted all the elementary data in respect to the rate of mortality and marriage which it is presumed will affect the members, their wives, their widows, and their children, it is next necessary to describe the Auxiliary Tables to be applied to the determination of the assets and liabilities of the Fund.

(89.) In the preceding portion of this Report I have been anxious to make the basis of the following monetary Tables thoroughly understood, and to remove, if possible, all doubts as to the data being fairly applicable for the regulation of your financial operations.

(90.) In pages 531 to 578 inclusive of the third edition of "Contributions to Vital Statistics" will be found ample illustrations and examples of the processes by which most of the following Tables have been formed, but to avoid reference to that work, I will give as clear and succinct an explanation of the construction of each Table as possible.

Let l_y = Number living at age y, in the fifth column of Table XVIII., and

v^y = Present value of £1 or one rupee due y years hence; then in the following Table XX.

$D_y = l_y . v^y$ and

$\lambda . D_y = \lambda . l_y + \lambda . v^y$, also

$N_y = \Sigma D_{y+1}$

$\frac{N_y}{D_y} = a_y$ = Present value of £1 or one rupee annuity, payable yearly in arrear until the death or marriage of a widow, or other female incumbent on the Fund.

(91.) But as your annuities are payable half-yearly, they are obviously more valuable than one payable yearly, inasmuch as the interest of the money of the first half-yearly instalment paid at the end of the first six months of the year is lost to the Fund for the remaining six months of the year, and also the annuitant does not run the risk from mortality incurred by waiting to the end of the year. The increased value of an annuity payable more frequently than yearly is usually determined from the expression $\frac{n-1}{2n}$, the number of payments per annum being indicated by n; to the value therefore of an annuity, as determined from the expression $\frac{N_y}{D_y}$ there must be added in consideration of its being paid half-yearly $\frac{2-1}{2 \times 2} = {\cdot}25$, therefore $a_y + {\cdot}25$ is the value of an annuity payable half-yearly in arrear.

(92.) Your annuities are payable up to the date of death, and as it may for all practical purposes be assumed that of all annuitants dying between the fixed dates for payment of annuities, they will one with another die at the middle of the interval, and consequently, on an average, one quarter of a year's annuity will be due to each at death, and there must therefore be added to the above-mentioned increment the present value of the reversion to one quarter of a year's annuity.

a_y Being as already stated the present value of an annuity of £1 or one rupee, payable yearly in arrear on a life aged y,

Let r = The amount of interest realised in one year, by the investment of £1 or one rupee, so that at the end of one year, by the operation of interest, £1 has increased to $1 + r$; therefore

$r\,a_y$ = Present value of an annuity r payable yearly on a life aged y. Hence

$1 - r\,a_y$ = Present value of the reversion of £1 to be received at the moment when the last instalment of the annuity r has been paid, previous to the decease of y; but the life has an equal chance of surviving six months after the date of the last payment of the annuity y, if the above expression be therefore discounted for six months.

$\dfrac{1 - r\,a_y}{1 + \frac{r}{2}} = (1 - r\,a_y) \cdot \dfrac{1}{1 + \frac{r}{2}}$ = Present value of the reversion of £1 payable at the instant of the death of y; but ordinary assurances being usually assumed to be payable at six months after death, which will make the interval between payment of the last instalment of annuity r, and the receipt of the assurance one year, consequently the expression $1 - r\,a_y$ will need to be discounted for one year, and therefore

$\dfrac{1 - r\,a_y}{1 + r} = (1 - r\,a_y) \cdot \dfrac{1}{1 + r} = (1 - r\,a_y) \,.\, v$ = Present value of an assurance of £1 payable six months after death, and will be found identical with the ordinary formula given in treatises on life contingencies. It is in the present case, however, only necessary to find the value of the reversion at the instant of death, and this may be done from either of the expressions.

$\dfrac{1 - r\,a_y}{1 + \frac{r}{2}} = (1 - r\,a_y) \,.\, v^{\frac{1}{2}}$ The value of which may be indicated by A'_y

At 8 per cent. $A'_y = \dfrac{1 - {\cdot}08\,a_y}{1{\cdot}04} = \dfrac{1}{1{\cdot}04} - \dfrac{{\cdot}08}{1{\cdot}04}\,a_y = {\cdot}9615 - \frac{1}{13}\,a_y$

And therefore the simplest practical manner of finding the value of this increment is

$A'_y = {\cdot}9615 - \frac{1}{13}\,a_y$, and this will accordingly be found done in Table XXIX.

(93.) It has, however, been pointed out, that as the annuity is in fact payable half-yearly, the reversion to the whole annuity of £1 or one rupee would not be receivable, but only one quarter of a year's annuity, and the reversion to it will be therefore worth only $\frac{A'_y}{4}$ and this is the increment to be added to the expression $\frac{N_y}{D_y}$ on account of the annuity being payable up to the date of death. It has also been shewn that because the annuity is payable by half-yearly instalments, the same expression receives the increase of ·25, and consequently

$\dfrac{N_y}{D_y} + {\cdot}25 + \dfrac{A'_y}{4} = a_y + {\cdot}25 + \dfrac{A'_y}{4} = a_y + \dfrac{1 + A'}{4}$ = Present value of an annuity of £1 or one rupee payable by half-yearly instalments, and up to the date of death.

(94.) If therefore the values of annuities payable yearly in arrear be increased by the £$\frac{1}{4} + \frac{A'_y}{4} = \frac{1 + A'_y}{4}$ the result will give the values of annuities payable half-yearly, and to the date of death or marriage, as the case may be.

(95.) The method

Table XX.

Preparatory to the determination of Pensions and Annuities to Widows and Children, the probabilities of Mortality and Marriage being combined. (Eight per Cent.)

Age (y)	$\lambda . l_y = (1)$ $\lambda . v^y = (2)$	(1) + (2) = $\lambda . D_y$	D_y	N_y	$\lambda . N_y$	Age (y)
0	5·0000000 0·0000000	5·0000000	100000·0	791022·43	5·8981888	0
1	4·9313002 9·9665762	4·8978764	79045·36	711977·07	·8524660	1
2	·9036419 ·9331525	·8367944	68674·33	643302·74	·8084154	2
3	·8886954 ·8997287	·7884241	61436·17	581866·57	·7648234	3
4	·8781719 ·8663050	·7444769	55523·51	526343·06	·7212689	4
5	·8704116 ·8328812	·7032928	50500·16	475842·90	·6774635	5
6	·8642401 ·7994575	·6636976	46099·65	429743·25	·6332091	6
7	·8592607 ·7660337	·6252944	42198·25	387545·00	·5883221	7
8	·8551809 ·7326100	·5877909	38707·12	348837·88	·5426236	8
9	·8513115 ·6991862	·5504977	35522·02	313315·86	·4959824	9
10	·8476524 ·6657624	·5134148	32614·81	280701·05	·4482440	10
11	·8441991 ·6323387	·4765378	29959·73	250741·32	·3992258	11
12	·8410696 ·5989149	·4399845	27541·30	223200·02	·3486942	12
13	·8381806 ·5654912	·4036718	25332·13	197867·89	·2963752	13
14	·8354271 ·5320674	·3674945	23307·43	174560·46	·2419459	14
15	·8283030 ·4986437	·3269467	21229·84	153330·62	·1856289	15
16	·8166434 ·4652199	·2818633	19136·54	134194·08	·1277335	16
17	·7980134 ·4317962	·2298096	16974·99	117219·09	·0689984	17
18	·7723178 ·3983724	·1706902	14814·61	102404·48	5·0103190	18
19	·7378252 ·3649486	·1027738	12669·92	89734·558	4·9529596	19
20	·7045112 ·3315249	4·0360361	10865·16	78869·398	·8969085	20
21	·6726111 ·2981011	3·9707122	9347·860	69521·538	·8421193	21
22	·6423158 ·2646774	·9069932	8072·224	61449·314	·7885170	22
23	·6137076 ·2312536	·8449612	6997·794	54451·520	·7360101	23
24	·5868308 ·1978399	·7846707	6090·749	48360·771	·6844932	24
25	·5624280 ·1644061	·7268341	5331·312	43029·459	·6337659	25
26	·5399504 ·1309824	·6709328	4687·408	38342·051	·5836754	26
27	·5189248 ·0975586	·6164834	4135·075	34206·976	·5341147	27
28	·4989691 ·0643418	·5631039	3656·823	30550·153	·4850134	28
29	·4797630 9·0307111	·5104741	3239·471	27310·682	·4363325	29
30	4·4603980 8·9972873	3·4576853	2868·701	24441·981	4·3881364	30

Table XX.—(*continued.*)

Age (y)	$\lambda . l_y = (1).$ $\lambda . v^y = (2)$	$(1) + (2) =$ $\lambda . D_y$	D_y	N_y	$\lambda . N_y$	Age (y)
31	4·4411602 8·9638636	3·4050238	2541·112	21900·869	4·3404613	31
32	·4223081 ·9304398	·3527479	2252·931	19647·938	·2933169	32
33	·4040452 ·8970161	·3010613	2000·144	17647·794	·2466904	33
34	·3865607 ·8635923	·2501530	1778·906	15868·888	·2005465	34
35	·3700832 ·8301686	·2002518	1585·812	14283·076	·1548217	35
36	·3546420 ·7967448	·1513868	1417·055	12866·021	·1094442	36
37	·3402346 ·7633210	·1035556	1269·274	11596·747	·0643363	37
38	·3268406 ·7298973	·0567379	1139·562	10457·185	4·0194148	38
39	·3144175 ·6964735	3·0108910	1025·394	9431·7911	3·9745942	39
40	·3031548 ·6630498	2·9662046	925·1339	8506·6572	·9297590	40
41	·2928004 ·6296260	·9224264	836·4239	7670·2333	·8848086	41
42	·2831037 ·5962023	·8793060	757·3663	6912·8670	·8396582	42
43	·2738465 ·5627785	·8366250	686·4754	6226·3916	·7942364	43
44	·2648288 ·5293548	·7941836	622·5634	5603·8282	·7484847	44
45	·2560593 ·4959310	·7519903	564·9244	5038·9038	·7023360	45
46	·2472499 ·4625072	·7097571	512·5746	4526·3292	·6557461	46
47	·2381878 ·4290835	·6672713	464·8056	4061·5236	·6086890	47
48	·2286909 ·3956597	·6243506	421·0664	3640·4572	·5611559	48
49	·2186388 ·3622360	·5808748	380·9560	3259·5102	·5131512	49
50	·2073181 ·3288122	·5361303	343·6610	2915·8402	·4647637	50
51	·1951273 ·2953885	·4905158	309·3968	2606·4434	·4160483	51
52	·1824002 ·2619647	·4443649	278·2049	2328·2385	·3670275	52
53	·1694360 ·2285410	·3979770	250·0213	2078·2172	·3176909	53
54	·1568833 ·1951172	·3520005	224·9058	1853·3114	·2679483	54
55	·1436103 ·1616934	·3053037	201·9778	1651·3336	·2178348	55
56	·1302343 ·1282697	·2585040	181·3443	1469·9893	·1673142	56
57	·1169926 ·0948459	·2118385	162·8690	1307·1203	·1163155	57
58	·1042431 ·0614222	·1656653	146·4419	1160·6784	·0647121	58
59	·0924184 8·0279984	·1204168	131·9522	1028·7262	3·0122998	59
60	·0807454 7·9945747	·0753201	118·9378	909·78841	2·9589404	60
61	·0691260 ·9611509	2·0302769	107·2203	802·56811	·9044819	61
62	0573281 ·9277272	1·9850553	96·61739	705·95072	·8487743	62
63	·0450078 ·8943034	·9393112	86·95833	618·99239	·7916853	63
64	·0317437 ·8608796	·8926233	78·09501	540·89738	·7331149	64
65	4·0174710 7·8274559	1·8449269	69·97242	470·92496	2·6729517	65

Table XX.—(*continued.*)

Age (y)	$\lambda . l_y = (1)$ $\lambda . v^y = (2)$	$(1) + (2) = \lambda . D_y$	D_y	N_y	$\lambda . N_y$	Age (y)
66	4·0020343 7·7944321	1·7960664	62·52683	408·39813	2·6110837	66
67	3·9853854 ·7606084	·7459938	55·71778	352·68035	·5473812	67
68	·9673625 ·7271846	·6945471	49·49338	303·18697	·4817105	68
69	·9478976 ·6937609	·6416585	43·81860	259·36837	·4139170	69
70	·9267899 ·6603371	·5871270	38·64799	220·72038	·3438427	70
71	·9039371 ·6269134	·5308505	33·95084	186·76954	·2713062	71
72	·8790793 ·5934896	·4725689	29·68718	157·08236	·1961274	72
73	·8521055 ·5600658	·4121713	25·83279	131·24957	·1180979	73
74	·8227173 ·5266421	·3493594	22·35421	108·89536	2·0370094	74
75	·7907798 ·4932183	·2839981	19·23083	89·664531	1·9526206	75
76	·7559297 ·4597946	·2157243	16·43328	73·231251	·8646965	76
77	·7179769 ·4263708	·1443477	13·94273	59·288521	·7729707	77
78	·6765264 ·3929471	1·0694735	11·73474	47·553781	·6771851	78
79	·6313669 ·3595233	0·9908902	9·792424	37·761357	·5770477	79
80	·5820627 ·3260996	·9081623	8·093983	29·667374	·4722791	80
81	·5284118 ·2926758	·8210876	6·623501	23·043873	·3625554	81
82	·4699829 ·2592521	·7292350	5·360867	17·683006	·2475560	82
83	·4065519 ·2258283	·6323802	4·289239	13·393767	·1269029	83
84	·3376333 ·1924045	·5300378	3·388737	10·005030	1·0002184	84
85	·2630021 ·1589808	·4219829	2·642305	7·3627246	0·8670386	85
86	·1819755 ·1255571	·3075326	2·030171	5·3325536	·7269353	86
87	3·0941338 ·0921333	·1862671	1·535561	3·7969926	·5794398	87
88	2·9988061 ·0587095	0·0575156	1·141605	2·6553876	·4241280	88
89	·8955417 7·0252858	9·9208275	·8333501	1·8220375	·2605573	89
90	·7836875 6·9918620	·7755495	·5964164	1·2256212	0·0883563	90
91	·6629669 ·9584383	·6214052	·4182204	·8074008	9·9070891	91
92	·5331015 ·9250145	·4581160	·2871548	·5202460	·7162087	92
93	·3940142 ·8915907	·2856049	·1930212	·3272248	·5148462	93
94	·2452787 ·8581670	9·1034457	·1268954	·2003294	·3017467	94
95	2·0864817 ·8247432	8·9112249	·0815126	·1188168	9·0748778	95
96	1·9177562 ·7913195	·7090757	·0511771	·0676397	8·8302017	96
97	·7391125 ·7578957	·4970082	·0314057	·0362340	·5591163	97
98	·5505333 .7244720	·2750053	·0188367	·0173973	8·2404819	98
99	·3523348 .6910482	8·0433830	·0110505	·0063468	7·8025548	99
100	1·1449296 6·6576245	7·8025541	·0063468			100

Table XXI.

Preparatory to the determination of the values of the Benefits to Fatherless Children.

Age (y)	$\lambda . l_y = (1)$. $\lambda . v^y = (2)$	$(1) + (2) = \lambda . D_y$	D_y	N_y	$\lambda . N_y$	Age (y)
0	5·0000000 0·0000000	5·0000000	100000·0	874583·54	5·9418013	0
1	4·9313002 9·9665762	4·8978764	79045·36	795538·18	·9006611	1
2	·9036419 ·9331525	·8367944	68674·33	726863·85	·8614531	2
3	·8886954 ·8997287	·7884241	61436·17	665427·68	·8231008	3
4	·8781719 ·8663050	·7444769	55523·51	609904·17	·7852615	4
5	·8704116 ·8328812	·7032928	50500·16	559404·01	·7477256	5
6	·8642401 ·7994575	·6636976	46099·65	513304·36	·7103750	6
7	·8592607 ·7660337	·6252944	42198·25	471106·11	·6731187	7
8	·8551809 ·7326100	·5877909	38707·12	432398·99	·6358846	8
9	·8513115 ·6991862	·5504977	35522·02	396876·97	·5986558	9
10	·8476524 ·6657624	·5134148	32614·81	364262·16	·5614141	10
11	·8441991 ·6323387	·4765378	29959·73	334302·43	·5241395	11
12	·8410696 ·5989149	·4399845	27541·30	306761·13	·4868002	12
13	·8381806 ·5654912	·4036718	25332·13	281429·00	·4493689	13
14	·8354271 ·5320674	·3674945	23307·43	258121·57	·4118243	14
15	·8326955 ·4986437	·3313392	21445·65	236675·92	·3741541	15
16	·8298677 ·4652199	·2950876	19728·21	216947·71	·3363550	16
17	·8268213 ·4317962	·2586175	18139·18	198808·53	·2984349	17
18	·8235737 ·3983724	·2219461	16670·40	182138·13	·2604008	18
19	·8201467 ·3649486	·1850953	15314·24	166823·89	·2222582	19
20	·8165752 ·3315249	·1481001	14063·71	152760·18	·1840101	20
21	·8128942 ·2981011	·1109953	12912·05	139848·13	·1456567	21
22	·8091431 ·2646774	·0738205	11852·78	127995·35	·1071942	22
23	·8053088 ·2312536	4·0365624	10878·33	117117·02	·0686202	23
24	·8013868 ·1978399	3·9992267	9982·209	107134·81	5·0299305	24
25	·7973816 ·1644061	·9617877	9157·729	97977·086	4·9911245	25
26	·7932887 ·1309824	·9242711	8399·841	89577·245	·9521977	26
27	·7891081 ·0975586	·8866667	7703·121	81874·124	·9131466	27
28	·7848442 ·0641348	·8489790	7062·834	74811·290	·8739672	28
29	·7804926 9·0307111	·8112037	6474·462	68336·828	·8346548	29
30	4·7760576 8·9972873	3·7733449	5933·964	62402·864	4·7952045	30

Table XXI.—(*continued.*)

Age (y)	$\lambda . l_y = (1).$ $\lambda . v^y = (2)$	$(1) + (2) =$ $\lambda . D_y$	D_y	N_y	$\lambda . N_y$	Age (y)
31	4·7715392 8·9638636	3·7354028	5437·544	56965·320	4·7556106	31
32	·7669418 ·9304398	·6973816	4981·746	51983·574	·7158661	32
33	·7622566 ·8970161	·6592727	4563·233	47420·341	·6759646	33
34	·7575012 ·8635923	·6210935	4179·204	43241·137	·6358971	34
35	·7526668 ·8301686	·5828354	3826·797	39414·340	·5956542	35
36	·7477621 ·7967448	·5445069	3503·539	35910·801	·5552251	36
37	·7427915 ·7633210	·5061125	3207·100	32703·701	·5145969	37
38	·7377550 ·7298973	·4676523	2935·299	29768·402	·4737555	38
39	·7326570 ·6964735	·4291305	2686·151	27082·251	·4326847	39
40	·7274975 ·6630498	·3905473	2457·805	24624·446	·3913664	40
41	·7222808 ·6296260	·3519068	2248·572	22375·874	·3497800	41
42	·7169850 ·5962023	·3131873	2056·777	20319·097	·3079044	42
43	·7116057 ·5627785	·2743842	1880·980	18438·117	·2657166	43
44	·7061296 ·5293548	·2354844	1719·826	16718·291	·2231918	44
45	·7005479 ·4959310	·1964789	1572·095	15146·196	·1803037	45
46	·6948343 ·4625072	·1573415	1436·619	13709·577	·1370241	46
47	·6889886 ·4290835	·1180721	1312·418	12397·159	·0933222	47
48	·6829844 ·3956597	·0786441	1198·516	11198·643	·0491655	48
49	·6768129 ·3622360	3·0390489	1094·079	10104·564	4·0045177	49
50	·6704475 ·3288122	2·9992597	998·2968	9106·2673	3·9593404	50
51	·6638705 ·2953885	·9592590	910·4560	8195·8113	·9135920	51
52	·6570509 ·2619647	·9190156	829·8806	7365·9307	·8672276	52
53	·6499710 ·2285410	·8785120	755·9830	6609·9477	·8201980	53
54	·6425687 ·1951172	·8376859	688·1544	5921·7933	·7724533	54
55	·6348217 ·1616934	·7965151	625·9146	5295·8787	·7239381	55
56	·6266412 ·1282697	·7549109	568·7363	4727·1424	·6745987	56
57	·6179470 ·0948459	·7127929	516·1702	4210·9722	·6243823	57
58	·6087297 ·0614222	·6701519	267·8988	3743·0734	·5732283	58
59	·5990019 8·0279984	·6270003	423·6433	3319·4301	·5210635	59
60	·5886830 7·9945747	·5832577	383·0520	2936·3781	·4678120	60
61	·5777811 ·9611509	·5389320	345·8852	2590·4929	·4133823	61
62	·5662286 ·9277272	·4939558	311·8572	2278·6357	·3576749	62
63	·5539083 ·8943034	·4482117	280·6802	1997·9555	·3005858	63
64	·5406442 ·8608796	·4015238	252·0715	1745·8840	·2420154	64
65	4·5263715 7·8274559	2·3538274	225·8538	1520·0302	3·1818523	65

Table XXI.—*(continued.)*

Age (y)	$\lambda . l_y$ = (1). $\lambda . v^y$ = (2)	(1) + (2) = $\lambda . D_y$	D_y	N_y	$\lambda . N_y$	Age (y)
66	4·5109348 7·7940321	2·3049669	201·8212	1318·2090	3·1199843	66
67	·4942859 ·7606084	·2548943	179·8433	1138·3657	3·0562818	67
68	·4762630 ·7271846	·2034476	159·7525	978·61323	2·9906110	68
69	·4567981 ·6937609	·1505590	141·4357	837·17753	·9228176	69
70	·4356904 ·6603371	·0960275	124·7463	712·43123	·8527429	70
71	·4128376 ·6269134	2·0397510	109·5850	602·84623	·7802065	71
72	·3879798 ·5934896	1·9814694	95·82292	507·02331	·7050280	72
73	·3610060 ·5600658	·9210718	83·38191	423·64140	·6269984	73
74	·3316178 ·5266421	·8582599	72·15391	351·48749	·5459098	74
75	·2996803 ·4932183	·7928986	62·07241	289·41508	·4615211	75
76	·2648302 ·4597946	·7246248	53·04260	236·37248	·3735969	76
77	·2268774 ·4263708	·6532482	45·00369	191·36879	·2818712	77
78	·1854269 ·3929471	·5783740	37·87686	153·49193	·1860855	78
79	·1402674 ·3595233	·4997907	31·60754	121·88439	2·0859481	79
80	·0909632 ·3260996	·4170628	26·12539	95·758998	1·9811796	80
81	4·0373123 ·2926758	·3299881	21·37904	74·379958	·8714558	81
82	3·9788834 ·2592521	·2381355	17·30356	57·076398	·7564565	82
83	·9154524 ·2258283	·1412807	13·84461	43·231788	·6358032	83
84	·8465338 ·1924045	1·0389383	10·93801	32·293778	·5091188	84
85	·7719026 ·1589808	0·9308834	8·528711	23·765067	·3759390	85
86	·6908760 ·1255571	·8164361	6·552894	17·212173	·2358357	86
87	·6030343 ·0921333	·6951676	4·956415	12·255758	1·0883302	87
88	·5077066 ·0587095	·5664161	3·684819	8·5709394	0·9330284	88
89	·4044422 7·0252858	·4297280	2·689850	5·8810894	·7694578	89
90	·2925880 6·9918620	·2844500	1·925085	3·9560044	·5972567	90
91	·1718674 ·9584383	0·1303057	1·349913	2·6060914	·4159900	91
92	3·0420020 ·9250145	9·9670165	·9268650	1·6792264	·2251093	92
93	2·9029147 ·8915907	·7945054	·6230249	1·0562015	0·0237472	93
94	·7541792 ·8581670	·6123462	·4095872	·6466143	9·8106453	94
95	·5953822 ·8247432	·4201254	·2631027	·3835116	·5837785	95
96	·4266567 ·7913195	·2179762	·1651872	·2183244	·3391023	96
97	·2480130 ·7578957	9·0059087	·1013698	·1169546	9·0680173	97
98	2·0594338 ·7244720	8·7839058	·0608003	·0561543	8·7493830	98
99	1·8612353 ·6910482	·5522835	·0356684	·0204859	8·3114551	99
100	1·6538301 6·6576245	8·3114546	·0204859			100

(95.) The method by which the preceding Table XXI. has been constructed is precisely similar to that of Table XX., only that the element of marriage is excluded, and consequently it furnishes the means by which the values of annuities to children and widows may be found on the assumption that they are not affected by marriage. It is deduced from Table XIX.

(96.) The next portions of the Auxiliary Tables to which it is necessary to direct attention are those by which the values of the contingent assets and liabilities of the Fund are to be determined, and first in regard to those by which members' contributions or annuities payable during the joint lives of husband and wife are to be found, and also the values of the wives' actual contingent pensions on the death of the husbands.

(97.) Owing to the multiplicity of the Tables hereafter given on joint lives, and the great labour involved in their construction, it was necessary, not only in order to economise time, but to ensure accuracy, to have recourse to some other than the direct mode of construction employed in the formation of Tables XX. and XXI. preceding. The determination of the figures in column D_y of the two preceding Tables was accomplished by an independent calculation for each result, and was not affected by those for other ages; but in the construction of the subsequent Table XXV. a continuous calculation by the method of series has been preferred, and of which the formula will be immediately given. One great advantage to be derived from this method is, that if an error should enter into any step of the calculation throughout the Table, it will affect the whole of the subsequent results, and as a few minutes will suffice to perform the direct calculation for any given age, the agreement or difference between the results of the two methods will shew whether the whole Table by the continuous method has been properly constructed or otherwise.

Let l_x = Number living at age x in the second column of Table XI. (members) and

l_y = Number living at age y in the second column of Table XII. (members' wives)

$p_x = \frac{l_{x+1}}{l_x}$ = Probability of living one year at age x, and therefore

$\lambda . p_x = \lambda . l_{x+1} - \lambda . l_x$ In like manner will

$\lambda . p_{x,y}$ = Probability of the joint survivorship for one year of two lives aged x and y. Also let

$r = 0{\cdot}08$, Eight per cent. being the rate of interest adopted in the calculation of all the Tables in this Report.

$1 + r = 1{\cdot}08$, $\lambda . (1 + r) = 0{\cdot}0334238$, and therefore $\frac{1}{2} \lambda . (1 + r) = 0{\cdot}0167119$.

$v = \frac{1}{1 + r} = \frac{1}{1{\cdot}08} = {\cdot}92592593$ being the present value of £1 due one year hence, consequently

$\lambda . v = 9{\cdot}9665762 \quad 44513$, and therefore $\lambda . \sqrt{v} = \frac{1}{2} \lambda . v = \frac{1}{2} \lambda . \left(\frac{1}{1{\cdot}08}\right) = 9{\cdot}9832881 \quad 222565$.

$v^{\frac{1}{2}} = \frac{1}{1 + \frac{r}{2}} = \frac{1}{1{\cdot}04} = {\cdot}96153846$ being the present value of £1 due six months hence, and therefore

$\lambda . v^{\frac{1}{2}} = \lambda \cdot \left(\frac{1}{1 + \frac{r}{2}}\right) = \lambda \cdot \left(\frac{1}{1{\cdot}04}\right) = 9{\cdot}9829666 \quad 60701$, which is not to be confounded with $\frac{1}{2} \lambda . v$, the quantity employed in the determination of the vertical series in Tables XXII. and XXIII.

(98.) Then in the construction of the following Auxiliary Tables on Joint Lives will

$$\begin{aligned}
D_{x,y} &= l_x \,.\, l_y \,.\, v^{\frac{1}{2}(x+y)} = l_{x,y} \,.\, v^{\frac{1}{2}(x+y)} \\
D_{(x,y)+1} &= l_{(x,y)+1} \,.\, v^{\frac{1}{2}(x,y)+1} \\
\lambda.D_{(x,y)+1} &= \lambda.D_{x,y} + \Delta\lambda.D_{x,y} \\
\Delta\lambda.D_{x,y} &= \lambda.v\,p_{x,y} = (\Delta\lambda.l_x + \tfrac{1}{2}\lambda.v) + (\Delta\lambda.l_y + \tfrac{1}{2}\lambda.v)
\end{aligned}$$

(99.) If, therefore, the initial $\lambda.D_{x,y}$ for any particular disparity of age be found, the successive $\lambda.D_{x,y}$ are easily determined by the continuous addition of the values of $\lambda.v\,p_{x,y}$. According to the preceding formula, the result of each step in the order of differences will determine the values of $\lambda.D_{x,y}$ for a variation of one year in the age of each of the lives x and y; but the same thing might be accomplished by allowing one of the ages x, to remain constant, and the other y to vary one year by each step in the manipulation.

Thus $D_{x,y} = l_{x,y} \,.\, v^{\frac{1}{2}(x+y)}$

$D_{x,y+1} = l_{x,y+1} \,.\, v^{\frac{1}{2}(x+y+1)}$ and therefore

$\dfrac{D_{x,y}}{D_{x,y+1}} = \dfrac{1}{\sqrt{v}\,.\,p_y}$ and

$$\lambda.D_{x,y} = \lambda.D_{x,y+1} + \lambda'.\sqrt{v}.p_y = \lambda.D_{x,y+1} + \lambda'.p_y + \tfrac{1}{2}\lambda.(1+r)$$

(100.) The most convenient formula will usually depend on the nature and extent of the preliminary Tables, which have been prepared for facilitating the final calculation of $\lambda.D_{x,y}$. To prepare the successive $\Delta\lambda.D_{x,y}$ from the expression $\lambda.v\,p_{x,y}$ would require an independent combination of the elements for each disparity of age, and therefore as one series of differences only of each of the quantities $(\Delta\lambda.l_x + \frac{1}{2}\lambda.v)$ and $(\Delta\lambda.l_y + \frac{1}{2}\lambda.v)$ if written on perforated slips may be combined readily for all Disparities, and as they are together equal to $\lambda.v\,p_{x,y}$ the successive $\Delta\lambda.D_{x,y}$ will be more easily found by the use of these two slips. It will be here impossible to furnish all the manual details of the construction of the whole series of Joint Life Tables, as they would swell this Report to an intolerable extent; but the following specimen of the actual construction of that part of the Table which is for Disparity Ten years will, after the preceding explanations, fully shew the nature of those details, and enable any one to check the whole of the results for all the other Disparities of age.

(101.) In these Tables $N_{x,y} = \Sigma\, D_{(x,y)+1}$

(102.) Tables XXII. and XXIII. give the vertical differences actually employed in the construction of Table XXIV., and by the successive additions of which to the initial $\lambda.D_{x,y}$ of each Disparity of age, the series of values of $\lambda.D_{x,y}$ have been found.

(103.) The third column of Table XXIV., it will be seen, consists of $(\Delta\lambda.l_x + \frac{1}{2}\lambda.v)$ and $(\Delta\lambda.l_y + \frac{1}{2}\lambda.v)$ transferred from the two Tables preceding it for the respective ages y and x in the

Table XXII.

($\lambda . l_x$ from Table XI.)

$\frac{1}{2}\lambda . v = 9·98329$

Age. (x)	$\lambda . l_x$ $\Delta\lambda . l_x$	$\Delta\lambda . l_x + \frac{1}{2}\lambda . v$	Age. (x)	$\lambda . l_x$ $\Delta\lambda . l_x$	$\Delta\lambda . l_x + \frac{1}{2}\lambda . v$
24	4·93724	9·97334	63	4·48111	9·96530
	— 995			— 1799	
25	·92729	·97312	64	·46312	·96390
	1017			1939	
26	·91712	·97302	65	·44373	·96243
	1027			2086	
27	·90685	·97290	66	·42287	·96084
	1039			2245	
28	·89646	·97277	67	·40042	·95905
	1052			2424	
29	·88594	·97264	68	·37618	·95707
	1065			2622	
30	·87529	·97247	69	·34996	·95489
	1082			2840	
31	·86447	·97231	70	·32156	·95250
	1098			3079	
32	·85349	·97215	71	·29077	·94991
	1114			3338	
33	·84235	·97204	72	·25739	·94700
	1125			3629	
34	·83110	·97194	73	·22110	·94378
	1135			3951	
35	·81975	·97187	74	·18159	·94019
	1142			4310	
36	·80833	·97181	75	·13849	·93629
	1148			4700	
37	·79685	·97178	76	·00149	·93201
	1151			5128	
38	·78534	·97173	77	4·04021	·92743
	1156			5586	
39	·77378	·97169	78	3·98435	·92249
	1160			6080	
40	·76218	·97166	79	·92355	·91725
	1163			6604	
41	·75055	·97164	80	·85751	·91161
	1165			7168	
42	·73890	·97160	81	·78583	·90554
	1169			7775	
43	·72721	·97155	82	·70808	·89908
	1174			8421	
44	·71547	·97150	83	·62387	·89217
	1179			9112	
45	·70368	·97143	84	·53275	·88479
	1186			9850	
46	·69182	·97137	85	·43425	·87681
	1192			10648	
47	·67990	·97137	86	·32777	·86824
	1192			11505	
48	·66798	·97144	87	·21272	·85977
	1185			12352	
49	·65613	·97159	88	3·08920	·85074
	1170			13255	
50	·64443	·97181	89	2·95665	·84155
	1148			14174	
51	·63295	·97211	90	·81491	·83114
	1118			15215	
52	·62177	·97228	91	·66276	·82159
	1101			16170	
53	·61076	·97231	92	·50106	·80238
	1098			18091	
54	·59978	·97225	93	·32015	·77373
	1104			20956	
55	·58874	·97204	94	2·11059	·73003
	1125			25326	
56	·57749	·97172	95	1·85733	·67003
	1157			31326	
57	·56592	·97124	96	·54407	·58535
	1205			39794	
58	·55387	·97061	97	1·14613	·43922
	1268			54407	
59	·54119	·96983	98	0·60206	·38123
	1346			60206	
60	·52773	·96888	99	0·00000	9·02468
	1441			— 95861	
61	·51332	·96778	100	9·04139	
	1551				
62	4·49781	9·96659			
	— 1670				

Table XXIII.

($\lambda . l_y$ from Table XII.)

$\frac{1}{2}\lambda . v = 9·98329$

Age. (y)	$\lambda . l_y$ $\Delta\lambda . l_y$	$\Delta\lambda . l_y + \frac{1}{2}\lambda . v$	Age. (y)	$\lambda . l_y$ $\Delta\lambda . l_y$	$\Delta\lambda . l_y + \frac{1}{2}\lambda . v$
14	3·35622	9·97906	56	3·03743	9·96870
	— 423			— 1459	
15	·35199	·97902	57	·02284	·96820
	427			1509	
16	·34772	·97898	58	3·00775	·96765
	431			1564	
17	·34341	·97893	59	2·99211	·96707
	436			1622	
18	·33905	·97889	60	·97589	·96644
	440			1685	
19	·33465	·97885	61	·95904	·96576
	444			1753	
20	·33021	·97880	62	·94151	·96502
	449			1827	
21	·32572	·97875	63	·92324	·96422
	454			1907	
22	·32118	·97871	64	·90417	·96335
	458			1994	
23	·31660	·97866	65	·88423	·96238
	463			2091	
24	·31197	·97860	66	·86332	·96133
	469			2196	
25	·30728	·97856	67	·84136	·96016
	473			2313	
26	·30255	·97850	68	·81823	·95885
	479			2444	
27	·29776	·97845	69	·79379	·95666
	484			2663	
28	·29292	·97817	70	·76716	·95491
	512			2838	
29	·28780	·97789	71	·73878	·95293
	540			3036	
30	·28240	·97758	72	·70842	·95065
	571			3264	
31	·27669	·97728	73	·67578	·94799
	601			3530	
32	·27068	·97696	74	·64048	·94595
	633			3734	
33	·26435	·97686	75	·60314	·94244
	643			4085	
34	·25792	·97652	76	·56229	·93951
	677			4378	
35	·25115	·97642	77	·51851	·93607
	687			4722	
36	·24428	·97605	78	·47129	·93196
	724			5133	
37	·23704	·97593	79	·41996	·92694
	736			5635	
38	·22968	·97555	80	·36361	·92288
	774			6041	
39	·22194	·97540	81	·30320	·91562
	789			6767	
40	·21405	·97499	82	·23553	·90913
	830			7416	
41	·20575	·97454	83	·16137	·90110
	875			8219	
42	·19700	·97437	84	2·07918	·89088
	892			9241	
43	·18808	·97390	85	1·98677	·88301
	939			10028	
44	·17869	·97369	86	·88649	·87495
	960			10834	
45	·16909	·97317	87	·77815	·86790
	1012			11539	
46	·15897	·97292	88	·66276	·86460
	1037			11869	
47	·14860	·97268	89	·54407	·85419
	1061			12910	
48	·13799	·97240	90	·41497	·84707
	1089			13622	
49	·12710	·97180	91	·27875	·85067
	1149			13262	
50	·11561	·97148	92	·14613	·83716
	1181			14613	
51	·10380	·97081	93	1·00000	·76144
	1248			22185	
52	·09132	·97043	94	0·77815	·68226
	1286			30103	
53	·07846	·97004	95	·47712	9·50617
	1325			— 47712	
54	·06521	·96962	96	0·00000	
	1367				
55	3·05154	9·96918			
	— 1411				

Table XXIV.

$\left\{\left(\Delta\lambda . l_x + \frac{1}{2}\lambda . v\right)\right.$ from Table XXII. $\left.\left(\Delta\lambda . l_y + \frac{1}{2}\lambda . v\right)\right\}$ from Table XXIII.

Wife's Age (y)	Husband's Age (x)	$\Delta\lambda . l_y + \frac{1}{2}\lambda . v = (1)$ $\Delta\lambda . l_x + \frac{1}{2}\lambda . v = (2)$	$\lambda . D_{x,y}$ $(1) + (2) = \Delta\lambda D_{x,y}$	$D_{x,y}$	$N_{x,y}$ $\lambda . N_{x,y}$
14	24	9·97906 9·97334	7·65840 9·95240	45541	378612 8·57819
15	25	·97902 ·97312	·61080 ·95214	40813	337799 ·52866
16	26	·97898 ·97302	·56294 ·95200	36554	301245 ·47892
17	27	·97893 ·97290	·51494 ·95183	32730	268515 ·42897
18	28	·97889 ·97277	·46677 ·95166	29293	239222 ·37880
19	29	·97885 ·97264	·41843 ·95149	26208	213014 ·32841
20	30	·97880 ·97247	·36992 ·95127	23438	189576 ·27778
21	31	·97875 ·97231	·32119 ·95106	20950	168626 ·22692
22	32	·97871 ·97215	·27223 ·95086	18717	149909 ·17583
23	33	·97866 ·97204	·22309 ·95070	16714	133195 ·12449
24	34	·97860 ·97194	·17379 ·95054	14921	118274 ·07289
25	35	·97856 ·97187	·12433 ·95043	13315	104959 8·02102
26	36	·97850 ·97181	·07476 ·95031	11878	93081 7·96887
27	37	·97845 ·97178	7·02505 ·95023	10594	82487 ·91639
28	38	·97817 ·97173	6·97528 ·94990	9446·7	73040 ·86356
29	39	·97789 ·97169	·92518 ·94958	8417·4	64623 ·81039
30	40	·97758 ·97166	·87476 ·94924	7494·8	57128 ·75685
31	41	·97728 ·97164	·82400 ·94892	6668·1	50460 ·70295
32	42	·97696 ·97160	·77290 ·94856	5927·9	44532 ·64867
33	43	·97686 ·97155	6·72146 9·94841	5265·7	39266 7·59402
71	81	·95293 ·90554	3·98443 9·85847	9·6478	21·564 4·33373
72	82	·95065 ·89908	·84288 ·84973	6·9643	14·600 4·16435
73	83	·94799 ·89217	·69261 ·84016	4·9273	9·6729 3·98556
74	84	·94595 ·88479	·53277 ·83074	3·4101	6·2628 ·79677
75	85	·94244 ·87681	·36351 ·81925	2·3095	3·9533 ·59696
76	86	·93951 ·86824	3·18276 ·80775	1·5232	2·4301 ·38562
77	87	·93607 ·85977	2·99049 ·79584	·97834	1·4518 3·16191
78	88	·93196 ·85074	·78633 ·78270	·61141	·84039 2·92448
79	89	·92694 ·84155	·56903 ·76849	·37071	·46968 ·67180
80	90	·92288 ·83114	·33752 ·75402	·21753	·25215 ·40166
81	91	·91562 ·82159	2·09154 ·73721	·12346	·12869 2·10954
82	92	·90913 ·80238	1·82873 ·71151	·06741	·06128 1·78732
83	93	·90110 ·77373	·54024 ·67483	·03469	·02659 ·42472
84	94	·89088 ·73003	1·21507 ·62091	·01641	·01018 1·00775
85	95	·88301 ·67003	0·83598 ·55304	·00685	·00333 0·52244
86	96	·87495 ·58535	0·38902 ·46030	·00245	·00088 9·94448
87	97	·86790 ·43922	9·84930 ·30712	·00071	·00017 9·23045
88	98	·86460 ·38123	9·15642 9·24583	·00014	·00003 8·47712
89	99	·85419 9 02468	8·40225 8·87887	·00003	·00000
90	100	9·84707	7·28112	·00000	·00000

first and second columns, and if care be taken to find the initial $\lambda.D_{x,y}$ which had better be always determined to seven places of decimals in the logarithms, thus:

$$\begin{aligned} \lambda.l_x &= \lambda.l_{24} &&= 4\cdot9372370 \\ \lambda.l_y &= \lambda.l_{14} &&= 3\cdot3562171 \\ \lambda.v^{\frac{1}{2}(x+y)} &= \lambda.v^{\frac{1}{2}(24+14)} = \lambda.v^{19} &&= 9\cdot3649486 \\ & && \overline{7\cdot6584027} = \lambda.D_{24,\,14} \end{aligned}$$

The initial quantity for Disparity Ten years, and of which Table XXIV. is an example of the mode of construction.

(104.) A series of Tables having been calculated by the process of which the three preceding Tables are examples, the results were then combined, and constitute the following auxiliary Tables XXV., by which the values of annuities on the Joint Lives of members and their wives may be easily determined from $\lambda.N_{x,y} - \lambda.D_{x,y} = \lambda.a_{x,y}$

(105.) It is next necessary to determine the value of the wives' contingent pensions on the death of their husbands, and for that purpose the auxiliary Tables XXVI., XXVII., and XXVIII. have been calculated; but these like the preceding are so extensive, that it would be impossible to give all the manual details of construction in the present Report. However, a full and detailed specimen and example of all the processes employed will be furnished, so as to enable any one giving them close attention the means of checking any one of the results.

Let δ_{x-1} = Decrements at age $x-1$ in Table XI., column 3.

l_{y-1} = Number living at age $y-1$ in Table XII., column 4.

${}^{w}a_y$ = Present value of an annuity of £1 or one rupee during widowhood, for age y

These values are derived from Table XX. preceding from the expression

$$\frac{\frac{N_y}{D_y} + \frac{N_{y+1}}{D_{y+1}}}{2} + \cdot25 + \frac{A'_y}{4} = \left\{ \left(a_y + \frac{1 + A'_y}{4}\right) + \left(a_{y+1} + \frac{1 + A'_y}{4}\right) \right\} \div 2$$

$v^{\frac{1}{2}}$ = Present value of £1 or one rupee due six months hence $= \frac{1}{1 + \frac{r}{2}} = \frac{1}{1\cdot04}$ and therefore $\lambda.v^{\frac{1}{2}} = 9\cdot9829667$, and which is the value to be used in the direct method of calculation, and also in finding the initial $\lambda.H$ by the continuous method, and must not be confounded with $\frac{1}{2}\lambda.v$, that is $\frac{1}{2}\lambda\left(\frac{1}{1\cdot08}\right) = 9\cdot9832881$, the quantity employed in the determination of the vertical and horizontal series in Table XXVI.

$v^{\frac{1}{2}(x+y)-1}$ = Present value of £1 or one rupee due $\frac{1}{2}(x+y)-1$ years hence; then

$$\lambda.H_{x,y} = \lambda.\delta_{x-1} + \lambda.l_{y-1} + \lambda\,{}^{w}a_y + \lambda.v^{\frac{1}{2}} + \lambda.v^{\frac{1}{2}(x+y)-1}$$

$\Delta\,\lambda.H_{x,y}$

Table XXV.

DIFFERENCE OF AGE, —10 YEARS.

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	x.				
34	24	7·22587	16822	128865	8·11015
35	25	·17573	14988	113877	·05644
36	26	·12527	13344	100533	8·00231
37	27	·07434	11867	88666	7·94776
38	28	7·02317	10548	78118	·89275
39	29	6·97147	9364·2	68754	·83730
40	30	·91951	8308·3	60446	·78137
41	31	·86697	7361·6	53084	·72496
42	32	·81382	6513·6	46570	·66811
43	33	·76034	5758·9	40811	·61078
44	34	·70626	5084·6	35726	·55298
45	35	·65189	4486·3	31240	·49471
46	36	·59693	3953·0	27287	·43596
47	37	·54166	3480·6	23806	·37669
48	38	·48612	3062·8	20743	·31687
49	39	·43023	2693·0	18050	·25648
50	40	·37372	2364·4	15686	·19551
51	41	·31686	2074·2	13612	·13392
52	42	·25931	1816·8	11795	·07170
53	43	·20134	1589·8	10205	7·00881
54	44	·14292	1389·7	8815·1	6·94523
55	45	·08404	1213·5	7601·6	·88091
56	46	6·02465	1058·4	6543·2	·81579
57	47	5·96472	921·98	5621·2	·74983
58	48	·90429	802·21	4819·0	·68296
59	49	·84336	697·20	4121·8	·61509
60	50	·78202	605·37	3516·4	·54610
61	51	·72027	525·13	2991·3	·47586
62	52	·65814	455·13	2536·2	·40418
63	53	5·59544	393·95	2142·2	·33086
64	54	·53195	340·37	1801·8	·25571
65	55	·46755	293·46	1508·3	·17849
66	56	·40197	252·33	1256·0	·09899
67	57	·33502	216·28	1039·7	6·01691
68	58	·26642	184·68	854·99	5·93196
69	59	·19586	156·99	698·00	·84386
70	60	·12235	132·54	565·46	·75240
71	61	5·04614	111·21	454·25	·65729
72	62	4·96685	92·651	362·60	·55823
73	63	·88409	76·576	285·02	·45488
74	64	·79736	62·713	222·31	·34696
75	65	4·70721	50·958	171·35	·23388
76	66	·61208	40·934	130·42	5·11534
77	67	·51243	32·541	97·875	4·99067
78	68	·40755	25·559	72·316	·85923
79	69	·29656	19·795	52·521	·72033
80	70	·17839	15·080	37·441	·57335
81	71	4·05377	11·318	26·123	·41702
82	72	3·91930	8·3042	17·819	·25088
83	73	·77543	5·9625	11·856	4·07394
84	74	·62029	4·1715	7·6845	3·88562
85	75	·45136	2·8272	4·8573	·68639
86	76	3·27066	1·8649	2·9924	3·47602
87	77	3·07762	1·1957	1·7967	3·25448
88	78	2·87295	·74636	1·0503	3·02131
89	79	·66002	·45711	·59314	2·77316
90	80	·43146	·27006	·32308	·50931
91	81	2·19014	·15493	·16815	2·22570
92	82	1·94635	·08838	·07977	1·90184
93	83	1·68259	·04815	·03162	1·49996
94	84	1·33618	·02169	·00993	0·99695
95	85	0·90323	·00800	·00193	0·28556
96	86	0·28620	·00193	·00000	...

DIFFERENCE OF AGE, —9 YEARS.

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	x.				
33	24	7·24903	17743	136666	8·13566
34	25	·19923	15821	120845	·08223
35	26	·14887	14089	106756	8·02839
36	27	·09831	12540	94215·8	7·97412
37	28	7·04726	11150	83065·8	·91942
38	29	6·99596	9907·4	73158·4	·86426
39	30	·94415	8793·3	64365·1	·80865
40	31	·89202	7798·7	56566·4	·75256
41	32	·83932	6907·5	49658·9	·69600
42	33	·78601	6109·6	43549·3	·63898
43	34	·73242	5400·3	38149·0	·58148
44	35	·67826	4767·2	33381·8	·52351
45	36	·62382	4205·5	29176·3	·46503
46	37	·56880	3620·8	25555·5	·40749
47	38	·51350	3262·1	22293·4	·34897
48	39	·45791	2870·2	19423·2	·28832
49	40	·40200	2523·5	16899·7	·22789
50	41	·34546	2215·4	14684·3	·16684
51	42	·28858	1943·5	12740·8	·10520
52	43	·23099	1702·1	11038·7	7·04293
53	44	·17297	1489·3	9549·40	6·97998
54	45	·11453	1301·8	8247·60	·91633
55	46	6·05558	1136·5	7111·10	·85194
56	47	5·99613	991·13	6119·97	·78675
57	48	·93620	863·38	5256·59	·72070
58	49	·87584	751·35	4505·24	·65371
59	50	·81508	653·25	3851·99	·58569
60	51	·75396	567·49	3284·50	·51647
61	52	·69251	492·62	2791·88	·44590
62	53	·63055	427·12	2364·76	·37379
63	54	·56788	369·73	1995·03	·29994
64	55	·50435	319·41	1675·62	·22417
65	56	·43974	275·26	1400·36	·14624
66	57	·37384	236·50	1163·86	6·06592
67	58	·30641	202·49	961·366	5·98289
68	59	·23718	172·66	788·706	·89692
69	60	·16586	146·51	642·196	·80767
70	61	·09140	123·42	518·776	·71498
71	62	5·01409	103·30	415·476	5·61855

Table XXV.—*(continued.)*

DIFFERENCE OF AGE, —9 YEARS—*(continued.)*

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
72	63	4·93361	85·824	329·652	5·51805
73	64	·84956	70·723	258·929	·41318
74	65	·76145	57·736	201·193	·30361
75	66	·66983	46·755	154·438	·18876
76	67	·57311	37·421	117·017	5·06826
77	68	·47167	29·626	87·3908	4·94147
78	69	·36481	23·164	64·2268	·80772
79	70	·25166	17·851	46·3758	·66629
80	71	·13110	13·524	32·8518	·51656
81	72	4·00389	10·090	22·7618	·35721
82	73	3·86651	7·3538	15·4080	·18775
83	74	·71942	5·2411	10·1669	4·00719
84	75	·56071	3·6367	6·53017	3·81493
85	76	·38788	2·4428	4·08737	·61145
86	77	·20290	1·5955	2·49187	·39653
87	78	3·00528	1·0122	1·47967	3·17017
88	79	2·79567	·62470	·85497	2·93195
89	80	·57752	·37802	·47695	·67847
90	81	·34332	·22046	·25649	·40907
91	82	2·09593	·12472	·13177	2·11982
92	83	1·84568	·07009	·06168	1·79014
93	84	·57501	·03758	·02410	1·38202
94	85	1·22124	·01664	·00746	0·87274
95	86	0·78031	·00603	·00143	0·15534
96	87	0·15472	·00143	·00000	...

DIFFERENCE OF AGE, —8 YEARS.

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
32	24	7·27206	18709	144997	8·16137
33	25	·22236	16686	128311	·10826
34	26	·17234	14871	113440	·05477
35	27	·12188	13240	100200	8·00087
36	28	·07120	11781	88419·4	7·94655
37	29	7·02002	10472	77947·4	·89180
38	30	6·96859	9302·3	68645·1	·83661
39	31	·91661	8253·0	60392·1	·78098
40	32	·86432	7316·8	53075·3	·72489
41	33	·81146	6478·3	46597·0	·66836
42	34	·75804	5728·5	40868·5	·61138
43	35	·70435	5062·3	35806·2	·55396
44	36	·65012	4468·1	31338·1	·49607
45	37	·59562	3941·1	27397·0	·43770
46	38	·54057	3471·9	23925·1	·37885
47	39	·48522	3056·5	20868·6	·31950
48	40	·42959	2689·0	18179·6	·25959
49	41	·37365	2364·0	15815·6	·19910
50	42	·31709	2075·3	13740·3	·13799
51	43	·26017	1820·4	11919·9	·07628
52	44	·20253	1594·2	10325·7	7·01393
53	45	·14448	1394·7	8930·96	6·95090
54	46	·08595	1218·8	7712·16	·88718
55	47	6·02694	1064·0	6648·16	6·82270

DIFFERENCE OF AGE, —8 YEARS—*(continued.)*

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
56	48	5·96749	9278·8	5720·28	6·75742
57	49	·90763	808·41	4911·87	·69125
58	50	·84742	703·75	4208·12	·62409
59	51	·78688	612·18	3595·94	·55581
60	52	·72606	532·18	3063·76	·48626
61	53	·66478	462·15	2601·61	·41524
62	54	·60285	400·73	2200·88	·34260
63	55	·54012	346·83	1854·05	·26813
64	56	·47638	299·49	1554·56	·19162
65	57	·41145	257·90	1296·66	·11284
66	58	·34507	221·35	1075·31	6·03153
67	59	·27701	189·24	886·067	5·94747
68	60	·20700	161·06	725·007	·86034
69	61	·13473	136·37	588·637	·76985
70	62	5·05917	114·60	474·037	·67582
71	63	4·98067	95·647	378·390	·57794
72	64	·89890	79·232	299·158	·47590
73	65	·81345	65·080	234·078	·36936
74	66	·72387	52·950	181·128	·25799
75	67	·63066	42·723	138·405	·14117
76	68	·53215	34·053	104·352	5·01849
77	69	·42873	26·837	77·5153	4·88939
78	70	·31969	20·878	56·6373	·75310
79	71	·20415	16·001	40·6363	·60891
80	72	4·08100	12·050	28·5863	·45615
81	73	3·95008	8·9306	19·6557	·29350
82	74	·81028	6·4607	13·1950	4·12041
83	75	·65960	4·5667	8·62831	3·93593
84	76	·49699	3·1404	5·48791	·73941
85	77	·31988	2·0887	3·39921	·53138
86	78	3·13032	1·3500	2·04921	·31158
87	79	2·92776	·84676	1·20245	3·08009
88	80	·71291	·51631	·68614	2·83641
89	81	·48912	·30840	·37774	·57719
90	82	2·24885	·17736	·20038	·30185
91	83	1·99500	·09886	·10152	2·00655
92	84	·73784	·05468	·04684	1·67062
93	85	·45979	·02883	·01801	1·25551
94	86	1·09804	·01253	·00548	0·73878
95	87	0·64854	·00445	·00103	0·01284
96	88	0·01448	·00103	·00000	...
97	89				

DIFFERENCE OF AGE, —7 YEARS.

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
31	24	7·29476	19713	153637	8·18650
32	25	·24538	17595	136042	·13367
33	26	·19546	15684	120358	·08048
34	27	·14534	13975	106383	8·02686
35	28	·09476	12438	93945	7·97287
36	29	7·04395	11065	82880	·91845
37	30	6·99264	9832·0	73048	7·86361

Table XXV.—(*continued.*)

Difference of Age, —7 Years—(*continued.*)

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
38	31	6·94104	8730·5	64317	7·80833
39	32	·88890	7742·8	56574	·75262
40	33	·83643	6861·7	49712	·69646
41	34	·78346	6073·8	43638	·63986
42	35	·72994	5369·6	38268	·58284
43	36	·67618	4744·4	33524	·52536
44	37	·62189	4186·9	29337	·46742
45	38	·56734	3692·7	25644	·40899
46	39	·51224	3252·7	22391	·35007
47	40	·45685	2863·2	19528	·29066
48	41	·40119	2518·8	17009	·23068
49	42	·34523	2214·3	14795	·17012
50	43	·28861	1943·6	12851	·10894
51	44	·23164	1704·7	11146	7·04712
52	45	·17395	1492·6	9653·4	6·98468
53	46	·11581	1305·6	8347·8	·92157
54	47	6·05722	1140·8	7207·0	·85775
55	48	5·99819	9958·4	6211·2	·79318
56	49	·93881	8685·8	5342·6	·72775
57	50	·87910	757·01	4585·6	·66140
58	51	·81911	659·34	3926·3	·59398
59	52	·75887	573·94	3352·4	·52536
60	53	·69821	499·13	2853·3	·45535
61	54	·63696	433·47	2419·8	·38378
62	55	·57497	375·81	2044·0	·31048
63	56	·51203	325·11	1718·9	·23525.
64	57	·44797	280·52	1438·4	·15788
65	58	·38254	241·29	1197·1	6·07813
66	59	·31553	206·79	990·33	5·99578
67	60	·24669	176·48	813·85	·91054
68	61	·17573	149·88	663·97	·82215
69	62	·10236	126·56	537·39	·73029
70	63	5·02559	106·07	431·32	·63480
71	64	4·94580	88·267	343·05	·53536
72	65	·86263	72·884	270·17	·43164
73	66	·77571	59·664	210·51	·32327
74	67	·68454	48·366	162·14	·20989
75	68	·58952	38·862	123·28	5·09089
76	69	·48903	30·834	92·452	4·96592
77	70	·38343	24·179	68·273	·83425
78	71	·27200	18·707	49·566	·69518
79	72	·15387	14·252	35·314	·54795
80	73	4·02779	10·661	24·653	·39187
81	74	3·89445	7·8424	16·811	·22559
82	75	·75026	5·6268	11·184	4·04860
83	76	·59568	3·9417	7·2420	3·85986
84	77	·42879	2·6840	4·5580	·65877
85	78	·24709	1·7664	2·7916	·44585
86	79	3·05259	1·1287	1·6629	3·22087
87	80	2·84479	·69950	·96341	2·98381
88	81	·62430	·42102	·54239	·73431
89	82	·39444	·24799	·29440	·46894
90	83	2·14769	·14050	·15390	2·18724

Difference of Age, —7 Years—(*continued.*)

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
91	84	1·88693	·07708	·07682	1·88547
92	85	1·62239	·04192	·03490	·54283
93	86	1·33636	·02170	·01320	1·12057
94	87	0·96604	·00925	·00395	0·59660
95	88	0·50805	·00322	·00073	0·86332
96	89	9·86496	·00073	·00000	...
97	90				

Difference of Age, —6 Years.

30	24	7·31720	20759	162694	8·21136
31	25	·26812	18540	144154	·15881
32	26	·21852	16539	127615	·10592
33	27	·16850	14740	112875	8·05262
34	28	·11826	13130	99745	7·99889
35	29	·06753	11682	88063	·94479
36	30	7·01659	10389	77674	·89028
37	31	6·96511	9228·1	68446	·83535
38	32	·91335	8191·2	60255	·77999
39	33	·86105	7261·9	52993	·72422
40	34	·80847	6433·8	46559	·66800
41	35	·75540	5693·8	40865	·61135
42	36	·70181	5032·8	35832	·55427
43	37	·64799	4446·2	31386	·49674
44	38	·59367	3923·5	27462	·43873
45	39	·53907	3460·0	24002	·38025
46	40	·48393	3047·4	20955	·32129
47	41	·42851	2682·3	18273	·26181
48	42	·37283	2359·6	15913	·20175
49	43	·31683	2074·1	13839	·14110
50	44	·26016	1820·4	12019	·07987
51	45	·20314	1596·4	10423	7·01799
52	46	·14538	1397·6	9025·2	6·95546
53	47	·08718	1222·3	7802·9	·89226
54	48	6·02859	1068·0	6734·9	·82833
55	49	5·96964	932·48	5802·4	·76361
56	50	·91041	813·60	4988·8	·69800
57	51	·85092	709·45	4279·3	·63137
58	52	·79123	618·34	3661·0	·56360
59	53	·73116	538·47	3122·5	·49450
60	54	·67052	468·30	2654·2	·42393
61	55	·60921	406·64	2247·6	·35172
62	56	·54701	352·38	1895·2	·27766
63	57	·48375	304·61	1590·6	·20156
64	58	·41921	262·55	1328·0	·12320
65	59	·35315	225·50	1102·5	6·04238
66	60	·28536	192·91	909·55	5·95883
67	61	·21557	164·27	745·28	·87232
68	62	·14351	139·16	606·12	·78256
69	63	5·06895	117·21	488·91	·68923
70	64	4·99089	97·924	390·99	·59217
71	65	4·90970	81·227	309·76	5·49103

Table XXV.—(*continued.*)

Difference of Age, —6 Years—(*continued.*)

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	x.				
72	66	4·82506	66·844	242·92	5·38546
73	67	·73655	54·519	188·40	·27508
74	68	·64359	44·014	144·39	·15954
75	69	·54659	35·204	109·19	5·03818
76	70	·44392	27·792	81·402	4·91064
77	71	·33593	21·674	59·728	·77618
78	72	·22191	16·669	43·059	·63406
79	73	4·10087	12·615	30·444	·48350
80	74	3·97158	9·3666	21·077	·32381
81	75	·83465	6·8336	14·243	4·15360
82	76	·68656	4·8591	9·3840	3·97239
83	77	·52770	3·3705	6·0135	·77913
84	78	·35623	2·2711	3·7424	·57315
85	79	3·16958	1·4777	2·2647	·35501
86	80	2·96984	·93291	1·3318	3·12444
87	81	·75640	·57069	·76109	2·88144
88	82	·52984	·33872	·42237	·62569
89	83	·29352	·19657	·22580	·35372
90	84	2·03986	·10961	·11619	2·06157
91	85	1·77172	·05912	·05707	1·75641
92	86	1·49920	·03156	·02551	1·40671
93	87	1·20460	·01602	·00949	0·97727
94	88	0·82581	·00670	·00279	0·44560
95	89	0·35879	·00228	·00051	9·70757
96	90	9·70651	·00051	·00000	...

Difference of Age, —5 Years.

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	x.				
29	24	7·33931	21843	172177	8·23598
30	25	·29054	19523	152654	·18370
31	26	·24124	17428	135226	·13107
32	27	·19154	15543	119683	·07802
33	28	·14140	13848	105835	8·02465
34	29	·09101	12331	93504	7·97083
35	30	7·04017	10969	82535	·91664
36	31	6·98906	9751·2	72784	·86204
37	32	·93742	8658·0	64126	·80703
38	33	·88550	7682·5	56443	·75161
39	34	·83307	6808·8	49634	·69578
40	35	·78041	6031·3	43603	·63952
41	36	·72727	5336·7	38266	·58281
42	37	·67362	4716·5	33549	·52568
43	38	·61977	4166·5	29382	·46808
44	39	·56538	3676·0	25706	·41005
45	40	·51076	3241·6	22464	·35149
46	41	·45559	2854·9	19609	·29246
47	42	·40015	2512·8	17096	·23289
48	43	·34443	2210·2	14886	·17278
49	44	·28836	1942·5	12943	·11204
50	45	·23166	1704·7	11238	7·05069
51	46	·17457	1494·8	9743·0	6·98869
52	47	6·11675	1308·4	8434·6	6·92606

Difference of Age, —5 Years—(*continued.*)

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	x.				
53	48	6·05855	1144·3	7290·3	6·86275
54	49	6·00002	1000·0	6290·3	·79867
55	50	5·94123	873·43	5416·9	·73375
56	51	·88222	762·47	4654·4	·66786
57	52	·82303	665·32	3989·1	·60087
58	53	·76351	580·11	3409·0	·53263
59	54	·70345	505·18	2903·8	·46297
60	55	·64277	439·31	2464·5	·39173
61	56	·58125	381·29	2083·2	·31873
62	57	·51873	330·16	1753·0	·24378
63	58	·45499	285·10	1467·9	·16670
64	59	·38980	245·36	1222·5	·08725
65	60	·32298	210·37	1012·1	6·00522
66	61	·25424	179·57	832·55	5·92041
67	62	·18335	152·53	680·02	·83252
68	63	·11010	128·85	551·17	·74129
69	64	5·03423	108·20	442·97	·64637
70	65	4·95479	90·114	352·86	·54760
71	66	·87213	74·495	278·36	·44461
72	67	·78590	61·080	217·28	·33702
73	68	·69560	49·614	167·67	·22446
74	69	·60064	39·869	127·80	5·10653
75	70	·50148	31·731	96·066	4·98257
76	71	·39642	24·913	71·153	·85219
77	72	·28584	19·313	51·840	·71467
78	73	·16891	14·754	37·086	·56921
79	74	4·04464	11·083	26·003	·41502
80	75	3·91177	8·1615	17·841	·25142
81	76	·77094	5·9012	11·940	4·07700
82	77	·61857	4·1550	7·7852	3·89127
83	78	·45513	2·8519	4·9333	·69314
84	79	·27870	1·8998	3·0335	·48194
85	80	3·08683	1·2213	1·8122	·25821
86	81	2·88145	·76111	1·0511	3·02164
87	82	·66194	·45913	·59201	2·77233
88	83	·42892	·26849	·32352	·50990
89	84	2·18567	·15335	·17017	2·23088
90	85	1·92465	·08407	·08610	1·93500
91	86	1·64853	·04452	·04158	·61888
92	87	1·36744	·02330	·01828	1·26198
93	88	1·06437	·01160	·00668	0·82478
94	89	0·67653	·00475	·00193	0·28556
95	90	0·20034	·00159	·00034	9·53148
96	91	9·53765	·00034	·00000	...

Difference of Age, —4 Years.

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	x.				
28	24	7·36113	22968	182087	8·26029
29	25	·31264	20542	161545	·20831
30	26	·26365	18351	143194	·15591
31	27	·21425	16378	126816	·10319
32	28	7·16443	14603	112213	8·05003

Table XXV.—(*continued.*)

Difference of Age, —4 Years—(*continued.*)

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	x.				
33	29	7·11416	13006	99207	7·99654
34	30	·06366	11579	87628	·94264
35	31	7·01265	10296	77332	·88836
36	32	6·96138	9149·1	68183	·83368
37	33	·90956	8120·1	60063	·77861
38	34	·85753	7203·3	52860	·72313
39	35	·80502	6382·9	46477	·66724
40	36	·75229	5653·1	40824	·61092
41	37	·69909	5001·4	35823	·55416
42	38	·64539	4419·7	31403	·49697
43	39	·59149	3903·8	27499	·43932
44	40	·53708	3444·1	24055	·38121
45	41	·48243	3036·9	21018	·32259
46	42	·42724	2674·5	18343	·26347
47	43	·37174	2353·6	15989	·20382
48	44	·31597	2070·0	13919	·14361
49	45	·25987	1819·2	12100	·08279
50	46	·20310	1596·2	10504	7·02135
51	47	·14595	1399·4	9104·4	6·95925
52	48	·08811	1224·9	7879·5	·89650
53	49	6·02998	1071·5	6808·0	·83302
54	50	5·97161	936·72	5871·3	·76873
55	51	·91304	818·54	5052·8	·70353
56	52	·85433	715·04	4337·8	·63727
57	53	·79530	624·17	3713·6	·56980
58	54	·73581	544·26	3169·3	·50996
59	55	·67571	473·93	2695·4	·43062
60	56	·61482	411·93	2283·5	·35860
61	57	·55298	357·26	1926·2	·28470
62	58	·48996	309·00	1617·2	·20876
63	59	·42559	266·43	1350·8	·13059
64	60	·35964	228·90	1121·9	6·04995
65	61	·29187	195·83	926·03	5·96663
66	62	·22203	166·74	759·29	·88041
67	63	·14993	141·23	618·06	·79103
68	64	5·07539	118·96	499·10	·69119
69	65	4·99814	99·573	399·53	·60153
70	66	·91723	82·648	316·88	·50089
71	67	·83298	68·074	248·81	·39587
72	68	·74494	55·583	193·23	·28607
73	69	·65266	44·943	148·29	·17111
74	70	·55554	35·937	112·35	5·05057
75	71	·45399	28·444	83·902	4·92377
76	72	·34634	22·199	61·703	·79031
77	73	·23283	17·093	44·610	·64943
78	74	4·11268	12·962	31·648	·50035
79	75	3·98483	9·6567	21·991	·34225
80	76	·84806	7·0479	14·943	4·17444
81	77	·70295	5·0460	9·8968	3·99549
82	78	·54598	3·5154	6·3814	·80492
83	79	·37760	2·3856	3·9958	·60160
84	80	3·19595	1·5702	2·4256	·38482
85	81	2·99844	·99641	1·4292	3·15509
86	82	2·78699	·61234	·81686	2·91215
87	83	·56100	·36392	·45294	·65604
88	84	·32107	·20945	·24349	·38648
89	85	2·07046	·11761	·12588	2·09996
90	86	1·80146	·06331	·06257	1·79637
91	87	1·51677	·03287	·02970	·47276
92	88	1·22719	·01687	·01283	1·10823
93	89	0·91509	·00822	·00461	0·66370
94	90	0·51808	·00330	·00131	0·11727
95	91	0·03148	·00108	·00023	9·36173
96	92	9·35924	·00023	·00000	...

Difference of Age, —3 Years.

Ages.		$\lambda \cdot D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	x.				
27	24	7·38269	24137	192444	8·28430
28	25	·33448	21601	170843	·23259
29	26	·28577	19309	151534	·18050
30	27	·23668	17246	134288	·12804
31	28	·18716	15387	118901	·07518
32	29	·13721	13715	105186	8·02197
33	30	·08681	12213	92973	7·96836
34	31	7·03612	10867	82106	·91437
35	32	6·98495	9659·4	72447	·86002
36	33	·93352	8580·6	63866	·80527
37	34	·88161	7614·0	56252	·75014
38	35	·82948	6752·7	49499	·69460
39	36	·77688	5982·5	43516	·63865
40	37	·72409	5297·7	38218	·58227
41	38	·67086	4686·6	33531	·52545
42	39	·61713	4141·2	29390	·46820
43	40	·56319	3657·5	25732	·41047
44	41	·50873	3226·5	22505	·35228
45	42	·45406	2844·9	19660	·29358
46	43	·39883	2505·1	17155	·23439
47	44	·34330	2204·4	14951	·17467
48	45	·28748	1938·6	13012	·11434
49	46	·23129	1703·3	11309	7·05342
50	47	·17446	1494·4	9814·5	6·99187
51	48	·11731	1310·1	8504·4	·92964
52	44	·05956	1147·0	7357·4	·86672
53	50	6·00158	1003·6	6353·8	·80303
54	51	5·94342	877·85	5475·9	·73846
55	52	·88515	767·63	4708·3	·67286
56	53	·82661	670·83	4037·5	·60611
57	54	·76762	585·63	3451·9	·53806
58	55	·70807	510·59	2941·3	·46854
59	56	·64774	444·37	2496·9	·39740
60	57	·58653	385·95	2110·9	·32447
61	58	·52421	334·36	1776·5	·24957
62	59	·46058	288·79	1487·7	·17252
63	60	·39543	248·56	1239·1	·09311
64	61	5·32851	213·06	1026·0	6·01115

Table XXV.—(*continued.*)

Difference of Age, —3 Years—(*continued.*)

Ages.		$\lambda \cdot D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
65	62	5·25964	181·82	844·16	5·92642
66	63	·18861	154·39	689·77	·83870
67	64	·11524	130·39	559·38	·74771
68	65	5·03930	109·47	449·91	·65313
69	66	4·96056	91·319	358·59	·55460
70	67	·87806	75·520	283·07	·45189
71	68	·79202	61·947	221·12	·34463
72	69	·70202	50·352	170·77	·23241
73	70	·60756	40·510	130·26	5·11481
74	71	·50803	32·213	98·048	4·99144
75	72	·40389	25·345	72·703	·86155
76	73	·29333	19·649	53·054	·72472
77	74	·17662	15·018	38·036	·58019
78	75	4·05288	11·295	26·741	·42718
79	76	3·92112	8·3391	18·402	·26487
80	77	·78007	6·0266	12·375	4·09255
81	78	·63038	4·2695	8·1052	3·90876
82	79	·46849	2·9410	5·1642	·71300
83	80	·29487	1·9718	3·1924	·50412
84	81	3·10756	1·2810	1·9114	·28135
85	82	2·90398	·80164	1·1098	3·04528
86	83	·68607	·48537	·62445	2·79550
87	84	·45319	·28392	·34053	·53216
88	85	2·20588	·16065	·17988	2·25498
89	86	1·94727	·08857	·09131	1·96052
90	87	·66970	·04674	·04457	·64904
91	88	·37654	·02380	·02077	1·31744
92	89	1·07795	·01197	·00880	0·94448
93	90	0·75666	·00571	·00309	0·48996
94	91	0·34922	·00223	·00086	9·93450
95	92	9·85307	·00071	·00015	9·17609
96	93	9·16162	·00015	·00000	...

Difference of Age, —2 Years.

26	24	7·40421	25364	203260	8·30805
27	25	·35605	22701	180559	·25662
28	26	·30762	20306	160253	·20480
29	27	·25881	18147	142106	·15262
30	28	·20958	16202	125904	·10003
31	29	·15993	14452	111452	8·04708
32	30	·10985	12878	98574	7·99376
33	31	·05928	11463	87111	·94007
34	32	7·00845	10196	76915	·88601
35	33	6·95710	9059·4	67856	·83159
36	34	·90556	8045·6	59810	77677
37	35	·85355	7137·6	52672	·72158
38	36	·80135	6329·2	46343	·66598
39	37	·74871	5606·7	40736	·60998
40	38	·69587	4964·4	35772	·55354
41	39	·64259	4391 3	31381	·49667
42	40	6·58882	3879·9	27501	7·43935

Difference of Age, —2 Years—(*continued.*)

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
43	41	6·53485	3426·5	24074	7·38155
44	42	·48039	3022·7	21051	·32327
45	43	·42566	2664·8	18386	·26449
46	44	·37038	2346·3	16040	·20520
47	45	·31480	2064·4	13976	·14538
48	46	·25891	1815·1	12161	·08497
49	47	·20268	1594·7	10566	7·02391
50	48	·14584	1399·1	9166·5	6·96220
51	49	·08876	1226.8	7939·7	·89980
52	50	6·03116	1074·4	6865·3	·83666
53	51	5·97340	940·59	5924·7	·77267
54	52	·91555	823·28	5101·4	·70769
55	53	·85743	720·16	4381·2	·64159
56	54	·79892	629·39	3751·8	·57424
57	55	·73987	549·38	3202·4	·50548
58	56	·68011	478·75	2723 6	·43514
59	57	·61948	416·37	2307·2	·36309
60	58	·55777	361·22	1946·0	·28914
61	59	·49482	312·48	1633·5	·21312
62	60	·43041	269·41	1364·1	·13485
63	61	·36431	231·37	1132·7	6·05411
64	62	·29631	197·84	934·87	5·97075
65	63	·22623	168·36	766·51	·88452
66	64	·15391	142·53	623·98	·79517
67	65	·07914	119·99	503·99	·70242
68	66	5·00173	100·40	403·59	·60594
69	67	4·92142	83·449	320·14	·50534
70	68	·83711	68·724	251·42	·40040
71	69	·74909	56·116	195·30	·29070
72	70	·65691	45·385	149·91	·17583
73	71	·56006	36·313	113·60	5·05538
64	72	·45796	28·705	84·892	4·92887
75	73	·35090	22·434	62·458	·79559
76	74	·23712	17·263	45·195	·65509
77	75	4·11682	13·086	32·109	·50663
78	76	3·98918	9·7539	22·355	·34937
79	77	·85315	7·1310	15·224	·18253
80	78	·70750	5·0992	10·125	4·00540
81	79	·55287	3·5717	6·5532	3·81645
82	80	·38574	2·4307	4·1225	·61516
83	81	·20648	1·6087	2·5138	·40033
84	82	3·01312	1·0307	1·4831	3·17117
85	83	2·80306	·63542	·84769	2·92824
86	84	·57824	·37865	·46904	·67121
87	85	·33798	·21776	·25128	·40016
88	86	2·08269	·12097	·13031	2·11498
89	87	1·81553	·06539	·06492	1 81238
90	88	·52947	·03384	·03108	·49248
91	89	1·22728	·01688	·01420	1·15229
92	90	0·91950	·00831	·00589	0·77012
93	91	·58780	·00387	·00202	0·30535
94	92	0·17083	·00148	·00054	9·73239
95	93	9·65545	·00045	·00009	8·95424
96	94	8·93535	·00009	·00000	...

Table XXV.—(*continued.*)

DIFFERENCE OF AGE, —**1** YEAR.

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	*x*.				
25	24	7·42565	26647	214551	8·33153
26	25	·37755	23853	190698	·28035
27	26	·32915	21338	169360	·22881
28	27	·28062	19082	150278	·17690
29	28	·23169	17049	133229	·12460
30	29	·18235	15218	118011	·07192
31	30	·13257	13570	104441	8·01887
32	31	·08230	12086	92355	7·96546
33	32	7·03157	10754	81601	·91170
34	33	6·98058	9562·7	72038	·85756
35	34	·92914	8494·5	63543	·80307
36	35	·87750	7542·2	56001	·74820
37	36	·82540	6689·6	49311	·69294
38	37	·77314	5931·2	43380	·63729
39	38	·72047	5253·8	38126	·58122
40	39	·66760	4651·6	33474	·52471
41	40	·61428	4114·1	29360	·46776
42	41	·56046	3634·6	25725	·41036
43	42	·50647	3209·7	22515	·35247
44	43	·45197	2831·2	19684	·29411
45	44	·39721	2495·8	17188	·23523
46	45	·34188	2197·3	14991	·17583
47	46	·28622	1932·9	13058	·11588
48	47	·23027	1699·3	11359	7·05534
49	48	·17404	1492·9	9866·0	6·99414
50	49	·11728	1310·0	8556·0	·93227
51	50	·06035	1149·1	7406·9	·86964
52	51	6·00295	1006·8	6400·1	·80619
53	52	5·94549	882·04	5518·1	·74179
54	53	·88781	772·34	4745·8	·67631
55	54	·82974	675·68	4070·1	·60961
56	55	·77117	590·43	3479·7	54154
57	56	·71189	515·10	2964·6	·47197
58	57	·65181	448·55	2516·0	·40071
59	58	·59070	389·67	2126·3	·32762
60	59	·52838	337·58	1788·7	·25254
61	60	·46465	291·51	1497·2	·17528
62	61	·39927	250·77	1216·4	·09566
63	62	·33207	214·82	1031 6	6·01351
64	63	·26288	183·18	848·46	5·92863
65	64	·19153	155·43	693·03	·84075
66	65	·11781	131·16	561·87	·74964
67	66	5·04155	110·04	451 83	·65498
68	67	4·96255	91·738	360·09	·55641
69	68	·88045	75·936	284·15	·45355
70	69	·79418	62·256	221·89	·34614
71	70	·70398	50·580	171·31	·23378
72	71	·60940	40·682	130·63	5·11604
73	72	·50996	32·356	98·276	4·99245
74	73	·40495	25·407	72·869	·86254
75	74	·29468	19·710	53 159	·72558
76	75	·17731	15·042	38·117	·58112
77	76	4·05309	11·300	26·817	4·42841

DIFFERENCE OF AGE, —**1** YEAR—(*continued.*)

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	*x*.				
78	77	3·92117	8·3401	18·477	4·26663
79	78	·78056	6·0334	12·444	4·09496
80	79	·62999	4·2657	8 1780	3·91265
81	80	·47102	2·9520	5·2260	·71817
82	81	·29733	1·9830	3·2430	·51095
83	82	3·11200	1·2942	1 9488	·28977
84	83	2·91218	·81692	1·1319	3·05381
85	84	·69523	·49571	·63623	2·80361
86	85	·46303	·29042	·34581	·53884
87	86	2·21477	·16397	·18184	2·25969
88	87	1·95091	·08931	·09253	1·96628
89	88	·67528	·04735	·04518	·65495
90	89	·38021	·02400	·02118	1·32593
91	90	1·06883	·01172	·00946	0·97589
92	91	0·75062	·00563	·00383	·58320
93	92	0·40937	·00257	·00126	0·10037
94	93	9·97319	·00094	·00032	9·50515
95	94	9·42918	·00027	·00005	8·69897
96	95	8·66538	·00005	·00000	...

DIFFERENCE OF AGE, **O** YEAR.

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	*x*.				
24	24	7·44704	27992	226348	8·35478
25	25	·39898	25060	201288	·30382
26	26	·35066	22421	178867	·25254
27	27	·30218	20053	158814	·20088
28	28	·25351	17927	140887	·14888
29	29	·20445	16012	124875	·09649
30	30	·15498	14288	110587	8·04372
31	31	·10503	12736	97851	7·99057
32	32	·05462	11340	86511	·93707
33	33	7·00371	10086	76425	·88324
34	34	6·95261	8966·2	67459	·82904
35	35	·90107	7962·9	59496	·77449
36	36	·84936	7069·0	52427	·71956
37	37	·79722	6269·3	46158	·66425
38	38	·74492	5558·0	40600	·60853
39	39	·69220	4922·7	35677	·55239
40	40	·63929	4358 0	31319	·49581
41	41	·58594	3854·3	27465	·43878
42	42	·53212	3405·0	24060	·38130
43	43	·47807	3006·6	21053	·32331
44	44	·42352	2651·7	18401	·26484
45	45	·36871	2337·3	16064	·20585
46	46	·31331	2057·4	14007	·14635
47	47	·25760	1809·7	12197	·08625
48	48	·20164	1590·9	10606	7·02555
49	49	·14548	1397·9	9208·5	6·96419
50	50	·08887	1227·1	7981·4	·90208
51	51	6·03216	1076·9	6904·5	·83913
52	52	5·97508	944·23	5960·3	·77527
53	53	5·91777	827·50	5132·8	6·71035

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Table XXV.—(*continued.*)

DIFFERENCE OF AGE, 0 YEAR—(*continued.*)

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
54	54	5·86012	724·60	4408·2	6·64426
55	55	·80199	633·86	3774·3	·57684
56	56	·74321	553·62	3220·7	·50795
57	57	·68363	482·65	2738·0	·43743
58	58	·62305	419·81	2318·2	·36515
59	59	·56131	364·17	1954·0	·29092
60	60	·49821	314·93	1639·1	·21461
61	61	·43353	271·35	1367·7	·13599
62	62	·36707	232·85	1134·8	6·05492
63	63	·29866	198·91	935·89	5·97112
64	64	·22818	169·11	766·78	·88467
65	65	·15543	143·03	623·75	·79501
66	66	·08024	120·29	503·46	·70197
67	67	5·00241	100·56	402·90	·60520
68	68	4·92160	83·483	319·42	·50436
69	69	·93752	68·789	250·63	·39903
70	70	·74907	56·114	194·52	·28896
71	71	·65648	45·340	149·18	·17371
72	72	·55932	36·251	112·93	5·05281
73	73	·45696	28·639	84·295	4·92580
74	74	·34873	22·322	61·973	·79220
75	75	·23487	17·174	44·799	·65127
76	76	4·11360	12·990	31·809	·50255
77	77	3·98512	9·6632	22·146	·34530
78	78	·84860	7·0567	15·089	·17866
79	79	·70305	5·0472	10·042	4·00182
80	80	·54724	3·5257	6·5159	3·81397
81	81	·38173	2·4084	4·1075	·61358
82	82	·20289	1·5955	2·5120	·40002
83	83	3·01108	1·0258	1·4862	3·17208
84	84	2·80435	·63731	·84891	2·92886
85	85	·58002	·38021	·46870	·67090
86	86	·33984	·21870	·25000	·39794
87	87	2·08303	·12107	·12893	2·11035
88	88	1·81068	·06467	·06426	1·80794
89	89	·52602	·03358	·03068	·48686
90	90	1·22176	·01666	·01402	1·14675
91	91	0·89997	·00794	·00608	0·78390
92	92	·57223	·00373	·00235	0·37107
93	93	0·21175	·00163	·00072	9·85733
94	94	9·74962	·00056	·00016	9·20412
95	95	9·15921	·00014	·00002	8·30103
96	96	8·33541	·00002	·00000	...

DIFFERENCE OF AGE, 1 YEAR.

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
23	24	7·46839	29403	238684	8·37782
24	25	·42039	26326	212358	·32707
25	26	·37211	23556	188802	·27600
26	27	·32367	21070	167732	·22461
27	28	·27507	18840	148892	·17287
28	29	7·22629	16838	132054	8·12074

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DIFFERENCE OF AGE, 1 YEAR—(*continued.*)

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
29	30	7·17710	15035	117019	8·06826
30	31	·12746	13411	103608	8·01540
31	32	·07733	11949	91659	7·96218
32	33	7·02676	10636	81023	·90861
33	34	6·97576	9457·1	71566	·85471
34	35	·92456	8405·4	63161	·80045
35	36	·87295	7463·6	55697	·74583
36	37	·82116	6624·6	49072	·69083
37	38	·76899	5874·8	43197	·63545
38	39	·71665	5207·7	37989	·57966
39	40	·66389	4612·0	33377	·52345
40	41	·61095	4082·7	29294	·46678
41	42	·55756	3610·4	25684	·40966
42	43	50370	3189·3	22495	·35209
43	44	·44962	2815·9	19679	·29400
44	45	·39502	2483·2	17196	·23543
45	46	·34014	2188·5	15007	·17629
46	47	·28467	1926·1	13081	·11664
47	48	·22896	1694·2	11387	7·05641
48	49	·17308	1489·6	9897·7	6·99553
49	50	·11707	1309·4	8588·3	·93391
50	51	·06068	1150·0	7438·3	·87147
51	52	6·00425	1009·8	6428·5	·80311
52	53	5·94734	885·81	5542·7	·74372
53	54	·89008	776·39	4766·3	·67818
54	55	·83237	679·78	4086·5	·61135
55	56	·77403	594·33	3492·2	·54310
56	57	·71491	518·69	2973·5	·47327
57	58	·65485	451·70	2521·8	·40171
58	59	·59366	392·34	2129·5	·32828
59	60	·53114	339·73	1789·8	·25280
60	61	·46709	293·15	1496·6	·17511
61	62	·40129	251·94	1244·7	·09506
62	63	·33364	215·60	1029·1	6·01246
63	64	·26396	183·64	845·44	5·92708
64	65	·19208	155·63	689·81	·83873
65	66	·11786	131·18	558·63	·74712
66	67	5·04106	109·92	448·71	·65197
67	68	4·96144	91·504	357·21	·55292
68	69	·87867	75·626	281·58	·44960
69	70	·79241	62·003	219·58	·34159
70	71	·70157	50·300	169·28	·22861
71	72	·60638	40·400	128·88	5·11019
72	73	·50631	32·086	96·793	4·98584
73	74	·40074	25·162	71·631	·85510
74	75	·28892	19·450	52·181	·71751
75	76	·17116	14·831	37·350	·57229
76	77	4·04559	11·107	26·243	·41901
77	78	3·91253	8·1758	18·067	·25689
78	79	·77109	5·9032	12·164	4·08508
79	80	·62030	4·1716	7·9925	3·90268
80	81	·45885	2·8764	5·1161	·70894
81	82	3·28725	1·9375	3·1786	3·50224

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Table XXV.—(*continued.*)

DIFFERENCE OF AGE, **1** YEAR—(*continued.*)

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
82	83	3·10195	1·2646	1·9140	3·28194
83	84	2·90325	·80029	1·1137	3·04877
84	85	·68914	·48881	·62489	2·79580
85	86	·45683	·28631	·33858	·52966
86	87	2·20806	·16146	·17712	2·24827
87	88	1·94278	·08766	·08946	1·95163
88	89	·66142	·04586	·04360	·63949
89	90	·36757	·02331	·02029	1·30728
90	91	1·05290	·01130	·00899	0·95376
91	92	0·72154	·00527	·00372	·57054
92	93	0·37459	·00237	·00135	0·13033
93	94	9·98548	·00097	·00038	9·57978
94	95	9·47695	·00030	·00008	8·90309
95	96	8·82924	·00007	·00001	8 00000
96	97	7·92075	·00001	·00000	...

DIFFERENCE OF AGE, **2** YEARS.

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
22	24	7·48967	30879	251575	8·40068
23	25	·44172	27652	223923	·35009
24	26	·39350	24746	199177	·29925
25	27	·34512	22137	177040	·24807
26	28	·29658	19796	157244	·19656
27	29	·24783	17694	139550	·14473
28	30	·19892	15810	123740	·09251
29	31	·14956	14111	109629	8·03993
30	32	·09976	12582	97047	7·98698
31	33	7·04949	11207	85840	·93369
32	34	6·99879	9972·2	75868	·88006
33	35	·94769	8865·2	67003	·82609
34	36	·89642	7878·1	59125	·77177
35	37	·84475	6994·4	52131	·71710
36	38	·79295	6208·0	45923	·66203
37	39	·74071	5504·4	40419	·60659
38	40	·68833	4879·0	35540	·55072
39	41	·63554	4320·6	31219	·49442
40	42	·58258	3824·5	27394	·43766
41	43	·52917	3382·0	24012	·38043
42	44	·47524	2987·0	21025	·32274
43	45	·42111	2637·0	18388	·26453
44	46	·36644	2325·1	16063	·20583
45	47	·31150	2048·8	14014	·14656
46	48	·25604	1803·2	12211	·08675
47	49	·20039	1586·3	10625	7·02633
48	50	·14466	1395·3	9229·8	6·96519
49	51	·08887	1227·1	8002·7	·90324
50	52	6·03278	1078·4	6924·3	·84038
51	53	5·97654	947·41	5976·9	·77648
52	54	·91964	831·07	5145·8	·71145
53	55	·86232	728·32	4417·5	·64518
54	56	·80436	637·32	3780·2	·57751
55	57	5·74570	556·80	3223·4	6·50831

DIFFERENCE OF AGE, **2** YEARS—(*continued.*)

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
56	58	5·68612	485·42	2738·0	6·43743
57	59	·62543	422·11	2315·9	·36472
58	60	·56346	365·98	1949·9	·29001
59	61	·49999	316·22	1633·7	·21317
60	62	·43484	272·17	1361·5	·13402
61	63	·36787	233·28	1128·2	6·05239
62	64	·29891	199·03	929·17	5·96810
63	65	·22783	168·98	760 19	·88092
64	66	·15448	142·72	617·47	·79062
65	67	·07867	119·86	497·61	·69689
66	68	5·00010	100·02	397·59	·59944
67	69	4·91850	82·890	314·70	·49790
68	70	·83355	68·163	246·54	·39189
69	71	·74490	55·578	190·96	·28094
70	72	·65147	44·820	146·14	·16477
71	73	·55338	35·759	110 38	5·04289
72	74	·45008	28·189	82·190	4·91482
73	75	·34092	21·924	60·266	·78007
74	76	·22520	16·796	43·470	·63819
75	77	4·10316	12·681	30·789	·48840
76	78	3·97303	9·3979	21·391	·33023
77	79	·83501	6·8393	14·552	4·16292
78	80	·68833	4·8790	9·6726	3·98554
79	81	·53190	3·4033	6·2693	·79722
80	82	·36438	2·3141	3·9552	·59717
81	83	3·18634	1·5358	2·4194	·38371
82	84	2·99411	·98653	1·4329	3·15622
83	85	·78803	·61380	·81910	2·91334
84	86	·56594	·36808	·45102	·65420
85	87	·32506	·21138	·23964	·37956
86	38	2·06784	·11691	·12273	2·08895
87	89	1·79351	·06216	·06057	1·78226
88	90	1·50296	·03184	·02873	·45834
89	91	1·19870	·01580	·01293	1·11160
90	92	0·87448	·00749	·00544	0·73560
91	93	0·52393	·00334	·00210	0·32222
92	94	0·14831	·00141	·00069	9·83885
93	95	9·71550	·00052	·00017	9 23045
94	96	9·14697	·00014	·00003	8·47712
95	97	8·41458	·00003	·00000	...
96	98	7·35997	·00000	·00000	...

DIFFERENCE OF AGE, **3** YEARS.

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
21	24	7·51093	32429	265062	8·42334
22	25	·46302	29042	236020	·37295
23	26	·41485	25993	210027	·32228
24	27	·36653	23256	186771	·27131
25	28	·31801	20797	165974	·22003
26	29	·26934	18593	147381	·16844
27	30	·22048	16614	130767	·11651
28	31	7 17140	14839	115928	8·06420

Table XXV.—(*continued.*)

DIFFERENCE OF AGE, 3 YEARS—(*continued.*)					
Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	x.				
29	32	7·12188	13240	102688	8·01153
30	33	·07190	11800	90888	7·95851
31	34	7·02153	10508	80380	·90515
32	35	6·97074	9348·5	71031	·85145
33	36	·91957	8309·4	62722	·79742
34	37	·86824	7383·1	55339	·74303
35	38	·81652	6554·2	48785	·68829
36	39	·76467	5816·6	42968	·63315
37	40	·71241	5157·2	37811	·57762
38	41	·66000	4570·9	33240	·52166
39	42	·60719	4047·5	29192	·46526
40	43	·55417	3582·4	25610	·40841
41	44	·50071	3167·5	22442	·35106
42	45	·44675	2797·4	19645	·29325
43	46	·39255	2469·2	17176	·23492
44	47	·33782	2176·8	14999	·17583
45	48	·28287	1918·1	13081	·11664
46	49	·22748	1688·4	11393	7·05664
47	50	·17199	1485·9	9907·5	6·99596
48	51	·11648	1307·6	8599·9	·93449
49	52	·06099	1150·8	7449·1	·87210
50	53	6·00505	1011·7	6437·4	·80871
51	54	5·94884	888·87	5548·5	·74418
52	55	·89190	779·67	4768 8	·67841
53	56	·83437	682·92	4085·9	·61129
54	57	·77613	597 21	3488·7	·54266
55	58	·71697	521·16	2967·5	·47239
56	59	·65676	453·69	2513·8	·40033
57	60	·59529	393·81	2120·0	·32634
58	61	·53237	340·70	1779·3	·25025
59	62	·46780	293·63	1485·7	·17193
60	63	·40144	252·02	1233·7	·09121
61	64	·33318	215·37	1018·3	6·00788
62	65	·26284	183·16	835·14	5·92176
63	66	·19029	154·99	680·15	·83260
64	67	·11535	130·42	549·73	·74015
65	68	5·03773	109·08	440·65	·64409
66	69	4·95718	90·611	350·04	·54112
67	70	·87340	74·714	275·33	·43985
68	71	·78606	61·103	214·23	·33088
69	72	·69482	49·524	164·71	·21672
70	73	·59847	39·671	125·04	5·09705
71	74	·49716	31·417	93·621	4·97137
72	75	·39028	24·563	69·058	·83921
73	76	·27722	18·933	50·125	·70005
74	77	·15722	14·362	35·763	·55343
75	78	4·03060	10·730	25·033	·39851
76	79	3·89550	7·8614	17·172	·23482
77	80	·75226	5·6528	11·519	4·06141
78	81	·59994	3·9805	7·5381	3·87726
79	82	·43744	2·7380	4·8001	·68125
80	83	·26344	1·7924	3·0077	·47823
81	84	3·07849	1·1981	1·8096	3·25758

DIFFERENCE OF AGE, 3 YEARS—(*continued.*)					
Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	x.				
82	85	2·87890	·75666	1·0529	3·02239
83	86	·66484	·46221	·59071	2·77137
84	87	·43418	·27176	·31895	·50372
85	88	2·18481	·15304	·16591	2·21987
86	89	1·91856	·08290	·08301	1·91913
87	90	·63506	·04316	·03985	·60043
88	91	·33410	·02158	·01827	1·26174
89	92	1·02020	·01048	·00779	0·89154
90	93	0·67684	·00475	·00304	·48287
91	94	0·29764	·00198	·00106	0·02531
92	95	9·87831	·00076	·00030	9·47712
93	96	9·38553	·00024	·00006	8·77815
94	97	8·73232	·00005	·00001	8·00000
95	98	7·85379	·00001	·00000	...
96	99	6·74119	·00000	·00000	...
DIFFERENCE OF AGE, 4 YEARS.					
20	24	7·53213	34051	279164	8·44585
21	25	·48427	30498	248666	·39562
22	26	·43614	27299	221367	·34514
23	27	·38787	24427	196940	·29433
24	28	·33941	21848	175092	·24326
25	29	·29078	19534	155558	·19190
26	30	·24198	17457	138101	·14019
27	31	·19295	15594	122507	·08817
28	32	·14371	13922	108585	8·03579
29	33	·09401	12417	96168	7·98303
30	34	7·04394	11065	85103	·92994
31	35	6·99346	9850·5	75252	·87652
32	36	·94261	8762·1	66490	·82276
33	37	·89138	7787·2	58703	·76866
34	38	·84000	6918·3	51785	·71420
35	39	·78825	6141·2	45644	·65938
36	40	·73636	5449·5	40194	·60416
37	41	·68407	4831·4	35363	·54855
38	42	·63164	4281·9	31081	·49250
39	43	·57877	3791·1	27290	·43600
40	44	·52572	3355·2	23935	·37903
41	45	·47221	2966·3	20969	·32158
42	46	·41818	2619·3	18350	·26364
43	47	·36392	2311·6	16038	·20515
44	48	·30918	2037·9	14000	·14613
45	49	·25431	1796·0	12204	·08650
46	50	·19907	1581·5	10622	7·02621
47	51	·14380	1392·5	9229·7	6·96519
48	52	·08859	1226·3	8003·4	·90327
49	53	6·03325	1079·6	6923·8	·84034
50	54	5·97736	949·21	5974·6	·77631
51	55	·92109	833·85	5140·7	·71102
52	56	·86394	731·04	4409·7	·64441
53	57	5·80609	639·87	3769·8	6·57632

Table XXV.—(*continued.*)

DIFFERENCE OF AGE, 4 YEARS—(*continued.*)

Ages.		$\lambda . D_{x,\,y}$	$D_{x,\,y}$	$N_{x,\,y}$	$\lambda . N_{x,\,y}$
y.	*x.*				
54	58	5·74735	558·92	3210·9	6·50663
55	59	·68758	487·06	2723·8	·43519
56	60	·62659	423·24	2300·6	·36184
57	61	·56417	366·58	1934·0	·28646
58	62	·50015	316·34	1617·7	·20890
59	63	·43437	271·88	1345·8	·12898
60	64	·36674	232·67	1113·1	6·04653
61	65	·29708	198·19	914·92	5·96138
62	66	·22527	167·98	746·94	·87329
63	67	·15113	141·62	605·32	·78199
64	68	5·07438	118·68	486·64	·68721
65	69	4·99480	98·810	387·83	·58864
66	70	·91207	81·671	306·16	·48595
67	71	·82590	66·973	239·19	·37874
68	72	·73597	54·447	184·74	·26656
69	73	·64181	43·834	140·91	·14894
70	74	·54225	34·854	106·06	5·02555
71	75	·43735	27·375	78·689	4·89591
72	76	·32657	21·211	57·478	·75950
73	77	·20923	16·189	41·289	·61583
74	78	4·08463	12·152	29·137	·46444
75	79	3·95307	8·9757	20·161	·30451
76	80	·81276	6·4977	13·663	4·13555
77	81	·66388	4·6119	9·0512	3·95671
78	82	·50549	3·2025	5·8487	·76706
79	83	·33651	2·1703	3·6784	·56566
80	84	3·15562	1·4309	2·2475	·35170
81	85	2 96329	·91895	1·3285	3·12336
82	86	·75572	·56980	·75867	2·88005
83	87	·53309	·34126	·41741	·62056
84	88	·29394	·19676	·22065	·34370
85	89	2·03556	·10853	·11212	2·04968
86	90	1·76012	·05756	·05456	1·73687
87	91	1·46621	·02926	·02530	·40312
88	92	1·15570	·01431	·01099	1·04100
89	93	0·82266	·00665	·00434	0·63749
90	94	0·45058	·00282	·00152	0·18184
91	95	0·02768	·00107	·00045	9·65321
92	96	9·54838	·00035	·00010	9·00000
93	97	8·97089	·00009	·00001	8·00000
94	98	8 17154	·00001	·00000	...
95	99	7·23503	·00000	·00000	...
96	100	5·76588	·00000	·00000	...

DIFFERENCE OF AGE, 5 YEARS.

y.	*x.*	$\lambda . D_{x,\,y}$	$D_{x,\,y}$	$N_{x,\,y}$	$\lambda . N_{x,\,y}$
19	24	7·55328	35750	293921	8·46823
20	25	·50547	32024	261897	·41814
21	26	·45739	28668	233229	·36778
22	27	·40916	25654	207575	·31719
23	28	·36077	22949	184626	·26630
24	29	7·31218	20520	164106	8·21514

DIFFERENCE OF AGE, 5 YEARS—(*continued.*)

Ages.		$\lambda . D_{x,\,y}$	$D_{x,\,y}$	$N_{x,\,y}$	$\lambda . N_{x,\,y}$
y.	*x.*				
25	30	7·26342	18341	145765	8·16367
26	31	·21445	16385	129380	·11187
27	32	·16526	14631	114749	·05975
28	33	·11586	13058	101691	8·00728
29	34	·06605	11643	90048	7·95447
30	35	7·01588	10372	79676	·90133
31	36	6·96533	9032·7	70443	·84784
32	37	·91442	8211·5	62231	·79401
33	38	·86316	7297·3	54934	·73984
34	39	·81175	6482·6	48451	·68530
35	40	·75996	5753·9	42697	·63040
36	41	·70804	5105·5	37591	·57508
37	42	·65573	4526·2	33065	·51937
38	43	·60326	4011·1	29054	·46321
39	44	·55034	3550·9	25503	·40659
40	45	·49724	3142·2	22361	·34949
41	46	·44366	2777·5	19583	·29188
42	47	·38957	2452·3	17131	·23378
43	48	·33531	2164·3	14967	·17513
44	49	·28064	1908·3	13059	·11591
45	50	·22592	1682·4	11377	7·05603
46	51	·17090	1482·2	9894·7	6·99640
47	52	·11593	1306·0	8588·7	·93393
48	53	·06089	1150·5	7438·2	·87147
49	54	6·00558	1012·9	6425·3	·80789
50	55	5·94963	890·49	5534·8	·74310
51	56	·89315	781·90	4752 9	·67696
52	57	·83568	684·98	4067·9	·60937
53	58	·77735	598·89	3469·0	·54020
54	59	·71798	522·37	2946·6	·46932
55	60	·65743	454·39	2492·2	·39658
56	61	·59549	393·99	2098·2	·32185
57	62	·53197	340·38	1757·8	·24497
58	63	·46676	292·93	1464·9	·16581
59	64	·39969	251·01	1213·9	6·08418
60	65	·33066	214·12	999·76	5·99990
61	66	·25953	181·77	817·99	·91275
62	67	·18613	153·51	664·48	·82248
63	68	·11020	128·88	535·60	·72884
64	69	5·03147	107·52	428·08	·63152
65	70	4·94971	89·066	339·01	·53021
66	71	·86459	73·213	265·80	·42456
67	72	·77583	59·680	206·12	·31412
68	73	·68299	48·194	157·93	·19846
69	74	·58561	38·513	119·42	5·07708
70	75	·48246	30·371	89·052	4·94964
71	76	·37366	23·641	65·411	·81565
72	77	·25860	18·138	47·273	·67461
73	78	·13668	13·699	33·574	·52600
74	79	4·00714	10·166	23·408	·36936
75	80	3·87034	7·4189	15·989	·20382
76	81	·72439	5·3014	10·688	4·02890
77	82	3·56944	3·7106	6·9778	3·84372

Table XXV.—*(continued.)*

Difference of Age, 5 Years—*(continued.)*

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
78	83	3 40459	2·5386	4·4392	3·64730
79	84	·22870	1·6932	2·7960	·44654
80	85	3·04043	1·0976	1·6484	3·21706
81	86	2·84012	·69202	·95635	2·98062
82	87	·62398	·42071	·53564	·72887
83	88	·39288	·24710	·28854	·46021
84	89	2·14470	·13954	·14900	2·17319
85	90	1·87713	·07536	·07364	1·86711
86	91	·59128	·03902	·03462	·53933
87	92	1·28782	·01940	·01522	1·18241
88	93	0·95810	·00908	·00614	0·78817
89	94	0·59641	·00395	·00219	0·34044
90	95	0·18063	·00152	·00067	9·82607
91	96	9·69773	·00050	·00017	9·23045
92	97	9·13375	·00014	·00003	8·47712
93	98	8·41013	·00003	·00000	...
94	99	7·55279	·00000	·00000	...
95	100	6·25973	·00000	·00000	...

Difference of Age, 6 Years.

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
18	24	7·57438	37530	309346	8·49045
19	25	·52661	33621	275725	·44048
20	26	·47858	30101	245624	·39026
21	27	·43040	26940	218684	·33981
22	28	·38205	24102	194582	·28910
23	29	·33353	21554	173028	·23812
24	30	·28483	19268	153760	·18684
25	31	·23588	17214	136546	·13529
26	32	·18675	15373	121173	·08340
27	33	·13740	13721	107452	8·03121
28	34	·08789	12243	95209	7·97868
29	35	7·03800	10914	84295	·92580
30	36	6·98774	9721·7	74573	·87258
31	37	·93713	8652·3	65921	·81902
32	38	·88619	7694·7	58226	·76512
33	39	·83488	6837·2	51389	·71087
34	40	·78343	6073·4	45316	·65625
35	41	·73159	5390·0	39926	·60126
36	42	·67965	4782·4	35144	·54585
37	43	·62730	4239·4	30905	·49003
38	44	·57478	3756·5	27148	·43374
39	45	·52183	3325·3	23823	·37700
40	46	·46864	2942·0	20881	·31975
41	47	·41500	2600·2	18281	·26200
42	48	·36091	2295·7	15985	·20371
43	49	·30672	2026·4	13959	·14485
44	50	·25221	1787·4	12172	·08536
45	51	·19770	1576·5	10595	7·02510
46	52	·14298	1389·9	9205·4	6·96404
47	53	·08818	1225·1	7980·3	·90202
48	54	6·03317	1079·4	6900·9	6·83891
49	55	5·97782	950·21	5950·7	6·77457
50	56	·92164	834·91	5115·8	·70891
51	57	·86484	732·55	4383·2	·64179
52	58	·80689	641·05	3742·1	·57312
53	59	·74793	559·67	3182·4	·50275
54	60	·68780	487·30	2695·1	·43057
55	61	·62628	422·94	2272·2	·35645
56	62	·56324	365·80	1906·4	·28021
57	63	·49853	315·16	1591·2	·20172
58	64	·43203	270·41	1320·8	·12084
59	65	·36358	230·98	1089·77	6·03735
60	66	·29306	196·36	893·41	5·95105
61	67	·22034	166·09	727·32	·86173
62	68	·14515	139·69	587·63	·76910
63	69	5·06724	116·75	470·88	·67291
64	70	4·98635	96·906	373·97	·57284
65	71	·90218	79·833	294·14	·46855
66	72	·81447	65 233	228·91	·35966
67	73	·72280	52·820	176·09	·24573
68	74	·62674	42·339	133·75	·12629
69	75	·52578	33·557	100·19	5·00082
70	76	·41872	26·225	73·968	4·86904
71	77	·30564	20·213	53·755	·73042
72	78	·18600	15·346	38·409	·58443
73	79	4·05914	11·459	26·950	·43056
74	80	3·92438	8·4019	18·548	·26830
75	81	·78192	6·0523	12·496	4·09677
76	82	·62990	4·2648	8·2316	3·91548
77	83	·46849	2·9410	5·2906	·72350
78	84	·29673	1·9803	3·3103	·51987
79	85	3·11348	1·2986	2·0117	·30356
80	86	2·91721	·82644	1·1853	3·07383
81	87	·70833	·51089	·67441	2·82892
92	88	·48372	·30459	·36982	·56799
83	89	2·24359	·17522	·19460	2·28914
84	90	1·98624	·09688	·09772	1·98998
85	91	·70824	·05108	·04664	·66876
86	92	·41284	·02587	·02077	1·31744
87	93	1·09017	·01231	·00846	0·92737
88	94	0·73180	·00539	·00307	0·48714
89	95	0·32643	·00212	·00095	9 97772
90	96	9·85063	·00071	·00024	9·38021
91	97	9·28305	·00019	·00005	8·69897
92	98	8·57294	·00004	·00001	8·00000
93	99	7·79133	·00001	·00000	...
94	100	6·57745	·00000	·00000	...

Difference of Age, 7 Years.

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
17	24	7·59546	39397	325506	8·51256
18	25	·54773	35296	290210	·46271
19	26	7·49974	31604	258606	8·41265

Table XXV.—(*continued.*)

Difference of Age, 7 Years—(*continued.*)

Ages.		$\lambda \cdot D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	*x.*				
20	27	7·45161	28289	230317	8·36233
21	28	·40331	25311	205006	·31178
22	29	·35483	22638	182368	·26095
23	30	·30618	20239	162129	·20986
24	31	·25729	18084	144045	·15851
25	32	·20820	16151	127894	·10684
26	33	·15891	14418	113476	·05492
27	34	·10945	12866	100610	8·00264
28	35	·05984	11477	89133	7·95004
29	36	7·00986	10230	78903	·89709
30	37	6·95956	9110·9	69792	·84381
31	38	·90892	8108·1	61684	·79017
32	39	·85793	7209·9	54474	·73619
33	40	·80658	6405·9	48068	·68186
34	41	·75508	5689·6	42378	·62714
35	42	·70324	5049·4	37329	·57205
36	43	·65126	4479·8	32849	·51652
37	44	·59886	3970·6	28878	·46057
38	45	·54629	3518·0	25360	·40415
39	46	·49325	3113·5	22246	·34725
40	47	·44002	2754·4	19492	·28986
41	48	·38638	2434·3	17058	·23193
42	49	·33236	2149·6	14908	·17342
43	50	·27832	1898·1	13010	·11428
44	51	·22402	1675·0	11335	7·05427
45	52	·16982	1478·5	9856·3	6·99371
46	53	·11527	1304·0	8552·3	·93208
47	54	·06050	1149·5	7402·8	·86940
48	55	6·00543	1012·6	6390·2	·80551
49	56	5·94985	890·94	5499·3	·74031
50	57	·89337	782·29	4717·0	·67367
51	58	·83609	685·63	4031·4	·60546
52	59	·77731	599·11	3432·3	·53559
53	60	·71777	522·12	2910·2	·46392
54	61	·65667	453·60	2456·6	·39033
55	62	·59407	392·71	2063·9	·31469
56	63	·52984	338·72	1725·2	·23684
57	64	·46384	290·96	1434·2	·15661
58	65	·39594	248·85	1185·3	6·07383
59	66	·32600	211·84	973·44	5·98831
60	67	·25391	179·44	794·00	·89982
61	68	·17940	151·15	642·85	·80811
62	69	·10223	126·54	516·31	·71291
63	70	5·02214	105·23	411·08	·61393
64	71	4·93884	86·864	324·22	·51084
65	72	·85210	71·138	253·08	·40326
66	73	·76148	57·740	185·34	·26797
67	74	·66659	46·408	148·93	·17298
68	75	·56694	36·893	112·04	5·04937
69	76	·46207	28·978	83·061	4·91940
70	77	·35074	22·425	60·636	·78273
71	78	·23308	16·986	43·650	·63998
72	79	4·10850	12·838	30·812	4·48872

7.

Difference of Age, 7 Years—(*continued.*)

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	*x.*				
73	80	3·97640	9·4711	21·341	4·32921
74	81	·83598	6·8546	14·486	4·16095
75	82	·48747	4·8693	9·6171	3·98304
76	83	·52899	3·3806	6·2365	·79494
77	84	·36067	2·2944	3·9421	·59573
78	85	3·18153	1·5189	2·4234	·38439
79	86	2·99028	·97787	1·4453	3·15996
80	87	·78546	·61018	·83507	2·92172
81	88	·56811	·36992	·46515	·66759
82	89	·33447	·21601	·24914	·39644
83	90	2·08515	·12166	·12748	2·10544
84	91	1·81737	·06567	·06181	1·79106
85	92	·52984	·03387	·02794	·44623
86	93	1·21523	·01641	·01153	1·06183
87	94	0·86391	·00731	·00422	0·62531
88	95	0·46184	·00290	·00132	0·12057
89	96	9·99645	·00099	·00033	9·51851
90	97	9·43599	·00027	·00006	8·77815
91	98	8·72228	·00005	·00001	8·00000
92	99	7·95418	·00001	·00000	...
93	100	6·81602	·00000	·00000	...

Difference of Age, 8 Years.

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	*x.*				
16	24	7·61647	41349·5	342399·4	8·53453
17	25	·56879	37050·2	305349·2	·48480
18	26	·52084	33177·2	272172·0	·43484
19	27	·47275	29699·6	242472·4	·38466
20	28	·42450	26576·6	215895·8	·33425
21	29	·37607	23772·2	192123·6	·28357
22	30	·32746	21255·0	170868·6	·23267
23	31	·27864	18995·0	151873·6	·18147
24	32	·22959	16966·4	134907·2	·13004
25	33	·18034	15147·5	119759·7	·07831
26	34	·13094	13518·9	106240·8	8·02633
27	35	·08138	12060·9	94179·9	7·97396
28	36	7·03170	10757·2	83422·7	·92129
29	37	6·98166	9586·50	73836·22	·86827
30	38	·93133	8537·49	65298·73	·81491
31	39	·88064	7596·96	57701·77	·76119
32	40	·82961	6754·76	50947·01	·70712
33	41	·77823	6001·09	44945·92	·65269
34	42	·72671	5329·79	39616·13	·59787
35	43	·67483	4729·66	34886·47	·54265
36	44	·62280	4195·66	30690·81	·48701
37	45	·57035	3718·35	26972·46	·43091
38	46	·51771	3293·90	23678·56	·37436
39	47	·46461	2914·81	20763·75	·31731
40	48	·41138	2578·58	18185·17	·25971
41	49	·35781	2279·35	15905·82	·20156
42	50	·30394	2013·45	13892·37	·14276
43	51	6·25012	1778·77	12113·60	7·08329

8.

Table XXV.—(*continued.*)

DIFFERENCE OF AGE, **8** YEARS—(*continued.*)

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
44	52	6·19613	1570·83	10542·77	7·02296
45	53	·14209	1387·04	9155·73	6·96169
46	54	·08757	1223·40	7932·33	·89940
47	55	6·03274	1078·30	6854·031	·83594
48	56	5·97746	949·424	5904·607	·77134
49	57	·92156	834·757	5069·850	·70500
50	58	·86460	732·150	4337·700	·63726
51	59	·80669	640·752	3696·948	·56784
52	60	·74733	558·895	3138·053	·49667
53	61	·68664	486·004	2652·049	·42357
54	62	·62444	421·153	2230·896	·34848
55	63	·56065	363·622	1867·274	·27121
56	64	·49513	312·702	1554·572	·19159
57	65	·42773	267·750	1286·822	·10951
58	66	·35836	228·223	1058·599	6·03286
59	67	·28685	193·575	865·024	5·93703
60	68	·21295	163·286	701·738	·84618
61	69	·13646	136·918	564·820	·75191
62	70	5·05711	114·054	450·766	·65396
63	71	4·97463	94·3257	356·4405	·55199
64	72	·88876	77·4034	279·0371	·44567
65	73	·79909	62·9637	216·0734	·33459
66	74	·70525	50·7283	165·3451	·21840
67	75	·60677	40·4362	124·9089	5·09660
68	76	·50322	31·8581	93·0508	4·96872
69	77	·39407	24·7782	68·2726	·83425
70	78	·27816	18·9741	49·2985	·69284
71	79	·15556	14·3074	34·9911	·54396
72	80	4·02574	10·6106	24·3805	·38705
73	81	3·88800	7·7268	16·6537	·22152
74	82	·74151	5·5145	11·1392	4·04685
75	83	·58654	3·8596	7·2796	3·86211
76	84	·42115	2·6372	4·6424	·66672
77	85	·24545	1·7597	2·8827	·45980
78	86	3·05833	1·1437	1·73904	·24030
79	87	2·85851	·72195	1·01709	3·00736
80	88	·64522	·44179	·57530	2·75989
81	89	·41884	·26233	·31297	·49550
82	90	2·17601	·14997	·16300	2·21219
83	91	1·91628	·08246	·08054	1·90601
84	92	1·63897	·04355	·03699	·56808
85	93	1·33221	·02149	·01550	1·19033
86	94	0·98895	·00975	·00575	0·75967
87	95	0·59393	·00393	·00182	0·26007
88	96	0·13186	·00135	·00047	9·67210
89	97	9·58179	·00038	·00009	8·95424
90	98	8·87520	·00008	·00001	8·00000
91	99	8·10350	·00001	·00000	...
92	100	6·97885	·00000	·00000	...

8.

DIFFERENCE OF AGE, **9** YEARS.

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
15	24	7·63746	43397	360059	8·55637
16	25	·58928	38888	321171	·50674
17	26	·54192	34827	286344	·45688
18	27	·49387	31180	255164	·40681
19	28	·44566	27904	227260	·35652
20	29	·39728	24962	202298	·30600
21	30	·34872	22321	179977	·25522
22	31	·29992	19949	160028	·20420
23	32	·25094	17821	142207	·15293
24	33	·20075	15876	126331	·10151
25	34	·15239	14203	112128	8·04972
26	35	·10289	12673	99455	7·99763
27	36	·05324	11304	88151	·94523
28	37	7·00350	10081	78070	·89248
29	38	6·95345	8983·6	69086	·83939
30	39	·90307	7999·6	61086	·78594
31	40	·85234	7117·7	53968	·73214
32	41	·80126	6327·9	47640	·67797
33	42	·74986	5621·6	42018	·62344
34	43	·69832	4992·5	37025	·56850
35	44	·64639	4429·9	32595	·51315
36	45	·59431	3929·3	28666	·45737
37	46	·54177	3481·5	25184	·40112
38	47	·48907	3083·7	22100	·34459
39	48	·43599	2728·9	19371	·28715
40	49	·38283	2414·5	16956	·22932
41	50	·32941	2135·1	14821	·17088
42	51	·27575	1886·9	12934	·11173
43	52	·22223	1668·1	11266	7·05177
44	53	·16841	1473·7	9792·5	6·99089
45	54	·11441	1301·4	8491·1	·92937
46	55	·05983	1147·7	7343·4	·86590
47	56	6·00477	1011·0	6332·4	·80156
48	57	5·94917	889·55	5442·8	·73582
49	58	·89281	781·29	4661·5	·66853
50	59	·83522	684·26	3977·2	·59958
51	60	·77653	597·76	3379·4	·52884
52	61	·71622	520·26	2859·1	·45623
53	62	·65441	451·24	2407·9	·38164
54	63	·59104	389·98	2017·9	·30490
55	64	·52596	335·71	1682·2	·22588
56	65	·45904	287·77	1394·4	·14439
57	66	·39015	245·56	1148·8	6·06024
58	67	·31919	208·54	940·30	5·97327
59	68	·24589	176·15	764·15	·88318
60	69	·17003	147·92	616·23	·78975
61	70	·09136	123·41	492·82	·69269
62	71	5·00960	102·24	390·58	·59171
63	72	4·92453	84·049	306·53	·48647
64	73	·83575	68·509	238·02	·37661
65	74	·74288	55·320	182·70	·26174
66	75	·64545	44·203	138·50	·14145
67	76	4·54306	34·919	103·58	5·01528

9.

Table XXV.—(*continued.*)

Difference of Age, 9 Years—(*continued.*)

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	*x*.				
68	77	4·43523	27·241	76·335	4·88272
69	78	·32151	20·966	55·369	·74327
70	79	·20066	15·873	39·496	·59655
71	80	4·07282	11·826	27·670	·44201
72	81	3·93734	8·6565	19·013	·27905
73	82	·79353	6·2163	12·797	4·10711
74	83	·64060	4·3712	8·4261	3·92563
75	84	·47872	3·0111	5·4150	·73359
76	85	·30595	2·0228	3·3922	·53048
77	86	3·12225	1·3251	2·0671	·31536
78	87	2·92656	·84442	1·2227	3·08732
79	88	·71829	·52275	·69990	2·84504
80	89	·49597	·31331	·38659	·58725
81	90	·26040	·18214	·20445	·31059
82	91	2·00714	·10166	·10279	2·01195
83	92	1·73786	·05468	·04811	1·68224
84	93	·44134	·02763	·02048	1·31133
85	94	1·10595	·01276	·00772	0·88762
86	95	0·71899	·00524	·00248	0·39445
87	96	0 26395	·00184	·00064	9·80618
88	97	9·71720	·00052	·00012	9·07918
89	98	9·02102	·00010	·00002	8·30103
90	99	8·25644	·00002	·00000	...
91	100	7·12819	·00000	·00000	...

Difference of Age, 10 Years.

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	*x*.				
14	24	7·65840	45541	378612	8·57819
15	25	·61080	40813	337799	·52866
16	26	·56294	36554	301245	·47893
17	27	·51494	32730	268515	·42898
18	28	·46677	29293	239222	·37880
19	29	·41843	26208	213014	·32840
20	30	·36992	23438	189576	·27779
21	31	·32119	20950	168626	·22693
22	32	·27223	18717	149909	·17583
23	33	·22309	16714	133195	·12450
24	34	·17379	14921	118274	·07287
25	35	·12433	13315	104959	8·02103
26	36	·07476	11878	93081	7·96886
27	37	7·02505	10594	82487	·91639
28	38	6·97528	9446·7	73040	·86356
29	39	·92518	8417·4	64623	·81039
30	40	·87476	7494·8	57128	·75685
31	41	·82400	6668·1	50460	·70295
32	42	·77290	5927 9	44532	·64867
33	43	·72146	5265·7	39266	·59402
34	44	·66987	4676·0	34590	·53895
35	45	·61789	4148·5	30441	·48346
36	46	·56574	3679·1	26762	·42752
37	47	·51314	3259·4	23503	·37112
38	48	6·46044	2887·0	20616	7·31420

Difference of Age, 10 Years—(*continued.*)

Ages.		$\lambda \cdot D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	*x*.				
39	49	6·40743	2555·2	18061	7·25674
40	50	·35442	2261·6	15799	·19863
41	51	·30122	2000·9	13798	·13982
42	52	·24786	1769·5	12028	·08019
43	53	·19451	1565·0	10463	7·01966
44	54	·14072	1382·7	9079·8	6·95808
45	55	·08666	1220·8	7859·0	·89537
46	56	6·03187	1076·1	6782·9	·83142
47	57	5·97649	947·31	5835·6	·76609
48	58	·92041	832·55	5003·0	·69923
49	59	·86342	730·16	4272·8	·63071
50	60	·80505	638·34	3634·5	·56044
51	61	·74541	556·43	3078·1	·48828
52	62	·68398	483·04	2595·1	·41415
53	63	·62100	417·83	2177·3	·33792
54	64	·55634	360·03	1817·3	·25943
55	65	·48986	308·93	1508 4	·17852
56	66	·42147	263·92	1244·5	·09499
57	67	·35099	224·38	1020·14	6·00864
58	68	·27824	189·78	830·36	5·91927
59	69	·20296	159·57	670·79	·82659
60	70	·12492	133·33	537·46	·73035
61	71	5·04386	110·63	426·83	·63025
62	72	4·95951	91·098	335·73	·52599
63	73	·87153	74·393	261·34	·41721
64	74	·77953	60·191	201·15	·30352
65	75	·68307	48·203	152·95	·18455
66	76	·58174	38·172	114·78	5·05987
67	77	·47507	29·859	84·919	4·92900
68	78	·36266	23·049	61·870	·79148
69	79	·24400	17·539	44·331	·64671
70	80	4·11791	13·119	31·212	·49432
71	81	3·98443	9·6478	21·564	·33373
72	82	·84288	6·9643	14·600	4·16435
73	83	·69261	4·9273	9·6729	3·98556
74	84	·53277	3·4101	6 2628	·79677
75	85	·36351	2 3095	3·9533	·59696
76	86	3 18276	1·5232	2·4301	·38562
77	87	2·99049	·97834	1·4518	3·16191
78	88	·78633	·61141	·84039	2·92448
79	89	·56903	·37071	·46968	·67181
80	90	·33752	·21753	·25215	·40166
81	91	2·09154	·12346	·12869	2·10954
82	92	1·82873	·06741	·06128	1·78732
83	93	·54024	·03469	·02659	·42472
84	94	1·21507	·01641	·01018	1·00775
85	95	0 83598	·00685	·00333	0·52244
86	96	0·38902	·00245	·00088	9·94448
87	97	9 84930	·00071	·00017	9·23045
88	98	9·15642	·00014	·00003	8·47712
89	99	8·40225	·00003	·00000	...
90	100	7·28112	·00000	·00000	...

Difference of Age, 11 Years.

Ages.		$\lambda.D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda.N_{x,y}$
y.	x.				
14	25	7·63173	42828	355179	8·55045
15	26	·58391	38363	316816	·50081
16	27	·53595	34352	282464	·45096
17	28	·48783	30749	251715	·40092
18	29	·43953	27513	224202	·35064
19	30	·39106	24607	199595	·30016
20	31	·34238	21998	177597	·24944
21	32	·29349	19656	157941	·19849
22	33	·24439	17555	140386	·14734
23	34	·19512	15672	124714	·10520
24	35	·14572	13987	110727	8·04427
25	36	·09619	12479	98248	7·99232
26	37	7·04656	11132	87116	·94010
27	38	6·99684	9927·5	77188	·88755
28	39	·94700	8851·2	68337	·83466
29	40	·89686	7886 1	60451	·78140
30	41	·84641	7021·2	53430	·72779
31	42	·79563	6246·4	47184	·67379
32	43	·74451	5552·8	41631	·61942
33	44	·69300	4931·7	36699	·56465
34	45	·64136	4378·8	32329	·50947
35	46	·58931	3884·3	28436	·45387
36	47	·53710	3444·3	24992	·39780
37	48	·48452	3051·5	21940	·34124
38	49	·43187	2703·1	19237	·28400
39	50	·37901	2393·4	16844	·22645
40	51	·32622	2119·4	14725	·16806
41	52	·27332	1876·4	12849	·10887
42	53	·22014	1660·1	11189	7·04879
43	54	·16681	1468·3	9720·4	6·98768
44	55	·11296	1297·1	8423·3	·92548
45	56	·05869	1144·7	7278·6	·86205
46	57	6·00358	1008·3	6270 3	·79729
47	68	5·94774	886·63	5383·7	·73108
48	59	·89101	778·05	4605·6	·66329
49	60	·83324	681·15	3924 4	·59377
50	61	·77392	594·18	3330·2	·52247
51	62	·71318	516·63	2813·6	·44926
52	63	·65058	447·28	2366·3	·37407
53	64	·58629	385·74	1980·6	·29680
54	65	·52023	331·31	1649·3	·21730
55	66	·45228	283·32	1366·0	·13545
56	67	·38230	241·16	1124·8	6·05108
57	68	·31005	204·20	900·58	5·95452
58	69	·23530	171·91	728·67	·86253
59	70	·15784	143·83	584·84	·76704
60	71	5·07741	119·51	465·33	·66776
61	72	4·99376	98·573	366·76	·56438
62	73	·90652	80·634	286·13	·45656
63	74	·81530	65·358	220·77	·34394
64	75	·71971	52·446	168·32	·22614
65	76	·61935	41·625	126·69	5·10274
66	77	4·51374	32·639	94·054	4·97338

Difference of Age, 11 Years—(*continued.*)

Ages.		$\lambda.D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda.N_{x,y}$
y.	x.				
67	78	4·40230	25·264	68·790	4·83753
68	79	·28514	19·281	49·509	·69381
69	80	·16124	14·496	35·013	·54423
70	81	4·02951	10·703	24·310	·38579
71	82	3·88996	7·7618	16·548	·21875
72	83	·74197	5·5204	11·028	4·04250
73	84	·58477	3·8439	7·1843	3·85638
74	85	·41755	2 6155	4·5688	·65980
75	86	·24031	1·7390	2·8298	·45176
76	87	3·05099	1·1246	1 7052	3·23178
77	88	2·85027	·70839	·99682	2·99862
78	89	·63706	·43357	·56325	·75070
79	90	·41057	·25738	·30587	·48554
80	91	2·16865	·14745	·15842	2·19981
81	92	1·91312	·08187	·07655	1·88395
82	93	·63112	·04277	·03378	·52866
83	94	1·31396	·02060	·01318	1·11992
84	95	0·94509	·00881	·00437	0·64048
85	96	0·50600	·00321	·00116	0·06446
86	97	9·97436	·00094	·00022	9·34242
87	98	9·28853	·00019	·00003	8 47712
88	99	8·53764	·00003	·00000	...
89	100	7·42692	·00000	·00000	...

Difference of Age, 12 Years.

14	26	7·60484	40257	333078	8·52255
15	27	·55692	36051	297027	·47280
16	28	·50884	32273	264754	·42284
17	29	·46059	28880	235874	·37267
18	30	·41216	25832	210042	·32230
19	31	·36352	23095	186947	·27173
20	32	·31468	20639	166308	·22092
21	33	·26563	18434	147874	·16988
22	34	·21642	16460	131414	·11863
23	35	·16707	14692	116722	·06715
24	36	·11760	13110	103612	8·01540
25	37	·06801	11695	91917	7·96340
26	38	7·01833	10431	81486	·91108
27	39	6·96856	9301·7	72184	·85844
28	40	·91870	8292·8	63891	·80544
29	41	·86853	7388·1	56503	·75207
30	42	·81806	6577·5	49925	·69832
31	43	·76722	5850·9	44074	·64418
32	44	·71605	5200·6	38873	·58965
33	45	·66451	4618·6	34254	·53471
34	46	·61280	4100·2	30154	·47934
35	47	·56069	3636·6	26517	·42352
36	48	·50846	3224·5	23292	·36721
37	49	·45595	2857·3	20435	·31037
38	50	·40347	2532·2	17903	·25293
39	51	6·35083	2213·0	15660	7·19479

Table XXV.—(*continued.*)

Difference of Age, 12 Years—(*continued.*)

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	x.				
40	52	6·29834	1987·7	13672	7·13583
41	53	·24559	1760·3	11912	·07598
42	54	·19244	1557·5	10354	7·01511
43	55	·13906	1377·4	8976·3	6·95310
44	56	·08500	1216·2	7760·1	·88987
45	57	6·03041	1072·5	6687·6	·82527
46	58	5·97481	943·65	5743·9	·75921
47	59	·91834	828·59	4915·3	·69155
48	60	·86085	725·86	4189·4	·62215
49	61	·80213	634·06	3555·3	·55088
50	62	·74171	551·71	3003·6	·47764
51	63	·67976	478·37	2525·2	·40230
52	64	·61587	412·92	2112·3	·32476
53	65	·55020	354·98	1757·3	·24485
54	66	·48267	303·86	1453·4	·16239
55	67	·41313	258·90	1194·5	6·07719
56	68	·34134	219·45	975·04	5·98902
57	69	·26711	184·97	790·07	·89767
58	70	·19020	154·95	635·12	·80286
59	71	·11035	128·93	506·19	·70431
60	72	5·02733	106·50	399·69	·60172
61	73	4·94075	87·247	312·44	·49477
62	74	·85029	70·842	241·60	·38310
63	75	·75550	56·951	184·65	·26635
64	76	·65601	45·291	139·36	·14414
65	77	·55137	35·593	103·77	5·01607
66	78	·44116	27·616	76·151	4·88168
67	79	·32498	21·134	55·017	·74050
68	80	·20239	15·936	39·081	·59197
69	81	4·07285	11·826	27·255	·43545
70	82	3·93505	8·6109	18·644	·27054
71	83	·78903	6·1522	12·492	4·09663
72	84	·63413	4·3066	8·1858	3·91306
73	85	·46957	2·9483	5·2375	·71912
74	86	·29437	1·9696	3·2679	·51427
75	87	3·10856	1·2840	1·9839	·29752
76	88	2·91075	·81424	1·1697	3·06807
77	89	·70100	·50234	·66736	2·82436
78	90	·47862	·30104	·36632	·56386
79	91	2·24172	·17447	·19185	2·28296
80	92	1·99025	·09778	·09407	1·97345
81	93	·71549	·05194	·04213	·62459
82	94	·40484	·02540	·01673	1·22350
83	95	1·04400	·01107	·00566	0·75282
84	96	0·61513	·00412	·00154	0·18752
85	97	0·09136	·00123	·00031	9·49136
86	98	9·41357	·00026	·00005	8·69897
87	99	8·66975	·00005	·00000	...
88	100	7·56233	·00000	·00000	...

Difference of Age, 13 Years.

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	x.				
14	27	7·57787	37833	312289	8·49456
15	28	·52983	33871	278418	·44470
16	29	·48162	30312	248106	·39464
17	30	·43324	27117	220989	·34437
18	31	·38464	24246	196743	·29389
19	32	·33584	21669	175074	·24321
20	33	·28684	19357	155717	·19234
21	34	·23768	17285	138432	·14123
22	35	·18837	15430	123002	·08991
23	36	·13893	13770	109232	8·03834
24	37	·08940	12286	96946	7·98653
25	38	7·03978	10959	85987	·93443
26	39	6·99007	9773·9	76213	·88203
27	40	·94026	8714·9	67498	·82929
28	41	·89035	7768·7	59729	·77619
29	42	·84016	6920·9	52808	·72270
30	43	·78965	6161·0	46647	·66882
31	44	·73878	5480·0	41167	·61455
32	45	·68756	4870·3	36297	·55987
33	46	·63593	4324·4	31973	·50478
34	47	·58416	3838·5	28134	·44923
35	48	·53205	3404·5	24729	·39321
36	49	·47991	3019·3	21710	·33666
37	50	·42755	2676·4	19034	·27953
38	51	·37527	2372·8	16661	·22170
39	52	·32293	2103·4	14558	·16310
40	53	·27061	1864·7	12693	·10356
41	54	·21791	1651·6	11041	7·04301
42	55	·16470	1461·2	9579·5	6·98134
43	56	·11110	1291·5	8288·0	·91845
44	57	·05672	1139·5	7148·5	·85421
45	58	6·00165	1003·8	6144·7	·78850
46	59	5·94543	881·92	5262·8	·72122
47	60	·88818	773·00	4489·8	·65223
48	61	·82972	675·65	3814·1	·58139
49	62	·76990	588·71	3225·4	·50858
50	63	·70829	510·85	2714·5	·43369
51	64	·64507	441·64	2272·9	·35658
52	65	·57978	380·00	1892·9	·27713
53	66	·51262	325·55	1567·3	·19515
54	67	·44350	277·65	1289·6	·11046
55	68	·37217	235·60	1054·0	6·02284
56	69	·29842	198·80	855·17	5·93205
57	70	·22201	166·73	688·44	·83787
58	71	·14269	138·90	549·54	·74000
59	72	5·06025	114·88	434·66	·63815
60	73	4·97432	94·258	340·40	·53199
61	74	·88454	76·655	263·74	·42118
62	75	·79049	61·729	202·01	·30537
63	76	·69178	49·179	152·83	·18421
64	77	·58801	38·727	114·10	5·05729
65	78	·47879	30·115	83·980	4·92418
66	79	4·36366	23·103	60·877	4·78445

Table XXV.—(*continued.*)

Difference of Age, 13 Years—(*continued*).

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	*x.*				
67	80	4·24224	17·468	43·409	4·63758
68	81	4·11400	13·002	30·407	·48297
69	82	3·97839	9·5146	20·892	·31998
70	83	·83413	6·8254	14·067	4·14820
71	84	·68121	4·7997	9·2668	3·96693
72	85	·51893	3·3032	5·9636	·77551
73	86	·34637	2·2201	3·7435	·57328
74	87	3·16260	1·4541	2·2894	·35972
75	88	2·96832	·92965	1·3597	3·13344
76	89	·76150	·57743	·78224	2·89334
77	90	·54256	·34879	·43345	·63694
78	91	·30975	·20406	·22939	·36057
79	92	2·06330	·11570	·11369	2·05572
80	93	1·79262	·06203	·05166	1·71315
81	94	·48923	·03085	·02081	1·31827
82	95	1·13488	·01364	·00717	0·85552
83	96	0·71402	·00518	·00199	0·29885
84	97	0·20047	·00159	·00040	9·60206
85	98	9·53057	·00034	·00006	8·77815
86	99	8·79481	·00006	·00000	...
87	100	7·69444	·00000	·00000	...

Difference of Age, 14 Years.

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	*x.*				
14	28	7·55076	35543	292719	8·46645
15	29	·50259	31812	260907	·41649
16	30	·45425	28461	232446	·36633
17	31	·40570	25451	206995	·31597
18	32	·35694	22748	184247	·26541
19	33	·30798	20323	163924	·21463
20	34	·25887	18150	145774	·16367
21	35	·20961	16204	129570	·11250
22	36	·16023	14462	115108	·06111
23	37	·11075	12905	102203	8·00945
24	38	·06117	11513	90690	7·95756
25	39	7·01150	10268	80442	·90537
26	40	6·96175	9156·9	71265	·85288
27	41	·91191	8164·1	63101	·80004
28	42	·86200	7277·8	55823	·74681
29	43	·81175	6482·6	49340	·69320
30	44	·76119	5770·2	43570	·63919
31	45	·71028	5131·8	38438	·58476
32	46	·65898	4560·2	33678	·52735
33	47	·60731	4048·6	29829	·47464
34	48	·55552	3593·5	26235	·41888
35	49	·50348	3187·7	23047	·36261
36	50	·45149	2828·1	20219	·30576
37	51	·39935	2508·1	17711	·24824
38	52	·34739	2225·3	15486	·18994
39	53	·29520	1973·3	13513	·13075
40	54	·24291	1749·5	11763	·07052
41	55	6·19015	1549·4	10213·6	7·00920

14.

Difference of Age, 14 Years—(*continued*).

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	*x.*				
42	56	6·13673	1370·0	8843·6	6·94663
43	57	·08282	1210·1	7633·5	·88272
44	58	6·02795	1066·5	6567·0	·81737
45	59	5·97225	938·10	5628·9	·75042
46	60	·91525	822·72	4806·2	·68180
47	61	·85705	719·53	4086·7	·61137
48	62	·79751	627·35	3459·3	·53899
49	63	·73648	545·10	2914·2	·46452
50	64	·67358	471·61	2442·6	·38785
51	65	·60896	406·41	2036·2	·30882
52	66	·54220	348·50	1687·7	·22730
53	67	·47347	297·49	1390·2	·14308
54	68	·40254	252·66	1137·5	6·05595
55	69	·32923	213·42	924·01	5·96568
56	70	·25330	179·18	744·92	·87211
57	71	·17450	149·45	595·47	·77486
58	72	·09261	123·77	471·70	·67367
59	73	5·00724	101·68	370·02	·56823
60	74	4·91809	82·811	287·21	·45820
61	75	·82472	66·791	220·42	·34325
62	76	·72677	53·305	167·11	·22300
63	77	·62380	42·053	125·06	5·09712
64	78	·51543	32·767	92·292	4·96516
65	79	·40127	25·192	67·100	·82672
66	80	·28090	19·094	48·006	·68130
67	81	·15384	14·251	33·755	·52834
68	82	4·01954	10·460	23·295	·36726
69	83	3·87746	7·5415	15·753	·19736
70	84	·72629	5·3246	10·428	4·01820
71	85	·76599	3·6812	6·7469	3·82910
72	86	·39573	2·4873	4·2596	·62937
73	87	·21462	1·6392	2·6204	·41837
74	88	3·02236	1·0528	1·5676	3·19524
75	89	2·81905	·65925	·90835	2·95825
76	90	·60304	·40090	·50745	·70539
77	91	·37369	·23642	·27103	·43302
78	92	2·13133	·13532	·13571	2·13261
79	93	·86567	·07340	·06231	1·79456
80	94	·56634	·03684	·02547	1·40603
81	95	1·21925	·01657	·00890	0·94939
82	96	0·80490	·00638	·00252	0·40140
83	97	0·29938	·00199	·00053	9·72428
84	98	9·63968	·00044	·00009	8·95424
85	99	8·91179	·00008	·00001	7·00000
86	100	7·81948	·00001	·00000	...

Difference of Age, 15 Years.

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	*x.*				
14	29	7·52352	33383	274117	8·43794
15	30	·47522	29684	244433	·38815
16	31	·42671	26712	217721	·33790
17	32	7·37800	23878	193843	8·28744

15.

Table XXV.—(*continued.*)

Difference of Age, 15 Years—(*continued.*)

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	x.				
18	33	7·32908	21334	172509	8·23681
19	34	·28001	19055	153454	·18597
20	35	·23080	17014	136440	·13494
21	36	·18147	15187	121253	·08368
22	37	·13203	13553	107700	8·03222
23	38	·08252	12093	95607	7·98049
24	39	7·03291	10787	84820	·92850
25	40	6·98320	9620·6	75199	·87621
26	41	·93342	8578·6	66620	·82360
27	42	·88354	7647·9	58972	·77065
28	43	·83359	6816·9	52155	·71730
29	44	·78331	6071·7	46083	·66354
30	45	·73270	5403·8	40679	·60937
31	46	·68171	4805·2	35874	·55478
32	47	·63034	4269·1	31605	·49976
33	48	·57867	3790·3	27815	·44428
34	49	·52697	3364·9	24450	·38828
35	50	·47508	2985·9	21464	·33171
36	51	·42331	2650·4	18814	·27448
37	52	·37145	2352·1	16462	·21648
38	53	·31966	2087·7	14374	·15758
39	54	·26752	1851·5	12522	·09767
40	55	·21517	1641·2	10881	7·03667
41	56	·16220	1452·8	9427·9	6·97442
42	57	·10844	1283·6	8144·3	·91085
43	58	6·05405	1132·5	7011·8	·84583
44	59	5·99856	996·69	6015·1	·77924
45	60	·94208	875·15	5139·9	·71095
46	61	·88413	765·83	4374·1	·64089
47	62	·82481	668·05	3706·0	·56891
48	63	·76408	580·87	3125·1	·49486
49	64	·70178	503·25	2621·8	·41860
50	65	·63748	433·99	2187·8	·34001
51	66	·57139	372·73	1815·1	·25890
52	67	·50302	318·43	1496·7	·17513
53	68	·43250	270·71	1226·0	6·08849
54	69	·35961	228·88	997·15	5·99876
55	70	·28412	192·36	804·79	·90568
56	71	·20580	160·62	644·17	·80900
57	72	·12439	133·17	511·00	·70842
58	73	5·03959	109·54	401·46	·60364
59	74	4·95102	89·335	312·12	·49432
60	75	·85828	72·157	239·96	·38014
61	76	·76091	57·665	182·29	·26076
62	77	·65878	45·581	136·71	·13580
63	78	·55123	35·582	101·126	5·00488
64	79	·43794	27·412	73·714	4·86755
65	80	·31854	20·823	52·891	·72338
66	81	·19253	15·579	37·312	·57185
67	82	4·05938	11·465	25·847	·41241
68	83	3·91862	8·2913	17·556	·24443
69	84	·76964	5·8836	11·672	4·06715
70	85	3·61109	4·0840	7·5884	3·88015

Difference of Age, 15 Years—(*continued.*)

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	x.				
71	86	3·44281	2·7721	4·8163	3·68271
72	87	·26397	1·8364	2·9799	·47420
73	88	3·07439	1·1868	1·7931	·25360
74	89	2·87312	·74666	1·0464	3·01970
75	90	·66062	·45774	·58865	2·76986
76	91	·43420	·27177	·31688	·50089
77	92	2·19528	·15678	·16010	2·20439
78	93	1·93373	·08585	·07425	1·87070
79	94	·63942	·04359	·03066	·48657
80	95	1·29639	·01979	·01087	1·03623
81	96	0·88930	·00775	·00312	0·49415
82	97	0·39025	·00246	·00066	9·81954
83	98	9·73860	·00055	·00011	9·04139
84	99	9·02093	·00010	·00001	8·00000
85	100	7·93649	·00001	·00000	...

Difference of Age, 16 Years.

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	x.				
14	30	7·49617	31345	256987	8·40992
15	31	·44770	28035	228952	·35974
16	32	·39903	25063	203889	·30940
17	33	·35016	22395	181494	·25885
18	34	·30113	20005	161489	·20815
19	35	·25196	17863	143626	·15725
20	36	·20268	15947	127679	·10612
21	37	·15329	14233	113446	·05480
22	38	·10382	12700	100746	8·00325
23	39	·05424	11330	89416	7·95142
24	40	7·00459	10106	79310	·89933
25	41	6·95485	9012·6	70297	·84694
26	42	·90505	8036·2	62261	·79422
27	43	·85515	7163·9	55097	·74113
28	44	·80513	6384·5	48712	·68764
29	45	·75480	5685·9	43026	·63373
30	46	·70412	5059·6	37966	·57939
31	47	·65307	4498·5	33467	·52462
32	48	·60172	3996·9	29470	·46938
33	49	·55010	3549·0	25921	·41365
34	50	·49855	3151·7	22769	·35734
35	51	·44688	2798·2	19971	·30040
36	52	·39541	2485·5	17485	·24267
37	53	·34374	2206·7	15278	·18407
38	54	·29196	1958·7	13319	·12447
39	55	·23976	1736·8	11582	·06378
40	56	·18720	1538·9	10043	7·00186
41	57	·13391	1361·2	8681·4	6·93859
42	58	·07969	1201·4	7480·0	·87390
43	59	6·02466	1058·4	6421·6	·80764
44	60	5·96839	929·80	5491·8	·73971
45	61	·91096	814·63	4677·2	·66999
46	62	·85191	711·07	3966·1	·59836
47	63	5·79142	618·61	3347·5	6·52472

Table XXV.—(*continued.*)

Difference of Age, **16** Years—(*continued.*)

Ages.		$\lambda . D_{x,\,y}$	$D_{x,\,y}$	$N_{x,\,y}$	$\lambda . N_{x,\,y}$
y.	x.				
48	64	5·72938	536·27	2811·2	6·44889
49	65	·66568	463·11	2348·1	·37072
50	66	·59991	398·02	1950·1	·29006
51	67	·53223	340·59	1609·5	·20669
52	68	·46209	289·79	1319·7	·12048
53	69	·38957	245·23	1074·5	6·03121
54	70	·31450	206·30	868·20	5·93862
55	71	·23662	172·43	695·77	·84247
56	72	·15571	143·12	552·65	·74245
57	73	5·07141	117·87	434·78	·63827
58	74	4·98337	96·243	338·54	·52961
59	75	·89121	77·841	260·70	·41614
60	76	·79457	62·312	198·39	·29752
61	77	·69302	49·320	149·07	·17339
62	78	·58621	38·566	110·50	5·04336
63	79	·47370	29·765	80·734	4·90706
64	80	·35517	22·655	58·079	·76402
65	81	·23013	16·988	41·091	·61375
66	82	4·09805	12·533	28·558	·45573
67	83	3·95846	9·0878	19·470	·28937
68	84	·81078	6·4681	13·002	4·11401
69	85	·65442	4·5125	8·4890	3·92886
70	86	·48789	3·0753	5·4137	·73349
71	87	·31104	2·0466	3·3671	·52726
72	88	3·12374	1·3297	2·0374	·30908
73	89	2·92511	·84161	1·1958	3·07766
74	90	·71465	·51838	·67739	2·83084
75	91	·49174	·31027	·36712	·56481
76	92	2·25577	·18021	·18691	2·27163
77	93	1·99766	·09946	·08745	1·94176
78	94	·70744	·05098	·03647	·56194
79	95	1·36943	·02341	·01306	1·11594
80	96	0·96640	·00926	·00380	0·57978
81	97	0·47463	·00298	·00082	9·91381
82	98	9·82947	·00068	·00014	9·14613
83	99	9·11981	·00013	·00001	8·00000
84	100	8·04559	·00001	·00000	...

Difference of Age, **17** Years.

Ages.		$\lambda . D_{x,\,y}$	$D_{x,\,y}$	$N_{x,\,y}$	$\lambda . N_{x,\,y}$
y.	x.				
14	31	7·46864	29420	240647	8·38139
15	32	·42001	26303	214344	·33110
16	33	·37118	23452	190892	·28078
17	34	·32220	20999	169893	·23017
18	35	·27307	18753	151140	·17938
19	36	·22383	16743	134397	·12840
20	37	·17449	14945	119452	·07719
21	38	·12507	13337	106115	8·02580
22	39	·07555	11900	94215	7·97412
23	40	7·02593	10615	83600	·92221
24	41	6·97625	9467·8	74132	·87001
25	42	6·92649	8442·9	65689	7·81749

Difference of Age, **17** Years—(*continued.*)

Ages.		$\lambda . D_{x,\,y}$	$D_{x,\,y}$	$N_{x,\,y}$	$\lambda . N_{x,\,y}$
y.	x.				
26	43	6·87665	7527·5	58161	7·76463
27	44	·82670	6709·7	51451	·71139
28	45	·77663	5979·0	45472	·65774
29	46	·72623	5323·9	40148	·60366
30	47	·67549	4736·9	35411	·54914
31	48	·62434	4210·6	31200	·49417
32	49	·57306	3741·6	27458	·43867
33	50	·52169	3324·2	24134	·38263
34	51	·47036	2953·7	21180	·32593
35	52	·41899	2624·2	18556	·26848
36	53	·36769	2331·8	16224	·21016
37	54	·31605	2070 4	14154	·15088
38	55	·26421	1837·4	12317	·09050
39	56	·21180	1628·5	10688	7·02890
40	57	·15892	1441·9	9246·2	6·96596
41	58	·10515	1273·9	7972·3	·90158
42	59	6·05030	1122·8	6849·5	·83850
43	60	5·99448	987·37	5862·1	·76805
44	61	·93726	865·49	4996·6	·69867
45	62	·87873	756·36	4240·2	·62739
46	63	·81849	658·40	3581·8	·55410
47	64	·75671	571·10	3010·7	·47867
48	65	·69327	493·48	2517·2	·40092
49	66	·62810	424·72	2092·5	·32067
50	67	·56074	363·70	1728·8	·23774
51	68	·49127	309·93	1418·9	·15195
52	69	·41915	262·51	1156·38	6·06311
53	70	·34445	221·03	935·35	5·97097
54	71	·26699	184·92	750·43	·87531
55	72	·18652	153·65	596·78	·77581
56	73	·10270	126·68	470·10	·67219
57	74	5·01518	103·56	366·54	·56412
58	75	4·92355	83·859	282·68	·45130
59	76	·82749	67·219	215·46	·33337
60	77	·72657	53·281	162·18	·21000
61	78	·62044	41·729	120·45	5·08081
62	79	·50869	32·262	88·186	4·94540
63	80	·39094	24·600	63·586	·80336
64	81	·26677	18·483	45·103	·65421
65	82	4·13566	13·667	31·436	·49743
66	83	3·99712	9·9339	21·502	·33248
67	84	·85062	7·0896	14·412	4·15872
68	85	·69556	4·9609	9 4509	3·97547
69	86	·53122	3·3980	6·0529	·78196
70	87	·35612	2·2705	3·7824	·57777
71	88	3·17080	1·4818	2 3006	·36184
72	89	2·97447	·94291	1·3577	3·13280
73	90	·76665	·58432	·77339	2·88840
74	91	·54578	·35138	·42201	·62532
75	92	·31332	·20574	·21627	·33500
76	93	2·05814	·11432	·10195	2·00839
77	94	1·77138	·05907	·04288	1·63225
78	95	1·43746	·02738	·01550	1·19033

Table XXV.—(*continued.*)

DIFFERENCE OF AGE, **17** YEARS—(*continued.*)

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
79	96	1·03945	·01095	·00455	0·65801
80	97	0·55174	·00356	·00099	9·46240
81	98	9·91384	·00082	·00017	9·23045
82	99	9·21069	·00016	·00001	8·00000
83	100	8·14448	·00001	·00000	...

DIFFERENCE OF AGE, **18** YEARS.

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
14	32	7·44094	27602	225396	8·35295
15	33	·39215	24669	200727	·30261
16	34	·34321	22040	178687	·25210
17	35	·29413	19685	159002	·20140
18	36	·24493	17576	141426	·15054
19	37	·19563	15690	125736	·09947
20	38	·14626	14004	111732	8·04817
21	39	·09679	12497	99235	7·99666
22	40	7·04723	11149	88086	·94491
23	41	6·99760	9944·9	78141	·89288
24	42	·94788	8869·1	69272	·84056
25	43	·89808	7908·2	61364	·78791
26	44	·84819	7050·0	54314	·73491
27	45	·79819	6283·3	48031	·68152
28	46	·74807	5598·5	42432	·62769
29	47	·69759	4984·1	37448	·57343
30	48	·64685	4434·6	33013	·51869
31	49	·59587	3943·4	29070	·46345
32	50	·54474	3505·4	25565	·40765
33	51	·49351	3115·4	22450	·35122
34	52	·44246	2769·9	19680	·29403
35	53	·39126	2461·8	17218	·23598
36	54	·33999	2187·7	15030	·17696
37	55	·28829	1942·2	13088	·11687
38	56	·23626	1722·9	11365	7·05557
39	57	·18351	1525·8	9839·4	6·99297
40	58	·13015	1349·4	8490·0	·92891
41	59	·07575	1190·6	7299·4	·86329
42	60	6·02012	1047·4	6252·0	·79602
43	61	5·96337	919·12	5332·9	·72696
44	62	·90504	803·60	4529·3	·65603
45	63	·84532	700·36	3828·9	·58307
46	64	·78379	607·84	3221·1	·50800
47	65	·72061	525·55	2695·5	·43064
48	66	·65572	452·61	2242·9	·35081
49	67	·58894	388·10	1854·8	·26830
50	68	·51979	330·97	1523·8	·18293
51	69	·44834	280·76	1243·0	·09447
52	70	·37404	236·61	1006·4	6·00277
53	71	·29697	198·14	8082·9	5·90757
54	72	·21690	164·78	6435·1	·80856
55	73	·13352	135·99	5075·2	·70545
56	74	5·04648	111·30	3962·2	·59794
57	75	4·95537	90·234	3059·9	5·48571

DIFFERENCE OF AGE, **18** YEARS—(*continued.*)

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
76	58	4·85986	72·420	233·57	5·36842
77	59	·75950	57·478	176·09	·24574
78	60	·65400	45·082	131·01	5·11730
79	61	·54293	34·908	96·099	4·98272
80	62	·42594	26·665	69·434	·84157
81	63	·30257	20·071	49·363	·69340
82	64	·17231	14·870	34·493	·53773
83	65	4·03474	10·833	23·660	·37401
84	66	3·88929	7·7498	15·910	·20167
85	67	·73541	5·4376	10·472	4·02003
86	68	·57238	3·7358	6·7358	3·82839
87	69	·39946	2·5088	4·2270	·62603
88	70	·21589	1·6440	2·5830	·41212
89	71	3·02154	1·0508	1·5322	3·18532
90	72	2·81602	·65467	·87750	2·94325
91	73	·59781	·39610	·48140	·68251
92	74	·36737	·23301	·24839	·39513
93	75	2·11570	·13053	·11786	2·07137
94	76	1·83187	·06790	·04996	1·69862
95	77	1·50141	·03173	·01823	1·26079
96	78	1·10751	·01281	·00542	0·73400
97	79	0·62480	·00422	·00120	0·07918
98	80	9·99096	·00098	·00022	9·34242
99	81	9·29507	·00020	·00002	8·30103
100	82	8·23537	·00002	·00000	...

DIFFERENCE OF AGE, **19** YEARS.

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
14	33	7·41308	25887	211021	8·32432
15	34	·36418	23130	187891	·27390
16	35	·31514	20660	167231	·22331
17	36	·26599	18450	148781	·17254
18	37	·21673	16471	132310	·12159
19	38	·16740	14703	117607	·07044
20	39	·11798	13121	104486	8·01907
21	40	·06847	11708	92778	7·96745
22	41	7·01888	10444	82334	·91558
23	42	6·96923	9316·0	73018	·86343
24	43	·91949	8307·9	64710	·81097
25	44	·86964	7407·0	57303	·75818
26	45	·81970	6602·4	50701	·70502
27	46	·76963	5883·4	44818	·65145
28	47	·71943	5241·2	39577	·59744
29	48	·66897	4666·3	34911	·54296
30	49	·61830	4152·4	30759	·48797
31	50	·56747	3693·8	27065	·43241
32	51	·51656	3285·2	23780	·37621
33	52	·46561	2921·5	20858	·31927
34	53	·41475	2598·7	18259	·26148
35	54	·36358	2309·8	15949	·20273
36	55	·31225	2052·3	13897	·14292
37	56	6·26034	1821·1	12076	7·08192

Table XXV.—(*continued.*)

DIFFERENCE OF AGE, **19** YEARS—(*continued.*)

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	*x.*				
38	57	6·20797	1614·2	10461·8	7·01961
39	58	·15476	1428·1	9033·7	6·95587
40	59	·10077	1261·2	7772·5	·89056
41	60	6·04559	1110·7	6661·8	·82359
42	61	5·98901	975·01	5686·8	·75487
43	62	·93114	853·38	4833·4	·68425
44	63	·87163	744·10	4089·3	·61165
45	64	·81062	646·58	3442·7	·53690
46	65	·74769	559·36	2883·3	·45989
47	66	·68304	481·99	2401·3	·38045
48	67	·61655	413·57	1987·7	·29835
44	68	·54800	353·18	1634·5	·21338
50	69	·47687	299·83	1334·7	·12538
51	70	·40324	253·07	1081·6	6·03407
52	71	·32655	212·10	869·53	5·93928
53	72	·24687	176·55	692·98	·84072
54	73	·16391	145·85	547·13	·73809
55	74	5·07731	119·48	427·65	·63109
56	75	4·98668	96·980	330·67	·51939
57	76	·89167	77·924	252·75	·40269
58	77	·79186	61·924	190·83	·28065
59	78	·68694	48·634	142·20	·15290
60	79	·57650	37·714	104·49	5·01907
61	80	·46019	28·853	756·39	4·87875
62	81	·33756	21·755	53·884	·73146
63	82	·20810	16·147	37·737	·57677
64	83	4·07140	11·787	25·950	·41414
65	84	3·92692	8·4512	17·499	·24301
66	85	·77409	5·9442	11·5543	4·06273
67	86	·61223	4·0948	7·4595	3·87271
68	87	·44061	2·7581	4·7014	·67223
69	88	·25923	1·8165	2·8849	·46013
70	89	3·06663	1·1658	1·7191	3·23530
71	90	2·86309	·72961	·98945	2·99539
72	91	·64716	·44377	·54568	·73694
73	92	·41939	·26266	·28302	·45182
74	93	2·16976	·14783	·13519	2·13094
75	94	1·88944	·07753	·05766	1·76087
76	95	·56191	·03647	·02119	1·32613
77	96	1·17145	·01484	·00635	0 80277
78	97	0·69285	·00493	·00142	0·15229
79	98	0·06403	·00116	·00026	9·41497
80	99	9·37220	·00024	·00002	8·30103
81	100	8·31976	·00002	·00000	...

DIFFERENCE OF AGE, **20** YEARS.

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	*x.*				
14	34	7·38512	24273	197528	8·29563
15	35	·33612	21683	175845	·24514
16	36	·28701	19365	156480	·19446
17	37	·23780	17290	139190	·14361
18	38	7·18851	15435	123755	8·09258

DIFFERENCE OF AGE, **20** YEARS—(*continued.*)

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	*x.*				
19	39	7·13913	13776	109979	8·04131
20	40	·08967	12293	97686	7·98983
21	41	7·04013	10968	86718	·93811
22	42	6·99052	9784·1	76934	·88612
23	43	·94083	8726·3	68208	·83384
24	44	·89104	7781·1	60427	·78123
25	45	·84114	6936·5	53490	·72827
26	46	·79111	6181·7	47308	·67493
27	47	·74098	5507·8	41800	·62118
28	48	·69080	4906·8	36893	·56694
29	49	·64041	4369·3	32524	·51220
30	50	·58989	3889·5	28634	·45688
31	51	·53926	3461·5	25172	·40092
32	52	·48865	3080·7	22091	·34422
33	53	·43789	2740·9	19350	·28668
34	54	·38706	2438·1	16912	·22820
35	55	·33583	2166·9	14745	·16864
36	56	·28427	1924·3	12821	·10792
37	57	·23204	1706·2	11115	7·04591
38	58	·17921	1510·8	9603·7	6·98244
39	59	·12537	1334·7	8269·0	·91745
40	60	·07060	1176·5	7092·5	·85080
41	61	6·01445	1033·8	6058·7	·78238
42	62	5·95677	905·25	5153·4	·71209
43	63	·89773	790·19	4363·2	·63981
44	64	·83693	686·96	3676·2	·56540
45	65	·77452	595·00	3081·2	·48872
46	66	·71011	512·99	2568·2	·40963
47	67	·64387	440·42	2127·8	·32793
48	68	·57560	376·36	1751·4	·24339
49	69	·50507	319·94	1431·5	·15579
50	70	·43176	270·25	1161·2	6·06491
51	71	·35572	226·84	934·36	5·97051
52	72	·27644	188·99	745·37	·87237
53	73	·19387	156·27	589·10	·77019
54	74	·10769	128·14	460·96	·66366
55	75	5·01750	104·11	356·85	·55249
56	76	4·92295	83·743	273·11	·43634
57	77	·82366	66·628	206·48	·31488
58	78	·71929	52·395	154·08	·18775
59	79	·60943	40·685	113·39	5·05457
60	80	·49375	31·171	82·220	4·91498
61	81	·37178	23·539	58·681	·76850
62	82	·24308	17·502	41·179	·61468
63	83	4·10718	12·799	28·380	·45301
64	84	3·96357	9·1954	19·185	·28296
65	85	·81171	6·4820	12·703	4·10391
66	86	·65088	4·4759	8·2271	3·91525
67	87	·48045	3·0231	5·2040	·71634
68	88	·30038	1·9970	3·2070	·50610
69	89	3·10997	1·2882	1·9188	·28303
70	90	2·90818	·80943	1·10934	3·04505
71	91	2 69422	·49456	·61478	2·78872

Table XXV.—(*continued.*)

Difference of Age, **20** Years—(*continued.*)

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
72	92	2·46874	·29427	·32051	2·50584
73	93	2·22177	·16664	·15387	2·18715
74	94	1·94349	·08780	·06607	1·82000
75	95	·61947	·04164	·02443	1·38792
76	96	1·23192	·01706	·00737	0·86747
77	97	0·75678	·00571	·00166	0·22011
78	98	0·13207	·00136	·00030	9·47712
79	99	9·44526	·00028	·00002	8·30103
80	100	8·39688	·00002	·00000	...

Difference of Age, **21** Years.

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
14	35	7·35706	22754	184860	8·26684
15	36	·30799	20323	164537	·21627
16	37	·25882	18148	146389	·16551
17	38	·20958	16202	130187	·11458
18	39	·16024	14462	115725	·06345
19	40	·11082	12907	102818	8·01208
20	41	06133	11517	91301	7·96048
21	42	7·01177	10275	81026	·90862
22	43	6·96212	9164·7	71861	·85649
23	44	·91238	8173·0	63688	·80406
24	45	·86254	7286·9	56401	·75129
25	46	·81257	6494·9	49906	·69815
26	47	·76250	5787·6	44118	·64462
27	48	·71235	5156·4	38962	·59064
28	49	·66224	4594·5	34367	·53614
29	50	·61200	4092·6	30274	·48107
30	51	·56170	3645·0	26629	·42535
31	52	·51139	3246·3	23383	·36890
32	53	·46093	2890·2	20493	·31161
33	54	·41020	2571·6	17921	·25336
34	55	·35931	2287·2	15634	·19407
35	56	·30787	2031·7	13602	·13360
36	57	·25601	1803·1	11799	·07185
37	58	·20328	1596·9	10202	7·00869
38	59	·14982	1412·0	8790·0	6·94399
39	60	·09520	1245·1	7544·9	·87765
40	61	6·03948	1095·2	6449·7	·80954
41	62	5·98225	959·95	5489·7	·73955
42	63	·92336	838·22	4651·5	·66759
43	64	·86303	729·51	3922·0	·59351
44	65	·80083	632·16	3289·8	·51717
45	66	·73695	545·70	2744·1	·43840
46	67	·67096	468·77	2275·3	·35704
47	68	·60292	400·79	1874·5	·27289
48	69	·53267	340·93	1533·6	·18571
49	70	·45996	288·38	1245·2	·09524
50	71	·38426	242·25	1002·9	6·00126
51	72	·30565	202·14	800·79	5·90352
52	73	·22344	167·28	633·51	·80175
53	74	5·13765	137·29	496·22	·69567

Difference of Age, **21** Years—(*continued.*)

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
54	75	5·04788	111·66	384·56	5·58496
55	76	4·95379	89·906	294·65	·46931
56	77	·85498	71·611	223·04	·34838
57	78	·75109	56·375	166·66	·22183
58	79	·64178	43·831	122·83	5·08930
59	80	·52668	33·626	89·203	4·95038
60	81	·40536	25·431	63·772	·80463
61	82	·27734	18·938	44·834	·65161
62	83	4·14216	13·873	30·961	·49082
63	84	3·99935	9·9850	20·976	·32172
64	85	·84836	7·0528	13·923	4·14373
65	86	·68852	4·8811	9·0417	3·95625
66	87	·51914	3·3048	5·7369	·75868
67	88	·34022	2·1889	3·5480	·54998
68	89	3·15112	1·4162	2·1318	·32875
69	90	2·95152	·89438	1·2374	3·09251
70	91	·73932	·54868	·68875	2·83806
71	92	·51582	·32796	·36079	·55725
72	93	2·27112	·18669	·17410	2·24080
73	94	1·99550	·09897	·07513	1·87581
74	95	·67352	·04715	·02798	1·44685
75	96	1·28950	·01948	·00850	0·92942
76	97	0·81729	·00657	·00193	0·28556
77	98	0·19600	·00157	·00036	9·55630
78	99	9·51330	·00033	·00003	8·47712
79	100	8·46994	·00003	·00000	...

Difference of Age, **22** Years.

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
14	36	7·32891	21326	172961	8·23795
15	37	·27978	19045	153916	·18730
16	38	·23058	17005	136911	·13644
17	39	·18129	15181	121730	·08540
18	40	·13191	13549	108181	8·03415
19	41	·08246	12091	96090	7·98268
20	42	7·03295	10788	85302	·93096
21	43	6·98335	9623·9	75678	·87897
22	44	·93365	8583·2	67095	·82669
23	45	·88386	7655·3	59440	·77408
24	46	·83395	6822·6	52617	·72113
25	47	·78392	6080·2	46537	·66780
26	48	·73385	5418·1	41119	·61404
27	49	·68379	4828·3	36291	·55980
28	50	·63383	4303·6	31987	·50497
29	51	·58381	3835·4	28152	·44951
30	52	·53379	3418·1	24734	·39329
31	53	·48365	3045·4	21689	·33624
32	54	·43324	2711·7	18977	·27823
33	55	·38245	2412·4	16565	·21919
34	56	·33135	2144·6	14420	·15897
35	57	·27957	1903·6	12516	·09747
36	58	6·22723	1687·4	10829	7·03459

Table XXV.—*(continued.)*

DIFFERENCE OF AGE, 22 YEARS—*(continued.)*

Ages.		$\lambda . D_{x,\,y}$	$D_{x,\,y}$	$N_{x,\,y}$	$\lambda . N_{x,\,y}$
y.	x.				
37	59	6·17389	1492·4	9336·1	6·97017
38	60	·11965	1317·2	8018·9	·90411
39	61	·06408	1159·0	6859·9	·83632
40	62	6·00724	1016·8	5843·1	·76664
41	63	5·94882	888·83	4954·3	·69492
42	64	·88866	773·86	4180·4	·62122
43	65	·82693	671·32	3509·1	·54520
44	66	·76326	579·78	2929·3	·46676
45	67	·69777	498·62	2430·7	·38573
46	68	·62999	426 57	2004·1	·30192
47	69	·55998	363·06	1641·0	·21511
48	70	·48755	307·29	1333·7	·12506
49	71	·41245	258·49	1075 2	6·03149
50	72	·33415	215·85	859·38	5·93419
51	73	·25263	178·91	680·47	·83281
52	74	·16722	146·97	533·50	·72713
53	75	5·07784	119·63	413·87	·61686
54	76	4·98417	96 421	317·45	·50168
55	77	·88578	76·874	240 58	·38126
56	78	·78239	60·588	179·99	·25525
57	79	·67358	47·161	132·83	5·12330
58	80	·55903	36·227	96·602	4·98499
59	81	·43829	27·434	69·168	·83991
60	82	·31088	20·459	48·709	·68761
61	83	·17640	15·011	33·698	·52760
62	84	4·03433	10·823	22·875	·35936
63	85	3·88414	7·6584	15·217	4·18233
64	86	·72517	5·3109	9·9058	3·99589
65	87	·55674	3·6036	6·3022	·79949
66	88	·37889	2·3927	3·9095	·59212
67	89	3·19096	1·5522	2·3573	·37241
68	90	2·99267	·98326	1·3740	3·13799
69	91	·78266	·60626	·76769	2·88519
70	92	·56089	·36382	·40387	·60624
71	93	·31818	·20806	·19581	2·29183
72	94	2 04484	·11088	·08493	1·92906
73	95	1·72552	·05315	·03178	1·50215
64	96	1·34354	·02206	·00972	0·98767
75	97	0·87483	·00750	·00222	0·34635
76	98	0·25649	·00181	·00041	9·61278
77	99	9·57723	·00038	·00003	8·47712
78	100	8·53798	·00003	·00000	...
DIFFERENCE OF AGE, 23 YEARS.					
14	37	7 30074	19987	161805	8·20901
15	38	·25158	17848	143957	·15824
16	39	·20233	15934	128023	·10728
17	40	·15300	14223	113800	·05614
18	41	·10359	12694	101106	8·00479
19	42	·05412	11327	89779	7·95317
20	43	7·00457	10106	79673	7 90131

DIFFERENCE OF AGE, 23 YEARS—*(continued.)*

Ages.		$\lambda . D_{x,\,y}$	$D_{x,\,y}$	$N_{x,\,y}$	$\lambda . N_{x,\,y}$
y.	x.				
21	44	6·95492	9014·1	70659	7·84917
22	45	·90517	8038·4	62621	·79672
23	46	·85531	7166·5	55454	·74393
24	47	·80534	6387·6	49066	·69078
25	48	·75531	5692·6	43373	·63722
26	49	·70529	5073·3	38300	·58320
27	50	·65538	4522·5	33777	·52862
28	51	·60564	4033·1	29744	·47340
29	52	·55592	3596·8	26147	·41742
30	53	·50609	3206·9	22940	·36059
31	54	·45596	2857·3	20083	·30283
32	55	·40549	2543·8	17539	·24400
33	56	·35449	2262·0	15277	·18404
34	57	·30307	2009·4	13268	·12281
35	58	·25083	1781·7	11486	7·06017
36	59	·19784	1577·0	9908·9	6·99603
37	60	·14372	1392·3	8516·6	·93027
38	61	·08853	1226·1	7290·5	·86276
39	62	6·03186	1076·1	6214·4	·79340
40	63	5·97385	941·56	5272·8	·72204
41	64	·91412	820·58	4452·2	·64857
42	65	·85256	712·13	3740·1	·57288
43	66	·78936	615·69	3124·4	·49477
44	67	·72410	529·79	2594·6	·41407
45	68	·65684	453·77	2140·8	·33058
46	69	·58707	386·43	1754·4	·24413
47	70	·51488	327·25	1427·1	·15445
48	71	·44006	275·46	1151·6	6·06130
49	72	·36237	230·34	921·23	5·96437
50	73	·28117	191·06	730·17	·86342
51	74	·19641	157·18	572·99	·75815
52	75	·10741	128·06	444 93	·64829
53	76	5·01413	103·31	341·62	·53354
54	77	4·91618	82·448	259·17	·41358
55	78	·81323	65·047	194·12	·28807
56	79	·70488	50·685	143·43	·15664
57	80	·59083	38·979	104·45	5·01891
58	81	·47064	29·556	74·889	4·87442
59	82	·34383	22·071	52·818	·72278
60	83	·20998	16·217	36·601	·56349
61	84	4·06857	11·710	24·891	·39604
62	85	3·91912	8·3008	16·590	·21985
63	86	·76095	5·7670	10·823	4·03435
64	87	·59341	3·9211	6·9022	3·83899
65	88	·41653	2·6093	4·2929	·63275
66	89	·22963	1·6968	2·5961	·41432
67	90	3·03251	1·0777	1·5184	3·18139
68	91	2·82381	·66652	·85185	2·93036
69	92	·60425	·40202	·44983	·65305
70	93	·36329	·23083	·21900	2·34044
71	94	2·09192	·12357	·09543	1·97968
72	95	1·77488	·05955	·03588	·55485
73	96	1·39556	·02486	·01102	1·04218

Table XXV.—(*continued.*)

Difference of Age, 23 Years—(*continued.*)

Ages.		$\lambda.D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda.N_{x,y}$
y.	x.				
74	97	0·92891	·00849	·00253	0·40140
75	98	0·31408	·00206	·00047	9·67210
76	99	9·63773	·00043	·00004	8·60206
77	100	8·60192	·00004	·00000	...

Difference of Age, 24 Years.

Ages.		$\lambda.D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda.N_{x,y}$
y.	x.				
14	38	7·27252	18729	151326	8·17993
15	39	·22331	16723	134603	·12905
16	40	·17402	14929	119674	·07799
17	41	·12466	13325	106349	8·02674
18	42	·07523	11891	94458	7·97524
19	43	7·02572	10610	83848	·92347
20	44	6·97612	9465·0	74383	·87147
21	45	·92642	8441·5	65941	·81916
22	46	·87660	7526·6	58414	·76652
23	47	·82668	6709·3	51705	·71353
24	48	·77671	5980·1	45725	·66015
25	49	·72675	5330·3	40395	·60633
26	50	·67688	4752·0	35643	·55197
27	51	·62719	4238·3	31405	·49700
28	52	·57775	3782·2	27623	·44127
29	53	·52820	3374·4	24249	·38469
30	54	·47840	3008·8	21240	·32715
31	55	·42821	2680·5	18559	·26855
32	56	·37753	2385·2	16174	·20882
33	57	·32621	2119·4	14055	·14783
34	58	·27431	1880·7	12174	·08543
35	59	·22144	1665·1	10509	7·02156
36	60	·16767	1471·2	9037·6	6·95605
37	61	·11260	1296·0	7741·6	·88883
38	62	6·05631	1138·4	6603·2	·81975
39	63	5·99845	996·44	5606·8	·74827
40	64	·93915	869·26	4737·5	·67555
41	65	·87820	755·13	3982·4	·60014
42	66	·81499	653·12	3329·3	·52235
43	67	·75020	562·60	2766·7	·44196
44	68	·68515	482·11	2284·6	·35881
45	69	·61391	411·06	1873·5	·27265
46	70	·54195	348·30	1525·2	·18333
47	71	·46737	293·34	1231·9	6·09058
48	72	·38996	245·45	986·45	5·99408
49	73	·30936	203·87	782·58	·89353
50	74	·22494	167·86	614·72	·78868
51	75	·13660	136·96	477·76	·67921
52	76	5·04370	110·59	367·17	·56487
53	77	4·94614	88·336	278·83	·44534
54	78	·84361	69·761	209·07	·32029
55	79	·73572	54·415	154·65	·18935
56	80	·62213	41·892	112·76	5·05216
57	81	·50244	31·801	80·955	4·90824
58	82	4·37618	23·778	57·177	4·75722

Difference of Age, 24 Years—(*continued.*)

Ages.		$\lambda.D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda.N_{x,y}$
y.	x.				
59	83	4·24291	17·495	39·682	4·59859
60	84	4·10215	12·652	27·030	·43185
61	85	3·95336	8·9817	18·048	·25643
62	86	·79593	6·2507	11·797	4·07177
63	87	·62919	4·2578	7·5390	3·87731
64	38	·45318	2·8391	4·6999	·67209
65	89	·26727	1·8504	2·8495	·45477
66	90	3·07118	1·1781	1·6714	3·22309
67	91	2·86365	·73055	·94080	2·97350
68	92	·64540	·44198	·49882	·69794
69	93	·40663	·25505	·24377	·38698
70	94	2·13702	·13709	·10668	2·02890
71	95	1·82195	·06637	·04031	1·60541
72	96	1·44491	·02786	·01245	1·09517
73	97	0·98091	·00957	·00288	0·45939
74	98	0·36812	·00233	·00055	9·74036
75	99	9·69530	·00050	·00005	8·69897
76	100	8·66240	·00005	·00000	...

Difference of Age, 25 Years.

Ages.		$\lambda.D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda.N_{x,y}$
y.	x.				
14	39	7·24423	17548	142069	8·15250
15	40	·19498	15667	126402	·10243
16	41	·14566	14568	111834	8·04856
17	42	·09628	12482	99352	7·99718
18	43	7·04681	11138	88214	·94554
19	44	6·99725	9937	78277	·89363
20	45	·94760	8863·4	69414	·84145
21	46	·89783	7903·7	61510	·78895
22	47	·84795	7046·1	54464	·73611
23	48	·79803	6281·0	48183	·68289
24	49	·74813	5599·3	42584	·62925
25	50	·69832	4992·5	37592	·57510
26	51	·64869	4453·4	33139	·52034
27	52	·59930	3974·7	29164	·46485
28	53	·55003	3548·4	25616	·40851
29	54	·50051	3166·0	22450	·35122
30	55	·45065	2822·6	19627	·29285
31	56	·40025	2513·3	17114	·23335
32	57	·34925	2234·9	14879	·17257
33	58	·29745	1983·6	12895	·11042
34	59	·24492	1757·6	11137	7·04677
35	60	·19127	1553·4	9584·0	6·98155
36	61	·13655	1369·5	8214·5	·91458
37	62	·08038	1203·3	7011·2	·84579
38	63	6·02290	1054·1	5957·1	·77503
39	64	5·96375	919·92	5037·2	·70219
40	65	·90305	799·93	4237·3	·62709
41	66	·84045	692·55	3544·7	·54958
42	67	·77583	596·80	2947·9	·46951
43	68	·70925	511·98	2435·9	·38666
44	69	5·64022	436·74	1999·2	6·30086

Table XXV.—(*continued.*)

Difference of Age, 25 Years—(*continued.*)

Ages.		$\lambda.D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda.N_{x,y}$
y.	*x.*				
45	70	5·56880	370·50	1628·7	6·21184
46	71	·49445	312·21	1316·5	·11942
47	72	·41728	261·38	1055·1	6·02329
48	73	·33696	217·25	837·85	5·92317
49	74	·25314	179·12	658·73	·81871
50	75	·16513	146·26	512·47	·70967
51	76	5·07287	118·27	394·20	·59572
52	77	4·97571	94·561	299·64	·47660
53	78	·87357	74·743	224·90	·35199
54	79	·76610	58·358	166·54	·22152
55	80	·65297	44·975	121·56	5·08479
56	81	·53374	34·177	87·379	4·94141
57	82	·40798	25·585	61·794	·79095
58	83	·27526	18·848	42·946	·63292
59	84	4·13508	13·648	29·298	·46684
60	85	3·98694	9·7038	19·594	·29212
61	86	·83017	6·7635	12·830	4·10823
62	87	·66417	4·6150	8·2147	3·91459
63	88	·48896	3·0829	5·1318	·71027
64	89	·30392	2·0134	3·1184	·49393
65	90	3·10882	1·2848	1·8336	·26330
66	91	2·90232	·79858	1·0350	3·01494
67	92	·68524	·48444	·55051	2·74077
68	93	·44778	·28040	·27011	·43154
69	94	2·18036	·15148	·11863	2·07419
70	95	1·86705	·07363	·04500	1·65321
71	96	1·49197	·03104	·01396	1·14489
72	97	1·03025	·01072	·00324	0·51055
73	98	0·42012	·00263	·00061	9·78533
74	99	9·74934	·00056	·00005	8·69897
75	100	8·71997	·00005	·00000	...

Difference of Age, 26 Years.

14	40	7·21596	16442	132240	8·12136
15	41	·16659	14675	117565	·07030
16	42	·11725	13099	104466	8·01899
17	43	·06783	11690	92775·5	7·96744
18	44	7·01831	10431	82344·5	·91564
19	45	6·96870	9304·6	73039·9	·86356
20	46	·91898	8298·1	64741·8	·81119
21	47	·86915	7398·6	57343·2	·75848
22	48	·81927	6595·8	50747·4	·70541
23	49	·76942	5880·6	44866·8	·65193
24	50	·71967	5244·1	39622·7	·59795
25	51	·67008	4678·2	34944·5	·54339
26	52	·62075	4175·9	30768·6	·48811
27	53	·57153	3728·5	27040·1	·43201
28	54	·52229	3328·8	23711·3	·37495
29	55	·47271	2969·7	20741·6	·31685
30	56	·42264	2646·3	18095·3	·25756
31	57	6·37194	2354·7	15740·6	7·19703

Difference of Age, 26 Years—(*continued.*)

Ages.		$\lambda.D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda.N_{x,y}$
y.	*x.*				
32	58	6·32046	2091·5	13649·1	7·13511
33	59	·26803	1853·7	11795·4	·07170
34	60	·21472	1639·5	10155·9	7·00672
35	61	·16012	1445·8	8710·1	6·94002
36	62	·10432	1271·5	7438·6	·87149
37	63	6·04696	1114·2	6324·4	·80102
38	64	5·98819	973·17	5351·2	·72845
39	65	·92764	846·53	4504·7	·65367
40	66	·86547	733·62	3771·1	·57647
41	67	·80130	632·85	3138·2	·49668
42	68	·73487	543·09	2595·1	·41415
43	69	·66631	463·78	2131·3	·32864
44	70	·59510	393·64	1737·7	·23997
45	71	·52129	332·12	1405·6	·14786
46	72	·44437	278·21	1127·4	6·05208
47	73	·36427	231·35	896·00	5·95231
48	74	·28073	190·87	705·13	·84827
49	75	·19332	156·07	549·06	·73962
50	76	·10141	126·30	422·76	·62609
51	77	5·00490	101·13	321·63	·50736
52	78	4·90312	80·006	241·62	·38313
53	79	·79604	62·523	179·10	·23510
54	80	·68333	48·231	130·87	5·11684
55	81	·56456	36·691	94·179	4·97395
56	82	·43928	27·497	66·682	·82401
57	83	·30704	20·279	46·403	·66655
58	84	·16741	14·703	31·700	·50106
59	85	4·01985	10·468	21·232	·32699
60	86	3·86373	7·3068	13·925	4·14380
61	87	·69841	4·9936	8·9311	3·95091
62	88	·52393	3·3414	5·5897	·74739
63	89	·33969	2·1862	3·4035	·53193
64	90	3·14546	1·3978	2·0057	·30227
65	91	2·93995	·87086	1·1348	3·05492
66	92	·72392	·52957	·60524	2·78193
67	93	·48761	·30733	·29791	·47409
68	94	2·22150	·16653	·13138	2·11853
69	95	1·91038	·08135	·05003	1·69923
70	96	·53707	·03444	·01559	1·19285
71	97	1·07733	·01195	·00364	0·56110
72	98	0·46946	·00295	·00069	9·83885
73	99	9·80134	·00063	·00006	8·77815
74	100	8·77401	·00006	·00000	...

Difference of Age, 27 Years.

14	41	7·18759	15402	123591	8·09198
15	42	·13829	13750	109841	8·04076
16	43	·08891	12272	97569	7·98931
17	44	7·03944	10951	86618	·93761
18	45	6·98987	9769·4	76849	·88564
19	46	6·94019	8713·4	68136	7·83337

Table XXV.—(*continued.*)

DIFFERENCE OF AGE, **27** YEARS—(*continued.*)

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	x.				
20	47	6·89041	7769 8	60366	7·78079
21	48	·84058	6927·6	53438	·72785
22	49	·79077	6176·9	47261	·67450
23	50	·74107	5509·0	41752	·62068
24	51	·69154	4915·2	36837	·56628
25	52	·64225	4387·8	32449	·51120
26	53	·59307	3918·1	28531	·45532
27	54	·54388	3498·5	25032	·39850
28	55	·49458	3123·1	21909	·34062
29	56	·44479	2784·8	19124	·28158
30	57	·39440	2479·7	16644	·22126
31	58	·34322	2204·0	14440	·15957
32	59	·29111	1954·8	12485	·09639
33	60	·23790	1729·4	10756	7·03165
34	61	·18364	1526·3	9229·4	6·96517
35	62	·12794	1342·6	7886·8	·89690
36	63	·07093	1177·4	6709·4	·82668
37	64	6·01228	1028·7	5680·7	·75440
38	65	5·95212	895·61	4785·1	·67989
39	66	·89009	776·41	4008·7	·60300
40	67	·82633	670·39	3338·3	·52353
41	68	·76035	575·90	2762·4	·44129
42	69	·69196	491·99	2270·4	·35610
43	70	·62122	418·04	1852·4	·26773
44	71	·54762	352·87	1499·5	·17595
45	72	·47122	295·95	1203·5	6·08045
46	73	·39138	246·25	957·29	5·98104
47	74	·30808	203·27	754·02	·87738
48	75	·22095	166·32	587·70	·76916
49	76	·12964	134·78	452·92	·65602
50	77	5·03345	108·01	344·91	·53771
51	78	4·93234	85·574	259·34	·41387
52	79	·82560	66·927	192·41	·28423
53	80	·71328	51·675	140·73	·14839
54	81	·59493	39·349	101·38	5·00595
55	82	·47009	29·518	71·858	4·85648
56	83	·33833	21·794	50·064	·69953
57	84	·19920	15·820	34·244	·53458
58	85	4·05219	11·277	22·967	·36110
59	86	3·89665	7·8822	15·085	4·17855
60	87	·73196	5·3946	9·6908	3·98636
61	88	·55815	3·6153	6·0755	·78358
62	89	·37465	2·3695	3·7060	·56891
63	90	3·18122	1·5178	2·1882	·34009
64	91	2·97658	·94750	1·2407	3·09367
65	92	·76152	·57746	·66327	2·82169
66	93	·52626	·33594	·32733	·51499
67	94	2·26132	·18252	·14481	2·16080
68	95	1·95151	·08944	·05537	1·74327
69	96	·58039	·03805	·01732	1·23855
70	97	1·12240	·01326	·00406	0·60853
71	98	0·51652	·00328	·00078	9·89209
72	99	9 85068	·00071	·00007	8·84510
73	100	8·82601	·00007	·00000	...

DIFFERENCE OF AGE, **28** YEARS.

Ages.		$\lambda . D_{x, y}$	$D_{x, y}$	$N_{x, y}$	$\lambda . N_{x, y}$
y.	x.				
14	42	7·15925	14429	115459	8·06243
15	43	·10991	12880	102579	8·01106
16	44	·06048	11494	91084·5	7·95945
17	45	7·01096	10256	80828·5	·90757
18	46	6·96132	9147·9	71680·6	·85540
19	47	·91158	8157·9	63522·7	·80293
20	48	·86180	7274·4	56248·3	·75011
21	49	·81204	6486·9	49761·4	·69689
22	50	·76238	5786·0	43975·4	·64321
23	51	·71290	5163·0	38812·4	·58897
24	52	·66367	4609·7	34202·7	·53406
25	53	·61455	4116·7	30086·0	·47836
26	54	·56542	3676·4	26409·6	·42177
27	55	·51617	3282·2	23127·4	·36412
28	56	·46666	2928·6	20198·8	·30533
29	57	·41655	2609·5	17589·3	·24524
30	58	·36568	2321·0	15268·3	·18378
31	59	·31387	2060·0	13208·3	·12084
32	60	·26098	1823·8	11384·5	7·05633
33	61	·20682	1610·0	9774·45	6·99009
34	62	·15146	1417·3	8357·15	·92206
35	63	·09457	1243·3	7113·85	·85211
36	64	6·03629	1087·2	6026·65	·78008
37	65	5·97624	946·76	5079·89	·70586
38	66	·91460	821·49	4258·40	·62925
39	67	·85099	709·56	3548·84	·55008
40	68	·78544	610·15	2938·96	·46816
41	69	·71750	521 80	2416·89	·38326
42	70	·64693	443·54	1973·35	·29522
43	71	·57380	374·80	1598·55	·20374
44	72	·49761	314·49	1284·06	·10860
45	73	·41830	262·00	1022·06	6·00949
46	74	·33525	216·40	805·657	5·90615
47	75	·24836	177·16	628·497	·79831
48	76	·15733	143·66	484·837	·68560
49	77	5·06174	115·28	369·557	·56769
50	78	4·96097	91·405	278·152	·44028
51	79	·85494	71·604	206·548	·31503
52	80	·74300	55·335	151·213	·17958
53	81	·62504	42·174	109·039	5·03759
54	82	·50062	31·668	77·3713	4·88858
55	83	·36932	23·406	53·9653	·73211
56	84	·23067	17·009	36·9563	·56769
57	85	4·08416	12·138	24·8183	·39477
58	86	3·92917	8·4951	16·3232	·21280
59	87	·76506	5·8218	10·5014	4·02123
60	88	·59190	3·9075	6·59391	3·81914
61	89	·40908	2·5650	4·02891	·60519
62	90	·21639	1·6458	2·38311	·37714
63	91	3·01255	1·0293	1·35381	3·13155
64	92	2·79836	·62858	·72523	2·86048
65	93	·56409	·36651	·35872	·55476
66	94	2·30020	·19962	·15910	2·20167

Table XXV.—(*continued.*)

Difference of Age, 28 Years—(*continued.*)

Ages.		$\lambda.D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda.N_{x,y}$
y.	x.				
67	95	1·99156	·09807	·06103	1·78554
68	96	·62175	·04186	·01917	1·28262
69	97	1·16595	01465	·00452	0·65514
70	98	0·56183	·00365	·00087	7·93952
71	99	9·89797	·00079	·00008	8·90309
72	100	8·87558	·00008	·00000	...

Difference of Age, 29 Years.

Ages.		$\lambda.D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda.N_{x,y}$
y.	x.				
14	43	7·13125	13529	107903	8·03302
15	44	·08186	12074	95828·7	7·98150
16	45	7·03240	10775	85053·7	·92969
17	46	6·98281	9611·9	75441·8	·87761
18	47	·93311	8572·5	66869·3	·82522
19	48	·88337	7644·9	59224·4	·77250
20	49	·83366	6818·0	52406·4	·71938
21	50	·78405	6082·1	46324·3	·66581
22	51	·73461	5427·6	40896·7	·61169
23	52	·68543	4846·5	36050·2	·55691
24	53	·63637	4328·8	31721·7	·50136
25	54	·58728	3866·2	27855·2	·44490
26	55	·53809	3452 2	24403·0	·38744
27	56	·48863	3080·6	21322·4	·32883
28	57	·43880	2746·6	18575·8	·26895
29	58	·38821	2444·6	16113·2	·20718
30	59	·33671	2171·3	13959·9	·14489
31	60	·28362	1921·4	12038 5	·08059
32	61	·22978	1697·4	10341·1	7·01456
33	62	·17452	1494·7	8846·44	6·94677
34	63	·11797	1312·1	7534·34	·87704
35	64	·05979	1147·6	6386·74	·80528
36	65	6 00011	1000·3	5386·4	·73130
37	66	5·93859	868·14	4518·3	·65498
38	67	·57536	750·52	3767·8	·57609
39	68	·80996	645·59	3122·2	·49446
40	69	·74243	552·62	2569·6	·40987
41	70	·67229	470·21	2099·4	·32210
42	71	·59933	397·49	1701·9	·23093
43	72	·52361	333·90	1368·0	·13609
44	73	·44451	278·30	1089·7	6·03731
45	74	·36198	230·13	859·56	5·93428
46	75	·27532	188·50	671·06	·82676
47	76	·18453	152 94	518·12	·71443
48	77	5·08922	122·81	395·31	·59694
49	78	4 98905	97·510	297·80	·47392
50	79	·88334	76·443	221·36	·34510
51	80	·77205	59 163	162·20	·21005
52	81	·65447	45·130	117·07	5·06845
53	82	·53044	33·919	83·147	4·91985
54	83	·39956	25·093	58·054	·76383
55	84	·26135	18·254	39·800	·59988
56	85	4·11530	13·041	26·759	4·42747

Difference of Age, 29 Years—(*continued.*)

Ages.		$\lambda\ D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda.N_{x,y}$
y.	x.				
57	86	3·96081	9·1371	17·622	4 24606
58	87	·79725	6·2697	11·352	4·05507
59	88	·62467	4·2138	7·1380	3·85358
60	89	·44248	2·7700	4·3680	·64028
61	90	·25046	1·7802	2·5878	·41293
62	91	3·04736	1·1152	1·4726	3·16808
63	92	2·83397	·68229	·79034	2·89781
64	93	·60057	·39863	·39171	·59296
65	94	·33765	·21760	·17411	2·24082
66	95	2·03004	·10716	·06695	1·82575
67	96	1·66140	·04586	·02109	1·32408
68	97	1·20691	·01610	·00499	0·69810
69	98	0·60498	·00403	·00096	9·98227
70	99	9·94287	·00088	·00008	8·90309
71	100	8·92246	·00008	·00000	...

Difference of Age, 30 Years.

Ages.		$\lambda\ D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda.N_{x,y}$
y.	x.				
14	44	7·10236	12658	100628	8·00273
15	45	·05292	11296	89332	7·95101
16	46	7·00337	10078	79254	·89902
17	47	6·95372	8989	70265	·84674
18	48	·90402	8017	62248	·79413
19	49	·85435	7151	55097	·74113
20	50	·80479	6380	48717	·68768
21	51	·75540	5694	43023	·63370
22	52	·70626	5085	37938	·57907
23	53	·65725	4542	33396	·52369
24	54	·60822	4057·1	29339	·46745
25	55	·55907	3623·0	25716	·41020
26	56	·50967	3233·5	22482	·35183
27	57	·45989	2883·3	19599	·29223
28	58	·40958	2567·9	17031	·23124
29	59	·35834	2282·1	14749	·16876
30	60	·30606	2023·3	12726	·10469
31	61	·25252	1788·6	10937	7·03890
32	62	·19758	1576·1	9360·5	6·97130
33	63	·14113	1384·0	7976·5	·90181
34	64	·08327	1211·4	6765·1	·83027
35	65	6·02369	1056·1	5709·0	·75656
36	66	5·96254	917·36	4791·6	·68048
37	67	·89943	793·29	3998·3	·60189
38	68	·83441	682·98	3315·3	·52052
39	69	·76701	584·80	2730·5	·43624
40	70	·69730	498·08	2232·4	·34877
41	71	·62479	421·49	1810·9	·2 789
42	72	·54924	354 19	1456·7	·16337
43	73	·47061	295·54	1161·15	6 06491
44	74	·38829	244·51	916·64	5·96220
45	75	·30217	200 53	716·11	·85498
46	76	·21163	162·79	553·32	·74298
47	77	5·11656	130·79	422·53	5·62586

Table XXV.—(*continued.*)

DIFFERENCE OF AGE, 30 YEARS—(*continued.*)

Ages.		$\lambda.D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda.N_{x,y}$
y.	x.				
48	78	5·01667	103·91	318·62	5·50327
49	79	4·91155	81·574	237·05	·37484
50	80	·80060	63·183	173·87	·24022
51	81	·68369	48·271	125·60	5·09899
52	82	·56004	36·311	89·291	4·95081
53	83	·42955	26·887	62·404	·79521
54	84	·29174	19·577	42·827	·63172
55	85	4·14615	14·001	28·826	·45978
56	86	3·99214	9·8206	19·005	·20426
57	87	·82908	6·7465	12·258	4·08842
58	88	·65705	4·5399	7·7177	3·88749
59	89	·47542	2·9883	4·7294	·67481
60	90	·28404	1·9233	2·8061	·44810
61	91	3·08162	1·2068	1·5993	3·20393
62	92	2·86897	·73955	·85977	2·93438
63	93	·63637	·43288	·42689	·63032
64	94	·37430	·23676	·19013	2·27905
65	95	2·06768	·11686	·07327	1·86493
66	96	1·70009	·05013	·02314	1·36436
67	97	1·24677	·01765	·00549	0·73957
68	98	0·64615	·00443	·00106	0·02531
69	99	9·98621	·00097	·00009	8·95424
70	100	8·96755	·00009	·00000	...

DIFFERENCE OF AGE, 35 YEARS.

14	49	6·95950	9109·6	70755·2	7·84976
15	50	·91015	8131·1	62624·1	·79674
16	51	·86098	7260·7	55363·4	·74322
17	52	·81207	6487·4	48876·0	·68910
18	53	·76328	5798·0	43078·0	·63426
19	54	·71448	5181·8	37896·2	·57859
20	55	·66558	4630·0	33266·2	·52200
21	56	·61642	4134·5	29131·7	·46437
22	57	·56689	3688·8	25442·9	·40557
23	58	·51684	3287·3	22155·6	·34549
24	59	·46611	2924·9	19230·7	·28400
25	60	·41454	2597·4	16633·3	·22097
26	61	·36198	2301·3	14332·0	·15631
27	62	·30826	2033·6	12298·4	·08983
28	63	·25330	1791·8	10506·6	7·02148
29	64	·19677	1573·2	8933·43	6·95102
30	65	·13856	1375·8	7557·63	·87838
31	66	·07857	1198·3	6359·33	·80341
32	67	6·01669	1039·2	5320·13	·72592
33	68	5·95270	896·81	4423·32	·64574
34	69	·88663	770·25	3653·07	·56266
35	70	·81804	657·72	2995·35	·47645
36	71	·74696	558·42	2436·93	·38684
37	72	·67292	470·89	1966·04	·29358
38	73	·59495	393·50	1572·54	·19659
39	74	5·51428	326·80	1245·74	6·09541

DIFFERENCE OF AGE, 35 YEARS—(*continued.*)

Ages.		$\lambda.D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda.N_{x,y}$
y.	x.				
40	75	5·42987	269·07	976·669	5·98975
41	76	·34115	219·36	757·309	·87927
42	77	·24770	176·89	580·419	·76374
43	78	·14950	141·09	439·329	·64279
44	79	5·04589	111·15	328·179	·51611
45	80	4·93683	86·463	241·716	·38331
46	81	·82161	66·315	175·401	·24403
47	82	·70007	50·127	125·274	5·09785
48	83	·57183	37·310	87·9642	4·94431
49	84	·43640	27·315	60·6492	·78282
50	85	·29299	19·633	41·0162	·61295
51	86	4·14128	13·845	27·1712	·43411
52	87	3·98033	9·5572	17·6140	·24586
53	88	·81053	6·4644	11·1496	4·04727
54	89	·63131	4·2787	6·8709	3·83701
55	90	·44248	2·7701	4·1009	·61288
56	91	·24280	1·7490	2·3519	·37142
57	92	3·03309	1·0792	1·2727	3·10473
58	93	2·80367	·63631	·63643	2·80375
59	94	·54505	·35079	·28564	·45582
60	95	2·24215	·17464	·11100	2·04532
61	96	1·87862	·07562	·03538	1·54876
62	97	1·42973	·02690	·00848	0·92840
63	98	0·83397	·00682	·00166	0·22011
64	99	0·17942	·00151	·00015	9·17609
65	100	9·16745	·00015	·00000	...

DIFFERENCE OF AGE, 40 YEARS.

14	54	6·81959	6600·7	48609·8	7·68673
15	55	·77090	5900·7	42709·1	·63052
16	56	·72196	5271·8	37437·3	·57330
17	57	·67266	4706·1	32731·2	·51496
18	58	·62283	4195·9	28535·3	·45538
19	59	·57233	3735·3	24800·0	·39445
20	60	·52101	3319·0	21481·0	·33205
21	61	·46869	2942·3	18538·7	·26809
22	62	·41522	2601·5	15937·2	·20241
23	63	·36052	2293·6	13643·6	·13494
24	64	·30448	2016·0	11627·6	7·06551
25	65	·24698	1766·0	9861·55	6·99395
26	66	·18797	1541·6	8319·95	·92012
27	67	·12731	1340·6	6979·35	·84382
28	68	·06481	1160·9	5818·45	·76481
29	69	6·00005	1000·1	4818·35	·68290
30	70	5·93283	856·70	3961·65	·59788
31	71	·86291	729·31	3232·34	·50951
32	72	·79010	616·74	2615·60	·41757
33	73	·71406	517·68	2097·92	·32178
34	74	·63470	431·22	1666·70	·22186
35	75	·55131	355·89	1310·81	·11754
36	76	5·46402	291·09	1019·72	6·00847

Table XXV.—(*continued.*)

DIFFERENCE OF AGE, 40 YEARS—(*continued.*)

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
37	77	5·37208	235·55	784·169	5·89441
38	78	·27544	188·56	595·609	·77496
39	79	·17348	149·10	446·509	·64983
40	80	5·06613	116·45	330·059	·51859
41	81	4·95273	89·786	240·273	·38070
42	82	·83281	68·047	172·226	·23611
43	83	·70626	50·846	121·380	5·08415
44	84	·57233	37·353	84·0270	4·92442
45	85	·43081	26·966	57·0610	·75634
46	86	·28079	19·089	37·9720	·57946
47	87	4·12195	13·242	24·7300	·39322
48	88	3·95440	9·0033	15·7267	4·19665
49	89	·77754	5·9916	9·73505	3·98834
50	90	·59089	3·8984	5·83665	·76617
51	91	·39351	2·4746	3·36205	·52661
52	92	3·18591	1·5343	1·82775	3·26193
53	93	2·95872	·90933	·91842	2·96304
54	94	·70249	·50407	·41435	·61737
55	95	·40214	·25243	·16192	2·20930
56	96	2·04135	·10999	·05193	1 71542
57	97	1·59540	·03939	·01254	1·09830
58	98	1·00282	·01007	·00247	0·39270
59	99	0·35170	·00225	·00022	9·34242
60	100	9·34345	·00022	·00000	...

DIFFERENCE OF AGE, 45 YEARS.

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
14	59	6·67744	4758·2	31767·6	7·50199
15	60	·62633	4229·9	27537·7	·43993
16	61	·57423	3751·7	23786·0	·37632
17	62	·52099	3318·9	20467·1	·31105
18	63	·46651	2927·6	17539·5	·24403
19	64	·41070	2574·5	14965·0	·17508
20	65	·35345	2256·6	12708·4	·10408
21	66	·29468	1971·0	10737·4	7·03088
22	67	·23427	1715·0	9022·37	6·95532
23	68	·17203	1486·0	7536·37	·87716
24	69	·10776	1281·6	6254·77	·79621
25	70	6·04125	1099·6	5155·17	·71225
26	71	5·97231	938·23	4216·94	·62499
27	72	·90072	795·65	3421·29	·53419
28	73	·82617	670·15	2751 14	·43951
29	74	·74812	559·91	2191·23	·34068
30	75	·66620	463·66	1727·57	·23744
31	76	·58007	380 25	1347·32	·12946
32	77	·48936	308·57	1038·75	6·01653
33	78	·39375	247·60	791·148	5·89826
34	79	·29310	196·38	594·768	·77435
35	80	·18687	153·77	440·998	·64444
36	81	5·07490	118·82	322·178	·50810
37	82	4·95649	90·467	231·711	·36494
38	83	·83150	67·842	163·869	·21450
39	84	·69922	50·029	113·840	5·05629
40	85	·55941	36·259	77·5811	4·88976
41	86	4·41121	25·776	51·8051	4·71437

DIFFERENCE OF AGE, 45 YEARS—(*continued.*)

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
42	87	4·25399	17·947	33·8581	4·52966
43	88	4·08813	12·250	21·6081	·33461
44	89	3·91277	8·1803	13·4278	4·12801
45	90	·72801	5·3458	8·08200	3·90752
46	91	·53232	3·4066	4·67540	·66982
47	92	·32683	2·1224	2·55300	·40705
48	93	3·10189	1·2644	1·28860	3·11012
49	94	2·84802	·70473	·58387	2·76632
50	95	·54985	·35469	·22918	2·36018
51	96	2·19136	·15537	·07381	1·86812
52	97	1·74752	·05591	·01790	1·25285
53	98	1·15717	·01436	·00354	0·54900
54	99	0·50844	·00322	·00032	9·50515
55	100	9·50274	·00032	·00000	...

DIFFERENCE OF AGE, 50 YEARS.

Ages.		$\lambda . D_{x,y}$	$D_{x,y}$	$N_{x,y}$	$\lambda . N_{x,y}$
y.	x.				
14	64	6·51581	3279·5	19146·6	7·28210
15	65	·45877	2875·9	16270·7	·21141
16	66	·40022	2513·2	13757·5	·13856
17	67	·34004	2188·0	11569·5	7·06333
18	68	·27802	1896·8	9672·66	6·98555
19	69	·21398	1636·7	8035 96	·90504
20	70	·14772	1405·1	6630·86	·82157
21	71	·07902	1199·6	5431·26	·73490
22	72	6·00768	1017·8	4413·46	·64478
23	73	5·93339	857·81	3555·65	·55093
24	74	·85583	717·51	2838·14	·45303
25	75	·77462	595·14	2243·00	·35083
26	76	·68947	489·18	1753·82	·24398
27	77	·59998	398·09	1355·73	·13216
28	78	·50586	320·52	1035·21	6·01502
29	79	·40652	254·99	780·218	5·89222
30	80	·30166	200·29	579·928	·76338
31	81	·19085	155·19	424·738	·62812
32	82	5·07367	118·49	306·248	·48608
33	83	4·94971	89·066	217·182	·33682
34	84	·81874	65·878	151·304	·17984
35	85	·68005	47·869	103·435	5·01469
36	86	·53328	34·141	69·2944	4·84070
37	87	·37757	23·854	45·4404	·65744
38	88	·21327	16·341	29·0994	·46388
39	89	4 03956	10·954	18·1454	·25876
40	90	3·85651	7·1864	10·9590	4·03977
41	91	·66264	4·5988	6·36018	3·80347
42	92	·45877	2·8759	3·48428	·54212
43	93	3·23552	1·7200	1·76428	3·24657
44	94	2·98315	·96194	·80234	2·90436
45	95	·68687	·48626	·31603	·49973
46	96	2·33007	·21383	·10225	2·00966
47	97	1 88834	·07733	·02492	1·39655
48	98	1·30024	·01996	·00496	0·69548
49	99	0·65387	·00451	00045	9·65321
50	100	9·65035	·00045	·00000	...

Note.—It will be observed that in order to condense the figures, the quantities in the $D_{x,y}$ and $N_{x,y}$ columns throughout the whole of this Table, have the decimal point removed three places to the left, but that does not in any way disturb their relative values. The original indices in the columns $\lambda . D_{x,y}$ and $\lambda . N_{x,y}$ are however retained as if no such reduction had taken place.

$\Delta\,\lambda.\mathrm{H}_{x,y} = \Delta\,\lambda.l_{y-1} + \Delta\,\lambda\,{}^{w}a_y + \frac{1}{2}\,\lambda.v$ . . . . (*y*, varying vertically) also

$\Delta\,\lambda.\mathrm{H}_{x,y} = \Delta\,\lambda.\delta_{x-1} + \frac{1}{2}\,\lambda.v$ . . . . (*x*, varying horizantally)

$\mathrm{K}_{x,y} \quad = \Sigma\,\mathrm{H}_{(x,y)+1}$, and if p denote the amount of Contingent Pension, then

$\lambda.\frac{\mathrm{K}_{x,y}}{\mathrm{D}_{x,y}}.p \quad = (\lambda.\mathrm{K}_{x,y} + \lambda.p) - \lambda.\mathrm{D}_{x,y}$ or $(\lambda.\mathrm{K}_{x,y} - \lambda.\mathrm{D}_{x,y}) + \lambda.p =$ log. of the present value of the wife's full Contingent Pension.

(106.) In the following preliminary Table XXVI. will be found the vertical and horizontal series of differences symbolized above.

(107.) The vertical differences as given in the fourth column of Table XXVI., if written on a perforated slip of paper, and applied to the initial $\lambda.\mathrm{H}_{x,y}$ at the top of any column in Table XXVII., and continuously added, will produce all the $\lambda.\mathrm{H}_{x,y}$ in each column, and the same perforated slip will serve for the construction of the whole of Table XXVII., always taking care to apply the proper difference opposite age *y* in the perforated slip to the initial quantity at the top of each column before proceeding with the continuous additions. Of Table XXVII. it is of course impossible to furnish here more than a specimen, but that carefully studied will enable any one to check the final results derived from it, and which constitute Table XXVIII.

(108.) Any of the results in Table XXVIII. may at intervals in the calculation be verified by the direct process of calculation followed in finding the initial $\lambda.\mathrm{H}_{x,y}$ and such a precaution is always necessary; but another very good check on the correctness of the operation is to recalculate all the vertical columns after the first one has been produced as above, by the application of the horizontal series of differences given in the last column of Table XXVI.

(109.) In Table XXVII. the natural number of $\lambda.\mathrm{H}_{x,y}$ is inserted in every alternate line in red ink, and these being transferred for the proper disparities of age, it will be seen form the third column of Table XXVIII.

(110.) Having constructed these auxiliary Tables, we are now fully prepared to determine two important items of the liabilities of the Fund, namely, the present value of the pensions payable to widows now incumbents on the Fund, and the present value of the contingent pensions to wives. We are also enabled to determine an important item in the contingent assets, namely, the present value of the future contributions by Members of the Fund.

(111.) The present value of the first of these items is given in Tables XXIX. and XXX.

(112.) From Table XXX. it will be seen that on the 1st May, 1855, there were seventy-two widows incumbent on the Fund, whose ages varied from twenty-six to seventy-two, and it also appears by the results in the fourth column of the same Table, that the aggregate amount of their pensions is *Rs.* 1,23,074 per annum, that is, taking the amount of pension payable to each, as it is set forth in Schedule 4.

(113.) From Table XXX. it likewise appears that the total "present value" of the pensions payable to the existing widows on the 1st of May, 1855, is *Rs.* 10,43,047·08.

(114.) For the benefit of those not giving systematic attention to such matters, and to remove any obscurity as to the use of the term "present value," it may be stated that in the

[above case,

Table XXVI.

$\lambda . l_{y-1}$ from Table XII.; $\lambda . \delta_{x-1}$ from Table XI.; $\lambda . {}^{w}a_{y}$ from Table XXIX. $\frac{1}{2}\lambda . v = 9·98329$.

Age y	$\lambda . l_{y-1}$ $\lambda . {}^{w}a_{y}$	$\lambda . l_{y-1} + \lambda . {}^{w}a_{y}$ $\Delta (\lambda . l_{y-1} + \lambda . {}^{w}a_{y})$	Vertical $\Delta (\lambda . l_{y-1} + \lambda . {}^{w}a_{y}) + \frac{1}{2}\lambda . v$	Age x	$\lambda . \delta_{x-1}$ $\Delta \lambda . \delta_{x-1}$	Horizontal $\Delta (\lambda . \delta_{x-1} + \frac{1}{2}\lambda . v)$
14	3·35832	4·16518	9·99242	24	3·28623	9·98932
	0·80686	+ 913			+ 603	
15	·35411	·17431	·99134	25	·29226	·98284
	·82020	805			— 45	
16	·34986	·18236	·99098	26	·29181	·97726
	·83251	769			603	
17	·34557	·19005	·99000	27	·28578	·97786
	·84448	671			543	
18	·34124	·19676	·98985	28	·28035	·97825
	·83552	656			504	
19	·33686	·20332	·98880	29	·27531	·97843
	·86646	551			486	
20	·33244	·20883	·98875	30	·27045	·97907
	·87639	546			422	
21	·32797	·21429	·98843	31	·26623	·97904
	·88632	514			425	
22	·32346	·21943	·98791	32	·26198	·97803
	·89597	462			526	
23	·31890	·22405	·98724	33	·25672	·97675
	·90515	395			654	
24	·31429	·22800	·98609	34	·25018	·97590
	·91371	280			739	
25	·30963	·23080	·98463	35	·24279	·97451
	·92117	134			878	
26	·30492	·23214	·98358	36	·23401	·97381
	·92722	+ 29			948	
27	·30016	·23243	·98277	37	·22453	·97334
	·93227	— 52			995	
28	·29535	·23191	·98228	38	·21458	·97337
	·93656	101			992	
29	·29048	·23090	·98193	39	·20466	·97314
	·94043	136			1015	
30	·28511	·22954	·98214	40	·19451	·97290
	·94443	115			1039	
31	·27944	·22839	·98231	41	·18412	·97265
	·94895	98			1064	
32	·27370	·22741	·98204	42	·17348	·97297
	·95371	125			1032	
33	3·26764	4·22616	·98128	43	3·16316	·97333
	0·95852	— 201			— 996	
71	2·75358	3·53093	·93805	81	3·03981	·94391
	0·77735	— 4524			— 3938	
72	·72346	·48569	·93693	82	3·00043	·93710
	·76223	4636			4619	
73	·69285	·43933	·93211	83	2·95424	·92996
	·74648	5118			5333	
74	·65801	·38815	·93059	84	·90091	·92249
	·73014	5270			6080	
75	·62221	·33545	·92678	85	·84011	·91477
	·71320	5651			6852	
76	·58320	·27894	·92372	86	·77159	·90631
	·69574	5957			7698	
77	·54150	·21937	·91881	87	·69461	·89506
	·67779	6448			8823	
78	·49554	·15489	·91438	88	·60638	·88611
	·65935	6891			9718	
79	·44560	·08598	·91119	89	·50920	·87549
	·64038	7210			10780	
80	·39270	3·01388	·90538	90	·40140	·86745
	·62118	7791			11584	
81	·33445	2·93597	·90077	91	·28556	·85307
	·60152	8252			13022	
82	·27184	·85345	·88972	92	·15534	·86137
	·58161	9357			12192	
83	·19866	·75988	·88784	93	2·03342	·85296
	·56122	9545			13033	
84	·12385	·66443	·87185	94	1·90309	·83607
	·54058	11144			14722	
85	2·03342	·55299	·86785	95	·75587	·79562
	·51957	11544			18767	
86	1·93952	·43755	·86113	96	·56820	·73731
	·49803	12216			24598	
87	·83885	·31539	·84702	97	·32222	·66107
	·47654	13627			32222	
88	·72428	·17912	·83952	98	1·00000	·46041
	·45484	14377			52288	
89	·60206	2·03535	·85126	99	0·47712	·45556
	·43329	13203			52773	
90	1·49136	1·90332	9·81350	100	9·94939	9·07529
	0·41196	— 16979			— 90800	

Table XXVII.

Female Age	Male Age. (x)									
	24	25	26	27	28	29	30	31	32	33
(y)	λ.H H	λ.H H	λ.H H	λ.H H	λ.H H	λ.H H	λ.H H	λ.H H	λ.H H	λ.H H
14	6·83273	6·82205	6·80489	6.78215	6·76000	6·73825	6·71668	6·69576	6·67480	6·65283
	68035	66382	63810	60553	57544	54733	52081	49632	47293	44960
15	·82516	·81448	·79732	·77458	·75243	·73068	·70911	·68819	·66723	·64526
	66859	65235	62708	59509	56550	53787	51181	48774	46476	44183
16	·81561	·80583	·78867	·76593	·74378	·72203	·70046	·67954	·65858	·63661
	65541	63948	61471	58335	55434	52727	50172	47812	45560	43312
17	·80748	·79680	·77964	·75690	·73475	·71300	·69143	·67051	·64955	·62758
	64192	62633	60206	57135	54294	51642	49139	46828	44422	42421
18	·79748	·78680	·76964	·74690	·72475	·70300	·68143	·66051	·63955	·61758
	62731	61207	58836	55834	53058	50466	48021	45763	43606	41455
19	·78732	·77664	·75948	·73674	·71459	·69284	·67127	·65035	·62939	·60742
	61280	59792	57475	54543	51831	49299	46901	44704	42598	40497
20	·77612	·76544	·74828	·72554	·70339	·68164	·66007	·63915	·61819	·59622
	59720	58269	56012	53155	50511	48044	45716	43566	41514	39466
21	·76487	·75419	·73703	·71429	·69214	·67039	·64882	·62790	·60694	·58497
	58193	56779	54580	51795	49220	46816	44547	42452	40452	38457
22	·75330	·74262	·72546	·70272	·68057	·65882	·63725	·61633	·59537	·57340
	56663	55287	53145	50434	47926	45585	43376	41336	39389	37446
23	6·74121	6·73053	6·71337	6·69063	6·66848	6·64673	6·62156	6·60424	6·58328	6·56131
	55107	53769	51687	49049	46610	44333	42185	40201	38307	36417

Female Age	Male Age. (x)									
	92	93	94	95	96	97	98	99	100	101
(y)	λ.H H	λ.H H	λ.H H	λ.H H	λ.H H	λ.H H	λ.H H	λ.H H	λ.H H	λ.H H
88	1·34273	1·20410	1·05706	0·89313	0·68875	0·42603	0·08710	9·54752	9·00307	8·07836
	·22016	·15999	·11404	·07819	·04884	·02667	·01229	·003528	·0010071	·0001198
89	1·18225	1·04362	0·89658	0·73265	0·52827	0·26555	9·92662	9·38703	8·84259	7·91788
	·15214	·11057	·07881	·05403	·03375	·01843	·00845	·002438	·0006960	·0000828
90	1·03351	0·89488	0·74784	0·58391	0·37953	0·11681	9·77785	9·23829	8·69384	7·76914
	·10802	·07850	·05596	·03836	·02396	·01309	·00600	·001731	·0004941	·0000588
91	0·84701	0·70838	0·56134	0·39741	0·19303	9·93031	9.59138	9·05179	8·50734	7·58263
	·07031	·05110	·03642	·02497	·01560	·00852	·00390	·001127	·0003216	·0000382
92	0·69781	0·55929	0·41225	0.24832	0·04394	9·78122	9·44229	8·90270	8·35825	7·43354
	·04987	·03625	·02584	·01771	·01106	·00604	·00277	·000799	·0002282	·0000271
83	0·50987	0·37124	0·22421	0·06028	9·85590	9·59318	9·25425	8·71466	8·17021	7·24550
	·03235	·02351	·01676	·01449	·00718	·00392	·00180	·000518	·0001480	·0000176
94	0·29765	0·15902	0·01198	9·84806	9·64368	9·38096	9·04203	8·50244	7·95599	7·03328
	·01984	·01442	·01028	·00705	·00440	·00240	·00110	·000318	·0000904	·0000108
95	9·96129	9·82266	9·67562	9·51169	9·30732	9·04460	8·70567	8·16608	7·62163	6·69692
	·00915	·00665	·00474	·00325	·00203	·00111	·00051	·000147	·0000418	·0000050
96	9.62586	9·48733	9·34019	9·17626	8·97188	8·70917	8·37024	7·83065	7·28620	6·36149
	·00423	·00307	·00219	·00150	·00094	·00051	·00023	·000068	·0000193	·0000023
97	9·29104	9·15242	9·00538	8·84145	8·63707	8·37435	8·03543	7·49584	6·95139	6·02668
	·00195	·00142	·00101	·00069	·00043	·00024	·00011	·000031	·0000089	·0000011

Table XXVIII.

Difference of Age, —10 Years.

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
34	24	6·55747	36096·91	312834·38	7·49531
35	25	·52775	33709·32	279125·06	·44581
36	26	·49065	30949·24	248175·82	·39477
37	27	·44723	28004·64	220171·18	·34276
38	28	·40294	25289·49	194881·69	·28977
39	29	·35837	22822·86	172058·83	·23568
40	30	·31264	20541·87	151516·96	·18047
41	31	·26637	18465·88	133051·08	·12401
42	32	·21844	16536·36	116514·72	·06636
43	33	·16862	14744·16	101770·56	7·00762
44	34	·11638	13073·14	88697·42	6·94791
45	35	·06287	11557·66	77139·76	·88728
46	36	6·00660	10153·13	66986·63	·82599
47	37	5·94913	8894·67	58091·96	·76412
48	38	·89075	7775·89	50316·07	·70171
49	39	·83218	6794·85	43521·22	·63870
50	40	·77323	5932·39	37588·83	·57506
51	41	·71476	5185·13	32403·70	·51060
52	42	·65532	4521·89	27881·81	·44532
53	43	·59641	3948·30	23933·51	·37902
54	44	·53789	3450·56	20482·95	·31139
55	45	·47845	3009·19	17473·76	·24239
56	46	·41832	2620·11	14853·65	·17184
57	47	·35739	2277·14	12576·51	·09958
58	48	·29262	1961·64	10614·87	6·02592
59	49	·22333	1672·36	8942·51	5·95146
60	50	·14939	1410·55	7531·96	·87691
61	51	5·07124	1178·26	6353·70	·80303
62	52	4·98884	974·63	5379·07	·73071
63	53	·90945	811·80	4567·27	·65966
64	54	·83389	682·17	3885·10	·58940
65	55	·76140	577·30	3307·80	·51954
66	56	·69268	492·81	2814·99	·44948
67	57	·62637	423·04	2391·95	·37876
68	68	·56315	365·72	2026·23	·30668
69	59	·50233	317·83	1708·40	·23259
70	60	·44185	276·60	1431·80	·15588
71	61	·38275	241·41	1190·39	5·07569
72	62	·32111	209·46	980·93	4·99164
73	63	·25737	180·87	800·06	·90312
74	64	·18786	154·12	645·94	·81019
75	65	·11530	130·41	515·53	·71225
76	66	4·03719	108·94	406·59	·60916
77	67	3·95442	90·04	316·55	·50044
78	68	·86648	73·53	243·02	·38564
79	69	·77297	59·29	183·73	·26418
80	70	·67485	47·30	136·43	4·13491
81	71	·56901	37·07	99·36	3·99721
82	72	·45609	28·58	70·78	·84991
83	73	·33060	21·41	49·37	·69346
84	74	·20083	15·88	33·49	·52492
85	75	3·05234	11·28	22·21	·34655
86	76	2·89615	7·87	14·34	3·15776

Difference of Age, —10 Years—(*continued.*)

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
87	77	2·72934	5·36	8·98	2·95328
88	78	·54324	3·49	5·49	·73957
89	79	·34453	2·21	3·28	·51587
90	80	2·15169	1·42	1·86	·26951
91	81	1·91531	·82	1·04	2·01703
92	82	·71013	·51	·53	1·72428
93	83	·45917	·29	·24	1·38021
94	84	1·17691	·15	·09	0·95424
95	85	0·76304	·06	·03	0·47712
96	86	0·34238	·02	·01	0·00000
97	87	9·91388	·01	·00	...

Difference of Age, —9 Years.

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
33	24	6·57620	37687·73	331980·27	7·52111
34	25	·54679	35220·05	296760·22	·47241
35	26	·51059	32403·36	264356·86	·42220
36	27	·46791	29370·41	234986·45	·37105
37	28	·42508	26612·15	208374·30	·31884
38	29	·38119	24054·15	184320·15	·26557
39	30	·33680	21717·01	162603·14	·21112
40	31	·29172	19575·82	143027·32	·15543
41	32	·24541	17595·84	125431·48	·09840
42	33	·19647	15720·63	109710·85	7·04025
43	34	·14534	13974·62	95736·23	6·98108
44	35	·09230	12368·01	83368·22	·92100
45	36	6·03736	10808·33	72559·89	·86070
46	37	5·98041	9558·95	63000·94	·79935
47	38	·92247	8365·08	54635·86	·73748
48	39	·86412	7313·41	47322·45	·67506
49	40	·80531	6387·19	40935·26	·61209
50	41	·74612	5573·40	35361·86	·54854
51	42	·68739	4868·44	30493·42	·48420
52	43	·62829	4249·03	26244·39	·41903
53	44	·56973	3713·04	22531·35	·35278
54	45	·51131	3245·71	19285·64	·28524
55	46	·45228	2833·22	16452·42	·21622
56	47	·39225	2467·46	13984·96	·14566
57	48	·32879	2132·01	11852·95	·07383
58	49	·26125	1824·95	10028·00	6·00121
59	50	·18929	1546·29	8481·71	5·92848
60	51	·11274	1296·40	7185·31	·85644
61	52	5·03205	1076·59	6108·72	·78595
62	53	4·95427	900·06	5208·66	·71673
63	54	·88013	758·80	4449·86	·64835
64	55	·80900	644·17	3805·69	·58043
65	56	·74162	551·59	3254·10	·51243
66	57	·67685	475·17	2778·93	·44387
67	58	·61530	412·38	2366·55	·37412
68	59	·55625	359·96	2006·59	·30246
69	60	·49849	315·13	1691·46	·22827
70	61	4·44081	275·94	1415·52	5·15091

—10. —9.

Note.—It will be observed that in order to condense the figures, the quantities in the $H_{x, y}$ and $K_{x, y}$ columns throughout the whole of this Table, have the decimal point removed two places to the left, but that does not in any way disturb their relative values. The original indices in the columns $\lambda . H_{x, y}$ and $\lambda . K_{x, y}$ are however retained as if no such reduction had taken place.

Table XXVIII.—(*continued.*)

DIFFERENCE OF AGE, —9 YEARS—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
71	62	4·38308	241·59	1173·93	5·06963
72	63	·32043	209·14	964·79	4·98443
73	64	·25576	180·20	784·59	·89464
74	65	·18471	153·01	631·58	·80043
75	66	·11041	128·95	502·63	·70125
76	67	4·03070	107·32	395·31	·59694
77	68	3·94767	88 65	306·66	·48666
78	69	·85859	72·21	234·44	·37003
79	70	·76369	58·64	176·40	·24650
80	71	·66363	46·09	130·31	4·11498
81	72	·55533	35·92	94·39	3 97493
82	73	·44089	27·60	66·79	·82471
83	74	·31300	20·56	46·23	·66492
84	75	·18050	15·15	31·08	·49248
85	76	3 02831	10·67	20·41	·30984
86	77	2·86821	7·38	13·03	3·11494
87	78	·69622	4·97	8·06	2·90634
88	79	·50501	3·20	4·86	·68664
89	80	·30044	2·00	2·86	·45637
90	81	2·10182	1·26	1·60	2·20412
91	82	1·85923	·72	·88	1·94448
92	83	·64722	·44	·44	·64345
93	84	·38914	·24	·20	1·30103
94	85	1·09941	·12	·08	0·90309
95	86	0·67782	·05	·03	0·47712
96	87	0·24870	·02	·01	0·00000
97	88	9·80895	·01	·00	...

DIFFERENCE OF AGE, —8 YEARS.

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
32	24	6 59416	39278·96	351864·00	7·54637
33	25	·56552	36772·23	315091·77	·49843
34	26	·52963	33855·56	281236·21	·44908
35	27	·48785	30750·35	250485·86	·39879
36	28	·44576	27910·01	222575·85	·34749
37	29	40333	25312·21	197263·64	·29504
38	30	·35962	22888·64	174375·00	·24150
39	31	·31588	20695·69	153679·31	·18662
40	32	·27076	18653·49	135025·82	·13043
41	33	·22344	16727·85	118297·97	·07298
42	34	·17319	14900·13	103397·84	7·01452
43	35	·12126	13220·87	90176·97	6·95510
44	36	·06679	11662·46	78514 51	·89495
45	37	6·01117	10260·53	68253 98	·83413
46	38	5·95375	8989·80	59264·18	·77279
47	39	·89584	7867·56	51396·62	·71094
48	40	·83725	6874·64	44521·98	·64857
49	41	·77820	6000·67	38521·31	·58570
50	42	·71877	5233·23	33288 08	·52229
51	43	·66036	4574·67	28713·41	·45808
52	44	·60161	3995·86	24717·55	·39301
53	45	5·54315	3492·61	21224·94	6·32685

DIFFERENCE OF AGE, —8 YEARS—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
54	46	5·48514	3055·91	18169·03	6 25933
55	47	·42621	2668·15	15500·88	·19036
56	48	·36365	2310·20	13190·68	·12028
57	49	·29742	1983·44	11207·24	6·04949
58	50	·22721	1687·37	9519·87	5·97863
59	51	·15264	1424·43	8095·44	·90824
60	52	5·07355	1184·54	6910·90	·83953
61	53	4·99748	994·21	5916 69	·77208
62	54	·92495	841·30	5075·39	·70547
63	55	·85525	716·56	4358·83	·63937
64	56	·78922	615·49	3743·34	·57325
65	57	·72579	531·85	3211·49	·50671
66	58	·66578	463 21	2748 28	·43906
67	59	·60840	405·88	2342·40	·36966
68	60	·55241	356·79	1985·61	·29789
69	61	·49745	314·38	1671·23	·22303
70	62	·44114	276·15	1395·08	·14461
71	63	·38240	241·21	1153 87	5·06217
72	64	·31882	208·36	945·51	4·97567
73	65	·25261	178·90	766·61	·88457
74	66	·17982	151·29	615·32	·78910
75	67	·10392	127·03	488·29	·68868
76	68	4·02395	105·67	382·62	·58277
77	69	3·93978	87·05	295·57	·47066
78	70	·84930	70·68	224·89	·35197
79	71	·75246	56·55	168·34	·22619
80	72	·64994	44·66	123·68	4·09230
81	73	·54012	34·68	89·00	3·94939
82	74	·42328	26 50	62·50	·79588
83	75	·29266	19·62	42·88	·63225
84	76	·15646	14·34	28·54	·45545
85	77	3·00036	10·01	18·53	·26788
86	78	2·83510	6·84	11·69	3·06781
87	79	·65800	4·55	7·14	2·85370
88	80	·46092	2·89	4·25	·62839
89	81	·25056	1·78	2·47	·39270
90	82	2·04573	1·11	1·36	2·13354
91	83	1·79631	·63	·73	1·86332
92	84	·57718	·38	·35	·54407
93	85	·31163	·20	·15	1·17609
94	86	1·01418	·10	·05	0·69897
95	87	0·58413	·04	·01	0·00000
96	88	0·14376	·01	·00	...
97	89	9·69507	·00	·00	...

DIFFERENCE OF AGE, —7 YEARS.

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
31	24	6·61185	40911·93	372176·70	7·57075
32	25	·58348	38324·81	333851·89	·52355
33	26	·54836	35347·61	298504·28	·47494
34	27	·50689	32128·47	266375·81	·42550
35	28	6·46570	29221·33	237154·48	7·37502

Table XXVIII.—*(continued.)*

DIFFERENCE OF AGE, —7 YEARS—*(continued.)*

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
36	29	6·42401	26546·67	210607·81	7·32348
37	30	·38176	24085·74	186522·07	·27073
38	31	·33870	21812·23	164709·84	·21672
39	32	·29492	19720·59	144989·25	·16134
40	33	·24879	17733·32	127255·93	·10469
41	34	·20016	15854·77	111401·16	7·04689
42	35	·14911	14096·46	97304·70	6·98814
43	36	·09577	12467·23	84837·47	·92859
44	37	6·04060	10979·94	73857·53	·86840
45	38	5·98451	9649·62	64207·91	·80759
46	39	·92712	8455·12	55752·79	·74627
47	40	·86897	7395·54	48357·25	·68446
48	41	·81014	6458·62	41898·63	·62220
49	42	·75088	5634·43	36264·20	·55948
50	43	·69174	4917·45	31346·75	·49620
51	44	·63368	4302·10	27044·65	·43209
52	45	·57503	3758·63	23286·02	·36709
53	46	·51698	3288·36	19997·66	·30099
54	47	·45907	2877·86	17119·80	·23350
55	48	·39761	2498·10	14621·70	·16501
56	49	·33228	2149·22	12472·48	·09594
57	50	·26338	1833·92	10638·56	6·02690
58	51	·19056	1550·82	9087·74	5·95845
59	52	·11345	1298·52	7789·22	·89149
60	53	5·03898	1093·91	6695·31	·82577
61	54	4·96816	929·31	5766·00	·76087
62	55	·90007	794·46	4971·54	·69649
63	56	·83547	684·65	4286·89	·63214
64	57	·77339	593·46	3693·43	·56743
65	58	·71472	518·47	3174·96	·50174
66	59	·65888	455·91	2719·05	·43443
67	60	·60456	402·31	2316·74	·36487
68	61	·55137	355·93	1960·81	·29243
69	62	·49778	314 62	1646·19	·21648
70	63	·44046	275·71	1370·48	·13688
71	64	·38079	240·32	1130·16	5·05316
72	65	·31567	206·86	923·30	4·96534
73	66	·24772	176·90	746·40	·87297
74	67	·17333	149·05	597·35	·77623
75	68	·09717	125·07	472·28	·67420
76	69	4·01606	103 77	368·51	·56645
77	70	3·93049	85·21	283 30	·45225
78	71	·83807	68·88	214·42	·33127
79	72	·73877	54·80	159·62	·20309
80	73	·63473	43·13	116·48	4·06625
81	74	·52251	33·31	83·17	3·91997
82	75	·40294	25·29	57·88	·76253
83	76	·26863	18·56	39·32	·59461
84	77	3·12851	13·44	25·88	·41296
85	78	2·96725	9·27	16·61	·22037
86	79	·79687	6·26	10·35	3·01494
87	80	·61390	4·11	6·24	2·79518
88	81	2·41104	2·58	3·66	2·56348

DIFFERENCE OF AGE, —7 YEARS—*(continued.)*

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
89	82	2·19447	1 56	2 10	2·32222
90	83	1·98281	·96	1·14	2·05690
91	84	·72627	·53	·61	1·78533
92	85	·49967	·32	·29	·46240
93	86	1·22640	·17	·12	1·07918
94	87	0·92049	·08	·04	0·60206
95	88	0·47919	·03	·01	0·00000
96	89	0·02988	·01	·00	...
97	90	9·57052	·00	·00	...

DIFFERENCE OF AGE, —6 YEARS.

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
30	24	6·62971	42629·48	393029·50	7·59443
31	25	·60117	39918·11	353111·39	·54791
32	26	·56632	36840·03	316271·36	·50006
33	27	·52562	33544·40	282726·96	·45137
34	28	·48474	30530·93	252196·03	·40175
35	29	·44395	27793·93	224402·10	·35102
36	30	·40244	25260·39	199141·71	·29916
37	31	·36084	22953·03	176188 68	·24598
38	52	·31774	20784·52	155404·16	·19145
39	33	·27295	18747·79	136656·37	·13564
40	34	·22551	16807 77	119848 60	·07864
41	35	·17608	14999·61	104848·99	7·02057
42	36	·12362	13292·91	91556·08	6·96169
43	37	·06958	11737·62	79818·46	·90210
44	38	6·01394	10326·19	69492·27	·84193
45	39	5·95788	9075·70	60416·57	·78116
46	40	·90025	7947·86	52468·71	·71990
47	41	·84186	6948·00	45520·71	·65821
48	42	·78279	6064·43	39456·28	·59611
49	43	·72382	5294·44	34161·84	·53354
50	44	·66506	4624·45	29537 39	·47037
51	45	·60710	4046·69	25490·70	·40639
52	46	·54886	3538·83	21951·87	·34147
53	47	·49091	3096·78	18855·09	·27543
54	48	·43047	2694·45	16160·64	·20847
55	49	·36624	2324·02	13836·62	·14104
56	50	·29824	1987·19	11849·43	·07368
57	51	·22673	1685·50	10163·93	6·00706
58	52	·15137	1417·00	8746·93	5·94185
59	53	·07888	1199·17	7547·76	·87782
60	54	5·00966	1022·49	6525·27	·81460
61	55	4·94328	877·57	5647·70	·75187
62	56	·88029	759·08	4888·62	·68918
63	57	·81964	660·15	4228·47	·62619
64	58	·76232	578·52	3649·95	·56229
65	59	·70782	510·29	3139·66	·49689
66	60	·65504	451·90	2687·76	·42940
67	61	·60352	401·35	2286·41	·35915
68	62	·55170	356·21	1930·20	·28560
69	63	4·49710	314·12	1616·08	5·20847

Table XXVIII.—(*continued.*)

Difference of Age, —6 Years—(*continued*).

Ages.		$\lambda.H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda.K_{x,y}$
y.	x.				
70	64	4·43885	274·69	1341·39	5·12756
71	65	·37764	238·58	1102·81	5·04250
72	66	·31078	204·54	898·27	4·95341
73	67	·24123	174·27	724·00	·85974
74	68	·16658	146·75	577·25	·76136
75	69	·08928	122·82	454·43	·65747
76	70	4·00677	101·57	352·86	·54761
77	71	3·91926	83·03	269·83	·43109
78	72	·82438	66·74	203·09	·30769
79	73	·72356	52·91	150·18	·17661
80	74	·61712	41·41	108·77	4·03651
81	75	·50217	31·78	76·99	3·88643
82	76	·37891	23·93	53·06	·72477
83	77	·24068	17·41	35·65	·55206
84	78	3·09540	12·47	23·18	·36511
85	79	2·92902	8·49	14·69	3·16702
86	80	·75277	5·66	9·03	2·95569
87	81	·56402	3·66	5·37	·72997
88	82	·35495	2·26	3·11	·49276
89	83	2·13155	1·35	1·76	2·24551
90	84	1·91277	·82	·94	1·97313
91	85	·64876	·44	·50	·69897
92	86	·41444	·26	·24	·38021
93	87	1·13271	·14	·10	1·00000
94	88	0·81555	·07	·03	0·47712
95	89	0·36531	·02	·01	0·00000
96	90	9·90533	·01	·00	...
97	91	9·43797	·00	·00	...

Difference of Age, —5 Years.

29	24	6·64778	44440·61	414526·47	7·61756
30	25	·61903	41593·93	372932·54	·57163
31	26	·58401	38371·61	334560·93	·52447
32	27	·54358	34960·69	299600·24	·47654
33	28	·50347	31876·45	267723·79	·42768
34	29	·46299	29039·56	238684·23	·37782
35	30	·42238	26447·22	212237·01	·32683
36	31	·38152	24072·43	188164·58	·27453
37	32	·33988	21871·57	166293·01	·22087
38	33	·29577	19759·23	146533·78	·16593
39	34	·24967	17769·29	128764·49	·10978
40	35	·20143	15901·20	112863·29	7·05254
41	36	·15059	14144·58	98718·71	6·99440
42	37	·09743	12514·98	86203·73	·92553
43	38	6·04292	11113·48	75090·25	·87558
44	39	5·98631	9689·69	65400·56	·81558
45	40	·93101	8531·20	56869·36	·75488
46	41	·87314	7466·89	49402·47	·69374
47	42	·81451	6525·14	42877·33	·63222
48	43	·75576	5698·49	37178·84	·57030
49	44	5·69714	4978·98	32199·86	6·50786

Difference of Age, —5 Years—(*continued.*)

Ages.		$\lambda.H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda.K_{x,y}$
y.	x.				
50	45	5·63848	4349·91	27849·95	6·44483
51	46	·58093	3810·04	24039·91	·38093
52	47	·52279	3332·65	20707·26	·31612
53	48	·46231	2899·41	17807·85	·25062
54	49	·39910	2506·69	15301·16	·18472
55	50	·33220	2148·82	13152·34	·11899
56	51	·26159	1826·38	11325·96	6·05408
57	52	·18754	1540·01	9785·95	5·99061
58	53	·11680	1308·58	8477·37	·92826
59	54	5·04956	1120·88	7356·49	·86667
60	55	4·98478	965·56	6390·93	·80556
61	56	·92350	838·49	5552·44	·74448
62	57	·86446	731·91	4820·53	·68309
63	58	·80857	643·53	4177·00	·62086
64	59	·75542	569·40	3607·60	·55723
65	60	·70398	505·80	3101·80	·49161
66	61	·65400	450·82	2650·98	·42341
67	62	·60385	401·65	2249·33	·35205
68	63	·55102	355·65	1893·68	·27731
69	64	·49549	312·96	1580·72	·19885
70	65	·43570	272·71	1308·01	·11660
71	66	·37275	235·91	1072·10	5·03024
72	67	·30429	201·51	870·59	4·93981
73	68	·23448	171·59	699·00	·84448
74	69	·15869	144·11	554·89	·74421
75	70	4·07999	120·22	434·67	·63816
76	71	3·99554	98·86	335·81	·52609
77	72	·90557	80·46	255·35	·40714
78	73	·80917	64·44	190·91	·28083
79	74	·70595	50·81	140·10	·14644
80	75	·59678	39·52	100·58	4·00251
81	76	·47814	30·07	70·51	3·84825
82	77	·35096	22·44	48·07	·68187
83	78	·20756	16·13	31·94	·50433
84	79	3·05717	11·41	20·53	·31239
85	80	2·88492	7·67	12·86	3·10924
86	81	·70289	5·05	7·81	2·89265
87	82	·50794	3·22	4·59	·66181
88	83	·29203	1·96	2·63	·41996
89	84	2·06151	1·18	1·45	2·16137
90	85	1·83526	·68	·77	1·88649
91	86	·56353	·37	·40	·60206
92	87	·32075	·21	·19	1·27875
93	88	1·02777	·11	·08	0 90309
94	89	0·70167	·05	·03	0·47712
95	90	0·24076	·02	·01	0·00000
96	91	9·77278	·01	·00	...
97	92	9·29104	·00	·00	...

Table XXVIII.—(*continued.*)

Difference of Age, —4 Years.

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
28	24	6·66551	46292·43	436567·75	7·64005
29	25	·63710	43361·07	393206·68	·59462
30	26	·60187	39982·50	353224·18	·54805
31	27	·56127	36414·14	316810·04	·50080
32	28	·52143	33222·32	283587·72	·45262
33	29	·48172	30319·36	253268·36	·40358
34	30	·44142	27632·49	225635·87	·35342
35	31	·40146	25203·45	200432·42	·30196
36	32	·36056	22938·24	177494·18	·24917
37	33	·31791	20792·66	156701·52	·19507
38	34	·27249	18727·94	137973·58	·13978
39	35	·22559	16810·86	121162·72	·08336
40	36	·17594	14994·78	106167·94	7·02600
41	37	·12440	13316·80	92851·14	6·96779
42	38	·07077	11769·82	81081·32	·90892
43	39	6·01629	10382·21	70699·11	·84941
44	40	5·96044	9129·35	61569·76	·78937
45	41	·90390	8014·93	53554·83	·72880
46	42	·84579	7011·16	46543·67	·66786
47	43	·78748	6130·28	40413·39	·60652
48	44	·72908	5358·95	35054·44	·54474
49	45	·67056	4683·39	30371·05	·48246
50	46	·61231	4095·53	26275·52	·41956
51	47	·55486	3588·06	22687·46	·35578
52	48	·49419	3120·25	19567·21	·29152
53	49	·43094	2697·37	16869·84	·22712
54	50	·36506	2317·71	14552·13	·16292
55	51	·29555	1974·92	12577·21	·09958
56	52	·22240	1668·78	10908·43	6·03775
57	53	·15297	1422·23	9486·20	5·97709
58	54	·08748	1223·15	8263·05	·91714
59	55	5·02468	1058·47	7204·58	·85761
60	56	4·96500	922·57	6282·01	·79810
61	57	·90767	808·48	5473·53	·73827
62	58	·85339	713·49	4760·04	·67761
63	59	·80167	633·39	4126·65	·61560
64	60	·75158	564·39	3562·26	·55173
65	61	·70294	504·59	3057·67	·48539
66	62	·65433	451·16	2606·51	·41606
67	63	·60317	401·02	2205·49	·34351
68	64	·54941	354·33	1851·16	·26745
69	65	·49234	310·70	1540·46	·18766
70	66	·43081	269·66	1270·80	·10408
71	67	·36626	232·41	1038·39	5·01636
72	68	·29754	198·40	839·99	4·92427
73	69	·22659	168·50	671·49	·82704
74	70	·14941	141·06	530·43	·72463
75	71	4·06877	117·16	413·27	·61623
76	72	3·98186	95·91	317·36	·50155
77	73	·89037	77·69	239·67	·37961
78	74	·79157	61·88	177·79	·24991
79	75	·68562	48·49	129·30	4·11160
80	76	3·57275	37·39	91·91	3·96336

Difference of Age, —4 Years—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
81	77	3·45019	28·20	63·71	3·80421
82	78	·31785	20·79	42·92	·63266
83	79	·16934	14·77	28·15	·44948
84	80	3·01308	10·31	17·84	·25139
85	81	2·83505	6·84	11·00	3·04139
86	82	·64681	4·43	6·57	2·81757
87	83	·44502	2·79	3·78	·57749
88	84	2·22200	1·67	2·11	·32428
89	85	1·98401	·96	1·15	2·06070
90	86	·75004	·56	·59	1·77085
91	87	·46985	·30	·29	·46240
92	88	1·21582	·16	·13	1·11394
93	89	0·91389	·08	·05	0·69897
94	90	·57713	·04	·01	0·00000
95	91	0·10822	·01	·00	...
96	92	9·62586	·00	·00	...
97	93	9·15242	·00	·00	...

Difference of Age, —3 Years.

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
27	24	6·68274	48165·94	459267·89	7·66207
28	25	·65483	45115·94	414151·95	·61716
29	26	·61994	41681·18	372470·77	·57109
30	27	·57913	37942·85	334527·92	·52444
31	28	·53912	34603·50	299924·42	·47701
32	29	·49968	31599·48	268324·94	·42865
33	30	·46015	28850·28	239474·66	·37925
34	31	·42050	26332·98	213141·68	·32867
35	32	·38050	24015·96	189125·72	·27676
36	33	·33859	21806·70	167319·02	·22355
37	34	·29463	19707·43	147611·59	·16912
38	35	·24841	17717·81	129893·78	·11358
39	36	·20010	15852·58	114041·20	7·05706
40	37	·14975	14117·25	99923·95	6·99967
41	38	·09774	12523·91	87400·04	·94151
42	39	6·04414	11069·81	76330·23	·88270
43	40	5·98942	9759·33	66570·90	·82329
44	41	·93333	8576·89	57994·01	·76338
45	42	·87655	7525·75	50468·26	·70302
46	43	·81876	6588·10	43880·16	·64227
47	44	·76080	5765·01	38115·15	·58110
48	45	·70250	5040·81	33074·34	·51949
49	46	·64439	4409·51	28664·83	·45735
50	47	·58624	3856·91	24807·92	·39459
51	48	·52626	3359·39	21448·53	·33141
52	49	·46282	2902·82	18545·71	·26825
53	50	·39690	2494·02	16051·69	·20553
54	51	·32841	2130·15	13921·54	·14370
55	52	·25636	1804·51	12117·03	·08340
56	53	·18783	1541·10	10575·93	6·02432
57	54	·12365	1329·38	9246·55	5·96598
58	55	5·06259	1155·02	8091·53	5·90803

Table XXVIII.—(*continued.*)

DIFFERENCE OF AGE, —3 YEARS—(*continued.*)

Ages.		$\lambda . H_{x,\,y}$	$H_{x,\,y}$	$K_{x,\,y}$	$\lambda . K_{x,\,y}$
y.	*x*.				
59	56	5·00490	1011·35	7080·18	5·85005
60	57	4·94917	889·55	6190·63	·79173
61	58	·89660	788·13	5402·50	·73259
62	59	·84649	702·25	4700·25	·67213
63	60	·79783	627·81	4072·44	·60985
64	61	·75054	563·04	3509·40	·54523
65	62	·70327	504·98	3004·42	·47776
66	63	·65365	450·45	2553·97	·40722
67	64	·60156	399·54	2154·43	·33333
68	65	·54626	351·77	1802·66	·25592
69	66	·48745	307·22	1495·44	·17476
70	67	·42132	265·66	1229·78	·08983
71	68	·35951	228·83	1000·95	5·00043
72	69	·28965	194·83	806·12	4·90640
73	70	·21730	164·93	641·19	·80699
74	71	·13818	137·46	503·73	·70220
75	72	4·05508	113·52	390·21	·59130
76	73	3·96665	92·61	297·60	·47363
77	74	·87276	74·60	223·00	·34830
78	75	·77123	59·05	163·95	·21471
79	76	·66158	45·88	118·07	4·07214
80	77	·54480	35·06	83·01	3·91913
81	78	·41708	26·13	56·88	·75496
82	79	·27962	19·04	37·84	·57795
83	80	3·12524	13·34	24·50	·38917
84	81	2·96320	9·19	15·31	3·18498
85	82	·77896	6·01	9·30	2·96848
86	83	·58389	3·84	5·46	·73719
87	84	·37498	2·37	3·09	·48996
88	85	2·14449	1·39	1·70	2·23045
89	86	1·89878	·79	·91	1·95904
90	87	·65635	·45	·46	·66276
91	88	·36491	·23	·23	·36173
92	89	1·10193	·13	·10	1·00000
93	90	0·78935	·06	·04	0·60206
94	91	0·44458	·03	·01	0·00000
95	92	9·96129	·01	·00	...
96	93	9·48723	·00	·00	...
97	94	9·00538	·00	·00	...

DIFFERENCE OF AGE, —2 YEARS.

Ages.		$\lambda . H_{x,\,y}$	$H_{x,\,y}$	$K_{x,\,y}$	$\lambda . K_{x,\,y}$
y.	*x*.				
26	24	6·69916	50021·88	482716·24	7·68370
27	25	·67206	46995·90	435720·34	·63921
28	26	·63767	43418·02	392302·32	·59362
29	27	·59720	39554·87	352747·45	·54747
30	28	·55698	36056·20	316691·25	·50063
31	29	·51737	32913·19	283778·06	·45298
32	30	·47811	30068·38	253709·68	·40434
33	31	·43923	27493·50	226216·18	·35453
34	32	·39954	25092·27	201123·91	·30346
35	33	6·35853	22831·27	178292·64	7·25113

DIFFERENCE OF AGE, —2 YEARS—(*continued*).

Ages.		$\lambda . H_{x,\,y}$	$H_{x,\,y}$	$K_{x,\,y}$	$\lambda . K_{x,\,y}$
y.	*x*.				
36	34	6·31531	20668·55	157624·09	7·19761
37	35	·27055	18644·47	138979·62	·14295
38	36	·22292	16707·83	122271·79	·08732
39	37	·17391	14924·85	107346·94	7·03080
40	38	·12309	13276·70	94070·24	6·97345
41	39	·07111	11779·04	82291·20	·91535
42	40	6·01727	10405·67	71885·53	·85664
43	41	5·96231	9168·75	62716·78	·79739
44	42	·90598	8053·41	54663·37	·73769
45	43	·84952	7071·64	47591·73	·67753
46	44	·79208	6195·55	41396·18	·61696
47	45	·73422	5422·76	35973·42	·55598
48	46	·67633	4746·02	31227·40	·49453
49	47	·61832	4152·60	27074·80	·43257
50	48	·55764	3611·10	23463·70	·37040
51	49	·49489	3125·29	20338·41	·30831
52	50	·42878	2683·98	17654·43	·24684
53	51	·36025	2292·19	15362·24	·18645
54	52	·28922	1946·35	13415·89	·12762
55	53	·22179	1666·44	11749·45	·07000
56	54	·15851	1440·49	10308·96	6·01322
57	55	·09876	1255·34	9053·62	5·95682
58	56	5·04281	1103·60	7950·02	·90037
59	57	4·98907	975·15	6974·87	·84354
60	58	·93810	867·16	6107·71	·78588
61	59	·88970	775·71	5332·00	·72689
62	60	·84265	696·07	4635·93	·66613
63	61	·79679	626·31	4009·62	·60310
64	62	·75087	563·47	3446·15	·53734
65	63	·70259	504·19	2941·96	·46864
66	64	·65204	448·79	2493·17	·39676
67	65	·59841	396·65	2096·52	·32149
68	66	·54137	347·83	1748·69	·24272
69	67	·48096	302·66	1446·03	·16020
70	68	·41757	261·56	1184·47	5·07354
71	69	·35162	224·71	959·76	4·98216
72	70	·28036	190·70	769·06	·88596
73	71	·20607	160·72	608·34	·78415
74	72	·12449	133·20	475·14	·67682
75	73	4·03987	109·62	365·52	·56291
76	74	3·94904	88·93	276·59	·44184
77	75	·85242	71·19	205·40	·31260
78	76	·74720	55·87	149·53	·17473
79	77	·63363	43·02	106·51	4·02739
80	78	·51169	32·49	74·02	3·86935
81	79	·37885	23·92	50·10	·69984
82	80	·23552	17·20	32·90	·51720
83	81	3·07536	11·89	21·01	·32243
84	82	2·90711	8·07	12·94	3·11193
85	83	·71604	5·20	7·74	2·88874
86	84	·51385	3·26	4·48	·65128
87	85	·29747	1·98	2·50	·39794
88	86	2·05926	1·15	1·35	2·13033

Table XXVIII.—(*continued.*)

DIFFERENCE OF AGE, −2 YEARS—(*continued.*)

Ages.		$\lambda.H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda.K_{x,y}$
y.	x.				
89	87	1·80509	·64	·71	1·85126
90	88	·55141	·36	·35	·54407
91	89	1·25102	·18	·17	1·23045
92	90	0·97739	·09	·08	0·90309
93	91	·65680	·05	·03	0·47712
94	92	0·29765	·02	·01	0·00000
95	93	9·82266	·01	·00	...
96	94	9·34019	·00	·00	...
97	95	8·84145	·00	·00	...

DIFFERENCE OF AGE, −1 YEAR.

Ages.		$\lambda.H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda.K_{x,y}$
y.	x.				
25	24	6·71453	51823·89	504512·15	7·70287
26	25	·66848	46610·10	457902·05	·66077
27	26	·65490	45175·19	412726·86	·61567
28	27	·61493	41203·11	371523·75	·56998
29	28	·57505	37588·07	333935·68	·52237
30	29	·53523	34294·94	299640·74	·47660
31	30	·49580	31318·43	268322·31	·42865
32	31	·45719	28654·31	239668·00	·37961
33	32	·41827	26198·11	213469·89	·32934
34	33	·37757	23854·48	189615·41	·27788
35	34	·33524	21639·14	167976·27	·22526
36	35	·29123	19553·75	148422·52	·17149
37	36	·24506	17581·66	130840·86	·11674
38	37	·19673	15730·05	115110·81	·06111
39	38	·14725	14039·45	101071·36	7·00462
40	39	·09646	12487·05	88584·31	6·94736
41	40	6·04424	11072·35	77511·96	·88937
42	41	5·99016	9775·97	67735·99	·83082
43	42	·93496	8609·14	59126·85	·77179
44	43	·87895	7567·46	51559·39	·71230
45	44	·82284	6650·28	44909·11	·65233
46	45	·76550	5827·74	39081·37	·59197
47	46	·70805	5105·64	33975·73	·53117
48	47	·65026	4469·50	29506·22	·46991
49	48	·58972	3887·94	25618·28	·40855
50	49	·52627	3359·46	22258·82	·34751
51	50	·46085	2889·68	19369·14	·28711
52	51	·39213	2466·78	16902·36	·22794
53	52	·32106	2094·40	14807·96	·17050
54	53	·25465	1797·42	13010·54	·11431
55	54	·19247	1557·65	11452·89	·05892
56	55	·13362	1360·25	10092·64	6·00402
57	56	·07898	1199·44	8893·20	5·94906
58	57	5·02698	1064·09	7829·11	·89371
59	58	4·97800	950·60	6878·51	·83749
60	59	·93120	853·49	6025·02	·77996
61	60	·88586	768·88	5256·14	·72066
62	61	·84161	694·40	4561·74	·65913
63	62	·79712	626·79	3934·95	·59494
64	63	4·75019	562·59	3372·36	5·52794

DIFFERENCE OF AGE, −1 YEAR—(*continued.*)

Ages.		$\lambda.H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda.K_{x,y}$
y.	x.				
65	64	4·70098	502·32	2870·04	5·45788
66	65	·64889	445·54	2424·50	·38462
67	66	·59352	392·21	2032·29	·30799
68	67	·53488	342·67	1689·62	·22778
69	68	·47431	298·06	1391·56	·14351
70	69	·40968	256·85	1134·71	5·05488
71	70	·34233	219·95	914·76	4·96131
72	71	·26913	185·84	728·92	·86268
73	72	·19238	155·73	573·19	·75830
74	73	·10928	128·61	444·58	·64795
75	74	4·02226	105·26	339·32	·53061
76	75	3·92870	84·86	254·46	·40562
77	76	·82839	67·36	187·10	·27207
78	77	·71925	52·39	134·71	4·12940
79	78	·60052	39·86	94·85	3·97704
80	79	·47346	29·75	65·10	·81358
81	80	·33475	21·61	43·49	·63839
82	81	·18564	15·33	28·16	·44963
83	82	3·01927	10·45	17·71	·24822
84	83	2·84419	6·99	10·72	3·03019
85	84	·64600	4·43	6·29	2·79865
86	85	·43634	2·73	3·56	·55145
87	86	2·21224	1·63	1·93	·28556
88	87	1·96557	·92	1·01	2·00432
89	88	·70015	·50	·51	1·70757
90	89	·43752	·27	·24	·38021
91	90	1·12648	·13	·11	1·04139
92	91	0·84484	·07	·04	0·60206
93	92	·50987	·03	·01	0·00000
94	93	0·15902	·01	·00	...
95	94	9·67562	·00	·00	...
96	95	9·17626	·00	·00	...
97	96	8·63707	·00	·00	...

DIFFERENCE OF AGE, 0 YEAR.

Ages.		$\lambda.H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda.K_{x,y}$
y.	x.				
24	24	6·72844	53510·62	531204·75	7·72526
25	25	·70385	50565·00	480639·75	·68182
26	26	·67132	46915·89	433723·86	·63721
27	27	·63216	42870·64	390853·22	·59201
28	28	·59278	39154·35	351698·87	·54617
29	29	·55330	35751·97	315946·90	·49962
30	30	·51366	32633·23	283313·67	·45226
31	31	·47488	29845·58	253468·09	·40393
32	32	·43623	27304·23	226163·86	·35442
33	33	·39630	24905·77	201258·09	·30376
34	34	·35428	22608·93	178649·16	·25200
35	35	·31116	20471·99	158177·17	·19915
36	36	·26574	18439·11	139738·06	·14532
37	37	·21887	16552·74	123185·32	·09054
38	38	·17007	14793·47	108391·85	7·03499
39	39	6·12062	13201·40	95190·45	6·97859

Table XXVIII.—(*continued.*)

DIFFERENCE OF AGE, 0 YEAR—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
40	40	6·06959	11737·89	83452·56	6·92144
41	41	6·01713	10402·31	73050·252	·86362
42	42	5·96281	9179·309	63870·943	·80530
43	43	·90793	8089·655	55781·288	·74649
44	44	·85227	7116·558	48664·730	·68722
45	45	·79626	6255·471	42409·259	·62746
46	46	·73933	5486·937	36922·322	·56729
47	47	·68198	4808·172	32114·150	·50669
48	48	·62166	4184·658	27929·492	·44606
49	49	·55836	3617·096	24312·396	·38582
50	50	·49223	3106·204	21206·192	·32646
51	51	·42420	2655·828	18550·364	·26834
52	52	·35294	2253·928	16296·436	·21208
53	53	·28649	1934·149	14362·287	·15721
54	54	·22533	1680·080	12682·207	·10319
55	55	·16758	1470·889	11211·318	6·04964
46	56	·11384	1299·691	9911·627	5·99614
47	57	·06315	1156·512	8755·115	·94226
48	58	5·01591	1037·313	7717·802	·88749
49	59	4·97110	935·621	6782·181	·83137
60	60	·92736	845·980	5936·201	·77351
61	61	·88482	767·044	5169·157	·71342
62	62	·84194	694·928	4474·229	·65072
63	63	·79644	625·806	3848·423	·58528
64	64	·74858	560·506	3287·917	·51692
65	65	·69783	498·689	2789·228	·44548
66	66	·64400	440·555	2348·673	·37083
67	67	·58703	386·394	1962·279	·29277
68	68	·52813	337·388	1624·891	·21083
69	69	·46632	292·631	1332·260	·12460
70	70	·40039	251·414	1080·846	5·03375
71	71	·33110	214·338	866·508	4·93777
72	72	·25544	180·069	686·439	·83660
73	73	·17717	150·373	536·066	·72922
74	74	·09167	123·501	412·565	·61550
75	75	4·00192	100·443	312·122	·49432
76	76	3·90467	80·292	231·830	·36517
77	77	·80044	63·160	168·670	·22704
78	78	·68613	48·543	120·127	4·07965
79	79	·56229	36·753	83·374	3·92103
80	80	·42936	26·876	56·498	·75203
81	81	·28487	19·269	37·229	·57088
82	82	3·12955	13·476	23·753	·37572
83	83	2·95635	9·044	14·709	3·16758
84	84	·77415	5·945	8·764	2·94270
85	85	·56849	3·702	5·062	·70432
86	86	·35111	2·244	2·818	·44994
87	87	2·11855	1·314	1·504	2·17725
88	88	1·86063	·725	·779	1·89154
89	89	·58626	·386	·393	·59439
90	90	1·31298	·206	·187	1·27184
91	91	0·99393	·099	·088	0·94448
92	92	6·69791	·050	·038	0·57978

0.

DIFFERENCE OF AGE, 0 YEAR—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
93	93	0·37124	·024	·014	0·14613
94	94	0·01198	·010	·004	9·60206
95	95	9·51169	·003	·001	9·00000
96	96	8·97188	·001	·000	...
97	97	8·37435	·000	·000	...

DIFFERENCE OF AGE, 1 YEAR.

y.	x.	$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
23	24	6·74121	55107·41	556073·83	7·74513
24	25	·71776	52210·76	503863·07	·70231
25	26	·68669	48606·01	455257·06	·68526
26	27	·64858	44522·55	410734·51	·61356
27	28	·61001	40738·97	369995·54	·56820
28	29	·57103	37241·74	332753·80	·52212
29	30	·53173	34019·66	298734·14	·47528
30	31	·49274	31098·54	267635·60	·42755
31	32	·45392	28439·37	239196·23	·37876
32	33	·41426	25957·33	213238·90	·32887
33	34	·37302	23605·87	189633·03	·27791
34	35	·33020	21389·47	168343·56	·22619
35	36	·28568	19305·45	148938·11	·17301
36	37	·23955	17360·01	131578·10	·11919
37	38	·19221	15567·18	116010·92	·06450
38	39	·14344	13913·62	102097·30	7·00903
39	40	·09375	12409·38	89687·92	6·95273
40	41	6·04248	11027·57	78660·35	·89575
41	42	5·98978	9767·42	68892·93	·83818
42	43	·93578	8625·42	60267·51	·78009
43	44	·88125	7607·64	52659·87	·72148
44	45	·82569	6694·07	45965·80	·66244
45	46	·77009	5889·66	40076·14	·60288
46	47	·71326	5167·26	34908·88	·54294
47	48	·65338	4501·74	30407·14	·48297
48	49	·59029	3893·05	26514·09	·42348
49	50	·52431	3344·34	23169·75	·36493
50	51	·45558	2854·83	20314·92	·30782
51	52	·38501	2426·67	17888·25	·25256
52	53	·31837	2081·47	15806·78	·19885
53	54	·25717	1807·88	13998·90	·14610
54	55	·20044	1586·50	12412·40	·09384
55	56	·14780	1405·45	11006·95	6·04167
56	57	·09801	1253·17	9753·78	5·98917
57	58	·05208	1127·41	8626·37	·93583
58	59	5·00901	1020·96	7605·41	·88112
59	60	4·96726	927·39	6678·02	·82465
60	61	·92632	843·96	5834·06	·76597
61	62	·88515	767·63	5066·43	·70470
62	63	·84126	693·84	4372·59	·64070
63	64	·79483	623·49	3749·10	·57393
64	65	·74543	556·45	3192·65	·50416
65	66	·69294	493·11	2699·54	·43128
66	67	4·63751	434·02	2265·52	5·35516

1.

Table XXVIII.—(*continued.*)

DIFFERENCE OF AGE, **1** YEAR—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
67	68	4·58028	380·43	1885·09	5·27533
68	69	·52024	331·31	1553·78	·19140
69	70	·45704	286·44	1267·34	·10288
70	71	·38917	245·00	1022·34	5·00958
71	72	·31742	207·69	814·65	4·91097
72	73	·24024	173·88	640·77	·80670
73	74	·15957	144·40	496·37	·69581
74	75	4·07134	117·85	378·52	·57809
75	76	3·97789	95·04	283·48	·45252
76	77	·87672	75·29	208·19	·31846
77	78	·76733	58·52	149·67	·17513
78	79	·64791	44·45	105·22	4·02210
79	80	·51820	32·98	72·24	3·85878
80	81	·37949	23·96	48·28	·68377
81	82	·22879	16·94	31·34	·49610
82	83	3·06664	11·66	19·68	·29403
83	84	2·88632	7·70	11·98	3·07846
84	85	·69665	4·97	7·01	2·84572
85	86	·48327	3·04	3·97	·59879
86	87	·25743	1·81	2·16	·33445
87	88	2·01362	1·03	1·13	2·05308
88	89	1·74675	·56	·57	1·75587
89	90	·46172	·29	·28	·44716
90	91	1·18044	·15	·13	1·11394
91	92	0·84701	·07	·06	0·77815
92	93	·55929	·03	·03	·47712
93	94	0·22421	·02	·01	0·00000
94	95	9·84806	·01	·00	...
95	96	9·30732	·00	·00	...
96	97	8·70917	·00	·00	...
97	98	8·03543	·00	·00	...

DIFFERENCE OF AGE, **2** YEARS.

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
22	24	6·75330	56663·06	581202·67	7·76433
23	25	·73053	53768·76	527433·91	·72216
24	26	·70060	50188·01	477245·90	·67875
25	27	·66395	46126·45	431119·45	·63460
26	28	·62643	42308·73	388810·72	·58974
27	29	·58826	38748·96	350061·76	·54414
28	30	·54946	35437·25	314624·51	·49779
29	31	·51081	32419·78	282204·73	·45056
30	32	·47178	29633·30	252571·43	·40238
31	33	·43195	27036·47	225534·96	·35320
32	34	·39098	24602·54	200932·42	·30304
33	35	·34894	22332·64	178599·78	·25188
34	36	·30472	20170·65	158429·13	·19984
35	37	·25949	18175·65	140253·48	·14690
36	38	·21289	16326·38	123927·10	·09318
37	39	·16558	14641·31	109285·79	7·03858
38	40	·11657	13078·86	96206·93	6·98321
39	41	6·06664	11658·43	84548·50	6·92711

2.

DIFFERENCE OF AGE, **2** YEARS—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
40	42	6·01513	10354·52	74193·98	6·87037
41	43	5·96275	9178·04	65015·94	·81302
42	44	·90910	8111·48	56904·46	·75514
43	45	·85467	7156·00	49748·46	·69678
44	46	·79952	6302·60	43445·86	·63795
45	47	·74402	5546·51	37899·35	·57863
46	48	·68466	4837·93	33061·42	·51932
47	49	·62201	4187·94	28873·48	·46049
48	50	·55625	3599·56	25273·92	·40267
49	51	·48766	3073·69	22200·23	·34635
50	52	·41639	2608·49	19591·74	·29208
51	53	·35044	2240·99	17350·75	·23932
52	54	·28905	1945·58	15405·17	·18766
53	55	·23228	1707·18	13697·99	·13666
54	56	·18066	1515·86	12182·13	·08572
55	57	·13197	1355·10	10827·03	6·03451
56	58	·08694	1221·63	9605·40	5·98252
57	59	·04518	1109·63	8495·77	·92920
58	60	5·00517	1011·98	7483·79	·87412
59	61	4·96622	925·17	6558·62	·81681
60	62	·92665	844·60	5714·02	·75694
61	63	·88447	766·43	4947·59	·69439
62	64	·83965	691·27	4256·32	·62903
63	65	·79168	618·98	3637·34	·56078
64	66	·74054	550·22	3087·12	·48955
65	67	·68645	485·79	2601·33	·41519
66	68	·63076	427·33	2174·00	·33726
67	69	·57239	373·59	1800·41	·25537
68	70	·51095	324·30	1476·11	·16912
69	71	·44581	279·13	1196·98	5·07809
70	72	·37548	237·40	959·58	4·98208
71	73	·30221	200·54	759·04	·88026
72	74	·22263	166·97	592·07	·77237
73	75	·13925	137·80	454·27	·65731
74	76	4·04730	111·51	342·76	·53499
75	77	3·94994	89·11	253·65	·40423
76	78	·84361	69·76	183·89	·26456
77	79	·72910	53·59	130·30	4·11494
78	80	·59381	39·25	91·05	3·95928
79	81	·46832	29·40	61·65	·78993
80	82	·32340	21·06	40·59	·60842
81	83	3·16587	14·65	25·94	·41397
82	84	2·99660	9·92	16·02	3·20466
83	85	·80881	6·44	9·58	2·98137
84	86	·61142	4·09	5·49	·73957
85	87	·38958	2·45	3·04	·48287
86	88	2·15249	1·42	1·62	2·20952
87	89	1·89973	·79	·83	1·91908
88	90	·62220	·42	·41	·61278
89	91	·32918	·21	·20	1·30103
90	92	1·03351	·11	·09	0·95424
91	93	0·70838	·05	·04	·60206
92	94	0·41225	·03	·01	0·00000

2.

Table XXVIII.—(*continued.*)

DIFFERENCE OF AGE, **2** YEARS—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
93	95	0·06028	·01	·00	...
94	96	9·64368	·00	·00	...
95	97	9·04460	·00	·00	...
96	98	8·37024	·00	·00	...
97	99	7·49584	·00	·00	...

DIFFERENCE OF AGE, **3** YEARS.

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
21	24	6·76487	58192·90	606528·12	7·78285
22	25	·74262	55286·61	551241·51	·74134
23	26	·71337	51685·65	499555·86	·69859
24	27	·67786	47627·74	451928·12	·65507
25	28	·64180	43832·88	408095·24	·61077
26	29	·60468	40242·04	367853·20	·56567
27	30	·56669	36871·43	330981·77	·51980
28	31	·52854	33770·70	297211·07	·47306
29	32	·48985	30892·28	266328·79	·42542
30	33	·44981	28171·50	238157·29	·37687
31	34	·40867	25625·36	212531·93	·32742
32	35	·36690	23275·55	189256·38	·27706
33	36	·32345	21059·59	168196·79	·22583
34	37	·27853	18990·22	149206·57	·17380
35	38	·23283	17093·46	132113·11	·12094
36	39	·18626	15355·36	116757·75	·06729
37	40	·13871	13762·90	102994·85	7·01280
38	41	·08946	12287·40	90707·446	6·95764
39	42	6·03929	10946·87	79760·576	·90179
40	43	5·98810	9729·712	70030·864	·84529
41	44	·93607	8631·177	61399·687	·78817
42	45	·88252	7629·920	53769·767	·73054
43	46	·82850	6737·519	47032·248	·67239
44	47	·77345	5935·400	41096·848	·61381
45	48	·71542	5193·020	35903·828	·55514
46	49	·65329	4500·803	31403·025	·49697
47	50	·58797	3872·309	27530·716	·43982
48	51	·51960	3308·263	24222·453	·38421
49	52	·44847	2808·471	21413·982	·33070
50	53	·38182	2408·907	19005·075	·27887
51	54	·32112	2094·691	16910·384	·22814
52	55	·26416	1837·215	15073·168	·17820
53	56	·21250	1631·173	13441·995	·12846
54	57	·16483	1461·605	11980·390	·07846
55	58	·12090	1320·991	10659·399	6·02772
56	59	·08004	1202·375	9457·024	5·97575
57	60	·04134	1099·867	8357·157	·92206
58	61	5·00413	1009·555	7347·602	·86615
59	62	4·96655	925·870	6421·732	·80765
60	63	·92597	843·277	5578·455	·74652
61	64	·88286	763·590	4814·865	·68259
62	65	·83650	686·278	4128·587	·61580
63	66	·78679	612·054	3516·533	·54611
64	67	4·73405	542·063	2974·470	5·47341

3.

DIFFERENCE OF AGE, **3** YEARS—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
65	68	4·67970	478·300	2496·170	5·39728
66	69	·62287	419·633	2076·537	·31733
67	70	·56310	365·679	1710·858	·23322
68	71	·49972	316·024	1394·834	·14451
69	72	·43212	270·471	1124·363	5·05092
70	73	·36027	229·229	895·134	4·95189
71	74	·28460	192·575	702·559	·84668
72	75	·20229	159·327	543·232	·73498
73	76	·11520	130·377	412·855	·61580
74	77	4·01935	104·556	308·299	·48897
75	78	3·91683	82·571	225·728	·35359
76	79	·80538	63·882	161·846	·20911
77	80	·68500	48·417	113·429	4·05473
78	81	·55393	35·804	77·625	3·89000
79	82	·41223	25·836	51·789	·71424
80	83	·26048	18·217	33·572	·52598
81	84	3·09583	12·469	21·103	·32434
82	85	2·91909	8·300	12·803	3·10731
83	86	·72358	5·292	7·511	2·87570
84	87	·51773	3·294	4·217	·62500
85	88	·28464	1·926	2·291	·36003
86	89	2·03860	1·093	1·198	2·07846
87	90	1·77518	·596	·602	1·77960
88	91	·48966	·309	·293	·46687
89	92	1·18225	·152	·141	1·14922
90	93	0·89488	·077	·064	0·80618
91	94	·56134	·036	·028	·44716
92	95	0·24832	·018	·010	0·00000
93	96	9·85590	·007	·003	9·47712
94	97	9·38096	·002	·001	9·00000
95	98	8·70567	·001	·000	...
96	99	7·83065	·000	·000	...
97	100	6·95139	·000	·000	...

DIFFERENCE OF AGE, **4** YEARS.

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
20	24	6·77612	59720·03	632040·30	7·80074
21	25	·75419	56779·30	575261·00	·75986
22	26	·72546	53144·70	522116·30	·71777
23	27	·69063	49048·98	473067·32	·67493
24	28	·65571	45259·53	427807·79	·63125
25	29	·62005	41691·74	386116·05	·58672
26	20	·58311	38292·17	347823·88	·54135
27	31	·54577	35137·43	312686·45	·49511
28	32	·50758	32179·55	280506·90	·44795
29	33	·46788	29368·38	251138·52	·39992
30	34	·42653	26701·15	224437·37	·35110
31	35	·38459	24243·20	200194·17	·30144
32	36	·34141	21948·76	178245·41	·25103
33	37	·29726	19827·14	158418·27	·19981
34	38	·25187	17859·53	140558·74	·14786
35	39	6·20620	16076·81	124481·93	7·09510

4.

Table XXVIII.—(*continued.*)

DIFFERENCE OF AGE, **4** YEARS—(*continued.*)

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
36	40	6·15940	14434·44	110047·488	7·04159
37	41	·11160	12930·040	97117·448	6·98730
38	42	·06211	11537·450	85579·998	·93237
39	43	6·01226	10286·320	75293·678	·87676
40	44	5·96142	9149·977	66143·701	·82049
41	45	·90949	8118·766	58024·935	·76362
42	46	·85635	7183·730	50841·205	·70621
43	47	·80243	6344·976	44496·229	·64832
44	48	·74485	5557·123	38939·106	·59038
45	49	·68405	4831·144	34106·962	·53284
46	50	·61925	4161·501	29946·461	·47634
47	51	·55132	3558·935	26387·526	·42141
48	52	·48041	3022·804	23364·722	·36857
49	53	·41390	2593·582	20771·140	·31746
50	54	·35250	2251·645	18519·495	·26762
51	55	·29623	1978·017	16541·478	·21856
52	56	·24438	1755·416	14786·062	·16985
53	57	·19667	1572·787	13213·275	·12100
54	58	·15376	1424·820	11788·455	·07144
55	59	·11400	1300·170	10488·285	6·02069
56	60	·07620	1191·791	9296·494	5·96832
57	61	·04030	1097·236	8199·228	·91377
58	62	5·00446	1010·322	7188·936	·85666
59	63	4·96587	924·421	6264·515	·79689
60	64	·92436	840·156	5424·359	·73435
61	65	·87971	758·071	4666·288	·66897
62	66	·83161	678·594	3987·694	·60072
63	67	·78030	602·976	3384·718	·52952
64	68	·72730	533·703	2851·015	·45500
65	69	·67181	469·689	2381·326	·37681
66	70	·61358	410·752	1970·574	·29458
67	71	·55187	356·344	1614 230	·20796
68	72	·48603	306·217	1308·013	·11661
69	73	·41691	261·162	1046·851	5·01991
70	74	·34266	220·120	826·731	4·91736
71	75	·26426	183·764	642·967	·80819
72	76	·17826	150·751	492·216	·69216
73	77	4·08724	122·248	369·968	·56817
74	78	3·98624	96·881	273·087	·43631
75	79	·87860	75·614	197·473	·29550
76	80	·76028	57·714	139·759	4·14538
77	81	·63512	43·164	96·595	3·98495
78	82	·49784	31·466	65·129	·81377
79	83	·34931	22·352	42·777	·63121
80	84	·19044	15·504	27·273	·43573
81	85	3·01832	10·431	16·842	·22639
82	86	2·83386	6·821	10·021	3·00091
83	87	·62989	4·265	5·756	2·76012
84	88	·41279	2·587	3·169	·50092
85	89	2·17075	1·482	1·687	2·22712
86	90	1·91405	·820	·867	1·93802
87	91	·64264	·439	·428	·63144
88	92	1·34273	·220	·208	1·31806

4.

DIFFERENCE OF AGE, **4** YEARS—(*continued.*)

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
89	93	1·04362	·111	·097	0·98677
90	94	0·74784	·056	·041	·61278
91	95	·39741	·025	·016	0·20412
92	96	0·04394	·011	·005	9·69897
93	97	9·59318	·004	·001	9·00000
94	98	9·04203	·001	·000	...
95	99	8·16608	·000	·000	...
96	100	7·28620	·000	·000	...
97	101	6·02668	·000	·000	...

DIFFERENCE OF AGE, **5** YEARS.

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
19	24	6·78732	61280·18	657696·52	7·81803
20	25	·76544	58269·33	599427·19	·77074
21	26	·73703	54579·56	544847·63	·73628
22	27	·70272	50433·60	494414·03	·69409
23	28	·66848	46610·10	447803·93	·65108
24	29	·63396	43048·70	404755·23	·60720
25	30	·59848	39671·63	365083·60	·56239
26	31	·56219	36491·36	328592·24	·51665
27	32	·52481	33481·89	295110·35	·46998
28	33	·48561	30592·15	264518·20	·42246
29	34	·44460	27835·56	236682·64	·37416
30	35	·40245	25260·97	211421·67	·32515
31	36	·35910	22861·25	188560·42	·27545
32	37	·31522	20664·27	167896·15	·22505
33	38	·27060	18646·61	149249·54	·17391
34	39	·22524	16797·32	132452·22	·12205
35	40	·17934	15112·63	117339·59	·06945
36	41	·13228	13560 63	103778·76	7·01611
37	42	·08425	12140·88	91637·88	6·96208
38	43	6·03508	10841·27	80796·61	·90740
39	44	5·98558	9673·42	71123·19	·85201
40	45	·93484	8606·77	62516·42	·79599
41	46	·88332	7643·99	54872·43	·73935
42	47	·83028	6765·19	48107·24	·68221
43	48	·77383	5940·60	42166·64	·62497
44	49	·71348	5169·87	36996·77	·56817
45	50	·65001	4466·95	32529·82	·51228
46	51	·58260	3824·72	28705·10	·45796
47	52	·51213	3251·85	25453 25	·40574
48	53	·44584	2791·52	22661·73	·35530
49	54	·38458	2424·26	20237·47	·30615
50	55	·32761	2126·23	18111·24	·25794
51	56	·27645	1889·95	16221·29	·21008
52	57	·22855	1692·58	14528·71	·16224
53	58	·18560	1533·20	12995·51	·11381
54	59	·14686	1402·36	11593·15	·06420
55	60	·11016	1288·72	10304·43	6·01301
56	61	·07516	1188·94	9115·49	5·95978
57	62	·04063	1098·07	8017·42	·90403
58	63	5·00378	1008·74	7008·68	5·84564

5.

XXVIII.—(*continued.*)

Difference of Age, 5 Years—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	*x*.				
59	64	4·96426	921·00	6087·68	5·78445
60	65	·92121	834·08	5253·60	·72046
61	66	·87482	749·58	4504·02	·65360
62	67	·82512	668·53	3835·49	·58382
63	68	·77355	593·68	3241·81	·51079
64	69	·71941	524·10	2717·71	·43420
65	70	·66252	459·75	2257·96	·35372
66	71	·60235	400·27	1857·69	·26898
67	72	·53818	345·29	1512·40	·17967
68	73	·47082	295·68	1216·72	5·08518
69	74	·39930	250·82	965·90	4·98493
70	75	·32232	210·05	755·85	·87844
71	76	·24023	173·87	581·98	·76491
72	77	·15030	141·35	440·63	·64407
73	78	4·05413	113·27	327·36	·51503
74	79	3·94801	88·72	238·64	·37774
75	80	·83450	68·31	170·33	·23129
76	81	·71140	51·45	118·88	4·07511
77	82	·57903	37·93	80·95	3·90822
78	83	·43492	27·22	53·73	·73022
79	84	·27927	19·02	34·71	·54045
80	85	3·11293	12·97	21·74	·33726
81	86	2·93309	8·57	13·17	3·11959
82	87	·74017	5·50	7·67	2·88480
83	88	·52495	3·35	4·32	·63548
84	89	·29890	1·99	2·33	·36736
85	90	2·04620	1·11	1·22	2·08636
86	91	1·78151	·60	·62	1·79239
87	92	·49571	·31	·31	·49136
88	93	1·20410	·16	·15	1·17609
89	94	0·89658	·08	·07	0·84510
90	95	·58391	·04	·03	·47712
91	96	0·19303	·02	·01	0·00000
92	97	9·78122	·01	·00	...
93	98	9·25425	·00	·00	...
94	99	8·50244	·00	·00	...
95	100	7·62163	·00	·00	...
96	101	6·36149	·00	·00	...

Difference of Age, 6 Years.

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	*x*.				
18	24	6·79748	62730·680	683534·487	7·83476
19	25	·77664	59791·580	623742·907	·79500
20	26	·74828	56011·860	567731·047	·75414
21	27	·71429	51795·260	515935·787	·71260
22	28	·68057	47925·870	468009·917	·67026
23	29	·64673	44333·290	423676·627	·62704
24	30	·61239	40962·830	382713·797	·58287
25	31	·57756	37805·940	344907·857	·53771
26	32	·54123	34772·030	310135·827	·49156
27	33	·50284	31830·250	278305·577	·44453
28	34	6·46233	28995·460	249310·117	7·39674

Difference of Age, 6 Years—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	*x*.				
29	35	6·42052	26334·190	222975·927	7·34827
30	36	·37696	23821·000	199154·927	·29918
31	37	·33291	21523·360	177631·567	·24952
32	38	·28856	19433·900	158197·667	·19921
33	39	·24397	17537·590	140660·077	·14817
34	40	·19838	15789·920	124870·157	·09646
35	41	·15222	14197·770	110672·387	7·04403
36	42	·10493	12732·980	97939·407	6·99096
37	43	·05722	11408·280	86525·887	·93715
38	44	6·00840	10195·300	76330·587	·88270
39	45	5·95900	9099·133	67231·454	·82757
40	46	·90867	8103·451	59128·003	·77179
41	47	·85725	7198·632	51929·371	·71541
42	48	·80168	6334·028	45595·343	·65892
43	49	·74246	5526·625	40068·718	·60281
44	50	·67944	4780·133	35288·585	·54764
45	51	·61336	4105·443	31183·142	·49392
46	52	·54341	3494·701	27688·441	·44229
47	53	·47756	3003·032	24685·409	·39243
48	54	·41652	2609·877	22075·532	·34392
49	55	·35969	2289·233	19786·299	·29636
50	56	·30783	2031·562	17754·737	·24932
51	57	·26062	1822·301	15932·436	·20227
52	58	·21748	1649·985	14282·451	·15479
53	59	·17870	1509·037	12773·414	·10629
54	60	·14302	1390·017	11383·397	·05626
55	61	·10912	1285·642	10097·755	6·00424
56	62	·07549	1189·844	8907·911	5·94978
57	63	·03995	1096·352	7811·559	·89274
58	64	5·00217	1005·009	6806·550	·83293
59	65	4·96111	914·345	5892·205	·77028
60	66	·91632	824·746	5067·459	·70479
61	67	·86833	738·465	4328·994	·63639
62	68	·81837	658·218	3670·776	·56476
63	69	·76566	582·989	3087·787	·48965
64	70	·71012	513·003	2574·784	·41074
65	71	·65129	448·012	2126·772	·32773
66	72	·58866	387·847	1738·925	·24027
67	73	·52297	333·403	1405·522	·14783
68	74	·45321	283·929	1121·593	5·04984
69	75	·37896	239·310	882·283	4·94561
70	76	·29829	198·742	683·541	·83476
71	77	·21227	163·031	520·510	·71643
72	78	·11719	130·975	389·535	·59055
73	79	4·01590	103·729	285·806	·45608
74	80	3·90391	80·151	205·655	·31315
75	81	·78462	60·900	144·755	4·16065
76	82	·65531	45·218	99·537	3·99798
77	83	·51611	32·818	66·719	·82425
78	84	·36488	23·168	43·551	·63900
79	85	·20176	15·913	27·638	·44151
80	86	3·02770	10·659	16·979	·22991
81	87	2·83930	6·907	10·072	3·00312

Table XXVIII.—*(continued.)*

Difference of Age, 6 Years—*(continued.)*

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
82	88	2·63523	4·317	5·755	2·76005
83	89	·41106	2·577	3·178	·50215
84	90	2·17436	1·494	1·684	2·22634
85	91	1·91366	·820	·864	1·93651
86	92	·63458	·431	·433	·63649
87	93	·35708	·228	·205	1·31175
88	94	1·05706	·114	·091	0·95904
89	95	0·73265	·054	·037	·56820
90	96	0·37953	·024	·013	0·11394
91	97	9·93031	·009	·004	9·60206
92	98	9·44229	·003	·001	9·00000
93	99	8·71466	·001	·000	...
94	100	7·95799	·000	·000	...
95	101	6·69692	·000	·000	...

Difference of Age, 7 Years.

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
17	24	6·80748	64191·87	709419·41	7·85090
18	25	·78680	61206·85	648212·56	·81172
19	26	·75948	57475·13	590737·43	·77140
20	27	·72554	53154·50	537582·93	·73044
21	28	·69214	49219·82	488363·11	·68874
22	29	·65882	45584·79	442778·32	·64619
23	30	·62516	42185·19	400593·13	·60270
24	31	·59147	39036·42	361556·71	·55818
25	32	·55660	36024·67	325532·04	·51259
26	33	·51926	33056·74	292475·30	·46610
27	34	·47956	30168·94	262306·36	·41881
28	35	·43825	27431·53	234874·83	·37083
29	36	·39503	24833·05	210041·78	·32230
30	37	·35077	22426·94	187614·84	·27326
31	38	·30625	20241·84	167373·00	·22368
32	39	·26193	18278·06	149094·94	·17345
33	40	·21710	16485·42	132609·52	·12258
34	41	·17126	14834·06	117775·46	·07107
35	42	·12487	13331·22	104444·24	7·01887
36	43	·07790	11964·65	92479·59	6·96605
37	44	6·03054	10728·52	81751·07	·91249
38	45	5·98182	9590·03	72161·04	·85830
39	46	·93283	8567·02	63594·02	·80342
40	47	·88260	7631·33	55962·69	·74790
41	48	·82865	6739·85	49222·84	·69217
42	49	·77031	5892·64	43330·20	·63679
43	50	·70842	5109·99	38220·21	·58229
44	51	·64279	4393·29	33826·92	·52926
45	52	·57417	3751·20	30075·72	·47822
46	53	·50884	3227·30	26848·42	·42891
47	54	·44824	2806·98	24041·44	·38095
48	55	·39163	2463·94	21577·50	·33401
49	56	·33991	2187·31	19390·19	·28758
50	57	·29200	1958·84	17431·35	·24132
51	58	5·24955	1776·44	15654·90	6·19465

Difference of Age, 7 Years—*(continued.)*

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
52	59	5·21058	1623·98	14030·93	6·14709
53	60	·17486	1495·75	12535·18	·09812
54	61	·14198	1386·69	11148·49	6·04720
55	62	·10945	1286·62	9861·87	5·99396
56	63	·07481	1187·98	8673·89	·93821
57	64	5·03834	1092·30	7581·59	·87976
58	65	4·99902	997·75	6583·84	·81848
59	66	·95622	904·11	5679·73	·75433
60	67	·90983	812·51	4867·22	·68728
61	68	·86158	727·08	4140·14	·61701
62	69	·81048	646·37	3493·77	·54330
63	70	·75637	570·65	2923·12	·46584
64	71	·69889	499·91	2423·20	·38439
65	72	·63760	434·11	1989·10	·29866
66	73	·57345	374·50	1614·60	·20806
67	74	·50536	320·15	1294·45	·11210
68	75	·43287	270·94	1023·51	5·01009
69	76	·35493	226·43	797·08	4·90150
70	77	·27033	186·35	610·73	·78585
71	78	·17916	151·06	459·67	·66245
72	79	4·07896	119·94	339·73	·53113
73	80	3·97180	93·71	246·02	·39097
74	81	·85403	71·45	174·57	·24197
75	82	·72853	53·52	121·05	4·08296
76	83	·59239	39·12	81·93	3·91344
77	84	·44607	27·93	54·00	·73239
78	85	·28737	19·38	34·62	·53933
79	86	3·11653	13·08	21·54	·33325
80	87	2·93401	8·59	12·95	3·11227
81	88	·73446	5·43	7·52	2·87622
82	89	·52134	3·32	4·20	·62325
83	90	·28652	1·93	2·27	·35603
84	91	2·04181	1·10	1·17	2·06819
85	92	1·76673	·58	·59	1·77085
86	93	·49595	·31	·28	·44716
87	94	1·21004	·16	·12	1·07918
88	95	0·89313	·08	·04	0·60206
89	96	·52827	·03	·01	0·00000
90	97	0·11681	·01	·00	...
91	98	9·59138	·00	·00	...
92	99	8·90270	·00	·00	...
93	100	8·17021	·00	·00	...
94	101	7·03328	·00	·00	...

Difference of Age, 8 Years.

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
16	24	6·81651	65540·54	735373·85	7·86651
17	25	·79680	62632·54	672741·31	·82785
18	26	·76964	58835·57	613905·74	·78810
19	27	·73674	54543·12	559362·62	·74769
20	28	·70339	50511·47	508851·15	·70659
21	29	6·67039	46815·54	462035·61	7·66468

Table XXVIII.—(*continued.*)

Difference of Age, 8 Years—(*continued.*)

Ages.		$\lambda.H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda.K_{x,y}$
y.	x.				
22	30	6·63725	43376·05	418659·56	7·62186
23	31	·60424	40201·29	378458·27	·57802
24	32	·57051	37197·18	341261·09	·53309
25	33	·53463	34247·59	307013·50	·48715
26	34	·49598	31331·41	275682·09	·44041
27	35	·45548	28541·71	247140·38	·39294
28	36	·41276	25867·83	221272·55	·34492
29	37	·36884	23379·76	197892·79	·29642
30	38	·32411	21091·62	176801·17	·24748
31	39	·27962	19037·94	157763·23	·19800
32	40	·23506	17181·46	140581·77	·14792
33	41	·18999	15487·81	125093·96	·09722
34	42	·14391	13928·68	111165·28	7·04599
35	43	·09784	12526·80	98638·48	6·99404
36	44	·05122	11251·75	87386·731	·94145
37	45	6·00396	10091·60	77295·131	·88815
38	46	5·95565	9029·215	68265·916	·83420
39	47	·90676	8067·891	60198·025	·77958
40	48	·85400	7144·963	53053·062	·72471
41	49	·79728	6270·180	46782·882	·67009
42	50	·73627	5448·413	41334·469	·61631
43	51	·67177	4696·453	36638·016	·56393
44	52	·60360	4014·209	32623·807	·51354
45	53	·53960	3464·176	29159·631	·46479
46	54	·47952	3016·616	26143·015	·41736
47	55	·42335	2650·635	23492·380	·37092
48	56	·37185	2354·236	21138·144	·32506
49	57	·32408	2109·017	19029·127	·27942
50	58	·28093	1909·545	17119·582	·23350
51	59	·24265	1748·437	15371·145	·18670
52	60	·20674	1609·682	13761·463	·13865
53	61	·17382	1492·176	12269·287	·08881
54	62	·14231	1387·746	10881·541	6·03671
55	63	·10877	1284·606	9596·935	5·98213
56	64	·07320	1183·586	8413·349	·92497
57	65	5·03519	1084·401	7328·948	·86504
58	66	4·99413	986·575	6342·373	·80225
59	67	·94973	890·697	5451·676	·73653
60	68	·90308	799·982	4651·694	·66761
61	69	·85369	713·986	3937·708	·59524
62	70	·80119	632·689	3305·019	·51917
63	71	·74513	556·071	2748·948	·43916
64	72	·68520	484·395	2264·553	·35499
65	73	·62239	419·170	1845·383	·26609
66	74	·55584	359·617	1485·766	·17196
67	75	·48502	305·506	1180·260	5·07199
68	76	·40885	256·360	923·900	4·96563
69	77	·32697	212·310	711·590	·85223
70	78	·23722	172·671	538·919	·73152
71	79	·14093	138·334	400·585	·60270
72	80	4·03486	108·358	292·227	·46572
73	81	3·92192	83·545	208·682	·31948
74	82	3·79794	62·797	145·885	4·16403
75	83	3·66561	46·303	99·582	3·99818
76	84	·52235	33·293	66·289	·82144
77	85	·36856	23·365	42·924	·63270
78	86	·20214	15·927	26·997	·43132
79	87	3·02284	10·540	16·457	3·21635
80	88	2·82907	6·746	9·711	2·98726
81	89	·62057	4·174	5·537	·74327
82	90	·39680	2·493	3·044	·48344
83	91	2·15397	1·426	1·618	2·20898
84	92	1·89488	·785	·833	1·92065
85	93	·62810	·425	·408	·61066
86	94	·34891	·223	·185	1·26717
87	95	1·04611	·111	·074	0·86923
88	96	0 68875	·049	·025	0·39794
89	97	0·26555	·018	·007	9·84510
90	98	9·77788	·006	·001	9·00000
91	99	9·05179	·001	·000	...
92	100	8·35825	·000	·000	...
93	101	7·24550	·000	·000	...

Difference of Age, 9 Years.

Ages.		$\lambda.H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda.K_{x,y}$
y.	x.				
15	24	6·82516	66859·02	761276·15	7·88154
16	25	·80583	63948·45	697327·70	·84344
17	26	·77964	60206·03	637121·67	·80422
18	27	·74690	55834·16	581287·51	·76436
19	28	·71459	51831·05	529456·46	·72383
20	29	·68164	48044·09	481412·37	·68252
21	30	·64882	44547·16	436865·21	·64035
22	31	·61633	41336·15	395529·06	·59718
23	32	·58328	38307·16	357221·90	·55294
24	33	·54854	35362·26	321859·64	·50767
25	34	·51134	32459·36	289400·28	·46150
26	35	·47190	29641·49	259758·79	·41457
27	36	·42999	26914·73	232844·06	·36706
28	37	·38657	24353·98	208490·98	·31909
29	38	·34218	21987·71	186502·37	·27068
30	39	·29748	19837·18	166665·19	·22186
31	40	·25275	17895·75	148769·44	·17252
32	41	·20795	16141·73	132627·71	·12264
33	42	·16264	14542·53	118085·18	·07221
34	43	·11688	13088·20	104996·98	7·02119
35	44	·07116	11780·40	93216·58	6·96950
36	45	6·02464	10583·76	82632·82	·91715
37	46	5·97779	9501·45	73131·37	·86410
38	47	·92958	8503·15	64628·22	·81042
39	48	·87816	7553·70	57074·52	·75644
40	49	·82263	6647·07	50427·45	·70266
41	50	·76324	5797·49	44629·96	·64963
42	51	·69962	5007·49	39622·47	·59794
43	52	·63258	4291·21	35331·26	·54816
44	53	5·56903	3707·06	31624·20	6·50002

Table XXVIII.—(*continued.*)

DIFFERENCE OF AGE, 9 YEARS—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	*x.*				
45	54	5·51028	3238·02	28386·18	6·45310
46	55	·45463	2848·59	25537·59	·40719
47	56	·40357	2532·62	23004·97	·36182
48	57	·35602	2269·97	20735·00	·31670
49	58	·31301	2055·94	18679·06	·27135
50	59	·27403	1879·45	16799·61	·22531
51	60	·23881	1733·05	15066·56	·17803
52	61	·20570	1605·83	13460·73	·12908
53	62	·17415	1493·31	11967·42	·07799
54	63	·14163	1385·57	10581·85	6·02457
55	64	·10716	1279·85	9302·00	5·96858
56	65	·07005	1175·03	8126·97	·90993
57	66	5·03030	1072·26	7054·71	·84848
58	67	4·98764	971·94	6082·77	·78410
59	68	·94298	876·96	5205·81	·71649
60	69	·89519	785·58	4420·23	·64544
61	70	·84440	698·88	3721·35	·57071
62	71	·78995	616·52	3104·83	·49203
63	72	·73144	538·82	2566·01	·40926
64	73	·66999	467·72	2098·29	·32187
65	74	·60478	402·51	1695·78	·22937
66	75	·53550	343·16	1352·62	·13117
67	76	·46100	289·07	1063·55	5·02678
68	77	·38089	240·38	823·17	4·91549
69	78	·29388	196·73	626·44	·79688
70	79	·19899	158·12	468·32	·67054
71	80	4·09683	124·98	343·34	·53572
72	81	3·98498	96·60	246·74	·39221
73	82	·86583	73·42	173·32	·23885
74	83	·73502	54·33	118·99	4·07551
75	84	·59557	38·51	80·48	3·90569
76	85	·44484	27·85	52·63	·72123
77	86	·28333	19·20	33·43	·52414
78	87	3·10845	12·84	20·59	·31366
79	88	2·91790	8·28	12·31	3·09026
80	89	·71518	5·19	7·12	2·85248
81	90	·49603	3·13	3·99	·60097
82	91	·26425	1·84	2·15	·33244
83	92	2·00704	1·02	1·13	2·05308
84	93	1·75625	·57	·56	1·74819
85	94	·48106	·30	·26	·41497
86	95	1·18498	·15	·11	1·04139
87	96	0·84173	·07	·04	0·60206
88	97	0·42603	·03	·01	0·00000
89	98	9·92662	·01	·00	...
90	99	9·23829	·00	·00	...
91	100	8·50734	·00	·00	...
92	101	7·43354	·00	·00	...

9.

DIFFERENCE OF AGE, 10 YEARS.

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	*x.*				
14	24	6·83273	68034·63	787101·71	7·89603
15	25	·81448	65234·90	721866·81	·85846
16	26	·78867	61470·96	660395·85	·81981
17	27	·75690	57134·71	603261·14	·78050
18	28	·72475	53057·89	550203·25	·74052
19	29	·69284	49299·21	500904·04	·69975
20	30	·66007	45716·19	455187·85	·65819
21	31	·62790	42452·18	412735·67	·61568
22	32	·59537	39388·55	373347·12	·57212
23	33	·56131	36417·49	336929·63	·52754
24	34	·52525	33515·83	303413·80	·48203
25	35	·48726	30708·60	272705·20	·43570
26	36	·44641	27951·81	244753·39	·38872
27	37	·40380	25339·61	219413·78	·34126
28	38	·35991	22903·93	196509·85	·29338
29	39	·31555	20679·97	175829·85	·24509
30	40	·27061	18647·04	157182·84	·19640
31	41	·22564	16812·80	140370·04	·14727
32	42	·18060	15156·54	125213·50	·09764
33	43	·13561	13665·01	111548·49	7·04747
34	44	·09020	12308·35	99240·14	6·99669
35	45	6·04458	11081·03	88159·11	·94527
36	46	5·99847	9964·83	78194·28	·89317
37	47	·95172	8947·88	69246·40	·84039
38	48	·90098	7961·23	61285·17	·78735
39	49	·84679	7027·32	54257·85	·73446
40	50	·78859	6145·96	48111·89	·68225
41	51	·72659	5328·32	42783·57	·63128
42	52	·66043	4575·41	38208·16	·58215
43	53	·59801	3962·87	34245·29	·53460
44	54	·53971	3465·05	30780·24	·48827
45	55	·48539	3057·67	27722·57	·44284
46	56	·43485	2721·76	25000·81	·39796
47	57	·38774	2441·97	22558·84	·35332
48	58	·34495	2212·84	20346·00	·30848
49	59	·30611	2023·53	18322·47	·26297
50	60	·27019	1862·90	16459·57	·21643
51	61	·23777	1728·90	14730·67	·16823
52	62	·20603	1607·05	13123·62	·11807
53	63	·17347	1490·97	11632·65	·06569
54	64	·14002	1380·45	10252·20	6·01081
55	65	·10401	1270·60	8981·60	5·95335
56	66	·06516	1161·88	7819·72	·89319
57	67	5·02381	1056·36	6763·36	·83017
58	68	4·98089	956·95	5806·41	·76391
59	69	·93509	861·17	4945·24	·69418
60	70	·88590	768·95	4176·29	·62079
61	71	·83316	681·02	3495·27	·54348
62	72	·77626	597·39	2897·88	·46208
63	73	·71623	520·27	2377·61	·37614
64	74	·65238	449·14	1928·47	·28522
65	75	·58444	384·10	1544·37	·18876
66	76	4·51148	324·70	1219·67	5·08625

10.

XXVIII.—(*continued.*)

DIFFERENCE OF AGE, **10** YEARS—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
67	77	4·43304	271·04	948·63	4·97710
68	78	·34777	222·73	725·90	·86088
69	79	·25563	180·15	545·75	·73699
70	80	·15489	142·85	402·90	·60520
71	81	4·04695	111·42	291·48	·46461
72	82	3·92889	84·90	206·58	·31509
73	83	·80291	63·52	143·06	4·15552
74	84	·66498	46·24	96·82	3·88547
75	85	·51806	32·97	63·85	·80516
76	86	·35961	22·89	40·96	·61236
77	87	·18964	15·48	25·48	·40620
78	88	3·00351	10·08	15·40	3·18752
79	89	2·80401	6·37	9·03	2·95569
80	90	·59064	3·90	5·13	·71012
81	91	·36348	2·31	2·82	·45025
82	92	2·11732	1·31	1·51	2·17898
83	93	1·86841	·74	·77	1·88649
84	94	·60921	·41	·36	·55630
85	95	1·31713	·21	·15	1·17609
86	96	0·98060	·10	·05	0·69897
87	97	·57901	·04	·01	0·00000
88	98	0·08710	·01	·00	...
89	99	9·38703	·00	·00	...
90	100	8·69384	·00	·00	...
91	101	7·58263	·00	·00	...

DIFFERENCE OF AGE, **11** YEARS.

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
14	25	6·82205	66381·95	746332·79	7·87293
15	26	·79732	62707·57	683625·22	·83482
16	27	·76593	58335·11	625290·11	·79608
17	28	·73475	54293·77	570996·34	·75664
18	29	·70300	50466·13	520530·21	·71645
19	30	·67127	46910·49	473619·72	·67543
20	31	·63915	43566·23	430053·49	·63352
21	32	·60694	40452·00	389601·49	·59062
22	33	·57340	37445·53	352155·96	·54674
23	34	·53803	34516·76	317639·20	·50194
24	35	·50117	31708·08	285931·12	·45626
25	36	·46178	28958·76	256972·36	·40988
26	37	·42022	26316·01	230656·35	·36297
27	38	·37714	23830·88	206825·47	·31561
28	39	·33328	21541·70	185283·77	·26783
29	40	·28868	19439·27	165844·50	·21969
30	41	·24350	17518·62	148325·88	·17123
31	42	·19829	15786·65	132539·23	·12235
32	43	·15357	14241·97	118297·26	·07298
33	44	·10893	12850·80	105446·46	7·02305
34	45	·06362	11577·64	93868·82	6·97252
35	46	6·01841	10433·02	83435·80	·92135
36	47	5·97240	9384·26	74051·54	·86954
37	48	5·92312	8377·61	65673·93	6·81739

11.

DIFFERENCE OF AGE, **11** YEARS—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
38	49	5·86961	7406·45	58267·48	6·76542
39	50	·81275	6497·56	51769·92	·71408
40	51	·75194	5648·59	46121·33	·66390
41	52	·68740	4868·55	41252·78	·61546
42	53	·62586	4225·32	37027·46	·56852
43	54	·56869	3704·16	33323·30	·52274
44	55	·51483	3272·13	30051·17	·47786
45	56	·46561	2921·53	27129·64	·43345
46	57	·41902	2624·34	24505·30	·38925
47	58	·37667	2380·51	22124·79	·34488
48	59	·33805	2177·96	19946·83	·29988
49	60	·30227	2005·72	17941·11	·25385
50	61	·26915	1858·45	16082·66	·20637
51	62	·23810	1730·21	14352·45	·15388
52	63	·20535	1604·54	12747·91	·10544
53	64	·17186	1485·46	11262·45	6·05162
54	65	·13687	1370·47	9891·98	5·99528
55	66	·09912	1256·38	8635·60	·93629
56	67	·05867	1144·64	7490·96	·87454
57	68	5·01706	1040·06	6450·90	·80962
58	69	4·97300	939·72	5511·18	·74125
59	70	·92580	842·95	4668·23	·66915
60	71	·87467	749·32	3918·91	·59316
61	72	·81948	659·90	3259·01	·51308
62	73	·76106	576·85	2682·16	·42849
63	74	·69863	499·61	2182·55	·33897
64	75	·63205	428·60	1753·95	·24403
65	76	·56042	363·43	1390·52	·14317
66	77	·48352	304·45	1086·07	5·03587
67	78	·39993	251·15	834·92	4·92164
68	79	·30954	203·96	630·94	·79999
69	80	·21154	162·76	468·18	·67041
70	81	4·10502	127·36	340·82	·53253
71	82	3·99087	97·92	242·90	·38543
72	83	·86598	73·45	169·45	·22904
73	84	·73288	54·06	115·39	4·06217
74	85	·58748	38·68	76·71	3·88485
75	86	·43284	27·09	49·62	·69566
76	87	·26593	18·45	31·17	·49374
77	88	3·08471	12·15	19·02	·27921
78	89	2·88963	7·76	11·26	3·05154
79	90	·67948	4·78	6·48	2·81158
80	91	·45810	2·87	3·61	·55751
81	92	2·21656	1·65	1·96	·29226
82	93	1·97870	·95	1·01	2·00432
83	94	·72138	·53	·48	1·68124
84	95	·44529	·28	·20	1·30103
85	96	1·11276	·13	·07	0·84510
86	97	0·71789	·05	·02	0·30103
87	98	0·24009	·02	·00	...
88	99	9·54752	·00	·00	...
89	100	8·84259	·00	·00	...
90	101	7·76914	·00	·00	...

12.

Table XXVIII.—(*continued.*)

Difference of Age, 12 Years.

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
14	26	6·80489	63810·18	706786·16	7·84929
15	27	·77458	59508·64	647277·52	·81109
16	28	·74378	55434·48	591843·04	·77220
17	29	·71300	51641·64	540201·40	·73255
18	30	·68143	48020·87	492180·53	·69212
19	31	·65035	44704·37	447476·16	·65077
20	32	·61819	41513·56	405962·60	·60848
21	33	·58497	38456·52	367506·08	·56527
22	34	·55012	35491·14	332014·94	·52115
23	35	·51395	32655·02	299359·92	·47619
24	36	·47569	29901·30	269458·62	·43049
25	37	·43559	27264·03	242194·59	·38416
26	38	·39356	24749·13	217445·46	·33736
27	39	·35051	22413·52	195031·94	·29010
28	40	·30641	20249·30	174782·64	·24249
29	41	·26157	18262·91	156519·73	·19457
30	42	·21615	16449·40	140070·33	·14635
31	43	·17126	14834·06	125236·27	·09774
52	44	·12689	13393·37	111842·90	7·04860
33	45	·08235	12087·88	99755·02	6·99893
34	46	6·03745	10900·59	88854·43	·94868
35	47	5·99234	9825·17	79029·26	·89779
36	48	·94380	8786·18	70243·08	·84660
37	49	·89175	7793·81	62449·27	·79553
38	50	·83557	6848·10	55601·17	·74508
39	51	·77610	5971·73	49629·44	·69574
40	52	·71275	5161·19	44468·25	·64805
41	53	·65283	4496 04	39972·21	·60176
42	54	·59654	3949·48	36022·73	·55658
43	55	·54380	3497·84	32524·89	·51222
44	56	·49504	3126·37	29398·52	·46833
45	57	·44978	2816·96	26581·56	·42459
46	68	·40795	2558·29	24023·27	·38063
47	59	·36977	2342·99	21680 28	·33606
48	60	·33421	2158·79	19521·49	·29050
49	61	·30123	2000 92	17520·57	·24356
50	62	·26948	1859·86	15660·71	·19482
51	63	·23742	1727 51	13933 20	·14404
52	64	·20374	1598·60	12334·60	·09114
53	65	·16871	1474·72	10859·88	6 03583
54	66	·13198	1355·13	9504·75	5·97794
55	67	·09263	1237·74	8267·01	·91735
56	68	·05192	1126·99	7140·02	·85370
57	69	5·00917	1021·34	6118·68	·78666
58	70	4·96371	919·84	5198·84	·71590
59	71	·91457	821·43	4377·41	·64122
60	72	·86098	726·07	3651·34	·56245
61	73	·80427	637·19	3014·15	·47917
62	74	·74345	553·92	2460·23	·38025
63	75	·67829	476·75	1983·48	·29743
64	76	·60802	405·53	1577·95	·19811
65	77	·53246	340·77	1237·18	5·09244
66	78	4·45041	282·10	955·08	4·98004

Difference of Age, 12 Years—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
67	79	4·36170	229·98	725·10	4·86040
68	80	·26545	184·27	540·83	·73306
69	81	·16166	145·10	395·73	·59740
70	82	4·04893	111·93	283·80	·45301
71	83	3·92795	84·71	199·09	·29905
72	84	·79594	62·51	136·58	4·13539
73	85	·65537	45·22	91·36	3·96076
74	86	·50225	31·79	59·57	·77503
75	87	·33915	21·83	37·74	·57680
76	88	3·16099	14·49	23·25	·36642
77	89	2·97082	9·35	13·90	3·14301
78	90	·76509	5·82	8·08	2·90741
79	91	·54693	3·52	4·56	·65896
80	92	·31117	2·05	2·51	·39967
81	93	2·07793	1·20	1·31	2·11727
82	94	1·83166	·68	·63	1·79934
83	95	·55745	·36	·27	·43136
84	96	1·24091	·17	·10	1·00000
85	97	0·85004	·07	·03	0·47712
86	98	0·37896	·02	·01	0·00000
87	99	9·70050	·01	·00	...
88	100	9·00307	·00	·00	...
89	101	7·91788	·00	·00	...

Difference of Age, 13 Years.

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
14	27	6·78215	60555·00	669572·46	7·82580
15	28	·75243	56549·66	613022·80	·78747
16	29	·72203	52726·63	560296·17	·74842
17	30	·69143	49139·42	511156·75	·70857
18	31	·66051	45762·53	465394·22	·66782
19	32	·62939	42598·08	422796·14	·62614
20	33	·59622	39464·81	383331·33	·58357
21	34	·56169	36820·53	346510·80	·53972
22	35	·52604	33575·85	312933·95	·49545
23	36	·48846	30793·57	282140·38	·45046
24	37	·44950	28151·40	253988·98	·40482
25	38	·40893	25640·71	228348·27	·35860
26	39	·36693	23277·16	205071·11	·31190
27	40	·32364	21068·81	184002·30	·26482
28	41	·27930	19023·92	164978·38	·21743
29	42	·23422	17148·26	147830·12	·16976
30	43	·18912	15456·81	132373·31	·12179
31	44	·14458	13950·19	118423·12	·07343
32	45	·10031	12598·24	105824·88	7·02457
33	46	·05618	11380·99	94443·89	6·97517
34	47	6·01138	10265·50	84178·39	·92520
35	48	5·96374	9198·99	74979·40	·87494
36	49	·91243	8173·91	66805·49	·82481
37	50	·85771	7206·26	59599·23	·77524
38	51	·79892	6293·90	53305·33	·72677
39	52	5·73691	5456·45	47848·88	6·67987

Table XXVIII.—(*continued.*)

DIFFERENCE OF AGE, **13** YEARS—(*continued.*)

Ages.		$\lambda.H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda.K_{x,y}$
y.	x.				
40	53	5·67818	4766·28	43082·60	6·63431
41	54	·62351	4202·52	38880·08	·58973
42	55	·57165	3729·49	35150·59	·54594
43	56	·52402	3342·10	31808·49	·50254
44	57	·47921	3014·46	28794·03	·47398
45	58	·43871	2746·06	26047·97	·41577
46	59	·40105	2517·97	23530·00	·37162
47	60	·36593	2322·35	21207·65	·32650
48	61	·33317	2153·62	19054·03	·27999
49	62	·30156	2002·44	17051·59	·23178
50	63	·26880	1856·95	15194·64	·18170
51	64	·23581	1721·12	13473·52	·12950
52	65	·20059	1587·05	11886·47	·07504
53	66	·16382	1458·21	10428·26	6·01820
54	67	·12549	1335·03	9093·23	5·95872
55	68	·08588	1218·65	7874·58	·89623
56	69	5·04403	1106·70	6767·88	·83045
57	70	4·99988	999·72	5768·16	·76104
58	71	·95248	896·36	4871·80	·68769
59	72	·90088	795·94	4075·86	·61022
60	73	·84577	701·08	3374·78	·52825
61	74	·78666	611·87	2762·91	·44137
62	75	·72311	528·58	2234·33	·34914
63	76	·65426	451·09	1783·24	·25120
64	77	·58006	380·24	1403·00	·14706
65	78	·49935	315·75	1087·25	5·03635
66	79	·41218	258·33	828·92	4·91851
67	80	·31760	207·78	621·14	·79319
68	81	·21557	164·27	456·87	·65979
69	82	4·10557	127·52	329·35	·51766
70	83	3·98601	96·83	232·52	·36646
71	84	·85791	72·10	160·42	·20526
72	85	·71843	52·29	108·13	4.03395
73	86	·57014	37·17	70·96	3·85101
74	87	·40856	25·66	45·30	·65610
75	88	·23421	17·15	28·15	·44948
76	89	3·04710	11·15	17·00	3·23045
77	90	2·84628	7·02	9·98	2·99913
78	91	·63254	4·29	5·69	·75511
79	92	·40000	2·51	3·18	·50243
80	93	2·17254	1·49	1·69	2·22789
81	94	1·93089	·85	·84	1·92428
82	95	·66773	.47	·37	·56820
83	96	1·35307	·23	·14	1·14613
84	97	0·97819	·10	·04	0·60206
85	98	0·51111	·03	·01	0·00000
86	99	9·83937	·01	·00	...
87	100	9.15605	·00	·00	...
88	101	8·07836	·00	·00	...

DIFFERENCE OF AGE, **14** YEARS.

Ages.		$\lambda.H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda.K_{x,y}$
y.	x.				
14	28	6·76000	57543·99	633413·44	7·80168
15	29	·73068	53787·33	579626·11	·76315
16	30	·70046	50171·84	529454·27	·72383
17	31	·67051	46828·47	482625·80	·68361
18	32	·63955	43606·38	439019·42	·64248
19	33	·60742	40496·73	398522·69	·60045
20	34	·57294	37405·89	361116·80	·55765
21	35	·53761	34483·39	326633·41	·51406
22	36	·50055	31662·85	294970·56	·46978
23	37	·46227	28991·45	265979·11	·42485
24	38	·42284	26475·25	239503·86	·37931
25	39	·38230	24115·71	215388·15	·33323
26	40	·34006	21880·64	193507·51	·28670
27	41	·29653	19793·84	173713·67	·23982
28	42	·25195	17862·82	155850·85	·19271
29	43	·20719	16113·50	139737·35	·14532
30	44	·16244	14535·84	125201·51	·09760
31	45	·11800	13122·00	112079·51	·04953
32	46	·07414	11861·51	100218·00	7·00095
33	47	6·03011	10717·91	89500·09	6·95182
34	48	5·98278	9611·25	79888·84	·90249
35	49	·93237	8557·96	71330·88	·85328
36	50	·87839	7557·71	63773·17	·80464
37	51	·82106	6623·08	57150·09	·75702
38	52	·75973	5750·82	51399·27	·71095
39	53	·70234	5038·95	46360·32	·66614
40	54	·64886	4455·13	41905·19	·62227
41	55	·59862	3968·44	37936·75	·57906
42	56	·55187	3563·44	34373·31	·53622
43	57	·50819	3222·48	31150·83	·49347
44	58	·46814	2938·60	28212·23	·45043
45	59	·43181	2702·78	25509·45	·40669
46	60	·39721	2495·80	23013·65	·36199
47	61	·36489	2316 81	20696·84	·31591
48	62	·33350	2162·72	18534·12	·26797
49	63	·30088	1999·31	16534·81	·21840
50	64	·26719	1850·08	14684·73	·16687
51	65	·23266	1708·68	12976·05	·11314
52	66	·19570	1569·28	11406·77	6·05717
53	67	·15733	1436·58	9970·19	5·99870
54	68	·11874	1314·44	8655·75	·93731
55	69	·07799	1196·71	7459·04	·87268
56	70	5·03474	1083·28	6375·76	·80453
57	71	4·98865	974·20	5401·56	·73252
58	72	·93879	868·54	4533·02	·65639
59	73	·88567	768·55	3764·47	·57571
60	74	·82816	673·22	3091·25	·49014
61	75	·76632	583·88	2507·37	·39922
62	76	·69908	500·13	2007·24	·30259
63	77	·62631	422·97	1584·27	·19984
64	78	·54695	352·33	1231·94	5·09058
65	79	·46112	289·15	942·79	4·97442
66	80	4·36808	233·89	709·40	4·85089

Table XXVIII.—(*continued.*)

DIFFERENCE OF AGE, 14 YEARS—(*continued*).

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
67	81	4·26772	185·23	524·17	4·71947
68	82	·15948	144·37	379·80	·57956
69	83	4·04265	110·32	269·48	·43053
70	84	3·91597	82·41	187·07	·27200
71	85	·78040	60·31	126·76	4·10298
72	86	·63320	42·97	83·79	3·92319
73	87	·47645	29·95	53·84	·73111
74	88	·30362	20·12	33·72	·52789
75	89	3·12032	13·19	20·53	·31239
76	90	2·92256	8·37	12·16	3·08493
77	91	·71373	5·17	6·99	2·84448
78	92	·48561	3·06	3·93	·59439
79	93	·26137	1·83	2·10	·32222
80	94	2·02550	1·06	1·04	2·01703
81	95	1·76695	·58	·46	1·66276
82	96	·46335	·29	·17	1·23045
83	97	1·09035	·12	·05	0·69897
84	98	0·63926	·04	·01	0·00000
85	99	9·97152	·01	·00	...
86	100	9·29492	·00	·00	...
87	101	8·23134	·00	·00	...

DIFFERENCE OF AGE, 15 YEARS.

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
14	29	6·73825	54733·09	599261·86	7·77762
15	30	·70911	51181·15	548080·71	·73884
16	31	·67954	47812·34	500268·37	·69920
17	32	·64955	44622·10	455646·27	·65863
18	33	·61758	41455·29	414190·98	·61720
19	34	·58414	38383·10	375807·88	·57497
20	35	·54886	35388·32	340419·56	·53202
21	36	·51212	32517·71	307901·85	·48841
22	37	·47436	29809·86	278091·99	·44419
23	38	·43561	27265·28	250826·71	·39938
24	39	·39621	24900·61	225926·10	·35397
25	40	·35543	22668·88	203257·22	·30805
26	41	·31295	20556·54	182700·68	·26174
27	42	·26918	18585·75	164114·93	·21514
28	43	·22492	16784·95	147329·98	·16829
29	44	·18051	15153·40	132176·58	·12117
30	45	·13586	13672·88	118503·70	·07372
31	46	·09183	12354·64	106149·06	7·02592
32	47	·04807	11170·43	94978·63	6·97763
33	48	6·00153	10035·29	84943·34	·92913
34	49	5·95141	8941·49	76001·85	·88083
35	50	·89833	7912·80	68089·05	·83308
36	51	·84174	6946·08	61142·97	·78635
37	52	·78157	6051·60	55091·37	·74108
38	53	·72516	5310·80	49780·57	·69706
39	54	·67302	4709·99	45070·58	·65390
40	55	·62397	4206·98	40863·60	·61134
41	56	5·57884	3791·75	37071·85	6·56905

DIFFERENCE OF AGE, 15 YEARS—(*continued.*)

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
42	57	5·53604	3435·90	33635·95	6·52680
43	58	·49712	3141·38	30494·57	·48423
44	59	·46124	2892·28	27602·29	·44094
45	60	·42797	2678·98	24923·31	·39660
46	61	·39617	2489·83	22433·48	·35089
47	62	·36522	2318·57	20114·91	·30352
48	63	·33282	2151·89	17963·02	·25438
49	64	·29927	1991·91	15971·11	·20333
50	65	·26404	1836·71	14134·40	·15027
51	66	·22777	1689·55	12444·85	·09499
52	67	·18921	1546·00	10898·85	6·03739
53	68	·15058	1414·43	9484·42	5·97701
54	69	·11085	1290·77	8793·65	·94417
55	70	·06870	1171·39	7022·26	·84648
56	71	5·02351	1055·63	5966·63	·77573
57	72	4·97496	943·97	5022·66	·70094
58	73	·92355	838 65	4184·01	·62159
59	74	·86806	738·01	3446·00	·53732
60	75	·80782	642·42	2803·58	·44772
61	76	·74229	552·45	2251·13	·35239
62	77	·67113	468·95	1782·18	·25096
63	78	·59319	391·91	1390·27	·14311
64	79	·50872	322·64	1067·63	5·02841
65	80	·41702	261·23	806·40	4·90655
66	81	·31820	208·07	598 33	·77694
67	82	·21163	162·79	435 54	·63903
68	83	4·09656	124·90	310·64	·49226
69	84	3·97261	93·89	216·75	·33596
70	85	·83846	68·94	147·81	4·16970
71	86	·69518	49·57	98·24	3·99229
72	87	·53951	34·63	63 61	·80353
73	88	·37151	23·52	40·09	·60304
74	89	3·18973	15·48	24·61	·39111
75	90	2·99578	9·90	14·71	3·16761
76	91	·79001	6 17	8·54	2·93146
77	92	·56680	3·69	4·85	·68574
78	93	·34698	2·22	2·63	·41996
79	94	2·11433	1·30	1·33	2·12385
80	95	1·86157	·73	·60	1·77815
81	96	·56258	·37	·23	1·36173
82	97	1 20064	·16	·07	0·84510
83	98	0·75142	·06	·01	0·00000
84	99	0 09967	·01	·00	...
85	100	9·42707	·00	·00	...
86	101	8·37021	·00	·00	...

DIFFERENCE OF AGE, 16 YEARS.

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
14	30	6·71668	52081·08	566669·66	7·75335
15	31	·68819	48774·18	517895·48	·71425
16	32	·65858	45559·61	472335·87	·67425
17	33	6·62758	42420·91	429914·96	7·63338

Table XXVIII.—(*continued.*)

Difference of Age, 16 Years—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	*x*.				
18	34	6·59430	39291·63	390623·33	7·59175
19	35	·56006	36312·82	354310·51	·54938
20	36	·52337	33371·06	320939·45	·50642
21	37	·48593	30614·70	290324·75	·46288
22	38	·44770	28034·96	262289·79	·41878
23	39	·40898	25643·66	236646·13	·37411
24	40	·36934	23406·69	213239·44	·32887
25	41	·32832	21297·08	191942·36	·28317
26	42	·28560	19301·90	172640·46	·23714
27	43	·24215	17464·25	155176·21	·19084
28	44	·19824	15784·83	139391·38	·14423
29	45	·15393	14253·78	125137·60	·09740
30	46	·10969	12873·30	112264·30	·05023
31	47	·06576	11634·83	100629·47	7·00273
32	48	6·01947	10458·51	90170·96	6·95507
33	49	5·97014	9335·55	80835·41	·90760
34	50	·91737	8267·42	72567·99	·86075
35	51	·86168	7272·44	65295·55	·81489
36	52	·80255	6346·73	58948·82	·77048
37	53	·74730	5588·56	53360·26	·72722
38	54	·69584	4964·09	48396·17	·68481
39	55	·64813	4447·64	43948·53	·64295
40	56	·60419	4019·67	39928·86	·60129
41	57	·56301	3656·03	36272·83	·55958
42	58	·52497	3349·42	32923·41	·51750
43	59	·49022	3091·86	29831·55	·47468
44	60	·45740	2866·82	26964·73	·43080
45	61	·42693	2672·58	24292·15	·38546
46	62	·39650	2491·72	21800·43	·33846
47	63	·36454	2314·94	19485·49	·28970
48	64	·33121	2143·93	17341·56	·23910
49	65	·29612	1977·52	15364·04	·18650
50	66	·25915	1816·14	13547·90	·13188
51	67	·22128	1664·49	11883·41	·07493
52	68	·18246	1522·16	10361·25	6·01540
53	69	·14269	1388·96	8972·29	5·95290
54	70	·10156	1263·46	7708·83	·88699
55	71	·05748	1141·51	6567·32	·81739
56	72	5·00983	1022·89	5544·43	·74385
57	73	4·95976	911·51	4632·92	·66585
58	74	·90598	805·34	3827·58	·58293
59	75	·84773	704·26	3123·32	·49461
60	76	·78379	607·84	2515·48	·40062
61	77	·71434	518·01	1997·47	·30049
62	78	·63802	434·53	1562·94	·19393
63	79	·55497	358·90	1204·04	5·08063
64	80	·46463	291·49	912·55	4·96026
65	81	·36715	232·89	679·66	·83229
66	82	·26212	182·86	496·80	·69618
67	83	·14872	140·84	355·96	·55140
68	84	4·02653	106·30	249·66	·39735
69	85	3·89511	78·54	171·12	·23330
70	86	3·75324	56·66	114·46	4·05865

Difference of Age, 16 Years—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	*x*.				
71	87	3·60149	39·95	74·51	3·87221
72	88	·43458	27·20	47·31	·67495
73	89	·25763	18·10	29·21	·46553
74	90	3·06520	11·62	17·59	·24527
75	91	2·86324	7·30	10·29	3·01242
76	92	·64309	4·40	5·89	2·77012
77	93	·42818	2·68	3·21	·50651
78	94	2·19995	1·58	1·63	2·21219
79	95	1·95041	·89	·74	1·86923
80	96	·65720	·45	·29	1·46240
81	97	1·29987	·20	·09	0·95424
82	98	0·86171	·07	·02	0·30103
83	99	0·21184	·02	·00	...
84	100	9·55523	·00	·00	...
85	101	8·50237	·00	·00	...

Difference of Age, 17 Years.

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	*x*.				
14	31	6·69576	49631·80	535485·67	7·72875
15	32	·66723	46476·13	489009·54	·68932
16	33	·63661	43312·18	445697·36	·64904
17	34	·60430	40206·85	405490·51	·60798
18	35	·57022	37172·35	368318·16	·56623
19	36	·53457	34242·86	334075·30	·52385
20	37	·49718	31418·11	302657·19	·48096
21	38	·45927	28791·88	273865·31	·43754
22	39	·42107	26368·17	247497·14	·39358
23	40	·38211	24105·16	223391·38	·34906
24	41	·34223	21990·24	201401·14	·30406
25	42	·30097	19997·24	181403·90	·25864
26	43	·25857	18137·19	163266·71	·21291
27	44	·21547	16423·66	146843·05	·16684
28	45	·17166	14847·73	131995·32	·12057
29	46	·12776	13420·23	118575·09	·07401
30	47	·08362	12123·28	106451·81	7·02715
31	48	6·03716	10893·31	95558·50	6·98027
32	49	5·98810	9729·71	85828·79	·93363
33	50	·93610	8631·77	77197·02	·88816
34	51	·88072	7598·36	69598·66	·84323
35	52	·82249	6644·92	62953·74	·79902
36	53	·76798	5861·11	57092·63	·75658
37	54	·71798	5223·72	51868·91	·71491
38	55	·67095	4687·59	47181·32	·67377
39	56	·62835	4249·62	42931·70	·63278
40	57	·58836	3875·79	39055·91	·59169
41	58	·55194	3564·02	35491·89	·55013
42	59	·51807	3296·63	32195·26	·50779
43	60	·48638	3064·64	29130·62	·46436
44	61	·45636	2859·96	26270·66	·41948
45	62	·42726	2674·61	23596·05	·37284
46	63	·39582	2487·83	21108·22	·32445
47	64	5·36293	2306·38	18801·84	6·27420

XXVIII.—(*continued.*)

DIFFERENCE OF AGE, **17** YEARS—(*continued.*)

Ages.		$\lambda . H_{x,\,y}$	$H_{x,\,y}$	$K_{x,\,y}$	$\lambda . K_{x,\,y}$
y.	x.				
48	65	6·32806	2128·43	16673·41	6·22201
49	66	·29123	1955·37	14718·04	·16785
50	67	·25266	1789·20	12928·84	·11156
51	68	·21453	1638·82	11290·02	6·05269
52	69	·17457	1494·75	9795·27	5·99102
53	70	·13340	1359·57	8435·70	·92612
54	71	·09034	1231·23	7204·47	·85760
55	72	5·04379	1106·09	6098·38	·78522
56	73	4·99462	987·69	5110·69	·70848
57	74	·94215	875·29	4235·40	·62689
58	75	·88564	768·49	3466·91	·53994
59	76	·82369	666·33	2800·58	·44725
60	77	·75584	569·95	2230·63	·34842
61	78	·68123	479·99	1750·64	·24319
62	79	·59979	397·91	1352·73	·13120
63	80	·51087	324·24	1028·49	5·01220
64	81	·41475	259·87	768·62	4·88571
65	82	·31106	204·67	563·95	·75124
66	83	·19920	158·20	405·75	·60826
67	84	4·07868	119·86	285·89	·45620
68	85	3·94902	88·92	196·97	·29440
69	86	·80988	64·55	132·42	4·12195
70	87	·65955	45·66	86·76	3·93832
71	88	·49655	31·37	55·39	·74343
72	89	·32069	20·93	34·46	·53732
73	90	3·13309	13·59	20·87	·31952
74	91	2·93265	8·56	12·31	3·09026
75	92	·71631	5·20	7·11	2·85187
76	93	·50446	3·19	3·92	·59329
77	94	·28114	1·91	2·01	2·30320
78	95	2·03602	1·09	·92	1·96379
79	96	1·74603	·56	·36	·55630
80	97	1·39448	·25	·11	1·04139
81	98	0·96094	·09	·02	0·30103
82	99	0·32212	·02	·00	...
83	100	9·66739	·00	·00	...
84	101	8·63052	·00	·00	...

DIFFERENCE OF AGE, **18** YEARS.

14	32	6·67480	47293·34	505892·91	7·70406
15	33	·64526	44183·49	461709·42	·66437
16	34	·61333	41051·59	420657·83	·62393
17	35	·58022	38038·20	382619·63	·58277
18	36	·54473	35053·39	347566·24	·54104
19	37	·50838	32238·88	315327·36	·49877
20	38	·47052	29547·45	285779·91	·45603
21	39	·43264	27079·46	258700·45	·41280
22	40	·39420	24785·63	233914·82	·36719
23	41	·35500	22646·44	211268·38	·32484
24	42	·31488	20648·10	190620·28	·28017
25	43	6·27394	18790·57	171829·71	7·23510

DIFFERENCE OF AGE, **18** YEARS—(*continued.*)

Ages.		$\lambda . H_{x,\,y}$	$H_{x,\,y}$	$K_{x,\,y}$	$\lambda . K_{x,\,y}$
y.	x.				
26	44	6·23189	17301·75	154527·96	7·18901
27	45	·18889	15448·63	139079·33	·14326
28	46	·14549	13979·45	125099·88	·09726
29	47	·10169	12638·34	112461·54	·05100
30	48	·05502	11350·63	101110·91	7·00479
31	49	6·00579	10134·21	90976·70	6·95893
32	50	5·95406	8996·22	81980·48	·91371
33	51	·89945	7933·23	74047·25	·86951
34	52	·84153	6942·73	67104·52	·82675
35	53	·78792	6136·49	60968·03	·78510
36	54	·73866	5478·48	55489·55	·74421
37	55	·69309	4932·76	50556·79	·70378
38	56	·65117	4478·89	46077·90	·66349
39	57	·61252	4097·51	41980·39	·62304
40	58	·57729	3778·24	38202·15	·58209
41	59	·54504	3507·84	34694·31	·54025
42	60	·51423	3267·61	31426·70	·49730
43	61	·48534	3057·31	28369·39	·45284
44	62	·45669	2862·13	25507·26	·40666
45	63	·42658	2670·42	22836·84	·35864
46	64	·39421	2478·62	20358·22	·30874
47	65	·35978	2289·71	18068·51	·25693
48	66	·32317	2104·60	15963·91	·20314
49	67	·28474	1926·37	14037·54	·14731
50	68	·24591	1761·61	12275·93	·08906
51	69	·20664	1609·31	10666·62	6·02804
52	70	·16528	1463·12	9203·50	5·96395
53	71	·12217	1324·86	7878·64	·89645
54	72	·07665	1193·03	6685·61	·82514
55	73	5·02858	1068·02	5617·59	·74955
56	74	4·97701	948·44	4669·15	·66924
57	75	·92181	835·24	3833·91	·58364
58	76	·86160	727·11	3106·80	·49231
59	77	·79574	624·80	2482·00	·39480
60	78	·72273	528·12	1953·88	·29090
61	79	·64300	439·54	1514·34	·18021
62	80	·55569	359·49	1154·85	5·06254
63	81	·46099	289·06	865·79	4·93741
64	82	·35866	228·38	637·41	·80442
65	83	·24814	177·07	460·34	·66308
66	84	·12916	134·64	325·70	·51282
67	85	4·00117	100·27	225·43	·35301
68	86	3·86379	73·08	152·35	·18284
69	87	·71619	52·02	100·33	4·00143
70	88	·55461	35·86	64·47	3·80936
71	89	·38256	24·14	40·33	·60563
72	90	·19615	15·71	24·62	·39129
73	91	3·00054	10·01	14·61	3·16465
74	92	2·78572	6·11	8·50	2·92942
75	93	·57768	3·78	4·72	·67394
76	94	·35742	2·28	2·44	·38739
77	95	2·11721	1·31	1·13	2·05308
78	96	1·83164	·68	·45	1·65321

Table XXVIII.—(*continued.*)

Difference of Age, 18 Years—(*continued*).

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
79	97	1·48331	·30	·15	1·17609
80	98	1·05555	·11	·04	0·60206
81	99	0·42135	·03	·01	0·00000
82	100	9·77767	·01	·00	...
83	101	8·74268	·00	·00	...

Difference of Age, 19 Years.

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
14	33	6·65283	44960·38	477203·04	7·67870
15	34	·62198	41877·43	435325·61	·63882
16	35	·58925	38837·39	396488·22	·59823
17	36	·55473	35869·89	360618·33	·55705
18	37	·51854	33001·98	327616·35	·51537
19	38	·48172	30319·36	297296·99	·47319
20	39	·44389	27790·09	269506·90	·43057
21	40	·40577	25454·82	244052·08	·38748
22	41	·36709	23285·74	220766·34	·34394
23	42	·32765	21264·25	199502·09	·29994
24	43	·28785	19402·16	180099·93	·25551
25	44	·24726	17670·95	162428·98	·21067
26	45	·20531	16043·90	146385·08	·16253
27	46	·16272	14545·21	131839·87	·12005
28	47	·11942	13164·97	118674·90	·07434
29	48	·07309	11832·87	106842·03	7·02873
30	49	6·02365	10558·93	96283·10	6·98355
31	50	5·97175	9370·22	86912·88	·93909
32	51	·91741	8268·18	78644·70	·89567
33	52	·86026	7248·70	71396·00	·85367
34	53	·80696	6411·51	64984·49	·81281
35	54	·75860	5735·88	59248·61	·77268
36	55	·71377	5173·33	54075·28	·73300
37	56	·67331	4713·14	49362·14	·69339
38	57	·63534	4318·57	45043·57	·65364
39	58	·60145	3904·39	41049·18	·61330
40	59	·57039	3718·69	37330·49	·57206
41	60	·54120	3476·96	33853·53	·52961
42	61	·51319	3259·79	30593·74	·48564
43	62	·48567	3059·64	27534·10	·43987
44	63	·45601	2857·66	24676·44	·39227
45	64	·42497	2660·54	22015·90	·34274
46	65	·39106	2460·71	19555·19	·29126
47	66	·35489	2264·07	17291·12	·23782
48	67	·31668	2073·38	15217·74	·18236
49	68	·27799	1896·66	13321·08	.12454
50	69	·23802	1729·90	11591·18	·06412
51	70	·19735	1575·25	10015·93	6·00069
52	71	·15405	1425·77	8590·16	5·93400
53	72	·10848	1283·75	7306·41	·86370
54	73	·06144	1151·97	6154·44	·78916
55	74	5·01097	1025·58	5128·86	·71002
56	75	4·95667	905·04	4223·82	·62570
57	76	4·89777	790·26	3433·56	5·53575

Difference of Age, 19 Years—(*continued.*)

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
58	77	4·83366	681·80	2751·76	5·43962
59	78	·76263	578·94	2172·82	·33702
60	79	·68450	483·62	1689·20	·22768
61	80	·59890	397·10	1292·10	5·11130
62	81	·50581	320·49	971·61	4·98749
63	82	·40490	254·04	717·57	·85586
64	83	·29574	197·58	519·99	·71600
65	84	·17810	150·70	369·29	·56737
66	85	4·05165	112·63	256·66	·40936
67	86	3·91594	82·40	174·26	·24120
68	87	·77010	58·90	115·36	4·06206
69	88	·61125	40·86	74·50	3·87216
70	89	·44072	27·59	46·91	·67127
71	90	·25812	18·12	28·79	·45924
72	91	3·06360	11·58	17·21	·23578
73	92	2·85361	7·14	10·07	3·00303
74	93	·64709	4·44	5·63	2·75051
75	94	·43064	2·70	2·93	·46687
76	95	2·19349	1·56	1·37	2·13672
77	96	1·91283	·82	·55	1·74036
78	97	·56892	·37	·18	1·25527
79	98	1·14438	·14	·04	0·60206
80	99	0·51596	·03	·01	0·00000
81	100	9·87690	·01	·00	...
82	101	8·85296	·00	·00	...

Difference of Age, 20 Years.

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
14	34	6·62955	42613·77	450215·53	7·65342
15	35	·59790	39618·68	410596·85	·61342
16	36	·56376	36623·51	373973·34	·57284
17	37	·52854	33770·70	340202·64	·53173
18	38	·49188	31037·02	309165·62	·49020
19	39	·45509	28516·09	280649·53	·44817
20	40	·41702	26122·82	254526·71	·40574
21	41	·37866	23914·43	230612·28	·36288
22	42	·33974	21864·52	208747·76	·31963
23	43	·30062	19981·13	188766·63	·27593
24	44	·26117	18246·10	170520·53	·23178
25	45	·22068	16621·87	153898·66	·18724
26	46	·17914	15105·67	138792·99	·14236
27	47	·13665	13697·77	125095·22	·09726
28	48	·09082	12325·94	112769·28	·05219
29	49	6·04172	11008·29	101760·99	7 00758
30	50	5·98961	9763·60	91997·39	6·96377
31	51	·93510	8611·92	83385·47	·92109
32	52	·87822	7554·75	75830·72	·87985
33	53	·82567	6694 07	69136·65	·83971
34	54	·77764	5992·94	63143·71	·80033
35	55	·73371	5416·39	57727·32	·76138
36	56	·69399	4942·99	52784·33	·72250
37	57	5·65748	4544·44	48239·89	6 68341

Table XXVIII.—(*continued.*)

Difference of Age, 20 Years—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
38	58	5·62427	4209·88	44030·01	6·64375
39	59	·59455	3931·43	40098·58	·60313
40	60	·56655	3685·95	36412·63	·56126
41	61	·54016	3468·65	32943·98	·51778
42	62	·51352	3262·27	29681·71	·47249
43	63	·48499	3054·85	26626·86	·42532
44	64	·45440	2847·08	23779·78	·37621
45	65	·42182	2641·31	21138·47	·32506
46	66	·38617	2433·16	18705·31	·27196
47	67	·34840	2230·49	16474·82	·21683
48	68	·30993	2041·41	14433·41	·15936
49	69	·27010	1862·52	12570·89	·09937
50	70	·22873	1693·28	10877·61	6·03655
51	71	·18612	1535·04	9342·57	5·97047
52	72	·14036	1381·53	7961·04	·90097
53	73	·09327	1239·57	6721·47	·82747
54	74	5·04383	1106·19	5615·28	·74937
55	75	4·99063	978·66	4636·62	·66620
56	76	·93263	856·31	3780·31	·57753
57	77	·86983	741·02	3039·29	·48277
58	78	·80054	631·74	2407·55	·38158
59	79	·72440	530·15	1877·40	·27356
60	80	·64040	436·92	1440·48	·15851
61	81	·54902	354·01	1086·47	5·03603
62	82	·44972	281·66	804·81	4·90569
63	83	·34198	219·78	585·03	·76718
64	84	·22570	168·15	416·88	·62001
65	85	4·10059	126·06	290·82	·46362
66	86	3·96642	92·56	198·26	·29724
67	87	·82225	66·41	131·85	4·12008
68	88	·66516	46·26	85·59	3·93242
69	89	·49736	31·43	54·16	·73368
70	90	·31618	20·71	33·45	·52440
71	91	3·12557	13·35	20·10	·30320
72	92	2·91667	8·25	11·85	3·07372
73	93	·71498	5·19	6·66	2·82347
74	94	·50005	3·16	3·50	·54407
75	95	2·26671	1·85	1·65	2·21748
76	96	1·98911	·98	·67	1·82607
77	97	·65011	·45	·22	1·34242
78	98	1·22999	·17	·05	0·69897
79	99	0·60479	·04	·01	0·00000
80	100	9·97151	·01	·00	...
81	101	8·95219	·00	·00	...

Difference of Age, 21 Years.

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
14	35	6·60547	40315·31	424683·75	7·62806
15	36	·57241	37360·27	387323·48	·58807
16	37	·53757	34480·22	352843·26	·54758
17	38	·50188	31759·96	321083·30	·50661
18	39	6·46525	29191·07	291892·23	7·46522

Difference of Age, 21 Years—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
19	40	6·42822	26805·26	265086·97	7·42339
20	41	·38991	24542·00	240504·97	·38112
21	42	·35131	22454·84	218090·13	·33864
22	43	·31271	20545·18	197544·95	·29566
23	44	·27394	18790·57	178754·38	·25225
24	45	·23459	17162·87	161591·51	·20841
25	46	·19451	15649·84	145941·67	·16417
26	47	·15307	14225·58	131716·09	·11965
27	48	·10805	12824·78	118891·31	·07515
28	49	·05945	11467·00	107424·31	7·03109
29	50	6·00768	10178·41	97245·90	6·98787
30	51	5·95296	8973·46	88272·44	·94582
31	52	·89591	7868·83	80403·61	·90527
32	53	·84365	6976·70	73426·91	·86586
33	54	·79637	6257·06	67169·85	·82718
34	55	·75275	5659·13	61510·72	·78895
35	56	·71393	5175·23	56335·49	·75078
36	57	·67816	4766·07	51569·42	·71239
37	58	·64641	4430·06	47139·36	·67246
38	59	·61737	4143·53	42995·83	·63343
39	60	·59071	3896·82	39099·01	·59217
40	61	·56551	3677·14	35421·87	·54927
41	62	·54049	3471·28	31950·59	·50448
42	63	·51284	3257·17	28693·42	·45778
43	64	·48338	3043·55	25649·87	·40909
44	65	·45125	2826·51	22823·36	·35837
45	66	·41693	2611·74	20211·62	·30561
46	67	·37968	2397·07	17814·55	·25079
47	68	·34165	2196·09	15618·46	·19365
48	69	·30204	2004·66	13613·80	·13399
49	70	·26081	1823·10	11790·70	·07155
50	71	·21751	1650·10	10140·60	6·00608
51	72	·17244	1487·44	8653·16	5·93718
52	73	·12516	1334·01	7319·15	·86446
53	74	·07567	1190·34	6128·81	·78738
54	75	5·02350	1055·60	5073·21	·70528
55	76	4·96659	925·96	4147·25	·61777
56	77	·90469	802·95	3344·30	·52431
57	78	·83672	686·63	2657·67	·42451
58	79	·76232	578·52	2079·15	·31790
59	80	·68031	478·97	1600·18	·20417
60	81	·59053	389·52	1210·66	5·08304
61	82	·49294	311·13	899·53	4·95402
62	83	·38681	243·67	655·86	·81681
63	84	·27195	187·05	468·81	·67100
64	85	·14820	140·67	328·14	·51606
65	86	4·01537	103·60	224·54	·35129
66	87	3·87274	74·60	149·94	4·17592
67	88	·71732	52·16	97·78	3·99025
68	89	·55128	35·59	62·19	·79372
69	90	·37283	23·60	38·59	·58647
70	91	3·18364	15·26	23·33	·36791
71	92	2·97865	9·52	13·81	3·14019

Table XXVIII.—(*continued.*)

DIFFERENCE OF AGE, 21 YEARS—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
72	93	2·77805	6·00	7·81	2·89265
73	94	·56795	3·70	4·11	·61384
74	95	·33613	2·17	1·94	2·28780
75	96	2·06234	1·15	·79	1·89763
76	97	1·72640	·53	·26	1·41497
77	98	1·31119	·20	·06	0·77815
78	99	0·69041	·05	·01	0·00000
79	100	0·06035	·01	·00	...
80	101	9·04681	·00	·00	...

DIFFERENCE OF AGE, 22 YEARS.

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
14	36	6·57998	38017·19	400601·76	7·60271
15	37	·54622	35173·86	365427·90	·56280
16	38	·51091	32427·24	333000·66	·52244
17	39	·47525	29871·02	303129·64	·48163
18	40	·43838	27439·74	275689·90	·44042
19	41	·40111	25183·15	250506·75	·39883
20	42	·36156	22991·11	227515·64	·35702
21	43	·32428	21099·88	206415·76	·31475
22	44	·28603	19321·02	187094·74	·27205
23	45	·24736	17675·02	169419·72	·22896
24	46	·20842	16159·21	153260·51	·18543
25	47	·16844	14738·05	138522·46	·14151
26	48	·12447	13318·95	125203·51	·09760
27	49	·07668	11931·09	113272·42	·05411
28	50	6·02541	10602·54	102669·88	7·01144
29	51	5·97103	9354·70	93315·18	6·96995
30	52	·91377	8199·17	85116·01	·93001
31	53	·86134	7266·75	77849·26	·89125
32	54	·81433	6521·24	71328·02	·85326
33	55	·77148	5908·54	65419·48	·81570
34	56	·73297	5407·17	60012·31	·77824
35	57	·69810	4989·99	55022·32	·74054
36	58	·66709	4646·12	50376·20	·70222
37	59	·63951	4360·24	46015·96	·66291
38	60	·61353	4107·05	41908·91	·62231
39	61	·58967	3887·50	38021·41	·58002
40	62	·56584	3679·93	34341·48	·53581
41	63	·53981	3465·85	30875·63	·48962
42	64	·51123	3245·11	27630·52	·44140
43	65	·48023	3021·55	24608·97	·39109
44	66	·44636	2794·86	21814·11	·33874
45	67	·41044	2573·00	19241·11	·28423
46	68	·37293	2360·10	16881·01	·22740
47	69	·33376	2156·55	14724·46	·16803
48	70	·29275	1962·23	12762·23	·10592
49	71	·24959	1776·60	10985·63	6·04084
50	72	·20382	1598·90	9386·73	5·97251
51	73	·15723	1436·25	7950·48	·90039
52	74	·10755	1281·00	6669·48	·82409
53	75	5·05533	1135·87	5533·61	5·74301
54	76	4·99945	998·73	4534·88	5·65657
55	77	·93865	868·26	3666·62	·56426
56	78	·87158	744·01	2922·61	·46577
57	79	·79849	628·77	2293·84	·36056
58	80	·71822	522·66	1771·18	·24827
59	81	·63043	427·00	1344·18	·12846
60	82	·53444	342·33	1001·85	5·00082
61	83	·43002	269·17	732·68	4·86491
62	84	·31677	207·38	525·30	·72041
63	85	·19444	156·47	368·83	·56683
64	86	4·06297	115·60	253·23	·40352
65	87	3·92168	83·50	169·73	·22976
66	88	·76780	58·59	111·14	4·04587
67	89	·60343	40·13	71·01	3·85132
68	90	·42674	26·71	44·30	·64640
69	91	·24028	17·39	26·91	·42991
70	92	3·03671	10·88	16·03	3·20493
71	93	2·84002	6·92	9·11	2·95952
72	94	·63101	4·28	4·83	·68395
73	95	·40402	2·54	2·29	2·35984
74	96	2·13175	1·35	·94	1·97313
75	97	1·79962	·63	·31	1·49136
76	98	1·38747	·24	·07	0·84510
77	99	0·77160	·06	·01	0·00000
78	100	0·14596	·01	·00	...
79	101	9·13564	·00	·00	...

DIFFERENCE OF AGE, 23 YEARS.

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	x.				
14	37	6·55379	35792·33	378052·67	7·57755
15	38	·51956	33079·58	344973·09	·53778
16	39	·48428	30498·61	314474·48	·49758
17	40	·44838	28078·89	286395·59	·45697
18	41	·41127	25779·23	260616·36	·41601
19	42	·37376	23646·13	236970·23	·37469
20	43	·33453	21603·79	215366·44	·33319
21	44	·29760	19842·66	195523·78	·29119
22	45	·25945	18173·98	177349·80	·24883
23	46	·22119	16641·41	160708·39	·20604
24	47	·18235	15217·73	145490·66	·16283
25	48	·13984	13798·76	131691·90	·11955
26	49	·09310	12390·82	119301·08	·07664
27	50	6·04264	11031·64	108269·44	7·03451
28	51	5·98876	9744·51	98524·93	6·99355
29	52	·93184	8547·52	89977·41	·95413
30	53	·87920	7571·82	82405·59	·91596
31	54	·83202	6792·35	75613·24	·87860
32	55	·78944	6158·00	69455·24	·84170
33	56	·75170	5645·47	63809·77	·80489
34	57	·71714	5213·63	58596·14	·77522
35	58	·68703	4864·41	53731·73	·73023
36	59	5·66019	4572·88	49158·55	6·69160

Table XXVIII.—(*continued.*)

Difference of Age, 23 Years—(*continued.*)

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
37	60	5·63567	4321·85	44836·70	6·65164
38	61	·61249	4097·23	40739·47	·61001
39	62	·59000	3890·45	36849·02	·56643
40	63	·56516	3674·18	33174·84	·52081
41	64	·53820	3453·03	29721·81	·47308
42	65	·50808	3221·66	26500·15	·42325
43	66	·47534	2987·72	23512·43	·37129
44	67	·43987	2753·40	20759·03	·31721
45	68	·40369	2533·32	18225·71	·26069
46	69	·36504	2317·61	15908·10	·20162
47	70	·32447	2110·91	13797·19	·13978
48	71	·28152	1912·14	11885·05	·07500
49	72	·23590	1721·47	10163·58	6·00706
50	73	·18861	1543·87	8619·71	5·93549
51	74	·13962	1379·18	7240·53	·85977
52	75	·08721	1222·39	6018·14	·77946
53	76	5·03129	1074·71	4943·43	·69403
54	77	4·97151	936·50	4006·93	·60281
55	78	·90554	804·53	3202·40	·50548
56	79	·83335	681·32	2521·08	·40159
57	80	·75439	568·05	1953·03	·29070
58	81	·66834	465·95	1487·08	·17234
59	82	·57434	375·27	1111·81	5·04603
60	83	·47152	296·16	815·65	4·91150
61	84	·35998	229·08	586·57	·76832
62	85	·23926	173·48	413·09	·61604
63	86	4·10921	128·59	284·50	·45408
64	87	3·96928	93·17	191·33	·28178
65	88	·81674	65·58	125·75	4·09951
66	89	·65391	45·07	80·68	3·90677
67	90	·47889	30·12	50·56	·70381
68	91	·29419	19·69	30·87	·48954
69	92	3·09335	12·40	18·47	·26647
70	93	2·89808	7·91	10·56	3·02366
71	94	·69298	4·93	5·63	2·75051
72	95	·46708	2·93	2·70	·43136
73	96	2·19964	1·58	1·12	2·04922
74	97	1·86903	·74	·38	1·57978
75	98	1·46069	·29	·09	0·95424
76	99	0·84788	·07	·02	0·30103
77	100	0·22715	·02	·00	...
78	101	9·22125	·00	·00	...

Difference of Age, 24 Years.

14	38	6·52713	33661·23	356930·76	7·55258
15	39	·49293	31112·15	325818·61	·51298
16	40	·45741	28668·83	297149·78	·47298
17	41	·42127	26379·71	270770·07	·43260
18	42	·38392	24205·83	246564·24	·39192
19	43	·34673	22219·28	224344·96	·35091
20	44	6·30785	20316·55	204028·41	7·30969

Difference of Age, 24 Years—(*continued.*)

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
21	45	6·27102	18664·66	185363·75	7·26802
22	46	·23328	17111·18	168252·57	·22596
23	47	·19512	15671·84	152580·73	·18350
24	48	·15375	14247·87	138332·86	·14092
25	49	·10847	12837·19	125495·67	·09864
26	50	·05906	11456·71	114038·96	·05706
27	51	6·00599	10138·88	103900·08	7·01662
28	52	5·94957	8903·69	94996·39	6·97771
29	53	·89727	7893·51	87102·88	·94003
30	54	·84988	7077·50	80025·38	·90323
31	55	·80713	6414·02	73611·36	·86694
32	56	·76966	5883·83	67727·53	·83077
33	57	·73587	5443·40	62284·13	·79438
34	58	·70607	5082·41	57201·72	·75741
35	59	·68013	4787·73	52413·99	·71945
36	60	·65635	4532·63	47881·36	·68016
37	61	·63463	4311·52	43569·84	·63919
38	62	·61282	4100·34	39469·50	·59627
39	63	·58932	3884·36	35585·14	·55127
40	64	·56355	3660·58	31924·56	·50413
41	65	·53505	3428·07	28496·49	·45478
42	66	·50319	3185·59	25310·90	·40331
43	67	·46885	2943·40	22367·50	·34963
44	68	·43312	2710·94	19656·56	·29352
45	69	·39580	2487·71	17168·85	·23475
46	70	·35575	2268·56	14900·29	·17319
47	71	·31324	2057·03	12843·26	·10867
48	72	·26783	1852·81	10990·45	6·04100
49	73	·22069	1662·23	9328·22	5·96980
50	74	·17100	1482·52	7845·70	·89463
51	75	·11928	1316·07	6529·63	·81489
52	76	·06317	1156·56	5373·07	·73022
53	77	5·00335	1007·74	4365·33	·64001
54	78	4·93840	867·76	3497·57	·54377
55	79	·86731	736·73	2760·84	·44103
56	80	·78925	615·53	2145·31	·33149
57	81	·70451	506·42	1638·89	·21455
58	82	·61225	409·50	1229·39	5·08969
59	83	·51142	324·65	904·74	4·95652
60	84	·40148	252·05	652·69	·81471
61	85	·28247	191·63	461·06	·66376
62	86	·15403	142·57	318·49	·50310
63	87	4·01552	103·64	214·85	·33214
64	88	3·86434	73·17	141·68	4·15131
65	89	·70285	50·45	91·23	3·96014
66	90	·52937	33·83	57·40	·75891
67	91	·34634	22·20	35·20	·54654
68	92	3·14726	14·04	21·16	·32552
69	93	2·95472	9·01	12·15	3·08458
70	94	·75104	5·64	6·51	2·81358
71	95	·52905	3·38	3·13	·49554
72	96	2·26270	1·83	1·30	2·11394
73	97	1·93692	·86	·44	1·64345

Table XXVIII.—(*continued.*)

Difference of Age, **24** Years—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	*x*.				
74	98	1·53010	·34	·10	1·00000
75	99	0·92110	·08	·02	0·30103
76	100	0·30343	·02	·00	...
77	101	9·30244	·00	·00	...

Difference of Age, **25** Years.

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	*x*.				
14	39	6·50050	31659·20	337151·84	7·52782
15	40	·46606	29245·56	307906·28	·48842
16	41	·43030	26933·95	280972·33	·44866
17	42	·39392	24769·66	256202·67	·40858
18	43	·35689	22745·21	233457·46	·36635
19	44	·32005	20895·37	212562·09	·32748
20	45	·28127	19110·41	193451·68	·28657
21	46	·24485	17573·17	175878·51	·24522
22	47	·20721	16114 25	159764·26	·20347
23	48	·16652	14673·04	145091·22	·16164
24	49	·12238	13255·01	131836·21	·12005
25	50	·07443	11869·43	119966·78	·07907
26	51	6·02241	10529·55	109437·23	·03918
27	52	5·96680	9264·03	100173·20	7·00074
28	53	·91500	8222·43	91950·77	6·96355
29	54	·86795	7378·19	84572·58	·92723
30	55	·82499	6683·29	77889·29	·89148
31	56	·78735	6128·44	71760·85	·85589
32	57	·75383	5673·22	66087·63	·82012
33	58	·72480	5306·40	60781·23	·78377
34	59	·69917	5002·30	55778·93	·74647
35	60	·67629	4745·59	51033·34	·70785
36	61	·65531	4521·79	46511·55	·66757
37	62	·63496	4314·79	42196·76	·62528
38	63	·61214	4093·93	38102·83	·58096
39	64	·58771	3869·99	34232·84	·53445
40	65	·56040	3634·13	30598·71	·48571
41	66	·53016	3389 69	27209·02	·43471
42	67	·49670	3138·34	24070·68	·38149
43	68	·46210	2898·01	21172·67	·32578
44	69	·42523	2662·13	18510·54	·26743
45	70	·38651	2435·06	16075·48	·20615
46	71	·34452	2210·65	13864·83	·14192
47	72	·29955	1993·20	11871·63	·07452
48	73	·25262	1789·04	10082·59	6·00359
49	74	·20308	1596·17	8486·42	5·92872
50	75	·15066	1414·69	7071·73	·84952
51	76	·09524	1245·20	5826·53	·76541
52	77	5·03523	1084·50	4742·03	·67597
53	78	4·97023	933·75	3808 28	·58073
54	79	·90017	794·64	3013·64	·47909
55	80	·82321	665·59	2348·05	·37072
56	81	·73937	548·74	1799·31	·25510
57	82	·64842	445·06	1354·25	5·13171
58	83	4·54933	354·27	999·98	4·99999

Difference of Age, **25** Years—(*continued.*)

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	*x*.				
59	84	4·44138	276·30	723·68	4·85955
60	85	·32397	210·85	512·83	·70997
61	86	·19724	157·49	355·34	·55064
62	87	4·06034	114·91	240·43	·38099
63	88	3·91058	81·39	159·04	·20151
64	89	·75045	56·29	102·75	4·01178
65	90	·57831	37·87	64·88	3·81211
66	91	·39682	24·94	39·94	·60141
67	92	·19941	15·83	24·11	·38220
68	93	3·00863	10 20	13·91	3·14333
69	94	2·80768	6·42	7·49	2·87448
70	95	·58711	3·86	3·63	·55991
71	96	2·32467	2·11	1·52	2·18184
72	97	1·99998	1·00	·52	1·71600
73	98	1·59799	·40	·12	1·07918
74	99	0·99051	·10	·02	0·30103
75	100	0·37665	·02	·00	...
76	101	9·37872	·00	·00	...

Difference of Age, **26** Years.

Ages.		$\lambda . H_{x,y}$	$H_{x,y}$	$K_{x,y}$	$\lambda . K_{x,y}$
y.	*x*.				
14	40	6·47363	29759·80	318819·81	7·50355
15	41	·43895	27475·78	291344·03	·46440
16	42	·40295	25290·07	266053·96	·42496
17	43	·36689	23275·02	242778·94	·38521
18	44	·33021	21390·45	221388·49	·34516
19	45	·29347	19654·86	201733·63	·30477
20	46	·25690	18067·58	183666·05	·26404
21	47	·21878	16549·31	167116·74	·22303
22	48	·17861	15087·25	152029·49	·18193
23	49	·13515	13650·55	138378·94	·14107
24	50	·08834	12255·75	126123·19	·10078
25	51	6·03778	10908·88	115214·31	·06149
26	52	5·98322	9621·00	105593·31	7·02362
27	53	·93223	8555·20	97038·11	6·98694
28	54	·88568	7685·64	89352·47	·95110
29	55	·84306	6967·23	82385·24	·91585
30	56	·80521	6385·72	75999·52	·88081
31	57	·77152	5909·08	70090·44	·84566
32	58	·74276	5530·44	64560·00	·80996
33	59	·71790	5222·76	59337·24	·77333
34	60	·69533	4958 27	54378·97	·73543
35	61	·67525	4734·24	49644·73	·69588
36	62	·65564	4525·22	45119·51	·65437
37	63	·63428	4308·04	40811·47	·61078
38	64	·61053	4078·78	36732·69	·56506
39	65	·58456	3931·52	32801·17	·51589
40	66	·55551	3593·44	29207·73	·46550
41	67	·52367	3339·41	25868·32	·41276
42	68	·48995	3089·94	22778·38	·35752
43	69	·45421	2845·84	19932·54	·29957
44	70	5·41594	2605·79	17326·75	6·23872

Table XXVIII.—(*continued.*)

Difference of Age, 26 Years—(*continued.*)

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
45	71	5·37529	2372·96	14953·79	6·17476
46	72	·33084	2142·10	12811·69	·10762
47	73	·28435	1924·64	10887·05	6·03691
48	74	·23502	1717·99	9169·06	5·96233
49	75	·18275	1523·18	7645·88	·88343
50	76	·12662	1338·51	6307·37	·79985
51	77	·06730	1167·62	5139·75	·71095
52	78	5·00212	1004·89	4134·86	·61647
53	79	4·93201	855 09	3279·77	·51585
54	80	·85608	717·93	2561·84	·40855
55	81	·77334	593·42	1968·42	·29411
56	82	·68329	482·27	1486·15	·17208
57	83	·58551	385·04	1101·11	5·04183
58	84	·47930	301·51	799·60	4·90287
59	85	·36388	231·14	568·46	·75470
60	86	·23875	173·28	395·18	·59680
61	87	4·10356	126·93	268·25	·42854
62	88	3·95541	90·24	178·01	·25044
63	89	·79670	62·62	115·39	4·06217
64	90	·62592	42·26	73·13	3·86410
65	91	·44577	27·91	45·22	·65533
66	92	·24990	17·78	27·44	·43838
67	93	3·06079	11·50	15·94	3·20249
68	94	2·86160	7·27	8·67	2·93802
69	95	·64376	4·51	4·16	·61909
70	96	·38274	2·41	1 75	2·24304
71	97	2·06196	1·15	·60	1 77815
72	98	1·66106	·46	·14	1·14613
73	99	1·05841	·11	·03	0·47712
74	100	0·44607	·03	·00	...
75	101	9·45195	·00	·00	...

Difference of Age, 27 Years.

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
14	40	6·44652	27958·89	301449·78	7·47922
15	41	·41160	25798·83	275650·95	·44036
16	42	·37592	23764·02	251886·93	·40121
17	43	·34021	21888·20	229998·73	·36173
18	44	·30363	20120·09	209878·64	·32197
19	45	·26730	18505·46	191373·18	·28187
20	46	·23003	16983·61	174389·57	·24152
21	47	·19018	15494·59	158894·98	·20110
22	48	·14724	14035·89	144859·09	·16095
23	49	·10111	12621·47	132237·62	·12136
24	50	6·05169	11293·93	120943·69	·08257
25	51	5·99859	9967·59	110976·10	·04524
26	52	·94865	8884·85	102091·25	7·00898
27	53	·90291	7996·69	94094·56	6·97357
28	54	·86079	7257·55	86837·01	·93870
29	55	·82328	6657·02	80179·99	·90407
30	56	·78938	6157·15	74022·84	·86937
31	57	5·76045	5760·36	68262·48	6·83418

Difference of Age, 27 Years—(*continued.*)

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
32	58	5·73586	5443·27	62819·21	6·79809
33	59	·71406	5176·78	57642·43	·76074
34	60	·69429	4946·41	52696·02	·72178
35	61	·67558	4737·84	47958·18	·68086
36	62	·65496	4518·14	43440·04	·63789
37	63	·63267	4292·10	39147·94	·59271
38	64	·60738	4049·30	35098 64	·54529
39	65	·57967	3799·01	31299·63	·49554
40	66	·54902	3540 14	27759·49	·44340
41	67	·51692	3287·91	24471·58	·38867
42	68	·48206	3034·31	21437·27	·33116
43	69	·44492	2785·61	18651·66	·27073
44	70	·40472	2539·34	16112 32	·20715
45	71	·36160	2299·32	13813·00	·14029
46	72	·31563	2068·24	11744·76	6·06985
47	73	·26674	1848·16	9896·60	5·99549
48	74	·21469	1639·42	8257·18	·91683
49	75	·15870	1441·12	6816·06	·83354
50	76	·09868	1255·10	5560·96	·74515
51	77	5·03419	1081·91	4479·05	·65119
52	78	4·96389	920 22	3558·83	·55130
53	79	·88791	772·52	2786·31	·44503
54	80	·80620	640·03	2146·28	·33169
55	81	·71725	521·49	1624·79	·21080
56	82	·62037	417·22	1207·57	5·08192
57	83	·51547	327·70	879·87	4·94442
58	84	·40179	252·23	627·64	·79771
59	85	·27865	189·95	437·69	·64117
60	86	4·14506	139·66	298·03	·47426
61	87	3·99862	99·68	198·35	·29743
62	88	·84152	69·43	128·92	4·11032
63	89	·67216	47·01	81·91	3·91334
64	90	·49337	31·14	50·77	·70561
65	91	·29884	19·90	30·87	·48954
66	92	3·11127	12·92	17·95	3·25406
67	93	2·91375	8·20	9·75	2·98900
68	94	·69767	4·99	4·76	·67761
69	95	·43938	2·75	2·01	2·30320
70	96	2·12002	1·32	·69	1·83885
71	97	1·72303	·53	·16	1·20412
72	98	1·12147	·13	·03	0·47712
73	100	0·51396	·03	·00	...
74	101	9·52136	·00	·00	...

Difference of Age, 28 Years.

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
14	42	6·41917	26252 46	285767·46	7·45602
15	43	·38457	24242·09	261525·37	·41752
16	44	·34924	22348·07	239177·30	·37872
17	45	·31363	20588·75	218588 55	·33963
18	46	·27746	18943·49	199645·06	·30027
19	47	6·25123	17833·23	181811·83	7·25962

Table XXVIII.—(*continued.*)

Difference of Age, 28 Years—(*continued.*)						Difference of Age, 29 Years.					
Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$	Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	*x.*					*y.*	*x.*				
20	48	6·20143	15901·20	165910·63	7·21987	14	43	6·39214	24668·34	270279·11	7·43181
21	49	·15881	14414·85	151495·78	·18041	15	44	·35789	22797·65	247481·46	·39354
22	50	·11320	12977·77	138518·01	·14151	16	45	·32266	21021·32	226460·14	·35499
23	51	·06446	11600·05	126917·96	·10353	17	46	·28746	19384·74	207075·40	·31614
24	52	6·01250	10292·01	116625·95	·06681	18	47	·25139	17839·80	189235·60	·27701
25	53	5·96402	9204·92	107421·03	7·03109	19	48	·21263	16316·61	172918·99	·23785
26	54	·91933	8304·82	99116·21	6·99614	20	49	·17006	14793·13	158125·86	·19901
27	55	·87802	7551·27	91564·94	·96173	21	50	·12477	13328·15	144797·71	·16077
28	56	·84101	6934·42	84630·52	·92753	22	51	·07655	11927·52	132870·19	·12343
29	57	·80745	6418·74	78211·78	·89327	23	52	6·02527	10599·12	122271·07	·08732
30	58	·77831	6002·19	72209·59	·85860	24	53	5·97793	9504·52	112766·55	·05219
31	59	·75355	5669·57	66540·02	·82308	25	54	·93470	8603·99	104162·56	7·01770
32	60	·73202	5395·35	61144·67	·78636	26	55	·89444	7842·24	96320·32	6·98372
33	61	·71302	5164·40	55980·27	·74803	27	56	·85824	7215·06	89105·26	·94990
34	62	·69462	4950·17	51030·10	·70783	28	57	82518	6686·21	82419·05	·91603
35	63	·67490	4730·42	46299·68	·66558	29	58	·79638	6257·20	76161·85	·88174
36	64	·65335	4501·42	41798·26	·62116	30	59	·77141	5907·59	70254·26	·84667
37	65	·62952	4261·08	37537·18	·57446	31	60	·74971	5619·66	64634·60	·81047
38	66	·60249	4003·96	33533·22	·52547	32	61	·73098	5382·45	59252·15	·77270
39	67	·57318	3742·66	29790·56	·47409	33	62	·71335	5168·33	54083·82	·73307
40	68	·54227	3485·54	26305·02	·42004	34	63	·69394	4942·42	49141·40	·69144
41	69	·50903	3228·72	23076·30	·36316	35	64	·67329	4712·92	44428·48	·64766
42	70	·47277	2970·09	20106·21	·30333	36	65	·65020	4468·89	39959·59	·60163
43	71	·43369	2714·50	17391·71	·24035	37	66	·62463	4213·37	35746·22	·55323
44	72	·39103	2460·54	14931·17	·17409	38	67	·59600	3944·57	31801·65	·50245
45	73	·35639	2271·90	12659·27	·10240	39	68	·56643	3684·94	28116·71	·44897
46	74	·29802	1986·19	10673·08	6·02829	40	69	·53438	3422·79	24693·92	·39259
47	75	·24641	1763·64	8909·44	5·94985	41	70	·49974	3160·39	21533·53	·33312
48	76	·19064	1551·10	7358·34	·86678	42	71	·46154	2894·28	18639·25	·27042
49	77	·13076	1351·33	6007·01	·77866	43	72	·42000	2630·27	16008·98	·20436
50	78	5·06557	1162·97	4844·04	·68520	44	73	·37582	2375·86	13633·12	·13459
51	79	4·99596	990·74	3853·30	·58583	45	74	·32878	2131·96	11501·16	6·06074
52	80	·91979	831·36	3021·94	·48028	46	75	·27769	1895·35	9605·81	5·98253
53	81	·83083	688·70	2333·24	·36795	47	76	·22236	1668·63	7937·18	·89967
54	82	·75011	562·48	1770·76	·24817	48	77	·16270	1454·45	6482·73	·81176
55	83	·65433	451·16	1319·60	5·12044	49	78	·09765	1252·13	5230·60	·71855
56	84	·55033	355·08	964·52	4·98431	50	79	5·02734	1064·98	4165·62	·61968
57	85	·43796	274·13	690·39	·83909	51	80	4·95186	895·08	3270·54	·51461
58	86	·31656	207·28	483·11	·68405	52	81	·86991	741·16	2529·38	·40302
59	87	·18496	153·09	330·02	·51854	53	82	·78194	605·26	1924·12	·28423
60	88	4·04012	109·68	220·34	·34309	54	83	·68719	486·62	1437·50	·15761
61	89	3 88473	76·69	143·65	4·15731	55	84	·58429	383·96	1053·54	5·02263
62	90	·71698	52·12	91·53	3·96156	56	85	·47282	297·04	756·50	4·87881
63	91	·53961	34·64	56·89	·75504	57	86	·35273	225·28	531·22	·72527
64	92	·34644	22·20	34·69	·54020	58	87	·22287	167·06	364·16	·56129
65	93	3·16021	14·46	20·23	·30600	59	88	4·08002	120·23	243·93	·38727
66	94	2·96423	9·21	11·02	3·04218	60	89	3·92623	84·38	159·55	·20290
67	95	·74982	5·62	5·40	2·73239	61	90	·76019	57·57	101·98	4·00852
68	96	·49329	3·11	2·29	2·35984	62	91	·58443	38·41	63·57	3·80325
69	97	2·17666	1·50	·79	1·89763	63	92	·39268	24·70	38·87	·58961
70	98	1·78109	·60	·19	1·27875	64	93	·20781	16·14	22·73	·35660
71	99	1·18344	·15	·04	0·60206	65	94	3·01317	10·31	12·42	3·09412
72	100	0·57702	·04	·00	...	66	95	2·80030	6·31	6·11	2·78604
73	101	9·58925	·00	·00	...						

28. **29.**

Difference of Age, 29 Years—(*continued.*)

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
67	96	2·54544	3·51	2·60	2·41497
68	97	2·23057	1·70	·90	1·95424
69	98	1·83773	·69	·21	1·32222
70	99	1·24150	·17	·04	0 60206
71	100	0·63899	·04	·00	...
72	101	9·65231	·00	·00	...

Difference of Age, 30 Years.

14	44	6·36546	23198·51	256155·47	7·40851
15	45	·33131	21444·21	234711·26	·37053
16	46	·29649	19792·01	214919·25	·33228
17	47	·26139	18255·34	196663·91	·29372
18	48	·22279	16702·83	179961·08	·25518
19	49	·18126	15179·59	164781·49	·21690
20	50	·13602	13677·92	151103·57	·17926
21	51	·08812	12249·55	138854·02	·14255
22	52	6·03736	10808·33	128045·69	·10738
23	53	5·99070	9788·14	118257·55	·07284
24	54	·94861	8884·03	109373·52	·03890
25	55	·90981	8124·75	101248·77	7·00540
26	56	·87466	7493·07	93755·70	6·97200
27	57	·82441	6956·81	86798·89	·93851
28	58	·81411	6517·93	80280·96	·90461
29	59	·78948	6158·57	74122·39	·86995
30	69	·76757	5855·58	68266·81	·83421
31	61	·74867	5606·22	62660·59	·79700
32	62	·73131	5386·54	57274·05	·75796
33	63	·71267	5160·24	52113·81	·71695
34	64	·69233	4924·14	47189·67	·67385
35	65	·67014	4678·86	42510·81	·62850
36	66	·64531	4418·86	38091·95	·58083
37	67	·61814	4150·88	33941·07	·53072
38	68	·58925	3883·74	30057·33	·47795
39	69	·55854	3618·60	26438·73	·42225
40	70	·52509	3350·35	23088·38	·36339
41	71	·48851	3079·71	20008·67	·30123
42	72	·44785	2804·46	17204·21	·23563
43	73	·40479	2539·74	14664·47	·16625
44	74	·35821	2281·44	12383·03	·09283
45	75	·30845	2034·46	10348·57	6·01490
46	76	·25364	1793·25	8555·32	5·93224
47	77	·19442	1564·66	6990·66	·84452
48	78	·12958	1347·66	5643·00	·75151
49	79	5·05942	1146·62	4496·38	·65286
50	80	4·98324	962·14	3534·24	·54829
51	81	·90198	797·96	2736·28	·43716
52	82	·81382	651·36	2084·92	·31909
53	83	·71902	523·62	1561·30	·19349
54	84	·61715	414·14	1147·16	5·05964
55	85	·50678	321·20	825·96	4·91696
56	86	4·38760	244·12	581·84	4·76480

Difference of Age, 30 Years—(*continued.*)

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
57	87	4·25904	181·57	400·27	4·60235
58	88	4·11793	131·20	269·07	·42987
59	89	3·96613	92·50	176·57	·24692
60	90	·80169	63·34	113·23	4·05396
61	91	·62764	42·43	70·80	3·85003
62	92	·43750	27·38	43·42	·63769
63	93	·25405	17·95	25·47	·40603
64	94	3·06077	11·50	13·97	3·14520
65	95	2·84924	7·07	6·90	2·83885
66	96	·59592	3·94	2·96	·47129
67	97	2·28272	1·92	1·04	2·01703
68	98	1·89164	·78	·26	1·41497
69	99	1·29814	·20	·06	0·77815
70	100	0·69705	·05	·01	0·00000
71	101	9·71428	·01	·00	...

Difference of Age, 35 Years.

14	49	6·22667	16852·72	199201·09	7·29929
15	50	·18406	15277·77	183923·32	·26463
16	51	·13976	13793·22	170127·10	·23078
17	52	·09154	12346·39	157780·71	·19805
18	53	·04697	11142·18	146638·53	·16625
19	54	6·00749	10173·96	136463·57	·13501
20	55	5·97140	9362·68	127101·89	·10415
21	56	·94037	8717·06	118384·83	·07328
22	57	·91297	8184·08	110200·75	·04218
23	58	·88981	7759·08	102441·67	7·01047
24	59	·87014	7415·49	95026·18	6·97784
25	60	·85239	7118·53	87907·65	·94403
26	61	·83598	6854·57	81053·08	·90877
27	62	·81989	6605·26	74447·82	·87185
28	63	·80198	6338·41	68109·41	·83320
29	64	·78264	6062·34	62047·07	·79272
30	65	·76142	5773·25	56273·82	·75031
31	67	·73867	5478·61	50795·21	·70582
32	66	·71449	5181·91	45613·30	·65909
33	68	·68978	4895·31	40717·99	·60979
34	69	·66316	4604·26	36113·73	·55768
35	70	·63483	4313·50	31800·23	·50243
36	71	·60366	4014·76	27785·47	·44381
37	72	·56929	3709·28	24076·19	·38158
38	73	·53194	3403·61	20672·58	·31540
39	74	·49152	3101·13	17571·45	·24480
40	75	·44703	2799·18	14772·27	·16944
41	76	·39763	2498·22	12274·05	·08899
42	77	·34272	2201·51	10072·54	6·00316
43	78	·28175	1913·15	8159·39	5·91166
44	79	·21455	1638·89	6520·50	·81428
45	80	·14102	1383·63	5136·87	·71070
46	81	5·06038	1149·16	3987·71	·60072
47	82	4·97302	939·77	3047·94	5·48400

Difference of Age, 35 Years—(*continued.*)

Ages.		$\lambda.\mathrm{H}_{x,y}$	$\mathrm{H}_{x,y}$	$\mathrm{K}_{x,y}$	$\lambda.\mathrm{K}_{x,y}$
y.	*x.*				
48	83	4·87837	755·74	2292·20	5·36025
49	84	·77640	597·59	1694·61	·22907
50	85	·66681	464·31	1230·30	5·09001
51	86	·55020	354·98	875·32	4·94217
62	87	·42444	265·73	609·59	·78504
53	88	·28762	193·92	415·67	·61875
54	89	4·14190	138·64	277·03	·44253
55	90	3·98450	96·49	180·54	·25657
56	91	·81799	65·76	114·78	4·05987
57	92	·63620	43·27	71·51	3·85437
58	93	·46140	28·93	42·58	·62921
59	94	·27645	18·90	23·68	·37438
60	95	3·07262	11·82	11·86	3·07408
61	96	2·82674	6·71	5·15	2·71181
62	97	·52081	3·32	1·83	2·26245
63	98	2·13706	1·37	·46	1·66276
64	99	1·55123	·36	·10	1·00000
65	100	0·95918	·09	·01	0·00000
66	101	9·98553	·01	·00	...

Difference of Age, 40 Years.

Ages.		$\lambda.\mathrm{H}_{x,y}$	$\mathrm{H}_{x,y}$	$\mathrm{K}_{x,y}$	$\lambda.\mathrm{K}_{x,y}$
y.	*x.*				
14	54	6·05290	11295·36	164362·09	7·21580
15	55	6·02044	10481·90	153880·19	·18718
16	56	5·99201	9817·71	144062·48	·15854
17	57	·96715	9271·50	134790·98	·12966
18	58	·94608	8832·43	125958·55	·10034
19	59	·92902	8492·20	117466·35	·06993
20	60	·91398	8203·14	109263·21	·03846
21	61	·90169	7974·25	101288·96	7·00557
22	62	·89045	7770·52	93518·44	6·97090
23	63	·87768	7545·36	85973·08	·93436
24	64	·86330	7299·62	78673·46	·89583
25	65	·84624	7018·43	71655·03	·85525
26	66	·82598	6698·54	64956·49	·81262
27	67	·80307	6354·33	58602·16	·76791
28	68	·77909	6012·98	52589·18	·72089
29	69	·75347	5668·52	46920·66	·67137
30	70	·72511	5310·19	41610·47	·61920
31	71	·69702	4977·60	36632·87	·56387
32	72	·66564	4630·63	32002·24	·50518
33	73	·63247	4290·13	27712·11	·44267
34	74	·59614	3945·85	23766·26	·37596
35	75	·55677	3603·88	20162·38	·30453
36	76	·51278	3256·72	16905·66	·22804
37	77	·46416	2911·79	13993·87	·14594
38	78	·40890	2563·89	11429·98	6·05805
39	79	·34786	2227·72	9202·26	5·96390
40	80	·27960	1903·71	7298·55	·86324
41	81	·20437	1600·92	5697·63	·75569
42	82	·12131	1322·24	4375·39	·64102
43	83	5·03054	1072·85	3302·54	5·51884

Difference of Age, 40 Years—(*continued.*)

Ages.		$\lambda.\mathrm{H}_{x,y}$	$\mathrm{H}_{x,y}$	$\mathrm{K}_{x,y}$	$\lambda.\mathrm{K}_{x,y}$
y.	*x.*				
44	84	4·93153	854·14	2448·40	5·38888
45	85	·82459	667·71	1780·69	·25059
46	86	·70860	511·21	1269·48	5·10363
47	87	·58363	383·38	886·10	4·94748
48	88	·44697	279·88	606·22	·78263
49	89	·30115	200·06	406·16	·60870
50	90	4·14453	139·49	266·67	·42597
51	91	3·98060	95·63	171·04	·23310
52	92	·80160	63·33	107·71	4·03226
53	93	·63109	42·77	64·94	3·81251
54	94	·45222	28·33	36·61	·56360
55	95	3·25543	18·01	18·60	3·26951
56	96	3·01709	10·40	8·20	2·91381
57	97	2·71951	5·24	2·96	2·47129
58	98	2·34441	2·21	·75	1·87506
59	99	1·76691	·58	·17	1·23045
60	100	1·18256	·15	·02	0·30103
61	101	0·21635	·02	·00	...

Difference of Age, 45 Years.

Ages.		$\lambda.\mathrm{H}_{x,y}$	$\mathrm{H}_{x,y}$	$\mathrm{K}_{x,y}$	$\lambda.\mathrm{K}_{x,y}$
y.	*x.*				
14	59	5·97443	9428·23	140316·83	7·14712
15	60	·96302	9183·75	131133·08	·11770
16	61	·95333	8981·10	122151·98	·08689
17	62	·94663	8802·99	113348·99	·05442
18	63	·93395	8589·15	104759·84	7·02020
19	64	·92218	8359·49	96400·35	6·98408
20	65	·91783	8276·18	88124·17	·94509
21	66	·89169	7792·74	80331·43	·90488
22	67	·87363	7475·32	72856·11	·86247
23	68	·85479	7157·97	65698·14	·81755
24	69	·83413	6825·43	58872·71	·76992
25	70	·81093	6470·38	52402·33	·71935
26	71	·78433	6085·97	46316·36	·66573
27	72	·75422	5678·32	40638·04	·60893
28	73	·72178	5269·63	35368·41	·54861
29	74	·68645	4857·92	30510·49	·48442
30	75	·64805	4446·83	26063·66	·41604
31	76	·60614	4037·76	22025·90	·34294
32	77	·56051	3635·05	18390·85	·26461
33	78	·50943	3231·62	15159·23	·18067
34	79	·45248	2834·52	12324·71	6·09079
35	80	·38934	2450·98	9873·73	5·99448
36	81	·31952	2086·99	7786·74	·89135
37	82	·24275	1748·04	6037·90	·78089
38	83	·15769	1437·77	4600·13	·66277
39	84	5·06484	1161·02	3439·11	·53644
40	85	4·96317	918·69	2520·42	·40147
41	86	·85259	712·18	1808·24	·25725
42	87	·73193	539·42	1268·82	5·10339
43	88	·59914	397·32	871·50	4 94027
44	89	4·45628	285·94	585·56	4·76757

DIFFERENCE OF AGE, **45** YEARS—(*continued.*)

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
45	90	4·30231	200·59	384·97	4·58543
46	91	4·13900	137·72	247·25	·39314
47	92	3·96079	91·37	155·88	4·19279
48	93	·79044	61·67	94·21	3·97410
49	94	·61247	40·97	53·24	·72624
50	95	·41546	26·03	27·21	·43473
51	96	3·17970	15·13	12·08	3·08207
52	97	2·88491	7·67	4·41	2·64444
53	98	2·51410	3·27	1·14	2·05690
54	99	1·94268	·88	·26	1·41497
55	100	1·36537	·23	·03	0·47712
56	101	0·40671	·03	·00	...

DIFFERENCE OF AGE, **50** YEARS.

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
14	64	5·96759	9280·90	113511·49	7·05503
15	65	·95687	9054·62	104456·87	7·01895
16	66	·94333	8776·68	95680·19	6·98082
17	67	·92781	8468·57	87211·62	·94058
18	68	·91106	8148·17	79063·45	·89797
19	69	·89302	7816·64	71246·81	·85277
20	70	·87252	7456·24	63790·57	·80476
21	71	·85004	7080·11	56710·46	·75366
22	72	·82478	6680·15	50030·41	·69923
23	73	·79748	6273·07	43757·34	·64105
24	74	5·76711	5849·38	37907·96	6·57873

50.

DIFFERENCE OF AGE, **50** YEARS—(*continued.*)

Ages.		$\lambda . H_{x, y}$	$H_{x, y}$	$K_{x, y}$	$\lambda . K_{x, y}$
y.	x.				
25	75	5·73287	5405·93	32502·03	6·51191
26	76	·69345	4936·85	27565·18	·44036
27	77	·64909	4457·49	23107·69	·36376
28	78	·59874	3969·54	19138·15	·28190
29	79	·54279	3489·72	15648·43	·19446
30	80	·48062	3024·27	12624·16	·10120
31	81	·41288	2587·50	10036·66	6·00160
32	82	·33890	2182·23	7854·43	5·89511
33	83	·25822	1812·26	6042·17	·78120
34	84	·16946	1477·27	4564·90	·65943
35	85	5·07291	1182·80	3382·10	·52919
36	86	4·96774	928·41	2453·69	·38982
37	87	·85337	713·46	1740·23	·24060
38	88	·72629	532·46	1207·77	5·08200
39	89	·58959	388·68	819·09	4·91333
40	90	·44089	275·99	543·10	·73488
41	91	·28299	191·86	351·24	·54560
42	92	4·10909	128·56	222·68	·34768
43	93	3·94261	87·62	135·06	4·13053
44	94	·76660	58·43	76·63	3·88440
45	95	·57324	37·43	39·20	·59329
46	96	·33810	21·78	17·42	3·24105
47	97	3·04410	11·07	6·35	2·80277
48	98	2·67345	4·71	1·64	2·21484
49	99	2·10193	1·26	·38	1·57978
50	100	1·52540	·34	·04	0·60206
51	101	0·56931	·04	·00	...

50.

above case it is simply meant to imply that *Rs.* 10·41,802·26, if invested so as to improve at eight per cent. compound interest, would of itself be adequate to meet all the liabilities on account of the pensions payable to the existing widows as they periodically fall due, and on the death of the last survivor the above-mentioned sum would just be exhausted.

(115.) The next important item of liabilities is that arising under the " contingent pensions " payable to such of the wives of the present Members as may survive their husbands. The details for the determination of this part of the liabilities will be found in the first section of Table XXXI., the formulæ for the construction of which have already been given.

(116.) The details of construction in the determination of the " present values " in the following Table XXXI. are exceedingly simple, and the method of calculation therein adopted will be found more expeditious and accurate than the natural numbers hitherto employed in your valuations.

(117.) The second section of the same Table gives the present value of annuities payable during the Joint Lives of Members and their wives, and affords a ready means by which to find the value of the Member's future contributions.

Table XXIX.

($\lambda . N_y$ and $\lambda . D_y$ from Table XX.)

Age y	$\lambda . N_y$	$\lambda . D_y$	$\lambda . N_y - \lambda . D_y$	$\frac{N_y}{D_y} = a_y$	$\frac{1 + A'_y}{4}$	$A'_y = \cdot 9615 - \frac{1}{13} a_y$	$a_y + \frac{1 + A'_y}{4}$	$\frac{\left(a_y + \frac{1 + A'_y}{4}\right) + \left(a_{y+1} + \frac{1 + A'_y}{4}\right)}{2} = {}^{w}a_y$
20	4·89691	4·03604	0·86087	7·259	·351	·404	7·610	7·698
21	·84212	3·97071	·87141	7·437	·348	·390	7·785	7·871
22	·78852	·90699	·88153	7·613	·344	·377	7·957	8·040
23	·73601	·84496	·89105	7·781	·341	·364	8·122	8·200
24	·68449	·78467	·89982	7·940	·338	·352	8·278	8·342
25	·63377	·72683	·90694	8·071	·335	·341	8·406	8·460
26	·58368	·67093	·91275	8·180	·333	·333	8·513	8·559
27	·53411	·61648	·91763	8·272	·332	·326	8·604	8·644
28	·48501	·56310	·92191	8·354	·330	·319	8·684	8·722
29	·43633	·51047	·92586	8·431	·328	·313	8·759	8·803
30	·38814	·45769	·93045	8·520	·327	·307	8·847	8·896
31	·34046	·40502	·93544	8·619	·325	·299	8·944	8·994
32	·29332	·35275	·94057	8·721	·323	·291	9·044	9·094
33	·24669	·30106	·94563	8·823	·321	·283	9·144	9·192
34	·20058	·25015	·95040	8·921	·319	·276	9·240	9·282
35	·15482	·20025	·95457	9·007	·317	.269	9·324	9·360
36	·10044	·15139	·95805	9·079	·316	·263	9·395	9·424
37	·06434	·10356	·96078	9·137	·315	·259	9·452	9·471
38	4·01941	·05674	·96267	9·176	·314	·256	9·490	9·501
39	3·97459	3·01089	·96370	9·198	·314	·254	9·512	9·511
40	·92976	2 96620	·96356	9·195	·314	·255	9·509	9·497
41	·88481	·92243	·96238	9·170	·314	·257	9·484	9·463
42	·83966	·87931	·96035	9·127	·315	·260	9·442	9·414
43	·79424	·83663	·95761	9·070	·316	·264	9,386	9·353
44	·74848	·79418	·95430	9·001	·318	·270	9·319	9·280
45	·70234	·75199	·95035	8·920	·319	·276	9·240	9·196
46	·65575	·70076	·94599	8·831	·321	·283	9·152	9·057
47	·60869	·66727	·94142	8·738	·323	·290	9·061	9·016
48	·56116	·62435	·93681	8·646	·324	·297	8·970	8·926
49	·51315	·58087	·93228	8·556	·326	·304	8·882	8·847
50	·46476	·53613	·92863	8·485	·327	·309	8·812	8·783
51	·41605	·49052	·92553	8·424	·329	·314	8·753	8·726
52	·36703	·44436	·92267	8·369	·330	·318	8·699	8·671
53	·31769	·39798	·91971	8·312	·331	·323	8·643	8·608
54	·26795	·35200	·91595	8·240	·332	·328	8·572	8·541
55	3·21783	2·30530	0 91253	8·176	·333	·333	8·509	8·475

Table XXIX.—*(continued.)*

Age y	$\lambda . N_y$ $\lambda . D_y$	$\lambda . N_y - \lambda . D_y$	$\frac{N_y}{D_y} = a_y$ $\frac{1 + A'_y}{4}$	$A'_y =$ $\cdot 9615 - \frac{1}{13}\, a_y$	$a_y + \frac{1 + A'_y}{4}$ $\frac{\left(a_y + \frac{1+A'_y}{4}\right) + \left(a_{y+1} + \frac{1+A'_y}{4}\right)}{2} = {}^{w}a_y$
56	3·16731	0.90881	8·106	·338	8·441
	2·25850		·335		8·402
57	·11632	·90448	8·026	·345	8·362
	·21184		·336		8·313
58	·06471	·89904	7·926	·352	8·264
	·16567		·333		8·201
59	3·01230	·89188	7·796	·362	8·137
	·12042		·341		8·065
60	2·95894	·88358	7·649	·374	7·993
	·07532		·344		7·913
61	·90448	·87420	7·485	·386	7·832
	2·03028		·347		7·745
62	·84877	·86371	7·307	·400	7·657
	1·98506		·350		7·565
63	·79169	·85238	7·118	·414	7·472
	·93931		·354		7·378
64	·73311	·84049	6·926	·429	7·283
	·89262		·357		7·187
65	·67295	·82802	6·730	·444	7·091
	·80493		·361		6·994
66	·61108	·81501	6·531	·460	6·896
	·79607		·365		6·798
67	·54738	·80139	6·330	·475	6·699
	·74599		·369		6·599
68	·48171	·78716	6·126	·491	6·499
	·69455		·373		6·398
69	·41392	·77226	5·919	·507	6·296
	·64166		·377		6·259
70	·34384	·75671	5·844	·512	6·222
	·58713		·378		6·054
71	·27131	·74046	5·501	·539	5·886
	·53085		·385		5·783
72	·19613	·72356	5·291	·555	5·680
	·47257		·389		5·577
73	·11810	·70593	5·081	·571	5·474
	·41217		·393		5·371
74	2·03701	·68765	4·871	·587	5·268
	·34936		·397		5·166
75	1·95262	·66862	4·663	·603	5·064
	·28400		·401		4·963
76	·86470	·64898	4·456	·619	4·861
	·21572		·405		4·761
77	·77297	·62862	4·252	·635	4·661
	·14435		·409		4·563
78	·67719	·60772	4·052	·650	4·465
	1·06947		·413		4·369
79	·57705	·58616	3·856	·665	4·272
	0·99089		·416		4·179
80	·47228	·56412	3·665	·680	4·085
	·90816		·420		3·994
81	·36256	·54147	3·479	·694	3·903
	·82109		·424		3·815
82	·24756	·51832	3·299	·708	3 726
	·72924		·427		3·640
83	·12690	·49452	3·123	·722	3·554
	·63238		·431		3·470
84	1·00022	·47018	2·952	·735	3·386
	·53004		·434		3·305
85	0·86704	·44506	2·787	·748	3·224
	·42198		·437		3 146
86	·72694	·41941	2·627	·760	3·067
	·30753		·440		2·992
87	·57944	·39317	2·473	·772	2·916
	·18627		·443		2·544
88	·42413	·36661	2·326	·783	2·772
	0·05752		·446		2·704
89	·26056	·33973	2·186	·794	2·635
	9·92083		·449		2·571
90	0·08836	·31281	2·055	·804	2·506
	·77555		·451		2·445
91	9·90709	0·28568	1·931	·813	2·384
	9·62141		·453		

Table XXX.

($^{w}a_y$ from Table XXIX.)

Age.	Consecutive Number in Schedule 4. *	Number of Widows on the 1st May, 1855.	Amount of Pension Payable = (1) $^{w}a_y$ = (2)	λ. (1) λ. (2)	λ. (1) + λ. (2) = λ. (3)	(3) = Total Present Value of Widows' Pensions.
			Rs.			*Rs.*
26	40, 55, 58	3	4334 8·559	3 63689 0·93242	4·56931	37094·54
29	53	1	1400 8·803	3·14613 0·94463	4·09076	12324·24
31	17	1	1400 8·994	3·14613 ·95395	4·10008	12591·57
32	22, 48	2	1750 9·094	3·24304 ·95875	4·20179	15914·39
33	43	1	2000 9·192	3 30103 ·96341	4·26444	18384·00
36	46	1	1400 9·424	3·14613 ·97424	4·12037	13193·80
37	20, 47	2	2934 9·471	3·46746 ·97640	4·44386	27788·17
38	31, 34	2	2700 9·501	3·43136 ·97777	4·40913	25652·52
40	54	1	1400 9·497	3·14613 ·97759	4·12372	13295·97
41	36	1	1333 9·463	3·12483 ·97603	4·10086	12614·21
42	42, 46, 38	3	5400 9·414	3·73239 ·97377	4·70616	50834·67
43	5, 15, 35, 50, 51, 52,	6	9806 9·353	3·99149 ·97095	4·96244	91714·92
44	3	1	2000 9·280	3·30103 ·96755	4·26858	18560·07
45	8, 10, 31	3	4800 9·196	3·68124 ·96360	4·64484	44140·78
46	11, 18, 45	3	6000 9·057	3·77815 ·95698	4·73513	54341·30
47	17, 5, 6, 57	4	6800 9·016	3·83251 ·95501	4·78751	61306·99
48	37	1	1000 8·926	3·00000 ·95066	3·95066	8926·06
49	16, 37	2	3400 8·847	3·53148 ·94680	4·47828	30080·15
50	29, 44	2	4000 8·783	3·60206 ·94364	4·54570	35131·77
51	12, 39, 47	3	5400 8·726	3 73239 ·94082	4·67321	47120·51
52	39	1	2000 8·671	3·30103 ·93807	4·23910	17342·03
53	41, 40, 42, 49	3	5400 8·608	3·73239 ·93490	4 66729	46482·56
54	9, 21, 23, 30	5	9400 8·541	3·97313 ·93151	4·90464	80286·03
55	49	1	2000 8·475	3·30103 ·92814	4·22917	16950·01
56	38	1	2000 8·402	3·30103 ·92438	4·22541	16803·90
57	32	1	1400 8·313	3·14613 ·91976	4·06589	11638·31
58	44, 26	2	4000 8·201	3·60206 ·91387	4 51593	32804·24
61	12, 19	2	3426 7·745	3 53479 ·88902	4·42381	26534·44
62	54	1	2000 7·565	3·30103 ·87881	4·17984	15130·04
63	20	1	1550 7·378	3·19033 ·86794	4 05827	11435·89
64	16, 17	2	2885 7·187	3·46015 ·85655	4·31670	20734·81
65	13, 6, 9	3	5374 6·994	3 73020 ·84473	4·57493	37577·68
66	13,	1	2226 6·798	3·34753 ·83238	4·17991	15132·48
67	33, 22, 41	3	6000 6·599	3 77815 ·81948	4·59763	39594·06
71	35	1	2000 5·783	3·30103 ·76215	4·06318	11565·92
72	14	1	2156 5·577	3·33365 0·74640	4·08005	12024·03
		72	*Rs.*1,23,074			*Rs.*10,43,047·08

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* The consecutive numbers in this column in red ink refer to the Schedule which takes effect prior to the end of the year 1838, and those in black-ink to subsequent entries.

Table XXXI.

($\lambda . K_{x,y}$ from XXVIII.; $\lambda . N_{x,y}$ and $\lambda . D_{x,y}$ from Table XXV.)

Consecutive Number in Schedule 2.	Ages.		$\lambda . K_{x,y}$ $\lambda . D_{x,y}$	$\lambda . K_{x,y} - \lambda . D_{x,y}$	$\frac{K_{x,y}}{D_{x,y}} =$ Present value of Wife's Contingent Pension of £1 or One Rupee.	$\lambda . N_{x,y}$ $\lambda . D_{x,y}$	$\lambda . N_{x,y} - \lambda . D_{x,y}$	$\frac{K_{x,y}}{D_{x,y}} =$ Present value of an Annuity, of £1, or One Rupee, on the joint lives of Husband and Wife.
	Wife (y)	Husband (x)						
1	48	57	6·31670 5·94919	0·36753	2·33093	6·73583 5·94917	0·78665	6·11857
2	20	53	7·13386 6·71147	·41407	2·59457	7·58287 6·71147	·86720	7·36550
3	45	55	6·44284 6·08666	·35618	2·27081	6·89537 ·08666	·80871	6·43730
4	46	53	·42891 ·11527	·31364	2·05892	6·93208 ·11527	·81681	6·55858
5	36	52	·77048 6·39541	·37507	2·37176	7·24267 6·39541	·84726	7·03493
6	53	57	·12100 5·80609	·31491	2·06495	6·57632 5·80609	·77023	5·89156
7	45	53	·46479 6·14209	·32270	2·10233	6·96169 6·14209	·81960	6·60085
8	38	52	·71095 ·34739	·36356	2·30972	7·18994 ·34739	·84255	6·95905
9	41	52	·61546 ·27332	·34214	2·19857	·10887 ·27332	·83555	6·84778
10	37	52	·74108 ·37145	·36963	2·34223	·21648 ·37145	·84503	6·99890
11	42	52	6·58215 ·24786	·33429	2·15919	·08019 ·24786	·83233	6·79720
12	26	50	7·05705 ·67688	·38017	2·39972	·55197 ·67688	·87509	7·50050
13	31	49	6·95893 ·59587	·36306	2·30707	·46345 ·59587	·86758	7·37191
14	33	51	·86951 ·49351	·37600	2·37684	·35122 ·49351	·85771	7·20626
15	50	52	·29208 ·03278	·25930	1·81677	·84038 ·03278	80760	6·42096
16	39	50	·71408 ·37901	·33507	2·16307	·22645 ·37901	·84744	7·03785
17	43	49	·60281 ·30672	·29609	1·97738	·14485 ·30672	·83813	6·88859
18	47	48	6·48297 ·22896	·25401	1·79478	·05641 ·22896	·82745	6·72125
19	24	47	7·16284 ·80534	·35750	2·27772	·69078 ·80534	·88544	7·68139
20	44	46	6·63795 ·36644	·27151	1·86857	·20583 ·36644	·83939	6·90860
22	45	52	·47822 ·16982	·30840	2·03423	·99371 ·16982	·82389	6·66638
24	43	46	·67239 ·39255	·27984	1·90476	·23492 ·39255	·84237	6·95617
25	36	44	·94145 ·62280	·31865	2·08281	·48701 ·62280	·86421	7·31493
26	39	43	6·87676 ·57877	·29799	1·98605	·43600 ·57877	·85723	7·19830
27	26	46	7·14237 ·79111	·35126	2·24523	·67493 ·79111	·88382	7·65279
28	39	43	6·87676 ·57877	·29799	1·98605	·43600 ·57877	·85723	7·19830
29	45	47	·57863 ·31150	·26713	1·84982	·14656 ·31150	·83506	6·84006
30	40	45	·79599 ·49724	·29875	1·98953	·34949 ·49724	·85225	7·11623
31	41	43	·81302 ·52917	·28385	1·92243	·38043 ·52917	·85126	7·10003
32	38	43	·90740 ·60326	·30414	2·01437	·46321 ·60326	·85995	7·24353
33	40	42	·87037 ·58258	·28779	1·93995	·43766 ·58258	·85508	7·16275
34	41	41	·86362 ·58594	·27768	1·89531	·43878 ·58594	·85284	7·12591
35	43	42	·77179 ·50647	·26532	1·84213	·35247 ·50647	·84600	7·01455
36	39	40	·95273 ·66389	·28884	1·94464	·52345 ·66389	·85956	7·23702
37	39	43	·87676 ·57877	·29799	1·98605	·43600 ·57877	·85723	7·19830
38	40	43	6·84529 ·55417	·29112	1·95488	·40841 ·55417	·85424	7·14891
39	33	43	7·04746 ·72146	·32600	2·11836	·59402 ·72146	·87256	7·45693
40	34	50	6·86075 ·49855	·36220	2·30250	·35734 ·49855	·85879	7·22420
41	37	47	·84039 ·51314	·32725	2·12447	·37112 ·51314	·85798	7·21074
42	33	46	·97517 ·63593	·33924	2·18394	·50478 ·63593	·86885	7·39350
43	40	41	6·85975 6·61095	0·24880	1·77337	7·46678 6·61095	0·85583	7·17513

Table XXXI.—(*continued.*)

Consecutive Number in Schedule 2.	Age.		$\lambda . K_{x,y}$ $\lambda . D_{x,y}$	$\lambda . K_{x,y} - \lambda . D_{x,y}$	$\frac{K_{x,y}}{D_{x,y}} =$ Present value of Wife's Contingent Pension of £1 or One Rupee.	$\lambda . N_{x,y}$ $\lambda . D_{x,y}$	$\lambda . N_{x,y} - \lambda . D_{x,y}$	$\frac{N_{x,y}}{D_{x,y}} =$ Present value of an Annuity of £1 or One Rupee, on the joint lives of Husband and Wife.
	Wife (y)	Husband (x)						
45	29	47	7·05101 6·69759	0·35342	2·25642	7·57343 6 69759	0·87584	7·51346
46	44	41	6·76338 ·50873	·25465	1·79742	·35228 ·50873	·84355	6·97509
47	31	43	7·09773 ·76722	·33051	2·14047	·64418 ·76722	·87696	7·53286
48	25	40	7·30805 6·98320	·32485	2·11276	7·87621 ·98320	·89301	7·81646
49	58	51	5·95846 5·81911	·13935	1·37830	6·59398 5·81911	·77487	5·95484
50	37	57	6·68341 6·23204	·45137	2·82729	7·04591 6·23204	·81387	6·51433
51	21	39	7·41280 7·09679	·31601	2·07019	·99666 7·09679	·89987	7·94091
52	24	49	·12003 6·74813	·37190	2·35451	·62925 6·74813	·88112	7·60536
53	23	48	7·16164 ·79803	·36361	2·30999	·68289 ·79803	·88486	7·67114
54	30	52	6·93001 ·53378	·39623	2·49018	·39329 ·53378	·85951	7·23619
55	25	46	7·16418 ·81257	·35161	2·24704	·69815 ·81257	·88558	7·68387
56	30	40	·19641 6·87476	·32165	2·09725	·75685 6·87476	·88209	7·62237
57	21	41	7·36288 7 04013	·32275	2·10257	7·93811 7·04013	·89798	7·90642
58	65	56	5·51243 5·43974	·07269	1·18220	6·14624 5·43974	·70650	5·08745
59	52	57	6·16224 5·83568	·32656	2·12109	6 60937 5·83568	·77369	5·93868
60	35	38	7·12095 6·81652	·30443	2·01572	7·68829 6·81652	·87177	7·44338
61	35	37	·14691 ·84475	·30216	2·00521	·71710 ·84475	·87235	7·45332
62	34	36	7·19983 ·89642	·30341	2·01099	·77177 ·89642	·87535	7·50499
63	43	43	6·74649 ·47807	·26842	1·85533	·32331 ·47807	·84524	7·00229
64	30	38	7·24748 ·93133	·31615	2·07086	·81491 ·93133	·88358	7·64857
65	31	37	·24952 ·93713	·31239	2·05301	·81902 ·93713	·88189	7·61886
66	32	38	·19920 ·88619	·31301	2·05594	·76512 ·88619	·87893	7·56711
67	32	41	·12264 ·80126	·32138	2·09595	·67797 ·80126	·87671	7·52853
68	33	38	·17391 ·86316	·31075	2·04527	·73984 ·86316	·87668	7·52801
69	38	38	·03500 ·74492	·29008	1·95020	·60853 ·74492	·86361	7·30483
70	35	38	·12095 ·81652	·30443	2·01572	·68829 ·81652	·87177	7·44338
71	33	35	·25188 ·94769	·30419	2·01461	·82009 ·94769	·87840	7·55788
72	28	39	·26784 ·94700	·32084	2·09334	·83466 ·94700	·88766	7·72076
73	29	37	·29643 6·98166	·31477	2·06429	7·86827 6·98166	·88661	7·70212
74	23	36	·45046 7·13893	·31153	2·04894	8·03834 7·13893	·89941	7·93250
75	35	38	·12095 6·81652	·30443	2·01572	7·68829 6·81652	·87177	7·44338
76	32	35	·27705 ·97074	·30631	2·02446	·85145 ·97074	·88071	7·59819
77	32	43	·07297 6·74451	·32846	2·13039	7·61942 6·74451	·87491	7·49739
78	25	31	7·53770 7·23588	·30182	2·00364	8·13529 7.23588	·89941	7·93250
79	43	38	6·87558 6·61977	·25581	1·80223	7·46808 6·61977	·84831	7·05196
80	34	48	6·90249 ·55552	·34697	2·22316	·41888 6·55552	·86336	7·30062
81	30	35	7·32515 7·01588	·30927	2·03831	·90133 7·01588	·88545	7·68157
82	35	36	·17301 6·87295	·30006	1·99554	·74583 6·87295	·87288	7·46243
83	29	33	·39991 7·09401	·30590	2·02255	·98303 7·09401	·88902	7·74498
84	33	38	·17391 6·86316	·31075	2·04527	·73984 6·86316	·87668	7·52801
85	32	39	·17391 ·85793	·31598	2·07005	·73619 ·85793	·87826	7·55544
87	35	32	·27675 ·98495	·29180	1·95794	·86002 ·98495	·87507	7·50015
88	38	39	7·00901 6·71665	0·29236	1·96047	7·57966 6·71665	0·86301	7·29474

Table XXXI.—*(continued.)*

Consecutive Number in Schedule 2.	Ages.		$\lambda . K_{x,y}$ $\lambda . D_{x,y}$	$\lambda . K_{x,y} - \lambda . D_{x,y}$	$\frac{K_{x,y}}{D_{x,y}}$ = Present value of Wife's Contingent Pension of £1 or One Rupee.	$\lambda . N_{x,y}$ $\lambda . D_{x,y}$	$\lambda . N_{x,y} - \lambda . D_{x,y}$	$\frac{N_{x,y}}{D_{x,y}}$ = Present value of an Annuity of £1 or One Rupee, on the joint lives of Husband and Wife.
	Wife (y)	Husband (x)						
89	27	38	7·31560 6·99684	0·31876	2·08334	7·88755 6·99684	0·89071	7·77517
90	31	36	·27545 ·96533	·31012	2·04230	6·84784 ·96533	·88251	7·62975
91	32	37	·22504 6·91442	·31058	2·04447	7·79401 6·91442	·87959	7·57862
92	28	32	·44794 7·14371	·30423	2·01479	8·03579 7·14371	·89208	7·79974
93	27	34	·41881 7·10945	·30936	2·03873	8·00264 7·10945	·89319	7·81970
94	34	35	·22594 6·92456	·30138	2·00161	7·80045 6·92456	·87589	7·51606
96	35	34	·22525 6·92914	·29611	1·97747	7·80307 6·92914	·87393	7·48049
97	27	29	7·54414 7·24783	·29631	1·07838	8·14473 7·24783	·89690	7·88679
98	47	43	6·60652 6·37174	·23478	1·71704	7·20382 6·37174	·83208	6·79329
99	30	37	7·27327 7·95956	·31371	2·05925	7·84381 6·95956	·88425	7·66037
100	29	33	·39991 ·09401	·30590	2·02255	7·98303 7·09401	·88902	7·74498
101	27	27	·84315 ·30218	·54097	3·47512	8·20088 ·30218	·89870	7·91954
102	29	30	·47528 ·17710	·29818	1·98692	8·06826 ·17710	·89116	7·78323
103	21	36	·48841 7·18147	·30694	2·02740	8·08369 7·18147	·90222	7·98399
104	31	37	·24952 6·93713	·31239	2·05301	7·81902 6·93713	·88189	7·61886
105	21	34	·53972 7·23768	·30204	2·00466	8·14123 7·23768	·90355	8·00848
106	25	31	·53770 7·23588	·30182	2·00364	8·13529 7·23588	·89941	7·93250
108	35	36	·17301 6·87295	·30006	1·99554	7·74583 6·87295	·87288	7·46243
109	24	34	·48204 7·17379	·30825	2·03353	8·07287 7·17379	·89908	7·92647
110	41	31	·12399 6·86697	·25702	1·80726	7·72496 6·86697	·85799	7·21091
111	25	32	·51258 7·20820	·30438	2·01549	8·10684 7·20820	·89864	7·91845
112	26	38	·33735 7·01833	·31902	2·08459	7·91108 7·01833	·89275	7·81178
113	31	37	·24952 6·93713	·31239	2·05301	7·81902 6·93713	·88189	7·61886
114	25	30	·56239 7·26342	·29897	1·99054	8·16367 7·26342	·90025	7·94786
115	26	25	·66077 ·37755	·28322	1·91964	8·28035 ·37755	·90280	7·99466
116	22	37	·44419 7·13203	·31216	2·05192	8·03222 7·13203	·90019	7·94676
117	33	40	·12258 6·80658	·31600	2·07014	7·68186 6·80658	·87528	7·50378
118	24	38	·37931 7·06117	·31814	2·08037	7·95756 7·06117	·89639	7·87753
119	19	35	·54938 ·25196	·29742	1·98344	8·15723 ·25196	·90527	7·04026
120	22	37	7·44419 7·13203	·31216	2·05192	8·03222 ·13203	·90019	7·94676
121	40	38	6·97345 6·69587	·27758	1·89487	7·55354 ·69587	·85767	7·20593
122	20	26	7·75414 7·47858	·27556	1·88608	8·39026 ·47858	·91168	8·15981
123	26	35	·41457 ·10289	·31168	2·04965	7·99763 ·10289	·89474	7·84766
124	22	28	·67026 ·38205	·28821	1·94183	8·28910 ·38205	·90705	8·07328
125	29	26	7·57109 7·28577	0·28532	1·92895	8·18050 7·28577	0·89473	7·84748
ANNUITANTS.								
1	53	73	5·82743 5·19387	0·63356	4·30091	5·77019 5·19387	0·57632	3·76982
2	75	69	4·65747 4·54650	·11088	1·29086	·03818 4·54659	·49159	3·10163
3	65	72	5·29866 4·85210	·44656	2·79615	5·40326 4·85210	·55116	3·55762
4	56	59	5·97575 5·65676	·31899	2·08444	6·40033 5·65676	·74357	5·54077
5	41	58	6·55013 6·10515	·44498	2·78599	·90158 6·10515	·79643	6·25792
6	55	62	5·99396 5·59407	0·39989	2·51125	·31469 5·59407	0·72062	5·25557

Table XXXI.—(*continued.*)

Consecutive Number in Schedule 2.	Ages.		$\lambda . K_{x,y}$ $\lambda . D_{x,y}$	$\lambda . K_{x,y} - \lambda . D_{x,y}$	$\frac{K_{x,y}}{D_{x,y}} =$ Present value of Wife's Contingent Pension of £1 or One Rupee.	$\lambda . N_{x,y}$ $\lambda . D_{x,y}$	$\lambda . N_{x,y} - \lambda . D_{x,y}$	$\frac{N_{x,y}}{D_{x,y}} =$ Present value of an Annuity of £1 or One Rupee, on the joint lives of Husband and Wife.
	Wife (y)	Husband (x)						
7	53	58	6·11381 5·77735	0·33646	2·17000	6·54020 5·77735	0·76285	5·79229
8	43	60	6·46436 ·99448	·46988	2·95039	·76805 ·99448	·77357	5·93704
9	57	63	5·89274 5·49853	·39421	2·47862	6·20172 5·49853	·70319	5·04882
10	30	55	6·89148 6·45065	·44083	2·75950	7·29285 6·45065	·84220	6·95345
11	32	52	·87985 ·48865	·39120	2·46003	·34422 ·48865	·85557	7·17084
12	40	55	·61134 ·21517	·39617	2·48983	·03667 6·21517	·82150	6·62979
13	39	55	·64295 6·23976	·40319	2·53041	7·06378 6·23976	·82402	6·66838
15	51	59	·18670 5·80669	·38001	2·39889	6·56784 5·80669	·76115	5·76966
16	40	58	·58209 6·13015	·45194	2·83100	·92891 6·13015	·79876	6·29158
17	38	58	·64375 6·17921	·46454	2·91434	·98244 6·17921	·80323	6·35668
18	53	55	·13666 5·86232	·27434	1·88079	·64518 5·86232	·78286	6·06541
19	43	57	·49347 6·08282	·41065	2·57425	·88272 6·08282	·79990	6·30812
20	43	55	6·51222 6·13906	·37316	2·36135	·95310 6·13906	·81404	6·51688
21	56	60	5·96832 5·62659	·34173	2·19649	·36184 5·62659	·73525	5·43563
22	58	58	·88749 5·62305	·26444	1·83840	·36515 5·62305	·74210	5·52205
23	53	65	6·03583 5·55020	·48563	3·05936	·24485 5·55020	·69465	4·95051
25	47	51	·42141 6·14380	·27761	1·89500	·96519 6·14380	·82139	6·62811
26	52	58	·15479 5·80689	·34790	2·22792	·57312 5·80689	·76623	5·83754
28	34	58	·75741 6·27431	·48310	3·04159	·08543 6·27431	·81112	6·47322
30	45	61	·38546 5·91096	·47450	2·98195	·66999 5·91096	·75903	5·74156
31	55	60	·01301 5·65743	·35558	2·26767	6·39658 5·65743	·73915	5·48466
32	41	51	·63128 6·30122	·33006	2·13826	7·13982 6·30122	·83860	6·89004
33	50	56	·24932 5·92164	·32768	2·12657	6·70891 5·92164	·78727	6·12731
34	54	50	·15993 5·97161	·18832	1·54284	6·76873 5·97161	·79712	6·26787
35	38	49	·76542 6·43187	·33355	2·15551	7·28414 6·43187	·85227	7·11659
36	41	52	·61546 6·27332	·34214	2·19857	·10887 ·27332	·83555	6·84778
37	36	51	·78635 6·42331	·36304	2·30696	·27448 ·42331	·85117	7·09856
38	35	48	·87494 6·53205	·34289	2·20237	·39321 ·53205	·86116	7·26374
39	42	51	6·59794 6·27575	·32219	2·09986	·11173 ·27575	·83598	6·85457
40	27	46	7·12005 6·76963	·35042	2·24089	7·65145 6·76963	·88182	7·61763
41	69	77	4·85162 4·39407	·45755	2·86781	4·83425 4·39407	·44018	2·75537
42	34	48	6·90249 6·55552	·34697	2·22316	7·41888 6·55552	·86336	7·30062
43	44	49	·56817 6·28064	·28753	1·93879	·11591 ·28064	·83527	6·84337
44	31	56	6·85589 6·40025	·45564	2·85535	·23335 ·40025	·83310	6·80926
45	26	60	7·05705 6·67688	·38017	2·39077	·55197 ·67688	·87509	7·50050
46	26	47	·11964 6·76250	·35714	2·27583	·64462 ·76250	·88212	7·62290
47	28	45	7·12056 6·77663	0·34393	2·20765	7·65774 6·77663	0·88111	7·60519
RETIRED SUBSCRIBERS.								
48	39	57	6·62304 6·18351	0·43953	2·75125	6·99297 6·18351	0·80946	6·44852
49	32	47	·97763 6·63034	·34729	2·22480	7·49976 ·63034	·86942	7·40321
51	46	48	6·51932 6·25604	0 26328	1·83350	7·08675 6·25604	0·83071	6·77189

Abstract Q.

Value of Pension from Table XXXI.

Consecutive Numbers in Schedule 2.	Ages.		Present Value of Wife's Contingent Pension of one Rupee.
	Wife (y)	Husband (x)	
FULL PENSIONS OF *Rs.* 2000.			
1	48	57	2·331
2	20	53	2·595
3	44	55	2·271
4	46	53	2·059
5	36	52	2·372
6	53	57	2·065
8	38	52	2·310
10	37	52	2·342
12	26	50	2·400
14	33	51	2·377
15	50	52	1·817
16	39	50	2·163
17	43	49	1·977
18	47	48	1·795
19	24	47	2·278
20	44	46	1·869
22	45	52	2·034
26	39	43	1·986
27	26	46	2·245
29	45	47	1·850
30	40	45	1·990
32	38	43	2·014
33	40	42	1·940
35	43	42	1·842
36	39	40	1·945
37	39	43	1·986
38	40	43	1·955
39	33	43	2·118
40	34	50	2·303
42	33	46	2·184
43	40	41	1·773
45	29	47	2·256
47	31	43	2·140
48	25	40	2·113
49	58	51	1·378
50	37	57	2·827
52	24	49	2·355
53	23	48	2·310
54	30	52	2·490
55	25	46	2·247
57	21	41	2·103
58	65	56	1·182
60	35	38	2·016
62	34	36	2·011
64	30	38	2·071
65	31	37	2·053
71	33	35	2·015
73	29	37	2·064
74	23	36	2·049
75	35	38	2·016
76	32	35	2·024
78	25	31	2·004
80	34	48	2·223
81	30	35	2·038
82	35	36	1·996
83	29	33	2·023
85	32	39	2·070
88	38	39	1·960
92	28	32	2·015
96	35	34	1·977
97	27	29	1·978
98	47	43	1·717
99	30	37	2·059
103	21	36	2·027
104	31	37	2·053
105	21	34	2·005
109	24	34	2·034
111	25	32	2·015
113	31	37	2·053
115	26	25	1·920
116	22	37	2·052
119	19	35	1·983
120	22	37	2·852
123	26	35	2·050
124	22	28	1·942
ANNUITANTS.			
1	53	73	4·302
2	75	69	1·291
3	65	72	2·796
4	56	59	2·084
5	41	58	2·786
7	53	58	2·170
8	43	60	2·950
9	57	63	2·479
10	30	55	2·760
11	32	52	2·461
12	40	55	2·490
13	39	55	2·530
15	51	59	2·399
16	40	58	2·831
17	38	58	2·914
18	53	55	1·881
19	43	57	2·574
20	43	55	2·361
21	56	60	2·196
22	58	58	1·838
23	53	65	3·059
25	47	51	1·895
26	52	58	2·228
30	45	61	2·982
31	55	60	2·268
33	50	56	2·127
35	38	49	2·156
37	36	51	2·307
38	35	48	2·202
39	42	51	2·100
40	27	46	2·241
41	69	77	2·868
43	44	49	1·939
44	31	56	2·855
45	26	50	2·400
46	27	47	2·276
47	28	45	2·208
RETIRED SUBSCRIBERS.			
48	39		2·751
49	32		2·225
		Total...	251·132 2000
		(1) *Rs.*	502264·0
THREE-FOURTHS OF FULL PENSION.			
13	31	49	2·307 1500
			(2) *Rs.*3460·5
TWO-THIRDS OF FULL PENSION.			
7	45	53	2·102
41	37	47	2·124
66	32	38	2·056
68	33	38	2·045
69	38	38	1·950
70	35	38	2·016
77	32	43	2·130
89	27	38	2·083
93	27	34	2·039
A. 36	41	52	2·199
A. 42	34	48	2·223
		Total...	22·967 1333·333
			(3) *Rs.*30622·7

Abstract Q.—(*continued.*)

HALF OF FULL PENSION.

Consecutive Numbers in Schedule 2.	Ages.		Present Value of Wife's Contingent Pension of one Rupee.	Consecutive Numbers in Schedule 2.	Ages.		Present Value of Wife's Contingent Pension of one Rupee.
	Wife (y)	Husband (x)			Wife (y)	Husband (x)	
11	42	52	2·159	110	41	31	1·807
24	43	46	1·905	112	26	38	2·085
28	39	43	1·986	114	25	30	1·991
31	41	43	1·922	117	33	40	2·070
34	41	41	1·895	118	24	38	2·080
51	21	39	2·070	121	40	38	1·895
59	52	57	2·121	122	20	26	1·886
61	35	37	2·005	125	29	26	1·929
63	43	43	1·855	**A.** 28	34	58	3·042
67	32	41	2·096	**A.** 32	41	51	2·138
79	43	38	1·802	**A.** 34	54	50	1·543
87	35	32	1·958				
90	31	36	2·042			Total...	57·826
91	32	37	2·044				1000
94	34	35	2·002				
100	29	33	2·023				(4) *Rs.*57779·0
101	27	27	3·475				

ONE-THIRD OF FULL PENSION.

Consecutive Numbers in Schedule 2	Ages.		Present Value of Wife's Contingent Pension of one Rupee.
	Wife (y)	Husband (x)	
25	36	44	2·083
46	44	41	1·797
102	29	30	1·987
		Total...	5·867
			666·67
			(5) *Rs.*3911·4

ONE-FOURTH OF FULL PENSION.

Consecutive Numbers in Schedule 2	Ages.		Present Value of Wife's Contingent Pension of one Rupee.
	Wife (y)	Husband (x)	
106	25	31	2·004
			500
			(6) *Rs.*1002·0

FRACTIONAL PARTS OF FULL PENSION.

Consecutive Numbers in Schedule 2.	Wife (y)	Husband (x)	Present Value of Wife's Contingent Pension of one Rupee.				
9	41	52	2·199	×	*Rs.*1260	=	2770·740
56	30	40	2·097	×	1602	=	3359·394
72	28	39	2·093	×	972	=	2034·396
84	33	38	2·045	×	1420	=	2903·900
108	35	36	1·996	×	1498	=	2990·008
A. 6	55	62	2·511	×	1816	=	4685·526
R.S.51	46	48	1·834	×	978	=	1793·652
							(7) *Rs.*20537·616

SUMMARY.

(1)	5,02,264·0
(2)	3,460·5
(3)	30,622·7
(4)	57,826·0
(5)	3,911·4
(6)	1,002·0
(7)	20,537·6
	*Rs.*6,19,624·2

See Page 129.

A. Signifies "Annuitants."
R.S. .. "Retired Subscribers."

(118.) If all the Members had been subscribing for the full amount of contingent pensions to their wives, the summation of column (6), Table XXXI., multiplied by *Rs.* 2000 would have given the total present value of the contingent pensions; as, however, a considerable number subscribed for fractional portions of the full pension, those providing for similar amounts will be found grouped together in the preceding Abstract Q, and from which it appears that

75 Members,
37 Annuitants, and
2 Retired Subscribers provide for the full amount of pensions, which are, according to the instructions furnished, to be valued at *Rs.* 2000 each.

(119.) Again, it will be seen from the same Abstract that

1 Subscriber provides three-fourths
11 do. do. two-thirds
28 do. do. one-half
3 do. do. one-third
1 do. do. one-fourth
and 7 do. do. for various other fractional portions of the
} full pension.

(120.) It hence follows, by collecting together the summations of each of these groups of pensions, that

Rs. 251·132 × 2000 = *Rs.* 5,02,264·0
2·307 × 1500 = 3,460·5
22·967 × 1333·333 = 30,622·7
57·826 × 1000 = 57,826·0
5·867 × 666·667 = 3,911·4
2·004 × 500 = 1,002·0
And seven fractional cases = 20,537·6

Total present value of contingent pensions 1st May, 1855 } *Rs.* 6,19,624·2

(121.) It will be observed that the number of Subscribers for contingent pensions on the 1st May, 1855, was 165, the number enumerated in your printed letter of instructions, see Vol. IV. of Proceedings, p. 67, is 168, but this I presume refers to another date*, as the preceding Abstract agrees with Schedule No. 2; there are, however, two Members whose wives are not subscribed for, and eleven widowers, in addition to the above-mentioned 165, making the total entries in that Schedule 178.

(122.) The next point to which attention is directed is the value of the contingent pensions payable to married daughters and re-married widows in the event of outliving their present husbands. There is nothing in the method to be employed in the determination of these values to distinguish it from that followed in the case of wives of Members, unless it be that they and their husbands at the younger ages may be resident in Europe, and therefore subject to a different rate of mortality; but from Schedule 12 it appears that of the twenty-six married daughters who are contingent claimants on the Fund, only three are European residents. Of the eight re-married widows similar information, however, is not furnished in the Schedule now forwarded; but on referring to page 22 of the printed valuation for 1853, I find that at least five of them are resident in India, and as the ages of five of the husbands vary from fifty-three to seventy-four, the distinction of mortality is practically unnecessary to be made; for if it were introduced, its effect, although slightly reducing the liabilities would, the cases being so few, produce no material difference in the aggregate results.

(123.) From the succeeding Table XXXII. it appears that the present value of the contingent claims on account of married daughters is *Rs.* 36,458·48. The mode of calculation is precisely similar that followed in respect to the wives' contingent pensions, the nature of which has been already fully explained.

[(124.) The same

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* It has since appeared that the above surmise is correct, and that the figures refer to two different dates.

Table XXXII.

Present Value of Contingent Pensions to Married Daughters.

($\lambda . K_{x, d}$ from Table XXVIII ; $\lambda . D_{x, d}$ from Table XXV.)

Consecutive Numbers in Schedule 12.	Age of		$\lambda . K_{x, d}$ $\lambda . D_{x, d}$	$\lambda . K_{x, d} - \lambda . D_{x, d}$	$\frac{K_{x, d}}{D_{x, d}} =$ Present value of Married Daughter's Contingent Pension of £1, or One Rupee.
	Daughter. (d)	Husband. (x)			
1	35	37	7·14691 6·84475	0·30216	2·005
2	29	36	7·32231 7·00986	·31245	2·053
3	21	25	7·75987 7·48427	·27560	1·886
4	34	62	6·70783 6·15146	·55637	3·601
5	44	59	6·44094 5·99856	·44238	2·769
6	40	64	6·50413 5·93915	·56498	3·673
7	26	31	7·51665 7·21445	·30220	2·005
8	24	26	7·67875 7·39350	·28525	1·929
9	21	41	7·36288 7·04013	·32275	2·103
10	22	37	7·44419 7·13203	·31216	2·052
*11	24	41	7·30406 6·97625	·32781	2·127
12	29	61	6·84779 6·29813	·54966	3·545
13	26	43	7·21291 6·87665	·33626	2·169
14	21	35	7·51406 7·20961	·30445	2·016
*15	34	40	7·09646 6·78343	·31303	2·056
16	29	42	7·16976 6·84016	·32960	2·136
17	27	33	7·44453 7·13740	·30713	2·028
18	34	34	7·25200 6·95261	·29939	1·992
19	22	30	7·62186 7·32746	·29440	1·970
20	37	47	6·84039 6·51314	·32725	2·124
21	38	52	6·71095 6·34739	·36356	2·310
22	24	26	7·67875 7·39350	·28525	1·929
23	25	46	7·16417 6·81257	·35160	2·247
*24	30	32	7·40238 7·09976	·30262	2·007
25	25	31	7·53771 7·23588	·30183	2·004
26	28	37	7·31909 7·00350	0·31559	2·068
					58·804
					620
					*Rs.*36,458·48

* Note.—These Three appear to be resident in Europe.

It appears that Nos. 1, 9, 10, 23, and 26 are married to Members, and the husband of the four first subscribe for Contingent Pensions to their wives. If, therefore, the regulations prevent any such wives, on becoming widows, from receiving both pensions, the value of the four cases should be deducted. No such case has yet occurred ; but it appears that in the event of the death of any of the above husbands leaving the widow surviving, she would be entitled to both pensions.

(124.) The same remarks apply to the contingent pensions of re-married widows, the valuation of which will be found in the next Table XXXIII., from which it will be seen that the total present value of their contingent pensions is *Rs.* 32,986·42.

XXXIII.

Present Value of Re-married Widows' Contingent Pensions.

($\lambda . \mathrm{K}_{x,y}$ from Table XXVIII.; $\lambda . \mathrm{D}_{x,y}$ from Table XXV.)

Consecutive Numbers in Schedule 11.	Ages.		$\lambda . \mathrm{K}_{x,y}$ $\lambda . \mathrm{D}_{x,y}$	$\lambda . \mathrm{K}_{x,y} - \lambda . \mathrm{D}_{x,y}$	$\frac{\mathrm{K}_{x,y}}{\mathrm{D}_{x,y}} =$ Present Value of Re-married Widows' Contingent Pension of £1, or 1 Rupee.	Amount of Annual Pension.	Present Value of Remarried Widows' Contingent Pensions.
	Wife (y)	Husband (x)					
						Rs.	*Rs.*
1	29	35	7·34827 7·03800	0·31027	2·043	1170	2390·31
2	36	54	6·74421 6·33999	·40422	2·536	1010	2561·36
3	47	41	6·65821 6·42851	·22970	1·697	2000	3394·01
4	36	48	6·84660 6·50846	·33814	2·178	700	1524·60
5	37	74	6·38382 5·67364	·71018	5·130	2000	10260·00
6	56	68	5·85370 5·54134	·31236	2·053	1550	3182·15
7	47	53	6·39243 6·03818	·35425	2·261	2000	4522·00
8	48	67	6·18236 5·61655	0·56581	3·680	1400	5152·00
							*Rs.*32,986·42

The present value of contingent pensions to wives of Members amount to = *Rs.* 6,19,624·20
do. do. married daughters = 36,458·48
do. do. re-married widows = 32,986·42
Total present value of the above contingent pensions = *Rs.* 6,89,069·10

(125.) The next portion of the liabilities consists of the pensions payable to children now incumbents on the Fund. The elements by which these liabilities may be determined are given in Tables XX. and XXI.

(126.) The annuities or pensions payable to fatherless children being as follows:

To a child under two years of age . .	*Rs.* 180
,, above two and under seven . .	270
,, ,, seven ,, eleven . .	340
,, ,, eleven ,, eighteen (sons)	620
,, ,, eleven ,, twenty-one	
Daughters, if not previously married	
Extended pensions to sons from eighteen to twenty-one	620
do. daughters until death or marriage,	
or while a widow .	

May be easily found by the following formula, as already shewn.

$\frac{N_x}{D_x}$ = Present value of an annuity of £1 or one rupee payable yearly in arrear, and

$\frac{N_x}{D_x} + \frac{1 + A'_{x'}}{4}$ = Present value of an annuity of £1 or one rupee payable by half-yearly instalments and up to the date of death, and may be expressed by $a_x + \frac{1 + A'_x}{4}$; but as

$\frac{D_{x+n}}{D_x}$ = Present value of £1 or one rupee payable if a life of the age x should live to $x + n$ years of age, then

$\frac{D_{x+n}}{D_x} \cdot \left(a_{x+n} + \frac{1 + A'_{x+n}}{4}\right)$ = Present value of an annuity of £1 or one rupee on a life aged x, deferred n years.

(127.) The values for the expression $a_x + \frac{1 + A'_x}{4}$ will be found calculated for all ages up to twenty-one for sons in Table XXXIV., and for daughters in Table XXXVII. The former, it will be observed, are derived from Table XXI., and the latter from Table XX., which includes the element of marriage, and the values arrived at in Table XXXIV. for sons are accordingly higher than those in Table XXXVII. for daughters. These two Tables are preparatory to the formation of Tables XXXV. and XXXVIII. respectively, in which the values of

$$\frac{D_{x+n}}{D_x} \cdot \left(a_{x+n} + \frac{1 + A'_{x+n}}{4}\right)$$

are determined for annuities so deferred, that $x+n$ in the respective Tables for sons and daughters represents ages two, seven, eleven, eighteen, and twenty-one. The figures in red ink in the first section of Table XXXV. shew the present values of deferred annuities of *Rs.* 90 to be entered upon in the event of a child surviving to age two, ninety rupees being the increase to the original pension of *Rs.* 180 payable under the age of two, making the pension after that age *Rs.* 270.

(128.) Again, the second section of the same Table gives the value of a deferred annuity of *Rs.* 70, that being the increment to the pension in the event of attaining age seven.

(129.) The third section in like manner gives the value of a deferred annuity of *Rs.* 280, being the final increment to the pension in the event of the child completing eleven years of age, and making the full pension *Rs.* 620.

(130.) In the fourth section of the Table will be found the value of a deferred annuity of *Rs.* 620, payable after attaining the age of eighteen, and in

(131.) The fifth section is given the value of a similar annuity deferred to twenty-one years of age.

(132.) Precisely the same explanations are applicable to Table XXXVIII. for daughters.

(133.) If Tables XXXVI. and XXXIX. be now referred to, they will be found to give a ready means of finding the values of the benefits to which fatherless children are entitled, or the values of what you have hither termed the absolute pensions of sons and daughters.

(134.) The second column of each of these Tables gives the values of immediate annuities of one rupee, taken from the seventh columns of Tables XXIV. and XXXVII. respectively.

(135.) The third column gives the value of *Rs.* 180 for the whole of life.

(136.) The fourth, the fifth, and the sixth columns are respectively the red ink figures, in the first, second, and third sections of Tables XXXV. and XXXVIII.

(137.) The seventh column is the sum of the values in the four preceding columns, and is of course the aggregate value of the whole pension to which the child is entitled, assuming, however, that the pension is to continue for life in the case of sons, and to death or marriage in that of daughters.

(138.) As by the Regulations of the Fund the benefits or pensions to which sons are entitled cease on attaining the age of eighteen or twenty-one, and those of daughters on attaining the age of twenty-one, or at marriage, the values given in column (7) will exaggerate the liabilities of the Fund; but as the difference between an immediate and a deferred annuity is evidently the value of a temporary annuity up to the time the deferred annuity commences, it now becomes easy to find the exact measure of the liability of the Fund on account of incumbent children. In Table XXXVI., column (8), will be found the value of a deferred annuity of *Rs.* 620 after attaining age eighteen, and if this be deducted from the values given in column (7) it will produce the value of a temporary annuity payable until the son shall attain the age of eighteen, and this value is inserted in column (10) of the same Table.

(139.) Again in column (9) is given the value of a deferred annuity after attaining age twenty-one, which, deducted from that in column (7), is the value of a temporary annuity payable to fatherless sons until the attainment of age twenty-one, as given in the last column of Table XXXVI.

(140.) In like manner the last column of Table XXXIX. gives the value of temporary annuities payable to fatherless daughters until the attainment of age twenty-one, but ceasing at marriage, if previous to that age.

(141.) From Tables XXXVI. and XXXIX. the collective values of the liabilities on account of pensions to fatherless children is at once obtained, and will be found in Abstracts R and S. The number of male children now entitled to pensions is fifty-six, and of female children eighty. The values in Abstract R are derived from Table XXXVI., and those in Abstract S from Table XXXIX., and it will be seen that the

Present value of the pensions payable to fatherless children—sons, is .	*Rs.* 1,41,922·35
do. do. do. daughters .	3,47,051·89
Total present value of pensions to fatherless children	4,88,974·24
But it has already been shewn (paragraph 113 and Table XXX.) that the present value of pensions to incumbent widows is . . .	10,43,047·08
Total present value of incumbent pensions is therefore . . .	= *Rs.* 15,32,021·32

(142.) The remaining items of liability still to be determined are those in regard to the contingent pensions to the sons of present Members, and the contingent pensions to the daughters of present Members.

Table XXXIV.

Value of Total Benefits to Fatherless Children.

SONS.—*(Eight per cent.)*

($\lambda . N_s$ and $\lambda . D_s$ from Table XXI.)

Age s	$\lambda . N_s = (1)$ $\lambda . D_s = (2)$	$(1) - (2) =$ $\lambda . a_s$	a_s $\frac{1 + A'_s}{4}$	$\frac{a_s}{13}$	$A'_s =$ $\cdot 9615 - \frac{a_s}{13}$	$a_s + \frac{1 + A'_s}{4}$	$\lambda . \left(a_s + \frac{1 + A'_s}{4}\right)$	Age s
0	5·94180 5·00000	0·94180	8·746 ·322	·673	·289	9·068	0·95751	0
1	·90066 4·89788	1·00278	10·064 ·297	·774	·188	10·361	1·01540	1
2	·86145 ·83679	·02466	10·584 ·287	·814	·148	10·871	·03627	2
3	·82310 ·78842	·03468	10·831 ·282	·833	·129	11·113	·04583	3
4	·78526 ·74448	·04078	10·984 ·279	·845	·117	11·263	·05165	4
5	·74473 ·70329	·04444	11·078 ·277	·852	·110	11·355	·05519	5
6	·71038 ·66370	·04668	11·135 ·275	·864	·098	11·410	·05729	6
7	·67312 ·62529	·04783	11·164 ·276	·859	·103	11·440	·05843	7
8	·63588 ·58779	·04809	11·171 ·276	·859	·103	11·447	·05869	8
9	·59866 ·55050	·04816	11·173 ·276	·859	·103	11·449	·05877	9
10	·56141 ·51341	·04800	11·169 ·276	·859	·103	11·445	·05862	10
11	·52414 ·47654	·04760	11·158 ·276	·858	·104	11·434	·05820	11
12	·48680 ·43998	·04682	11·138 ·276	·857	·105	11·414	·05744	12
13	·44937 ·40367	·04570	11·110 ·277	·855	·107	11·387	·05641	13
14	·41882 ·36749	·04433	11·075 ·278	·852	·110	11·353	·05511	14
15	·37415 ·33134	·04281	11·036 ·278	·849	·113	11·314	·05362	15
16	·33636 ·29509	·04127	10·997 ·279	·846	·116	11·276	·05216	16
17	·29843 ·25862	·03981	10·960 ·280	·843	·119	11·240	·05077	17
18	·26040 ·22195	·03845	10·926 ·281	·840	·122	11·207	·04949	18
19	·22226 ·18510	·03716	10·893 ·281	·838	·124	11·174	·04821	19
20	·18401 ·14810	·03591	10·862 ·282	.835	·127	11·144	·04704	20
21	5·14566 4·11100	1·03466	10·831 ·282	.833	·129	11·113	1·04583	21

Table XXXV.

Value of Total Benefits to Fatherless Children.

SONS.—*(Eight per cent.)*

$\left(\lambda . D_{s+n} \text{ and } \lambda . D_s \text{ from Table XXI.; } \lambda . \left(a_{s+n} + \frac{1 + A'_{s+n}}{4}\right) \text{ from Table XXXIV.}\right)$

Age s	$\lambda . D_2 + \lambda\left(a_2 + \frac{1+A'_2}{4}\right) =$ 5·87306 = (1)		$\lambda . D_7 + \lambda\left(a_7 + \frac{1+A'_7}{4}\right) =$ 5·68372 = (1)		$\lambda . D_{11} + \lambda\left(a_{11} + \frac{1+A'_{11}}{4}\right) =$ 5·53474 = (1)		$\lambda . D_{18} + \lambda\left(a_{18} + \frac{1+A'_{18}}{4}\right) =$ 5·27144 = (1)		$\lambda . D_{21} + \lambda\left(a_{21} + \frac{1+A'_{21}}{4}\right) =$ 5·15683 = (1)		Age s
	$(1) - \lambda . D_s$ $= \lambda . (2)$	(2) = Present Value of 1 Rupee per annum after 2. Value of *Rs.* 90 yearly.	$(1) - \lambda . D_s$ $= \lambda . (2)$	(2) = Present Value of 1 Rupee per annum after 7. Value of *Rs.* 70 yearly.	$(1) - \lambda . D_s$ $= \lambda . (2)$	(2) = Present Value of 1 Rupee per annum after 11. Value of *Rs.* 280 yearly.	$(1) - \lambda . D_s$ $= \lambda . (2)$	(2) = Present Value of 1 Rupee per annum after 18. Value of *Rs.* 620 yearly.	$(1) + \lambda . D_s$ $= \lambda . (2)$	(2) = Present Value of 1 Rupee per annum after 21. Value of *Rs.* 620 yearly.	
0	0·87306	7·4655 671·895	0·68372	4·8275 337·925	0.53474	3·4256 959·168	0·27144	1·8683 1158·346	0·15683	1·4349 889·638	0
1	0·97518	9·4445 850·005	·77584	5·9682 417·774	·63686	4·3337 1213·436	·37356	2·3635 1465·370	·25895	1·8153 1125·486	1
2			·84693	7·0296 492·072	·69795	4·9883 1396·704	·43465	2·7205 1686·710	·32004	2·0895 1295·490	2
3			·89530	7·8578 548·046	·74632	5·5760 1561·280	·48302	3·0410 1885·420	·36841	2·3357 1448·134	3
4			·93924	8·6944 608·608	·79026	6·1696 1727·488	·52696	3·3648 2086·176	·41235	2·5843 1602·266	4
5			0·98043	9·5594 669·158	·83145	6·7834 1899·352	·56815	3·6996 2293·752	·45354	2·8415 1761·730	5
6			1·02002	10·4718 733·026	·87104	7·4309 2080·652	·60774	4·0527 2512·674	·49313	3·1126 1929·812	6
7					·90945	8·1180 2273·040	·64615	4·4274 2744·988	·53154	3·4005 2108·310	7
8					·94695	8·8501 2478·028	·68365	4·8267 2992·554	·56904	3·7071 2298·402	8
9					0·98424	9·6436 2700·204	·72094	5·2594 3260·828	·60633	4·0395 2504·490	9
10					1·02133	10·5034 2940·952	·75803	5·7284 3551·608	·64342	4·3997 2727·814	10
11							·79490	6·2359 3866·258	·68029	4·7895 2969·490	11
12							·83146	6·7836 4205·832	·71685	5·2101 3230·262	12
13							·86777	7·3751 4572·562	·75316	5·6645 3511·990	13
14							·90395	8·0159 4969·858	·78934	6·1566 3817·092	14
15							·94010	8·7116 5401·192	·82549	6·6910 4148·420	15
16							0·97635	9·4700 5871·400	·86174	7·2734 4509·508	16
17							1·01282	10·2996 6385·752	·89821	7·9106 4904·572	17
18									·93488	8·6076 5336·716	18
19									0·97183	9·3720 5810·640	19
20									1·00873	10·2031 6325·922	20

Table XXXVI.

Value of Total Benefits to Fatherless Children.

SONS.—*(Eight per cent.)*

Age s	$a_s + \frac{1 + A'_s}{4}$ = Present Value of an Annuity of 1 Rupee, payable half-yearly.	*Rs.* 180 for Life = (1)	*Rs.* 90 per Annum after Age 2 = (2)	*Rs.* 70 per annum after Age 7 = (3)	*Rs.* 280 per annum after Age 11 = (4)	(1) + (2) + (3) + (4) = (5)	*Rs.* 620 per annum after Age 18 = (6)	*Rs.* 620 per annum after Age 21 = (7)	(5) — (6) = Present Value of an Annuity of *Rs.* 180 per annum under 2, of *Rs.* 270 from 2 to 7, of *Rs.* 340 from 7 to 11, of *Rs.* 620 from 11 to 18. λ. of Value.	(5) — (7) = Present Value of an Annuity of *Rs.* 180 per annum under Age 2, of *Rs.* 270 from 2 to 7, of *Rs.* 340 from 7 to 11, of *Rs.* 620 from 11 to 21. λ. of Value.
0	9·068	1632·24	671·895	337·925	959·168	3601·228	1158·346	889·638	2442·882 3·38791	2711·590 3·43323
1	10·361	1864·98	850·005	417·774	1213·436	4346·195	1465·370	1125·486	2880·825 ·45951	3220·709 ·50795
2	10·871	1956·78	978·390	492·072	1396·704	4823·946	1686·710	1295·490	3137·236 ·49654	3528·456 ·54759
3	11·113	2000·34	1000·170	548·046	1561·280	5109·836	1885·420	1448·134	3224·416 ·50845	3661·702 ·56368
4	11·263	2027·34	1013·670	608·608	1727·488	5377·106	2086·176	1602·266	3290·930 ·51731	3774·840 ·57689
5	11·355	2043·90	1021·950	669·158	1899·352	5634·360	2293·752	1761·730	3340·608 ·52382	3872·630 ·58800
6	11·410	2053·80	1026·900	733·026	2080·652	5894·378	2512·674	1929·812	3381·704 ·52914	3964·566 ·59820
7	11·440	2059·20	1029·600	800·800	2273·040	6162·640	2744·988	2108·310	3417·652 ·53373	4054·330 ·60792
8	11·447	2060·46	1030·230	801·290	2478·028	6370·008	2992·554	2298·402	3377·454 ·52821	4071·606 ·60977
9	11·449	2060·82	1030·410	801·430	2700·204	6592·864	3260·828	2504·490	3332·036 ·52271	4088·374 ·61155
10	11·445	2060·10	1030·050	801·150	2940·952	6832·252	3551·608	2727·814	3280·644 ·51595	4104·438 ·61325
11	11·434	2058·12	1029·060	800·380	3201·520	7089·080	3866·258	2969·490	3222·822 ·50823	4119·590 ·61486
12	11·414	2054·52	1027·260	798·980	3197·920	7078·680	4205·832	3230·262	2872·848 ·45831	3848·418 ·58528
13	11·387	2049·66	1024·830	797·090	3188·360	7059·940	4572·562	3511·990	2487·378 ·39575	3547·950 ·54998
14	11·353	2043·54	1021·770	794·710	3178·840	7038·860	4969·858	3817·092	2069·002 ·31576	3221·768 ·50810
15	11·314	2036·52	1018·260	791·980	3167·920	7014·680	5401·192	4148·420	1613·488 ·20777	2866·260 ·45732
16	11·276	2029·76	1014·840	789·320	3157·280	6991·200	5871·400	4509·508	1119·800 3·04914	2481·692 ·39475
17	11·240	2023·20	1011·600	786 800	3147·200	6968·800	6385·752	4904·572	583·048 2·76571	2064·228 ·31475
18	11·207	2017·26	1008·630	784·490	3137·960	6948·340	6948·340	5336·716		1611·624 ·20726
19	11·174	2011·32	1005·660	782·180	3128·720	6927·880	6927·880	5810·640		1117·240 3·04813
20	11·144	2005·92	1002·960	780·080	3120·320	6909 280	6909·280	6325·922		583·358 2·76594

Table XXXVII.

Value of Total Benefits to Fatherless Children.

DAUGHTERS.—*(Eight per cent.)*

($\lambda . N_d$ and $\lambda . D_d$ from Table XX.)

Age d	$\lambda . N_d = (1)$ $\lambda . D_d = (2)$	$(1) - (2) =$ $\lambda . a_d$	a_d $\frac{1 + A'_d}{4}$	$\frac{a_d}{13}$	$A'_d =$ $\cdot 9615 - \frac{a_d}{13}$	$a_d + \frac{1 + A'_d}{4}$	$\lambda . \left(a_d + \frac{1 + A'_d}{4}\right)$	Age d
0	5·89819 5·00000	0·89819	7·910 ·339	·608	·354	8·249	0·91640	0
1	·85247 4·89788	·95459	9·007 ·317	·693	·269	9·324	·96960	1
2	·80842 ·83679	·97163	9·368 ·310	·721	·241	9·678	·98579	2
3	·76482 ·78842	·97640	9·471 ·308	·729	·233	9·779	·99029	3
4	·72127 ·74448	·97679	9·480 ·308	·729	·233	9·788	·99069	4
5	·67746 ·70329	·97417	9·423 ·309	·725	·237	9·732	·98820	5
6	·63321 ·66370	·96951	9·322 ·311	·717	·245	9·633	·98376	6
7	·58832 ·62529	·96303	9·184 ·314	·706	·256	9·498	·97763	7
8	·54262 ·58779	·95483	9·012 ·317	·693	·269	9·329	·96984	8
9	·49598 ·55050	·94548	8·820 ·321	·678	·284	9·141	·96099	9
10	·44824 ·51341	·93483	8·607 ·325	·662	·300	8·932	·95095	10
11	·39923 ·47654	·92269	8·369 ·329	·644	·318	8·698	·93942	11
12	·34869 ·43998	·90871	8·104 ·335	·623	·339	8·439	·92629	12
13	·29638 ·40367	·89271	7·811 ·340	·601	·361	8·151	·91121	13
14	·24195 ·36749	·87446	7·490 ·347	·576	·386	7·837	·89415	14
15	·18563 ·32695	·85868	7·222 ·352	·556	·406	7·574	·87933	15
16	·12773 ·28186	·84587	7·012 ·356	·539	·423	7·368	·86735	16
17	·06900 ·22981	·83919	6·905 ·358	·531	·431	7·263	·86112	17
18	5·01032 ·17069	·83963	6·912 ·358	·532	·430	7·270	·86153	18
19	4·95296 ·10277	·85019	7·083 ·354	·545	·417	7·437	·87140	19
20	·89691 4·03604	·86087	7·259 ·351	·558	·404	7·610	·88138	20
21	4·84212 3·97071	0·87141	7·437 ·348	·572	·390	7·785	0·89126	21

Table XXXVIII.

Value of Total Benefits to Fatherless Children.

DAUGHTERS.—*(Eight per cent.)*

$\left(\lambda.D_{d+n}\right.$ and $\lambda.D_d$ from Table XX.; $\lambda.\left(a_{d+n}+\frac{1+A'_{d+n}}{4}\right)$ from Table XXXVII.$\Big)$

Age d	$\lambda.D_2+\lambda\left(a_2+\frac{1+A'_2}{4}\right)=$ 5·82258 = (1)		$\lambda.D_7+\lambda\left(a_7+\frac{1+A'_7}{4}\right)=$ 5·60292 = (1)		$\lambda.D_{11}+\lambda\left(a_{11}+\frac{1+A'_{11}}{4}\right)=$ 5·41596 = (1)		$\lambda.D_{21}+\lambda\left(a_{21}+\frac{1+A'_{21}}{4}\right)=$ 4·86197 = (1)		Age d
	$(1)-\lambda.D_d$ $=\lambda.(2)$	(2) = Present Value of 1 Rupee per annum after 2. Value of *Rs.* 90 yearly.	$(1)-\lambda.D_d$ $=\lambda.(2)$	(2) = Present Value of 1 Rupee per annum after 7. Value of *Rs.* 70 yearly.	$(1)-\lambda.D_d$ $=\lambda.(2)$	(2) = Present Value of 1 Rupee per annum after 11. Value of *Rs.* 280 yearly.	$(1)-\lambda.D_d$ $=\lambda.(2)$	(2) = Present Value of 1 Rupee per annum after 21. Value of *Rs.* 620 yearly.	
0	0·82258	6·6463 598·167	0·60292	4·0079 280·553	0·41596	2·6059 729·652	9·86197	·7277 451·174	0
1	0·92470	8·4081 756·729	·70504	5·0704 354·928	·51808	3·2967 923·076	9·96409	·9206 570·772	1
2			·76613	5·8362 408·534	·57917	3·7946 1062·488	0·02518	1·0597 657·014	2
3			·81450	6·5238 456·666	·62754	4·2417 1187·676	·07355	1·1845 734·390	3
4			·85844	7·2184 505·288	·67148	4·6933 1314·124	·11749	1·3107 812·634	4
5			·89963	7·9365 555·555	·71267	5·1602 1444·856	·15868	1·4411 893·482	5
6			0·93992	8·6940 608·580	·75226	5·6528 1582·784	·19827	1·5786 978·732	6
7					·79067	6·1755 1729·140	·23668	1·7246 1069·252	7
8					·82817	6·7324 1885·072	·27418	1·8801 1165·662	8
9					·86546	7·3360 2054·080	·31147	2·0487 1270·194	9
10					0·90255	7·9901 2237·228	·34856	2·2308 1383·096	10
11							·38543	2·4290 1505·980	11
12							·42199	2·6423 1638·226	12
13							·45830	2·8728 1781·136	13
14							·49448	3·1223 1935·826	14
15							·53502	3·4278 2125·236	15
16							·58011	3·8029 2357·798	16
17							·63216	4·2871 2658·002	17
18							·69128	4·9122 3045·564	18
19							·75920	5·7438 3561·156	19
20							0·82593	6·6978 4152·636	20

Table XXXIX.

Value of Total Benefits to Fatherless Children.

DAUGHTERS.—*(Eight per cent.)*

Age d	$a_d + \frac{1 + A'_d}{4}$ = Present Value of an Annuity of 1 Rupee per Annum payable half-yearly till Death or Marriage.	*Rs.* 180 per Annum till Death or Marriage = (1)	*Rs.* 90 per Annum after Age 2 till ditto = (2)	*Rs.* 70 per annum after Age 7 till ditto = (3)	*Rs.* 280 per Annum after Age 11 till ditto = (4)	(1) + (2) + (3) + (4) = (5)	*Rs.* 620 per annum after Age 21 till death. = (6)	(5) — (6) = Present Value of an Annuity of *Rs.* 180 per Annum under Age 2, of *Rs.* 270 from 2 to 7, of *Rs.* 340 from 7 to 11, of *Rs.* 620 from 11 to 21, till Death or Marriage. λ. of Value.
0	8·249	1484·820	598·167	280·553	729·652	3093·192	451·174	2642·018 3·42193
1	9·324	1678·320	756·729	354·928	923·076	3713·053	570·772	3142·281 ·49525
2	9·678	1742·040	871·020	408·534	1062·488	4084·082	657·014	3427·068 ·53493
3	9·778	1760·040	880·020	456·666	1187·676	4284·402	734·390	3550·012 ·55023
4	9·788	1761·840	880·920	505·288	1314·124	4462·172	812·634	3649·538 ·56223
5	9·732	1751·760	875·880	555·555	1444·845	4628·051	893·482	3734·569 ·57224
6	9·633	1733·940	866·970	608·580	1582·784	4792·274	978·732	3813·542 ·58132
7	9·498	1709·640	854·820	664·860	1729·140	4958·460	1069·252	3889·208 ·58986
8	9·329	1679·220	839·610	653·030	1885·072	5056·932	1165·662	3891·276 ·59009
9	9·141	1645·380	822·690	639·870	2054·080	5162·020	1270·194	3891·826 ·59015
10	8·932	1607·760	803·880	625·270	2237·228	5274·138	1383·096	3891·042 ·59006
11	8·698	1565·640	782·820	608·860	2435·440	5392·760	1505·980	3886·780 ·58959
12	8·439	1519·020	759·510	590·730	2362·920	5232·180	1638·226	3593·954 ·55558
13	8·151	1467·180	733·590	570·570	2282·820	5053·620	1781·136	3272·484 ·51488
14	7·837	1410·660	704·730	548·590	2194·360	4858·340	1935·826	2922·514 ·46575
15	7·574	1363·320	681·660	530·180	2120·720	4695·880	2125·236	2570·644 ·41003
16	7·368	1326·240	663·120	515·760	2063·040	4568·160	2357·798	2210·362 ·34447
17	7·263	1307·340	653·670	508·410	2033·640	4503·060	2658·002	1845·058 ·26602
18	7·270	1308·600	654·300	508·900	2035·600	4507·400	3045·564	1461·836 ·16489
19	7·437	1338·660	669·330	520·590	2082·360	4610·940	3561·156	1049·784 3·02111
20	7·610	1369·800	684·900	532·700	2130·800	4718·200	4152·636	565·564 2·75248

Abstract R.

Sons.

(Value of Pension from Table XXXVI.)

Age.	Total Number at each Age.	Number entitled to						Present Value of						Total Present Value of Pensions.
		Full Pensions till		Half Pensions till		Fractional Pensions till		Full Pensions till		Half Pensions till		Fractional Pensions till.		
		18	21	18	21	18	21	18	21	18	21	18	21	
3	1		1						3661·7					*Rs.* 3661·702
4	4		1	1	2				3774·8	1645·5	1887·4			9195·145
5	2		0			*1	‡1					2087·9	2581·8	4669·634
6	5		2	1		†2			3964·6	1690·9		3006·3		12626·319
8	1		1						4071·6					4071·606
9	3		2		1				4088·4		2044·2			10220·935
10	2		2						4104·4					8208·876
11	2		2						4119·6					8239·180
12	2		1		1				3848·4		1924·2			5772·627
13	5		5						3548·0					17739·750
14	5		4		1				3221·8		1610·9			14497·856
15	5		4					1613·5	2866·3					13078·528
16	4		3		1				2481·7		1240·8			8685·922
17	6		6						2064·2					12385·368
18	3		3						1611·6					4834·872
19	1		1						1117·2					1117·240
20	5		5						583·4					2916·790
Total	56													*Rs.* 1,41,922·350

Note.—* This one is entitled to a pension of $\frac{625}{1000}$.

‡ This one is entitled to a pension of two-thirds a *full* pension.

† One of these receives one-fourth a *full* pension—the other $\frac{630}{1000}$.

Let l_x = Number living at age x in the second column of Table XI. (members), and

l_c = Number living at age c in Table XVIII., column (5), or in Table XIX., column (4), according as l_c is intended to apply to the case of Daughters or Sons; then

$\lambda.l_x + \lambda.l_c + \lambda.v^{\frac{1}{2}(x+c)} = \lambda.\text{D}_{x,c}$ and which may be tabulated in precisely the same manner already pointed out in pp. 51–5 *ante*, and the columns headed $\lambda.\text{D}_{x,s}$ and $\lambda.\text{D}_{x,d}$ in Tables XL. to XLVIII. inclusive, and Tables LXI. to XLVIII. inclusive, according as intended for Daughters or Sons, were so determined. Also let

l_{s-1} = Number living at the middle of the year of age s—1 in the fourth column of Table XIX., and which will be found tabulated in Table XLVIII. Likewise let

[p_s = Present value

Abstract S.

Daughters' Absolute Pensions.

(Value of Pensions from Table XXXIX. and XXIX.)

Age.	Total Number at each Age.	Number entitled to					Present Value of *full* Pensions to cease at 21 Years of Age. Present Value of *full* Pensions to continue after 21 Years of Age, but ceasing on Death or Marriage.	Present Value of Total Benefits till Death or Marriage.	Total Present Value of Pensions.
		Full Pensions till		Half Pensions till	Fractional Pensions till				
		Death or Marriage.	21	21	Death or Marriage.	21			
3	1	1					3550·012 734·390	4284·402	4284·402
4	1	1					3649·538 812·634	4462·172	4462·172
5	1					1*	3734·569		933·642
6	4	4					3813·542 978·732	4792·474	19169·096
7	1	1					3889·208 1069·252	4958·460	4958·460
8	2	2					3891·270 1165·662	5056·932	10113·864
9	7	4		1	2†		3891·826 1270·194	5162·020	31422·599
10	1	1					3891·042 1383·096	5274·138	5274·138
11	3	1		2			3886·780 1505·980	5392·760	9279·540
12	3	2	1				3593·954 1638·226	5232·180	14058·314
13	3	3					3272·484 1781·136	5053·620	15160·860
14	3	2			1‡		2922·514 1935·826	4858·340	12955·574
15	6	6					2570·644 2125·236	4695·880	28175·280
16	8	8					2210·362 2357·798	4568·160	37545·280
17	3	3					1845·058 2658·002	4503·060	13509·180
18	6	4	1		1§		1461·836 3045·564	4507·400	20054·861
19	4	3		1			1049·784 3561·156	4610·940	14357·712
20	7	6	1				565·564 4152·636	4718·200	28874·764
							Present Value of Pension to continue till Death or Marriage, from Table XXIX.		
21	4	4					4826·700		19316·800
23	2	2					5035·640		10071·280
24	1	1					5132·360		5132·360
25	2	2					5211·720		10423·440
26	1	1					5278·060		5270·060
29	1				1‖		5430·580		4422·747
30	2	1			1¶		5485·140		6170·782
35	1	1					5780·880		5780·880
38	1	1					5883·800		5883·800
Total	80								*Rs.*3,47,051·887

NOTE.—* This one is entitled to one-fourth of a full pension.
† Each of these is entitled to two-thirds of a full pension.
‡ This one is entitled to two-thirds of a full pension.
§ This one is entitled to *Rs.* 77 : 8 : 0.
‖ This one is entitled to *Rs.* 504 : 15 : 0.
¶ This one is entitled to *Rs.* 77 : 8 : 0.

Table XL.

Present Value of Contingent Pensions.

Sons.—(*Eight per cent.*)

($\lambda . l_x$ from Table XI.; $\lambda . l_s$ from Table XIX.)

Ages		$\lambda . l_x = (1)$ $\lambda . l_s = (2)$	$(1) + (2) = (3)$ $\lambda . v^{\frac{1}{2}(x+s)} = (4)$	$(3) + (4) =$ $\lambda . D_{s,\,x}$	$D_{s,\,x}$
s	x				
0	25	4·92729 5·00000	9·92729 9·56749	9·49278	31101·4
1	26	·91712 4·93130	·84842 ·53207	·38049	24015·4
2	27	·90685 ·90364	·81049 ·49864	·30913	20376·5
3	28	·89646 ·88870	·78516 ·46522	·25038	17798·4
4	29	·88594 ·87817	·76411 ·43180	·19591	15700·4
5	30	·87529 ·87841	·75370 ·39837	·15207	14192·9
6	31	·86447 ·86424	·72871 ·36495	·09366	12406·8
7	32	·85349 ·85926	·71275 ·33152	9·04427	11073·1
8	33	·84235 ·85518	·69753 ·29810	8·99563	9899·88
9	34	·83110 ·85131	·68241 ·26468	·94709	8852·99
10	35	·81975 ·84765	·66740 ·23125	·89865	7918·63
11	36	·80833 ·84420	·65253 ·19784	·85037	7085·49
12	37	·79685 ·84107	·63792 ·16441	·80233	6343·52
13	38	·78534 ·83818	·62352 ·13098	·75450	5681·98
14	39	·77378 ·83543	·60921 ·09756	·70677	5090·61
15	40	·76218 ·83270	·59488 ·06413	·65901	4560·47
16	41	·75055 ·82987	·58042 9·03071	·61113	4084·42
17	42	·73890 ·82682	·56572 8·99729	·56301	3656·03
18	43	·72721 ·82357	·55078 ·96386	·51464	3270·70
19	44	·71547 ·82015	·53562 ·93044	·46606	2924·56
20	45	·70368 ·81658	·52026 ·89702	·41728	2613·85
21	46	4·69182 4·81289	9·50471 8·86359	8·36830	2335·07

Table XLI.

Present Value of Contingent Pensions.

Sons.—(*Eight per cent.*)

($\lambda . l_x$ from Table XI.; $\lambda . l_s$ from Table XIX.)

Ages		$\lambda . l_x = (1)$ $\lambda . l_s = (2)$	$(1) + (2) = (3)$ $\lambda . v^{\frac{1}{2}(x+s)} = (4)$	$(3) + (4) =$ $\lambda . D_{s,\,x}$	$D_{s,\,x}$
s	x				
0	30	4·87529 5·00000	9·87529 9·48194	9·35723	22763·0
1	31	·86447 4·93130	·79577 ·44851	·24428	17550·1
2	32	·85349 ·90364	·75713 ·41509	·17222	14866·9
3	33	·84235 ·88870	·73105 ·38166	·11271	12963·1
4	34	·83110 ·87817	·70927 ·34824	·05751	11415·9
5	35	·81975 ·87841	·69816 ·31482	9·01298	10303·4
6	36	·80833 ·86424	·67257 ·28139	8·95396	8994·15
7	37	·79685 ·85926	·65611 ·24791	·90408	8018·26
8	38	·78534 ·85518	·64052 ·21455	·85507	7162·59
9	39	·77378 ·85131	·62509 ·18112	·80621	6400·44
10	40	·76218 ·84765	·60983 ·14770	·75753	5721·77
11	41	·75055 ·84420	·59475 ·11427	·70902	5117·05
12	42	·73890 ·84107	·57997 ·08085	·66082	4579·52
13	43	·72721 ·83818	·56539 ·04743	·61282	4100·34
14	44	·71547 ·83543	·55090 9·01400	·56490	3671·98
15	45	·70368 ·83270	·53638 8·98058	·51696	3288·21
16	46	·69182 ·82987	·52169 ·94716	·46885	2943·41
17	47	·67990 ·82682	·50672 ·91373	·42045	2633·00
18	48	·66798 ·82357	·49155 ·88031	·36186	2354·29
19	49	·65613 ·82015	·47628 ·84688	·32316	2104·55
20	50	·64443 ·81658	·46101 ·81346	·27447	1881·35
21	51	4·63295 4·81289	9·44584 8·78004	8·22588	1682·21

Note.—In estimating the value of D, the characteristic of the logs. has been reduced by 5.

Table XLII.

Present Value of Contingent Pensions.

SONS.—*(Eight per cent.)*

($\lambda . l_x$ from Table XI.; $\lambda . l_s$ from Table XIX.)

Ages		$\lambda . l_x = (1)$	$(1) + (2) = (3)$	$(3) + (4) =$	$D_{s,x}$
s	x	$\lambda . l_s = (2)$	$\lambda . v^{\frac{1}{2}(x+s)} = (4)$	$\lambda . D_{s,x}$	
0	35	4·81975 5·00000	9·81975 9·39837	9·21812	16524·2
1	36	·80883 4·93130	·74013 ·36495	·10508	12737·4
2	37	·79685 ·90364	·70049 ·33152	9·03201	10764·9
3	38	·78534 ·88870	·67404 ·29810	8·97214	9378·64
4	39	·77378 ·87817	·65195 ·26468	·91663	8253·35
5	40	·76218 ·87841	·64059 ·23125	·87184	7444·58
6	41	·75055 ·86424	·61479 ·19784	·81263	6495·76
7	42	·73890 ·85926	·59816 ·16441	·76257	5788·55
8	43	·72721 ·85518	·58239 ·13098	·71337	5168·57
9	44	·71547 ·85131	·56678 ·09756	·66434	4616·79
10	45	·70368 ·84765	·55133 ·06413	·61546	4125·34
11	46	·69182 ·84420	·53602 9·03071	·56673	3687·48
12	47	·67990 ·84107	·52097 8·99729	·51826	3298·07
13	48	·66789 ·83818	·50616 ·96386	·47002	2951·35
14	49	·65613 ·83543	·49156 ·93044	·42200	2642·41
15	50	·64443 ·83270	·47713 ·89702	·37415	2366·74
16	51	·63295 ·82987	·46282 ·86359	·32641	2120·36
17	52	·62177 ·82682	·44859 ·83017	·27876	1900·03
18	53	·61076 ·82357	·43433 ·79674	·23107	1702·43
19	54	·59978 ·82015	·41993 ·76332	·18325	1524·93
20	55	·58874 ·81658	·40532 ·72990	·13522	1365·28
21	56	4·57749 4·81289	9·39038 8·69647	8·08685	1221·38

Table XLIII.

Present Value of Contingent Pensions.

SONS.—*(Eight per cent.)*

($\lambda . l_x$ from Table XI.; $\lambda . l_s$ from Table XIX.)

Ages		$\lambda . l_x = (1)$	$(1) + (2) = (3)$	$(3) + (4) =$	$D_{s,x}$
s	x	$\lambda . l_s = (2)$	$\lambda . v^{\frac{1}{2}(x+s)} = (4)$	$\lambda . D_{s,x}$	
0	40	4·76218 5·00000	9·76218 9·31482	9·07700	11939·9
1	41	·75055 4·93130	·68185 ·28139	8·96324	9188·40
2	42	·73890 ·90364	·64254 ·24797	·89051	7771·59
3	43	·72721 ·88870	·61591 ·21454	·83045	6767·84
4	44	·71547 ·87817	·59364 ·18112	·77476	5953·33
5	45	·70368 ·87841	·58209 ·14770	·72979	5367·72
6	46	·69182 ·86424	·55606 ·11427	·67033	4680·91
7	47	·67990 ·85926	·53916 ·08085	·62001	4168·79
8	48	·66798 ·85518	·52316 ·04743	·57059	3720·40
9	49	·65613 ·85131	·50744 9·00900	·51644	3284·28
10	50	·64443 ·84765	·49208 8·09058	·47266	2969·34
11	51	·63295 ·84420	·47715 ·94715	·42430	2656·44
12	52	·62177 ·84107	·46284 ·91373	·37657	2379·96
13	53	·61076 ·83818	·44894 ·88031	·32925	2134·27
14	54	·59978 ·83543	·43521 ·84688	·28209	1914·65
15	55	·58874 ·83270	·42144 ·81346	·23490	1717·51
16	56	·57749 ·82987	·40736 ·78004	·18740	1539·57
17	57	·56592 ·82682	·39274 ·74661	·13935	1378·32
18	58	·55387 ·82357	·37744 ·71304	·09048	1231·63
19	59	·54119 ·82015	·36134 ·67976	8·04110	1099·26
20	60	·52773 ·81658	·34431 ·64634	7·99065	978·701
21	61	4·51332 4·81289	9·32621 8·61292	7·93913	869·221

Note.—In estimating the value of D, the characteristic of the logs. has been reduced by 5.

Table XLIV.

Present Value of Contingent Pensions.

SONS —(*Eight per cent.*)

($\lambda . l_x$ from Table XI.; $\lambda . l_s$ from Table XIX.)

Ages		$\lambda . l_x = (1)$	$(1)+(2)=(3)$	$(3)+(4)=$	$D_{s,x}$
s	x	$\lambda . l_s = (2)$	$\lambda . v^{\frac{1}{2}(x+s)} = (4)$	$\lambda . D_{s,x}$	
0	45	4·70368 5·00000	9·70368 9·23125	8·93493	8608·55
1	46	·69182 4·93130	·62312 ·19784	·82096	6621·56
2	47	·67990 ·90364	·58354 ·16441	·74795	5596·93
3	48	·66798 ·88870	·55668 ·13098	·68766	4871·47
4	49	·65613 ·87817	·53430 ·09756	·63186	4284·10
5	50	·64443 ·87841	·52284 ·06413	·58697	3863·40
6	51	·63295 ·86424	·49719 9·03071	·52790	3372·10
7	52	·62177 ·85926	·48103 8·99729	·47832	3008·29
8	53	·61076 ·85518	·46594 ·96386	·42980	2690·30
9	54	·59978 ·85131	·45109 ·93044	·38153	2407·30
10	55	·58874 ·84765	·43639 ·89702	·33341	2154·82
11	56	·57749 ·84420	·42169 ·86359	·28528	1928·77
12	57	·56592 ·84107	·40699 ·83017	·23716	1726·47
13	58	·55387 ·83818	·39205 ·79674	·18879	1544·51
14	59	·54119 ·83543	·37662 ·76332	·13994	1380·19
15	60	·52773 ·83270	·36043 ·72990	·09033	1231·20
16	61	·51332 ·82987	·34320 ·69647	8·03967	1095·65
17	62	·49781 ·82682	·32463 ·66305	7·98768	972·031
18	63	·48111 ·82357	·30468 ·62963	·93431	859·627
19	64	·46312 ·82015	·28327 ·59620	·87947	757·652
20	65	·44373 ·81658	·26031 ·56278	·82309	665·411
21	66	4.42287 8·52935	9·23576 4·81289	7·76511	582·251

Table XLV.

Present Value of Contingent Pensions.

SONS.—(*Eight per cent.*)

($\lambda . l_x$ from Table XI.; $\lambda . l_s$ from Table XIX.)

Ages		$\lambda . l_x = (1)$	$(1)+(2)=(3)$	$(3)+(4)=$	$D_{s,x}$
s	x	$\lambda . l_s = (2)$	$\lambda . v^{\frac{1}{2}(x+s)} = (4)$	$\lambda . D_{s,x}$	
0	50	4·64443 5·00000	9·64443 9·14770	8·79213	6196·26
1	51	·63295 4·93130	·56425 ·11427	·67852	4770.02
2	52	·62177 ·90364	·52541 ·08085	·60626	4038·87
3	53	·61076 ·88870	·49946 ·04742	·54648	3519·49
4	54	·59978 ·87817	·47795 9·01400	·49191	3104·20
5	55	·58874 ·87841	·46715 8·98058	·44773	2803·69
6	56	·57749 ·86421	·44173 ·94715	·38888	2448·39
7	57	·56592 ·85926	·42518 ·91373	·33891	2182·28
8	58	·55387 ·85518	·40905 ·88031	·28936	1946·97
9	59	·54119 ·85131	·39250 ·84688	·23938	1735·32
10	60	·52773 ·84765	·37538 ·81346	·18884	1544·69
11	61	·51332 ·84420	·35752 ·78003	·13755	1372·62
12	62	·49781 ·84107	·33888 ·74661	·08549	1217·56
13	63	·48111 ·83818	·31929 ·71319	8·03248	1077·66
14	64	·46312 ·83543	·29855 ·67976	7·97831	951·284
15	65	·44373 ·83270	·27643 ·64634	·92277	837·086
16	66	·42287 ·82987	·25274 ·61292	·86566	733·939
17	67	·40042 ·82682	·22724 ·57949	·80673	640·811
18	68	·37618 ·82357	·19975 ·54592	·74567	556·763
19	69	·34996 ·82015	·17011 ·51264	·68275	481·670
20	70	·32156 ·81658	·13814 ·47922	·61736	414·343
21	71	4·29077 4·81289	9·10366 8·44580	7·54946	354·373

Note.—In estimating the value of D, the characteristic of the logs. has been reduced by 5.

Table XLVI.

Present Value of Contingent Pensions.

SONS.—*(Eight per cent.)*

($\lambda . l_x$ from Table XI.; $\lambda . l_s$ from Table XIX.)

Ages.		$\lambda . l_x = (1)$ $\lambda . l_s = (2)$	$(1) + (2) = (3)$ $\lambda . v^{\frac{1}{2}(x+s)} = (4)$	$(3) + (4) =$ $\lambda . D_{s,\,x}$	$D_{s,\,x}$
s	x				
0	55	4·58874 5·00000	9·58874 9·06413	8·65287	4496·45
1	56	·57749 4·93130	·50879 9·03071	·53950	3463·38
2	57	·56592 ·90364	·46956 8·99729	·46685	2929·88
3	58	·55387 ·88870	·44257 ·96386	·40643	2459·35
4	59	·54119 ·87817	·41936 ·93044	·34980	2237·69
5	60	·52773 ·87841	·40614 ·89702	·30316	2009·83
6	61	·51332 ·86424	·37756 ·86359	·24115	1742·41
7	62	·49781 ·85926	·35707 ·83017	·18724	1539·01
8	63	·48111 ·85518	·33629 ·79674	·13303	1358·41
9	64	·46312 ·85131	·31443 ·76322	·07775	1196·05
10	65	·44373 ·84765	·29138 ·72990	8·02128	1050·22
11	66	·42287 ·84420	·26707 ·69647	7·96354	919·475
12	67	·40042 ·84107	·24149 ·66305	·90454	802·676
13	68	·37618 ·83818	·21436 ·62963	·84399	698·216
14	69	·34996 ·83543	·18539 ·59620	·78159	604·770
15	70	·32156 ·83270	·15426 ·56278	·71704	521·243
16	71	·29077 ·82987	·12054 ·52935	·64989	446·571
17	72	·25739 ·82682	·08421 ·49593	·58014	380·312
18	73	·22110 ·82357	·04467 ·46251	·50718	321·499
16	74	·18159 ·82015	9·00174 ·42908	·43082	269·662
20	75	·13849 ·81658	8·95507 ·39566	·35073	224·249
21	76	4·09149 4·81289	8·90438 8·36224	7·26662	184·765

Table XLVII.

Present Value of Contingent Pensions.

SONS.—*(Eight per cent.)*

($\lambda . l_x$ from Table XI.; $\lambda . l_s$ from Table XIX.)

Ages.		$\lambda . l_x = (1)$ $\lambda . l_s = (2)$	$(1) + (2) = (3)$ $\lambda . v^{\frac{1}{2}(x+s)} = (4)$	$(3) + (4) =$ $\lambda . D_{s,\,x}$	$D_{s,\,x}$
s	x				
0	60	4·52773 5·00000	9·52773 8·98058	8·50831	3223·37
1	61	·51332 4·93130	·44462 ·94715	·39177	2464·73
2	62	·49781 ·90364	·40145 ·91373	·31518	2066·24
3	63	·48111 ·88870	·36981 ·88030	·25011	1778·73
4	64	·46312 ·87817	·34129 ·84688	·18817	1542·30
5	65	·44373 ·87841	·32214 ·81346	·13560	1366·47
6	66	·42287 ·86424	·28711 ·78003	·06714	1167·19
7	67	·40042 ·85926	·25968 ·74661	8·00629	1014·59
8	68	·37618 ·85518	·23136 ·71319	7·94455	880·136
9	69	·34996 ·85131	·20127 ·67976	·88103	760·379
10	70	·32156 ·84765	·16921 ·64634	·81555	653·958
11	71	·29077 ·84420	·13497 ·61291	7·4788	559·603
12	72	·25739 ·84107	·09846 ·57949	·67795	476·376
13	73	·22110 ·83818	·05928 ·54607	·60535	403·042
14	74	·18159 ·83543	9·01702 ·51264	·52966	338·579
15	75	·13849 ·83270	8·97119 ·47922	·45041	282·105
16	76	·09149 ·82987	·92136 ·44580	·36716	232·895
17	77	4·04021 ·82682	·86703 ·41237	·27940	190·283
18	78	3·98435 ·82357	·80792 ·37895	·18687	153·769
19	79	·92355 ·82015	·74370 ·34552	7·08922	122·806
20	80	·85751 ·81658	·67409 ·31210	6·98619	96·8702
21	81	3·78583 4·81289	8·59872 8·27868	6·87740	75·4050

Table XLVIII.

SONS.

$\frac{l_{s+(s+1)}}{2}$ is deduced from the fourth column of Table XIX.

Mean Ages.	$\frac{l_{s+(s+1)}}{2}$	$\lambda . \frac{l_{s+(s+1)}}{2}$
0 to 1	92685	4·96701
1 ... 2	82736	·91769
2 ... 3	78747	·89623
3 ... 4	76466	·88347
4 ... 5	74870	·87431
5 ... 6	73678	·86734
6 ... 7	72737	·86176
7 ... 8	71982	·85722
8 ... 9	71326	·85325
9 ... 10	70711	·84949
10 ... 11	70134	·84593
11 ... 12	69605	·84264
12 ... 13	69124	·83963
13 ... 14	68677	·83681
14 ... 15	68245	·83407
15 ... 16	67809	·83129
16 ... 17	67352	·82835
17 ... 18	66865	·82520
18 ... 19	66354	·82187
19 ... 20	65822	·81837
20 ... 21	65274	·81474
21 ... 22	64718	4·81103

Note.—In estimating the value of D, the characteristic of the logs. has been reduced by 5.

Table XLIX.

Present Value of Contingent Pensions.

SONS.—*(Eight per cent.)*

$\left\{\begin{array}{l}\lambda.\delta_{x-1} \text{ from Table XI.; } \lambda.l_{s-1} \text{ from Table XIX.;} \\ \lambda.p_s \text{ from Table XXXVI; } \lambda.v^{\frac{1}{2}} = 9{\cdot}98297.\end{array}\right\}$

Ages.		$\lambda.\delta_{x-1}$ = (1)	(1) + (2) = (3)	(3) + (4) = (5)	(5) + (6) + $\lambda.v^{\frac{1}{2}}$ = $\lambda.H$	H	K	$\lambda.K$
s	x	$\lambda.l_{s-1}$ = (2)	$\lambda.p_s$ = (4)	$\lambda.v^{\frac{1}{2}(x+s)-1}$ = (6)	$\lambda.H$	H	K	$\lambda.K$
0	25	3·29226 4·96701	8·25927 3·38791	1·64718 9·59891	1·22906 1·27438	1694572 1880962	15547305 19050376	2·19165 2·27990
1	26	·29181 ·91769	·20950 ·45951	·66901 ·56549	·21747 ·26591	1649947 1844643	13852733 17169414	·14154 ·23475
2	27	·28578 ·89623	·18201 ·49654	·67855 ·53207	·19359 ·24464	1561673 1756467	12202786 15324771	·08647 ·18540
3	28	·28035 ·88347	·16382 ·50845	·67227 ·49864	·15388 ·20911	1425214 1618490	16641113 13568304	2·02698 ·13252
4	29	·27531 ·87431	·14962 ·51731	·66693 ·46522	·11512 ·17470	1303527 1495202	9215899·2 11949814	1·96454 ·07737
5	30	·27045 ·86734	·13779 ·52382	·66161 ·43180	·07638 ·14056	1192285 1382165	7912372·2 10454612	·89831 2·01932
6	31	·26623 ·86176	·12799 ·52914	·65713 ·39537	·03847 ·10753	1092622 1280944	6720087·2 9072447	·82738 1·95772
7	32	·26198 ·85722	·11920 ·53373	·65293 ·36495	1·00085 ·07054	1001959 1188612	5627465·2 7791503	·75032 ·89162
8	33	·25672 ·85325	·10997 ·52821	·63818 ·33152	0·95267 1·03423	896747·1 1082007	4625506·2 6602891	·66516 ·81973
9	34	·25018 ·84949	·09967 ·52271	·62238 ·29810	·90345 0·99229	800663·4 982403·7	3728759·1 5520884	·57157 ·74201
10	35	·24279 ·84593	·08872 ·51595	·60467 ·26468	·85232 ·94960	711737·7 890430·4	2928095·7 4538480	·46659 ·65691
11	36	·23401 ·84264	·07665 ·50823	·58488 ·23125	·79910 ·90573	629651·1 804877·9	2216358·0 3648050	·34565 ·56207
12	37	·22453 ·83963	·06416 ·45831	·52247 ·19784	·70328 ·83025	504986·8 676472·3	1586706·9 2843172	·20049 ·45381
13	38	·21458 ·83681	·05139 ·39575	·44714 ·16441	·59452 ·74875	393115·3 560725·1	1081720·1 2166700	1·03411 ·33580
14	39	·20466 ·83407	·03873 ·31576	·35449 ·13098	·46844 ·66078	294062·7 457909·9	688604·8 1605975	0·83797 ·20575
15	40	·19451 ·83129	·02580 ·20777	·23357 ·09756	·31410 ·56365	206110·4 366142·4	394542·1 1148065	·59609 1·05998
16	41	·18412 ·82835	8·01247 3·04914	1·06161 ·06413	0·10871 ·45452	128442·9 284786·9	188431·7 781922·8	0·27515 0·89316
17	42	·17348 ·82520	7·99868 2·76571	0·76439 9·03071	9·77807 0·32711	59988·78 212378·2	59988·78 497135·9	9·77807 0·69648
18	43	·16316 ·82187	·98503 3·20726	1·19229 8·99729	0·17255	148781·9	284757·7	0·45448
19	44	·15320 ·81837	·97157 3·04813	1·01970 ·96386	9·96653	92582·73	135975·8	0·13348
20	45	·14333 ·81474	·95807 2·76594	0·72401 ·93044	9·63472	43393·03	43393·03	9·63742
21	46	3·13386 4·81103	7·94489					

Note.—In estimating the values of H and K, the characteristic of the λ has been reduced by 5. This has only been done for the sake of convenience, and does not, in any way, affect their value.

☞ The quantities in these columns represent λ H; H, K, and λ K are for the determination of the Pension, when payable till the Age of 21.

Table L.

Present Value of Contingent Pensions.

SONS.—*(Eight per cent.)*

$\lambda.\delta_{x-1}$ from Table XI.; $\lambda.l_{s-1}$ from Table XIX.
$\lambda.p_s$ from Table XXXVI.; $\lambda.v^{\frac{1}{2}} = 9{\cdot}98297$.

Ages.		$\lambda.\delta_{x-1}$ = (1)	(1) + (2) = (3)	(3) + (4) = (5)	(5) + (6) + $\lambda.v^{\frac{1}{2}}$ = λ.H	H	K	λ.K
s	x	$\lambda.l_{s-1}$ = (2)	$\lambda.p_s$ = (4)	$\lambda.v^{\frac{1}{2}(x+s)-1}$ = (6)	λ.H	H	K	λ.K
0	30	3·27045	8·23746	1.62537	1·12370	1329536	11897499	2·07546
		4·96701	3·38791	9·51536	1·16902	1475774	14572376	2·16352
1	31	·26623	·18392	·64343	·10834	1283335	10567963	2·02399
		·91769	·45951	·48194	·15678	1434762	13096602	·11717
2	32	·26198	·15821	·65475	·08623	1219635	9284628·2	1·96776
		·89623	·49654	·44851	·13728	1371766	11661840	·06676
3	33	·25672	·14019	·64864	·04670	1113525	8064993·2	·90660
		·88347	·50845	·41509	·10193	1264533	10290074	2·01242
4	34	·25018	·12449	·64180	1·00643	1014916	6951468·2	·84208
		·87431	·51731	·38166	·06601	1164153	9025541·3	1·95547
5	35	·24279	·11013	·63395	0·96516	922911·4	5936552·1	·77354
		·86734	·52382	·34824	1·02934	1069892	7861388·3	·89550
6	36	·23401	·09577	·62491	·92270	836950·9	5013640·7	·70015
		·86176	·52914	·31482	0·99176	981205·6	6754399·1	·82959
7	37	·22453	·08175	·61548	·87984	758298·2	4176689·8	·62083
		·85722	·53375	·28139	·95403	899559·7	5773193·5	·76142
8	38	·21458	·06783	·59604	·82698	671397·9	3418391·6	·53382
		·85325	·52821	·24797	·90854	810102·6	4873633·8	·68785
9	39	·20466	·05415	·57686	·77438	594812·4	2746993·7	·43886
		·84949	·52271	·21455	·86322	729827·1	4063531·2	·60890
10	40	·19451	·04044	·55639	·72048	525387·8	2152181·3	·33288
		·84593	·51595	·18112	·81778	657324·8	3333704·1	·52336
11	41	·18412	·02676	·53499	·66566	463084·2	1626793·5	·21133
		·84264	·50823	·14770	·77229	591956·8	2676379·3	·42755
12	42	·17348	8·01311	·47142	·56866	370390·6	1163709·3	1·06584
		·83963	·45831	·11427	·69563	496169·4	2084422·5	·31898
13	43	·16316	7·99997	·39572	·45954	288097·8	793318·7	0·89945
		·83681	·39575	·08085	·61377	410932·0	1588253·1	·20093
14	44	·15320	·98727	·30303	·33343	215491·4	505220·9	0·70348
		·83407	·31576	·04743	·52577	335559·9	1177321·1	1·07089
15	45	·14333	·97462	·18239	0·17936	151133·2	289729·5	0·46199
		·83129	·20777	9·01400	·42891	268478·8	841761·15	0·92519
16	46	·13386	·96221	1·01135	9·97490	94384·35	138596·3	0·14176
		·82835	3·04914	8·98058	·32071	209271·5	573282·35	·75837
17	47	·12450	·94970	0·71541	9·64554	44211·98	44211·98	9·64554
		·82520	2·76571	·94716	0·19458	156523·7	364010·85	·56111
18	48	·11261	·93448	1·14174				
		·82187	3·20726	·91373	0·03844	109245·7	207487·15	0·31700
19	49	·09795	·91632	0·96445				
		·81837	3·04813	·88031	9·82773	67255·84	98241·45	9·99229
20	50	·08063	·89537	0·66131				
		·81474	2·76594	·84688	9·49116	30985·61	30985·61	9·49117
21	51	3·06070	7·87173					
		4·81103						

Note.—In estimating the values of H and K, the characteristic of the λ has been reduced by 5. This has only been done for the sake of convenience, and does not, in any way, affect their value.

☞ The quantities in these columns represent λ H; H, K, and λ K are for the determination of the Pension, when payable till the Age of 21.

Table LI.

Present Value of Contingent Pensions.

Sons.—*(Eight per cent.)*

$\left\{\begin{array}{l}\lambda . \delta_{x-1} \text{ from Table XI.; } \lambda . l_{s-1} \text{ from Table XIX.;} \\ \lambda . p_s \text{ from Table XXXVI.; } \lambda . v^{\frac{1}{2}} = 9{\cdot}98297.\end{array}\right\}$

Ages.		$\lambda . \delta_{x-1} = (1)$	$(1) + (2) = (3)$	$(3) + (4) = (5)$	$(5) + (6) + \lambda . v^{\frac{1}{2}}$ $= \lambda . H$	H	K	$\lambda . K$
s	x	$\lambda . l_{s-1} = (2)$	$\lambda . p_s = (4)$	$\lambda . v^{\frac{1}{2}(x+s)-1} = (6)$	$\lambda . H$	H	K	$\lambda . K$
0	35	3·24279 4·96701	8·20980 3·38791	1·59771 9·43180	1·01248 1·05780	1029153 1142352	8888178·9 10818045	1·94881 2·03415
1	36	·23401 ·91769	·15170 ·45951	·61121 ·39837	0·99255 ·04099	982992·0 1098981	7859025·9 9675693	·89537 1·98568
2	37	·22453 ·89623	·12076 ·49654	·61730 ·36495	·96522 1·01627	923038·9 1038174	6876033·9 8576712	·83734 ·93332
3	38	·21458 ·88347	·09805 ·50845	·60650 ·33152	·92099 0·97622	833662·0 946716·6	5952995·0 7538538	·77474 ·87728
4	39	·20466 ·87431	·07897 ·51731	·59628 ·29810	·87735 ·93693	753962·9 864828·5	5119333·0 6951821	·70921 ·81900
5	40	·19451 ·86734	·06185 ·53282	·59467 ·26468	·84232 ·90650	695536·6 806306·2	4365370·1 5726993	·64002 ·75793
6	41	·18412 ·86176	·04588 ·52914	·57502 ·23125	·78924 ·85830	615516·9 721605·8	3669833·5 4920687	·56464 ·69203
7	42	·17348 ·85722	·03070 ·53373	·56443 ·19784	·74524 ·81943	556211·5 659026·9	3054316·6 4199082	·48491 ·62316
8	43	·16316 ·85325	·01641 ·52821	·54462 ·16441	·69200 ·77356	492039·5 593690·4	2498105·1 3539255	·39761 ·54892
9	44	·15320 ·84949	8·00269 ·52271	·52540 ·13098	·63935 ·72819	435863·0 534798·3	2006065·6 2945565	·30235 ·46917
10	45	·14333 ·84593	7·98926 ·51595	·50521 ·09756	·58574 ·68304	385247·7 481992·2	1570202·6 2410767	·19596 ·38216
11	46	·13386 ·84264	·97650 ·50823	·48473 ·06413	·53183 ·63846	340275·0 434970·7	1184954·9 1928775	1·07372 ·28529
12	47	·12450 ·83963	·96413 ·45831	·42244 9·03071	·43612 ·56309	272973·2 365670·6	844679·85 1493804	0·92669 ·17429
13	48	·11261 ·83681	·94942 ·39575	·34517 8·99729	·32543 ·47966	211558·3 301758·8	571706·65 1128133	·75718 1·05235
14	49	·09795 ·83407	·93202 ·31576	·24778 ·96386	·19461 ·38695	156534·5 243753·0	360148·35 826374·0	·55648 0·91717
15	50	·08063 ·83129	·91192 ·20777	1·11969 ·93044	0·03310 ·28265	107919·5 191712·3	203613·85 582621·0	0·30880 ·76539
16	51	·06070 ·82835	·88905 3·04914	0·93819 ·89702	9·81818 ·16399	65793·05 145878·1	95694·35 390908·7	9·98088 ·59208
17	52	·03822 ·82520	·86342 2·76571	0·62913 ·86359	9·47569 0·02473	29901·30 105859·5	29901·30 245030·6	9·47569 ·38922
18	53	·02036 ·82187	·84223 3·20726	1·04949 ·83017	9·86263	72883·63	139171·1	0·14355
19	54	3·00775 ·81837	·82612 3·04813	0·87425 ·79674	9·65396	45077·52	66287·49	9·82143
20	55	2·99957 ·81474	·81431 2·76594	0·58025 ·76332	9·32654	21209·97	21209·97	9·32654
21	56	2·99651 4·81103	7·80754					

Note.—In estimating the values of H and K, the characteristic of the λ has been reduced by 5. This has only been done for the sake of convenience, and does not, in any way, affect their value.

☞ The quantities in these columns represent λ H; H, K, and λ K are for the determination of the Pension, when payable till the Age of 21.

Table LII.

Present Value of Contingent Pensions.

SONS.—*(Eight per cent.)*

$\left\{\begin{array}{l} \lambda.\delta_{x-1} \text{ from Table XI.}; \ \lambda.l_{s-1} \text{ from Table XIX.}; \\ \lambda.p_s \text{ from Table XXXVI.}; \ \lambda.v^{\frac{1}{2}} = 9{\cdot}91297. \end{array}\right\}$

Ages.		$\lambda.\delta_{x-1} = (1)$	$(1) + (2) = (3)$	$(3) + (4) = (5)$	$(5) + (6) + \lambda.v^{\frac{1}{2}} = \lambda.H$	H	K	λ.K
s	x	$\lambda.l_{x-1} = (2)$	$\lambda.p_s = (4)$	$\lambda.v^{\frac{1}{2}(x+s)-1} = (6)$	λ.H	H	K	λ.K
0	40	3·19451	8·16152	1·54943	0·88064	759696·3	6434456·6	1·80851
		4·96701	3·38791	9·34824	0·92596	843257·1	7860665·9	1·89546
1	41	·18412	·10181	·56132	·85911	722952·9	5674760·3	·75395
		·91769	·45951	·31482	·90755	808258·0	7017408·8	·84618
2	42	·17348	·06971	·56625	·83061	677033·3	4951807·4	·69476
		·89623	·49654	·28139	·88166	761482·6	6209150·8	·79304
3	43	·16316	·04663	·55508	·78602	610970·2	4274774·1	·63091
		·88347	·50845	·24797	·84125	709986·4	5447668·2	·73621
4	44	·15320	·02751	·54482	·74233	552497·1	3663803·9	·56393
		·87431	·51731	·21454	·80191	633738·4	4737681·8	·67557
5	45	·14333	8·01067	·53449	·69858	488180·0	3111306·8	·49294
		·86734	·52382	·18112	·76276	578988·6	4103943·4	·61320
6	46	·13386	7·99562	·52476	·65543	452303·6	2623126·8	·41882
		·86176	·52914	·14770	·72449	530261·4	3523954·8	·54716
7	47	·12450	·98172	·51545	·61269	409911·4	2170823·2	·33662
		·85722	·53373	·11427	·68688	486272·8	2994693·4	·47635
8	48	·11261	·96586	·49407	·55789	361318·3	1760911·8	·24574
		·85325	·52821	·08085	·63945	435963·4	2508420·6	·39940
9	49	·09795	·94744	·47015	·50055	316628·5	1399593·5	·14600
		·84949	·52271	·04743	·58939	388499·1	2072457·2	·31649
10	50	·08063	·92656	·44251	·43448	271944·3	1082965·0	1·03461
		·84593	·51595	9·00900	·53178	340235·8	1683958·1	·22634
11	51	·06070	·90334	·41157	·37512	237202·9	811020·71	0·90903
		·84264	·50823	8·98058	·48175	303215·4	1343722·3	·12830
12	52	·03822	·87785	·33616	·26628	184620·5	573817·81	·75877
		·83963	·45831	·94715	·39325	247314·7	1040506·9	1·01724
13	53	·02036	·85717	·25292	·14962	141130·2	389197·31	·59017
		·83681	·39575	·91373	·30385	201302·9	793192·2	0·89938
14	54	3·00775	·84182	·15758	0·02086	104920·4	248067·11	·39457
		·83407	·31576	·88031	·21320	163380 4	591889·3	·77224
15	55	2·99957	·83086	1·03863	9·86848	73872·02	143146·71	0·15578
		·83129	·20777	·84688	·11803	131229·1	428508·9	·63196
16	56	·99651	·82486	0·87400	·67043	46819·85	69274·69	9·84058
		·82835	3·04914	·81346	0·01624	103810·2	297279·8	·47317
17	57	2·99739	·82259	0·58830	9·35131	22454·84	22454·84	9·35131
		·82520	2·76571	·78004	9·90035	79496·86	193469·6	·28661
18	58	3·00303	·82490	1·03216				
		·82187	3·20726	·74661	·76174	57775·01	113972·7	0·05679
19	59	·01284	·83121	0·87934				
		·81837	3·04813	·71304	·57535	37614·04	56197·65	9·74972
20	60	·02572	·84046	0·60640				
		·81474	2·76594	8·67976	9·26913	18583·61	18583·61	9·26914
21	61	3·04139	7·85242					
		4·81103						

Note.—In estimating the values of H and K, the characteristic of the λ has been reduced by 5. This has only been done for the sake of convenience, and does not, in any way, affect their value.

☞ The quantities in these columns represent λ H ; H, K, and λ K are for the determination of the Pension, when payable till the Age of 21.

Table LIII.

Present Value of Contingent Pensions.

SONS.—*(Eight per cent.)*

$\left\{\begin{array}{l}\lambda.\delta_{x-1} \text{ from Table XI.; } \lambda.l_{s-1} \text{ from Table XIX.;} \\ \lambda.p_s \text{ from Table XXXVI.; } \lambda.v^{\frac{1}{2}} = 9·98297.\end{array}\right\}$

Ages.		$\lambda.\delta_{x-1} = (1)$	$(1) + (2) = (3)$	$(3) + (4) = (5)$	$(5) + (6) + \lambda.v^{\frac{1}{2}} = \lambda.H$	H	K	λ.K
s	x	$\lambda.l_{s-1} = (2)$	$\lambda.p_s \quad = (4)$	$\lambda.v^{\frac{1}{2}(x+s)-1} = (6)$	λ.H	H	K	λ.K
0	45	3·14333	8·11034	1·49825	0·74590	557057·5	4663812·1	1·66874
		4·96701	3·38791	9·26468	0·79122	618329·5	5735697·4	1·75859
1	46	·13386	·05155	·51106	·72528	531226·8	4106754·6	·61350
		·91769	·45951	·23125	·77372	593909·1	5117367·9	·70905
2	47	·12450	8·02073	·51727	·69808	498976·4	3575527·8	·55334
		·89623	·49654	·19784	·74913	561215·9	4523458·8	·65547
3	48	·11261	7·99608	·50453	·65191	448652·4	3076551·4	·48807
		·88347	·50845	·16441	·70714	509495·1	3962242·9	·59794
4	49	·09795	·97226	·48957	·60352	401387·0	2627899·0	·41961
		·87431	·51731	·13098	·66310	460362·6	3452747·8	·53816
5	50	·08063	·94797	·47179	·55232	356713·9	2226552·0	·34764
		·86734	·52382	·09756	·61650	412667·2	2992385·2	·47602
6	51	·06670	·92246	·45160	·49870	315282·6	1869838·1	·27180
		·86176	·52914	·06413	·56776	369623·9	2579718·0	·41157
7	52	·03822	·89544	·42917	·44285	277236·2	1554555·5	·19162
		·85722	·53373	9·03071	·51704	328881·9	2210094·1	·34441
8	53	·02036	·87361	·40182	·38208	241034·9	1277319·3	·10629
		·85325	·52821	8·99729	·46364	290830·5	1881212·2	·27444
9	54	3·00775	·85724	·37995	·32678	212216·9	1036284·4	1·01549
		·84949	·52271	·96386	·41562	260387·4	1590381·7	·20151
10	55	2·99957	·84550	·36145	·27486	188304·2	824067·50	0·91596
		·84593	·51595	·93044	·37216	235591·7	1329994·3	·12385
11	56	·99651	·83915	·34738	·22737	168799·1	635763·30	·80329
		·84264	·50823	·89702	·33400	215774·4	1094402·6	1·03918
12	57	2·99739	·83702	·29533	·14189	138640·5	466996·20	·66928
		·83963	·45831	·86359	·26886	185720·6	878628·20	0·94381
13	58	3·00303	·83984	·23559	0·04873	111874·2	328323·70	·51630
		·83681	·39575	·83017	·20296	159573·2	692907·60	·84068
14	59	·01284	·84691	16267	9·94238	87574·97	216449·50	·33536
		·83407	·31576	·79674	·13472	136370·4	533334·40	·72700
15	60	·02572	·85701	1·06478	·81107	64724·69	128874·53	0·11015
		·83129	·20777	·76332	0·06062	114979·4	396964·00	·59875
16	61	·04139	·86974	0·91888	·63175	42830·19	64149·84	9·80720
		·82835	3·04914	·72990	9·97756	94964·22	281984·60	·45022
17	62	·05843	·88363	0·64934	9·32878	21319·65	21319·65	9·32879
		·82520	2·76571	·69647	9·87782	75477·93	187020·38	·27189
18	63	·07445	·89632	1·10358				
		·82187	3·20726	·66305	9·74960	56182·36	111542·45	0·04743
19	64	·08955	·90792	0·95605				
		·81837	3·04813	·62963	9·56865	37038·21	55360·09	9·74320
20	65	·10312	·91786	0·68380				
		·81474	2·76594	·59620	9·26297	18321·88	18321·88	9·26297
21	66	3·11494	7·92597					
		4·81103						

Note.—In estimating the values of H and K, the characteristic of the λ has been reduced by 5. This has only been done for the sake of convenience, and does not, in any way, affect their value.

☞ The quantities in these columns represent λ H; H, K, and λ K are for the determination of the Pension, when payable till the Age of 21.

Table LIV.

Present Value of Contingent Pensions.

SONS.—*(Eight per cent.)*

$\left\{\begin{array}{l}\lambda.\delta_{x-1} \text{ from Table XI.; } \lambda.l_{s-1} \text{ from Table XIX.} \\ \lambda.p_s \text{ from Table XXXVI.; } \lambda.v^{\frac{1}{2}} = 9·98297.\end{array}\right\}$

Ages.		$\lambda.\delta_{x-1} = (1)$	$(1) + (2) = (3)$	$(3) + (4) = (5)$	$(5) + (6) + \lambda.v^{\frac{1}{2}} = \lambda.H$	H	K	λ.K
s	x	$\lambda.l_{s-1} = (2)$	$\lambda.p_s = (4)$	$\lambda.v^{\frac{1}{2}(x+s)-1} = (6)$	λ.H	H	K	λ.K
0	50	3·08063 4·96701	8·04764 3·38791	1·43555 9·18112	0·05964 0·64496	397777·3 441529·8	3491010·4 4383790·1	1·54295 1·64185
1	51	·06070 ·91769	7·97839 ·45951	·43790 ·14770	·56857 ·61701	370313·9 414009·2	3093233·1 3942260·3	·49041 ·59575
2	52	·03822 ·89623	·93445 ·49654	·43099 ·11427	·52823 ·57928	337466·0 379559·6	2722919·2 3528251·1	·43503 ·54757
3	53	·02036 ·88347	·90383 ·50845	·41228 ·08085	·47610 ·53133	299295·4 339883·4	2385453·2 3148691·5	·37757 ·49813
4	54	3·00775 ·87431	·88206 ·51731	·39937 ·04742	·42976 ·48934	269004·8 308560·3	2086157·8 2808808·1	·31935 ·44852
5	55	2·99957 ·86734	·86691 ·52382	·39073 9·01400	·38770 ·45188	244174·3 283061·0	1817153·0 2500247·8	·25939 ·39797
6	56	·99651 ·86176	·85827 ·52914	·38741 8·98058	·35096 ·42002	224367·5 269165·9	1572978·7 2217186·8	·19672 ·34580
7	57	2·99739 ·85722	·85461 ·53373	·38834 ·94715	·31846 ·39265	208190·1 246973·3	1348611·2 1948020·9	·12989 ·28959
8	58	3·00303 ·85325	·85628 ·52821	·38449 ·91373	·28119 ·36275	191068·9 230542·0	1140421·1 1701047·6	1·05707 ·23070
9	59	·01284 ·84949	·86233 ·52271	·38504 ·88031	·24832 ·33716	177141·4 217350·2	949352·24 1470505·6	0·97743 ·16747
10	60	·02572 ·84593	·87165 ·51595	·38760 ·84688	·21745 ·31475	164987·1 206419·2	772210·84 1253155·4	·88774 ·09802
11	61	·04139 ·84264	·88403 ·50823	·39226 ·81346	·18869 ·29532	154415·2 197387·7	607223·74 1046736·2	·78335 1·01982
12	62	·05843 ·83963	·89806 ·45831	·35637 ·78003	·11937 ·24634	131634·6 176335·6	452808·54 849348·48	·65591 0·92909
13	63	·07445 ·83681	·91126 ·39575	·30701 ·74661	0·03659 ·19082	108790·3 155174·4	321173·94 673012·88	·50674 ·82802
14	64	·08955 ·83407	·92362 ·31576	·23938 ·71319	9·93554 ·12788	86206·50 134239·4	212383·64 517838·48	·32712 ·71420
15	65	·10312 ·83129	·93441 ·20777	1·14218 ·67976	·80491 0·05446	63813·12 113360·0	126177·14 383599·08	0·10098 ·58388
16	66	·11494 ·82335	·94329 3·04914	0·99243 ·64634	·62174 9·96755	41854·29 92800·43	62364·02 270239·08	9·79493 ·43175
17	67	·12516 ·82520	·95036 2·76571	0·71607 ·61292	9·31196 9·86100	20509·73 92627·32	20509·73 177438·65	9·31197 ·24905
18	68	·13513 ·82187	·95700 3·20726	1·16426 ·57949	9·72672	53299·12	104811·33	0·02040
19	69	·14395 ·81837	·96232 3·04813	0·01045 ·54592	9·53934	34621·03	51512·21	9·71191
20	70	·15137 ·81474	·96611 2·76594	0·73205 ·51264	9·22766	16891·18	16891·18	9·22766
21	71	3·15685 4·81103	7·96788					

Note.—In estimating the values of H and K, the characteristic of the λ has been reduced by 5. This has only been done for the sake of convenience, and does not, in any way, affect their value.

☞ The quantities in these columns represent λ H; H, K, and λ K are for the determination of the Pension, when payable till the Age of 21.

Table LV.

Present Value of Contingent Pensions.

SONS.—*(Eight per cent.)*

$\left\{\begin{array}{l}\lambda.\delta_{x-1} \text{ from Table XI.; } \lambda.l_{s-1} \text{ from Table XIX.;} \\ \lambda.p_s \text{ from Table XXXVI.; } \lambda.v^{\frac{1}{2}} = 9{\cdot}98297.\end{array}\right\}$

Ages.		$\lambda.\delta_{x-1} = (1)$	$(1) + (2) = (3)$	$(3) + (4) = (5)$	$(5) + (6) + \lambda.v^{\frac{1}{2}} = \lambda.H$	H	K	$\lambda.K$
s	x	$\lambda.l_{s-1} = (2)$	$\lambda.p_s = (4)$	$\lambda.v^{\frac{1}{2}(x+s)-1} = (6)$	$\lambda.H$	H	K	$\lambda.K$
0	55	2·99957	7·96658	1·35449	0·43502	272282·7	2967222·7	1·47235
		4·96701	3·38791	9·09756	0·48034	302231·7	3753676·9	1·57446
1	56	·99651	·91420	·37371	·42081	263517·8	2694940·0	·43054
		·91769	·45951	·06413	·46925	294611·7	3451445·2	·53800
2	57	2·99739	·89362	·39016	·40384	253419·5	2431422·2	·38586
		·89623	·49654	9·03071	·45489	285029·6	3156833·5	·49925
3	58	3·00303	·88650	·39495	·37521	237252·1	2178002·7	·33806
		·88347	·50845	8·99729	·43044	269426·3	2871803·9	·45815
4	59	·01284	·88715	·40446	·35129	224538·1	1940750 0	·28798
		·87431	·51731	·96386	·41087	257555·0	2602377·6	·41537
5	60	·02572	·89306	·41688	·33029	213939·0	1716212·5	·23457
		·86734	·52382	·93044	·39447	248610·5	2344822·6	·37011
6	61	·04139	·90315	·43229	·31228	205248·5	1502273·5	·17676
		·86176	·52914	·89702	·38134	240624·6	2096212·1	·32143
7	62	·05843	·91565	·44938	·29594	197669·7	1297025·0	·11294
		·85722	·53373	·86359	·37013	234493·1	1855587·5	·26848
8	63	·07445	·92770	·45591	·26905	185801·8	1099355·3	1·04116
		·85325	·52821	·83017	·35061	224186·8	1621094·4	·20981
9	64	·08955	·93904	·46175	·24146	174365·3	913553·53	0·96073
		·84949	·52271	·79674	·33030	21394·39	1396907·6	·14517
10	65	·10312	·94905	·46500	·21129	162663·5	739188·23	·86876
		·84593	·51595	·76322	·30859	203512·0	1182963·7	1·07298
11	66	·11494	·95758	·46581	·17868	150896·8	576524·73	·76081
		·84264	·50823	·72990	·28531	192890·1	979451·67	0·99098
12	67	·12516	·96479	·42310	·10254	126631·0	425627·93	·62903
		·83963	·45831	·69647	·22951	169632·9	786561·57	·89573
13	68	·13513	·97194	·36769	0·01371	103207·2	278996·93	·47567
		·83681	·39575	·66305	·16794	147210·9	616928·67	·79024
14	69	·14395	·97802	·29378	9·90638	80608·34	195789·73	·29179
		·83407	·31576	·62963	·09872	125522·0	469717·77	·67184
15	70	·15137	·98266	·19043	·76960	58830·16	115181·39	0·06138
		·83129	·20777	·59620	0·01915	104508·1	344195·77	·53681
16	71	·15685	·98520	1·03434	·58009	38026·82	56351·23	9·75090
		·82835	3·04914	·56278	9·92590	84314·06	239687·67	·37965
17	72	·15987	·98507	0·75078	9·26303	18324·41	18324·41	9·26302
		·82520	2·76571	·52935	9·81207	64873·90	155373·61	0·19137
18	73	·16137	·98324	1·19050				
		·82187	3·20726	·49593	9·66940	46708·94	90499·71	9·95665
19	74	·16047	·97884	1·02697				
		·81837	3·04813	·46251	9·47245	29679·05	43790·77	9·64138
20	75	·15685	·97159	0·73753				
		·81474	2·76594	·42908	9·14958	14111·72	14111·72	9·14959
21	76	3·14953	7·96056					
		4·81103						

Note.—In estimating the values of H and K, the characteristic of the λ has been reduced by 5. This has only been done for the sake of convenience, and does not, in any way, affect their value.

☞ The quantities in these columns represent λ H; H, K, and λ K are for the determination of the Pension, when payable till the Age of 21.

Table LVI.

Present Value of Contingent Pensions.

SONS.—*(Eight per cent.)*

$\left\{\begin{array}{l}\lambda.\delta_{x-1} \text{ from Table XI.; } \lambda.l_{s-1} \text{ from Table XIX.;} \\ \lambda.p_s \text{ from Table XXXVI.; } \lambda.v^{\frac{1}{2}} = 9{\cdot}98297.\end{array}\right\}$

Ages.		$\lambda.\delta_{x-1} = (1)$	$(1) + (2) = (3)$	$(3) + (4) = (5)$	$(5) + (6) + \lambda.v^{\frac{1}{2}} = \lambda.\text{H}$	H	K	$\lambda.\text{K}$
s	*x*	$\lambda.l_{s-1} = (2)$	$\lambda.p_s = (4)$	$\lambda.v^{\frac{1}{2}(x+s)-1} = (6)$	$\lambda.\text{H}$	H	K	$\lambda.\text{K}$
0	60	3·02572 4·96701	7·99273 3·38791	1·38064 9·01400	0·37761 0·42293	238566·8 264807·3	2767077·3 3462223·8	1·44202 1·53935
1	61	·04139 ·91769	·95908 ·45951	·41859 8·98058	·38214 ·43058	241068·2 269513·2	2528510·5 3197416·5	·40286 ·50480
2	62	·05843 ·89623	·95466 ·49654	·45120 ·94715	·38132 ·43237	240613·5 270626·3	2287442·3 2927903·3	·35935 ·46656
3	63	·07445 ·88347	·95792 ·50845	·46637 ·91373	·36307 ·41830	233071·9 262999·2	2046828·8 2657277·0	·31108 ·42444
4	64	·08955 ·87431	·96386 ·51731	·48117 ·88030	·34444 ·40402	221024·3 253524·5	1816116·9 2395277·8	·25914 ·37936
5	65	·01312 ·86734	·97046 ·52382	·49428 ·84688	·32413 ·38831	210925·9 244517·5	1595092·6 2141753·3	·20279 ·33078
6	66	·11494 ·86176	·97670 ·52914	·50584 ·81346	·30227 ·37133	200571·9 235141·9	1384166·7 1897235·8	·14119 ·27811
7	67	·12516 ·85722	·98238 ·53373	·51611 ·78003	·27911 ·35330	190156·0 225579·7	1183594·8 1662093·9	1·07320 ·22066
8	68	·13513 ·85325	·98838 ·52821	·51659 ·74661	·24617 ·32773	176266·6 212681·6	993438·78 1436514·2	0·99714 ·15731
9	69	·14395 ·84949	·99344 ·52271	·51615 ·71319	·21231 ·30115	163045·9 200055·3	817172·18 1223832·6	·91231 ·08771
10	70	·15137 ·84593	·99730 ·51595	·51325 ·67976	·17598 ·27328	149961·6 187620·4	654126·28 1023777·3	·81566 1·01022
11	71	·15685 ·84264	·99949 ·50823	·50772 ·64634	·13703 ·24366	137097·6 175250·8	504164·68 836156·91	·70257 0·92229
12	72	·15987 ·83963	·99950 ·45831	·45781 ·61291	0·05369 ·18066	113159·2 151586·3	367067·08 660906·11	·56475 ·82014
13	73	·16137 ·83681	·99818 ·39575	·39393 ·57949	9·95639 0·11062	90446·13 129009·0	253907·88 509319·81	·40468 ·70699
14	74	·16047 ·83407	·99454 ·31576	·31030 ·54607	·83934 0·01368	69078·04 107567·2	163461·75 380310·81	0·21342 ·58014
15	75	·15685 ·83129	·98814 ·20777	·19591 ·51264	·69152 9·94107	49149·60 87311·21	94383·71 272743·61	9·97490 ·43575
16	76	·14953 ·82835	·97788 3·04914	1·02702 ·47922	·48921 9·83502	30846·79 68394·31	45234·11 185432·40	·65547 ·26818
17	77	·13830 ·82520	·96350 2·76571	0·72921 ·44580	9·15798 9·70702	14387·32 50935·43	14387·32 117038·09	9·15798 0·06833
18	78	·12189 ·82187	·94376 3·20726	1·15102 ·41237	9·54636	35185·20	66102·66	9·82002
19	79	·10037 ·81837	·91874 3·04813	0·96687 ·37895	9·32879	21320·14	30917·46	9·49020
20	80	·07298 ·81474	·88772 2·76594	0·65366 ·34552	8·98215	9597·321	95973·21	8·98215
21	81	3·03981 4·81103	7·85084					

Note.—In estimating the values of H and K, the characteristic of the λ has been reduced by 5. This has only been done for the sake of convenience, and does not, in any way, affect their value.

☞ The quantities in these columns represent λ H; H, K, and λ K are for the determination of the Pension, when payable till the Age of 21.

Table LVII.

Contingent Benefits to Children of Living Members.

SONS.—*(Eight per cent.)*

Benefits payable till the Age of 18.

($\lambda . K_{s,x}$ from Table XLIX. and L.: $\lambda . D_{s,x}$ from Table XL. and XLI.)

Ages.		$\lambda . K_{s,x} = (1)$ $\lambda . D_{s,x} = (2)$	(1) — (2)	Value of Benefits.	Ages.		$\lambda . K_{s,x} = (1)$ $\lambda . D_{s,x} = (2)$	(1) — (2)	Value of Benefits.
s	x				s	x			
0	25	2·19165 9·49278	2·69887	499·88	0	25*	2·07546 9·35723	2·71823	522·67
1	26	·14154 ·38049	·76105	576·83	1	26	2·02399 ·24428	·77971	602·16
2	27	·08647 ·30913	·77734	598·88	2	27	1·96776 ·17222	·79554	624·48
3	28	2·02698 ·25038	·77660	597·86	3	28	·90660 ·11271	·79389	622·14
4	29	1·96454 ·19591	·76863	586·99	4	29	·84208 ·05751	·78457	608·93
5	30	·89831 ·15207	·74624	557·49	5	30	·77354 9·01298	·76056	576·18
6	31	·82738 ·09366	·73372	541·65	6	31	·70015 8·95396	·74619	557·43
7	32	·75032 9·04427	·70605	508·22	7	32	·62083 ·90408	·71675	520·89
8	33	·66516 8·99563	·66953	467·23	8	33	·53382 ·85507	·67875	477·25
9	34	·57157 ·94709	·62448	421·19	9	34	·43886 ·80621	·63265	429·19
10	35	·46659 ·89865	·56794	369·78	10	35	·33288 ·75753	·57535	376·14
11	36	·34565 ·85037	·49528	312·81	11	36	·21133 ·70902	·50231	317·91
12	37	·20049 ·80233	·39816	250·13	12	37	1·06584 ·66082	·40502	254·11
13	38	1·03411 ·75450	·27961	190·38	13	38	0·89945 ·61282	·28663	193·48
14	39	0·83797 ·70677	2·13120	135·27	14	39	·70348 ·56490	2·13858	137·59
15	40	·59609 ·65901	1·93708	86·51	15	40	·46199 ·51696	1·94503	88·11
16	41	0·27515 ·61113	·66402	46·13	16	41	0·14176 ·46885	·67291	47·09
17	42	9·77807 8·56301	1·21506	16·41	17	42	9·64554 8·42045	1·22509	16·79

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* Each of these ages (*x*) should be increased by 5—that is, for age 25, read 30; for 26, read 31 ……… and for age 42, read 47.

Table LVIII.

Contingent Benefits to Children of Living Members.

Sons.—*(Eight per cent.)*

Benefits payable till the Age of 18.

($\lambda . K_{s,x}$ from Tables LI. and LII. : $\lambda . D_{s,x}$ from Tables XLII. and XLIII.)

Ages.		$\lambda . K_{s,x} = (1)$ $\lambda . D_{s,x} = (2)$	(1) − (2)	Value of Benefits.	Ages.		$\lambda . K_{s,x} = (1)$ $\lambda . D_{s,x} = (2)$	(1) − (2)	Value of Benefits.
s	x				s	x			
0	35	1·94881 9·21812	2·73069	537·89	0	40	1·80851 9·07700	2·73151	538·90
1	36	·89537 ·10508	·79029	617·01	1	41	·73595 8·96324	·77271	592·53
2	37	·83734 9·03201	·80533	638·75	2	42	·69476 ·89051	·80425	637·16
3	38	·77474 8·97214	·80260	634·75	3	43	·63091 ·83045	·80046	631·63
4	39	·70921 ·91663	·79258	620·27	4	44	·56393 ·77476	·78917	615·42
5	40	·64002 ·87184	·76818	586·38	5	45	·49294 ·72976	·76318	579·67
6	41	·56464 ·81263	·75201	564·95	6	46	·41882 ·67033	·74849	560·39
7	42	·48491 ·76257	·72231	527·64	7	47	·33662 ·62001	·71661	520·73
8	43	·39761 ·71337	·68424	483·33	8	48	·24574 ·57059	·67517	473·31
9	44	·30235 ·66434	·63801	434·52	9	49	·14600 ·51644	·62956	426·15
10	45	·19596 ·61546	·58050	380·62	10	50	1·03461 ·47266	·56195	364·71
11	46	1·07372 ·56673	·50699	321·36	11	51	0·90903 ·42430	·48473	305·30
12	47	0·92669 ·51826	·40843	256·11	12	52	·75877 ·37657	·38220	241·10
13	48	·75718 ·47002	·28716	193·71	13	53	·59017 ·32925	·26092	182·36
14	49	·55648 ·42200	2·13448	136·30	14	54	·39457 ·28209	2·11248	129·56
15	50	0·30880 ·37415	1·93465	86·03	15	55	0·05573 ·23490	1·89088	77·78
16	51	9·98980 ·32641	·65447	45·13	16	56	9·84058 ·18740	·65318	44·99
17	52	9·47569 8·27876	1·19693	15·74	17	57	9·35131 8·13935	1·21196	16·29

Table LIX.

Contingent Benefits to Children of Living Members.

SONS.—*(Eight per cent.)*

Benefits payable till the Age of 18.

($\lambda . K_{s,x}$ from Tables LIII. and LIV.; $\lambda . D_{s,x}$ from Tables XLIV. and XLV.)

Ages.		$\lambda . K_{s,x}$ = (1) $\lambda . D_{s,x}$ = (2)	(1) — (2)	Value of Benefits.	Ages.		$\lambda . K_{s,x}$ = (1) $\lambda . D_{s,x}$ = (2)	(1) — (2)	Value of Benefits.
s	x				s	x			
0	45	1·66874 8·93493	2·73381	541·76	0	50	1·54295 8·79213	2·75082	563·40
1	46	·61350 ·82096	·79254	620·21	1	51	·49041 ·67852	·81189	648·47
2	47	·55334 ·74795	·80539	638·84	2	52	·43503 ·60626	·82877	674·17
3	48	·48807 ·68766	·80041	631·55	3	53	·37757 ·54648	·83109	677·78
4	49	·41961 ·63186	·78775	613·41	4	54	·31935 ·49195	·82740	672·05
5	50	·34764 ·58697	·76067	576·33	5	55	·25939 ·44773	·81166	648·13
6	51	·27180 ·52790	·74390	554·50	6	56	·19672 ·38888	·80784	642·45
7	52	·19162 ·47832	·71330	516·77	7	57	·12989 ·33891	·79098	617·99
8	53	·10629 ·42980	·67649	474·78	8	58	1·05707 ·28936	·76771	585·75
9	54	1·01549 ·38153	·63396	430·49	9	59	0·97743 ·23938	·73805	547·08
10	55	0·91596 ·33341	·58255	382·43	10	60	·88774 ·18884	·69890	499·92
11	56	·80329 ·28258	·51801	329·62	11	61	·78335 ·13755	·64580	442·38
12	57	·66928 ·23716	·43212	270·47	12	62	·65591 ·08549	·57042	371·89
13	58	·51630 ·18879	·32751	212·57	13	63	·50674 8·03248	·47426	298·03
14	59	·33536 ·13994	·19542	156·83	14	64	·32712 7·97831	·34881	223·26
15	60	0·11015 ·09033	2·01982	104·67	15	65	0·10098 ·92277	2·17821	150·73
16	61	9·82720 8·03967	1·78753	61·31	16	66	9·79493 ·86566	1·92927	84·97
17	62	9·32879 7·98768	1·34111	21·93	17	67	9·31197 7·80673	1·50524	32·01

Table LX.

Contingent Benefits to Children of Living Members.

SONS.—*(Eight per cent.)*

Benefits to continue till the Age of 18.

($\lambda . K_{s,x}$ from Tables LV. and LVI. : $\lambda . D_{s,x}$ from Tables XLVI. and XLVII.)

Ages.		$\lambda . K_{s,x} = (1)$ $\lambda . D_{s,x} = (2)$	(1) — (2)	Value of Benefits.	Ages.		$\lambda . K_{s,x} = (1)$ $\lambda . D_{s,x} = (2)$	(1) — (2)	Value of Benefits.
s	x				s	x			
0	55	1·47235 8·65287	2·81948	659·90	0	60	1·44202 8·50831	2·93371	858·44
1	56	·43054 ·53950	·89104	778·11	1	61	·40286 ·39177	3·01109	1025·86
2	57	·38586 ·46685	·91901	829·87	2	62	·35935 ·31518	·04417	1107·06
3	58	·33806 ·40643	·93163	854·34	3	63	·31108 ·25011	·06097	1150·46
4	59	·28798 ·34980	·93818	867·32	4	64	·25914 ·18817	·07097	1177·53
5	60	·23457 ·30316	·93141	853·91	5	65	·20279 ·13560	·06719	1167·32
6	61	·17676 ·24115	·93561	862·20	6	66	·14119 ·06714	·07405	1185·91
7	62	·11294 ·18724	·92570	842·75	7	67	1·07320 8·00629	·06691	1166·57
8	63	1·04116 ·13303	·90813	809·34	8	68	0·99714 7·94455	·05259	1128·73
9	64	0·96073 ·07775	·88298	763·80	9	69	·91231 ·88103	·03128	1074·68
10	65	·86876 8·02028	·84848	705·47	10	70	·81566 ·81555	3·00011	1000·25
11	66	·76081 7·96354	·79727	627·00	11	71	·70257 ·74788	2·95469	900·93
12	67	·62903 ·90454	·72449	530·26	12	72	·56475 ·67795	·88680	770·55
13	68	·47567 ·84399	·63168	428·23	13	73	·40468 ·60535	·79933	629·98
14	69	·29179 ·78159	·51020	323·74	14	74	0·21342 ·52966	·68376	482·79
15	70	0·06138 ·71704	·34434	220·97	15	75	9·97490 ·45041	·52449	334·57
16	71	9·75090 ·64989	2·10101	126·19	16	76	·65547 ·36716	2·28831	194·23
17	72	9·26302 7·58014	1·68288	48·18	17	77	9·15798 7·27940	1·87858	75·61

Table LXI.

Contingent Benefits to Children of Living Members.

Sons.—*(Eight per cent.)*

Benefits payable till the Age of 21.

($\lambda . K_{s,x}$ from Tables XLIX. and L.: $\lambda . D_{s,x}$ from Tables XL. and XLI.)

Ages.		$\lambda . K_{s,x}$ = (1)	(1)—(2)	Value of Benefits.	Ages.		$\lambda . K_{s,x}$ = (1)	(1)—(2)	Value of Benefits.
s	x	$\lambda . D_{s,x}$ = (2)			s	x	$\lambda . D_{s,x}$ = (2)		
0	25	2·27990 9·49278	2·78712	612·52	0	30	2·16352 9·35723	2·80629	640·16
1	26	·23475 ·38049	·85426	714·92	1	31	·11717 ·24428	·87289	746·26
2	27	·18540 ·30913	·87627	752·09	2	32	·06677 ·17222	·89455	784·42
3	28	·13252 ·25038	·88214	762·32	3	33	2·01242 ·11271	·89971	793·80
4	29	·07737 ·19591	·88146	761·13	4	34	1·95547 ·05751	·89796	790·61
5	30	2·01932 ·15207	·86725	736·63	5	35	·89550 9·01298	·88252	762·99
6	31	1·95772 ·09366	·86406	731·24	6	36	·82959 8·95396	·87563	750·98
7	32	·89162 9·04427	·84735	703·64	7	37	·76142 ·90408	·85734	720·01
8	33	·81973 8·99563	·82410	666·96	8	38	·68785 ·85507	·83278	680·42
9	34	·74201 ·94709	·79492	623·62	9	39	·60890 ·80621	·80269	634·88
10	35	·65691 ·89865	·75826	573·14	10	40	·52336 ·75753	·76583	583·22
11	36	·56207 ·85037	·71170	514·87	11	41	·42755 ·70902	·71853	523·03
12	37	·45381 ·80233	·65148	448·21	12	42	·31898 ·66082	·65816	455·16
13	38	·33580 ·75450	·58130	381·33	13	43	·20093 ·61282	·58811	387·36
14	39	·20575 ·70677	·49898	315·49	14	44	1·07089 ·56490	·50599	320·62
15	40	1·05998 ·65901	·40097	251·75	15	45	0·92519 ·51696	·40823	255·99
16	41	0·89316 ·61113	·28203	191·44	16	46	0·75837 ·46885	·28952	194·77
17	42	0·69648 ·56301	2·13347	135·98	17	47	0·56111 ·42045	2·14066	138·25
18	43	0·45448 ·51464	1·93984	87·06	18	48	0·31700 ·37186	1·94514	88·13
19	44	0·13348 ·46606	·66742	46·50	19	49	9.99229 ·32316	·66913	46·68
20	45	9·63742 8·41728	1·22014	16·60	20	50	9·49117 8·27447	1·21670	16·47

Table LXII.

Contingent Benefits to Children of Living Members.

SONS.—*(Eight per cent.)*

Benefits payable till the Age of 21.

($\lambda . K_{s,\,x}$ from Tables LI. and LII.: $\lambda . D_{s,\,x}$ from Tables XLII. and XLIII.)

Ages.		$\lambda . K_{s,\,x} = (1)$ $\lambda . D_{s,\,x} = (2)$	(1) — (2)	Value of Benefits.	Ages.		$\lambda . K_{s,\,x} = (1)$ $\lambda . D_{s,\,x} = (2)$	(1) — (2)	Value of Benefits.
s	x				s	x			
0	35	2·03415 9·21812	2·81603	654·68	0	40	1·89546 9·07700	2·81846	658·35
1	36	1·98568 ·10508	·88060	759·63	1	41	·84618 8·96322	·88294	763·73
2	37	·93332 9·03201	·90131	796·73	2	42	·79304 ·89051	·90253	798·97
3	38	·87728 8·97214	·90514	803·76	3	43	·73621 ·83045	·90576	804·93
4	39	·81900 ·91663	·90237	798·67	4	44	·67557 ·77476	·90081	795·81
5	40	·75793 ·87184	·88609	769·29	5	45	·61320 ·72979	·88341	764·56
6	41	·69203 ·81263	·87940	757·53	6	46	·54716 ·67033	·87683	753·06
7	42	·62316 ·76257	·86059	725·42	7	47	·47635 ·62001	·85634	718·36
8	43	·54892 ·71337	·83555	684·78	8	48	·39940 ·57059	·82881	674·23
9	44	·46917 ·66434	·80483	638·01	9	49	·31649 ·51644	·80005	631·03
10	45	·38216 ·61546	·76670	584·39	10	50	·22634 ·47266	·75368	567·13
11	46	·28529 ·56673	·71856	523·07	11	51	·12830 ·42430	·70400	505·82
12	47	·17429 ·51826	·65603	452·93	12	52	1·01724 ·37657	·64067	437·19
13	48	1·05235 ·47002	·58233	382·23	13	53	0·89938 ·32925	·57013	371·65
14	49	0·91717 ·42200	·49517	312·73	14	54	·77224 ·28209	·49015	309·14
15	50	·76539 ·37415	·39124	246·17	15	55	·63196 ·23490	·39706	249·49
16	51	·59208 ·32641	·26567	184·36	16	56	·47317 ·18740	·28577	193·09
17	52	·38922 ·27876	2·11046	128·96	17	57	·28661 ·13935	2·14726	140·37
18	53	0·14355 ·23107	1·91248	81·75	18	58	0·05679 ·09048	1·96631	92·54
19	54	9·82143 ·18325	·63818	43·47	19	59	9·74972 8·04110	·70862	51·12
20	55	9·32654 8·13522	1·19132	15·54	20	60	9·26914 7·99065	1·27849	18·99

Table LXIII.

Contingent Benefits to Children of Living Members.

SONS.—*(Eight per cent.)*

Benefits payable till the Age of 21.

($\lambda . \mathrm{K}_{s,x}$ from Tables LIII. and LIV.: $\lambda . \mathrm{D}_{s,x}$ from Tables XLIV. and XLV.)

Ages.		$\lambda . \mathrm{K}_{s,x} = (1)$ $\lambda . \mathrm{D}_{s,x} = (2)$	(1) − (2)	Value of Benefits.	Ages.		$\lambda . \mathrm{K}_{s,x} = (1)$ $\lambda . \mathrm{D}_{s,x} = (2)$	(1) − (2)	Value of Benefits.
s	x				s	x			
0	45	1·75859 8·93493	2·82366	666·28	0	50	1·64185 8·79213	2·84972	707·49
1	46	·70905 ·82096	·88809	772·84	1	51	·59575 ·67852	·91723	826·48
2	47	·65547 ·74795	·90752	808·20	2	52	·54757 ·60626	·94131	873·59
3	48	·59794 ·68766	·91028	813·35	3	53	·49813 ·54648	·95165	894·62
4	49	·53816 ·63186	·90630	805·94	4	54	·44852 ·49195	·95657	904·84
5	50	·47602 ·58697	·88905	774·55	5	55	·39797 ·44773	·95024	891·76
6	51	·41157 ·52790	·88367	765·02	6	56	·34580 ·38888	·95692	905·57
7	52	·34441 ·47832	·86609	734·67	7	57	·28959 ·33891	·95068	892·65
8	53	·27444 ·42980	·84464	699·26	8	58	·23070 ·28936	·94134	873·66
9	54	·20151 ·38153	·81998	660·66	9	59	·16747 ·23938	·92809	847·40
10	55	·12385 ·33341	·79044	617·22	10	60	·09802 ·18864	·90918	811·30
11	56	1·03918 ·28528	·75390	567·41	11	61	1·01982 ·13755	·88227	762·55
12	57	0·94381 ·23716	·70665	508·92	12	62	0·92909 ·08549	·84360	697·59
13	58	·84068 ·18879	·65189	448·63	13	63	·82802 8·03248	·79554	624·51
14	59	·72700 ·13994	·58706	386·42	14	64	·71420 7·97831	·73589	544·36
15	60	·59875 ·09033	·50842	322·42	15	65	·58388 ·92277	·66111	458·26
16	61	·45022 8·03967	·41055	257·37	16	66	·43175 ·86566	·56609	368·21
17	62	·27189 7·98768	·28421	192·40	17	67	·24905 ·80673	·44232	276·90
18	63	0·04743 ·93431	2·11312	129·75	18	68	0·02040 ·74567	·27473	188·25
19	64	9·74320 ·87947	1·86373	73·07	19	69	9·71191 ·68275	2·02916	106·94
20	65	9·26297 7.82309	1·43988	27·53	20	70	9·22766 7·61736	1·61030	40·77

Table LXIV.

Contingent Benefits to Children of Living Members.

SONS.—*(Eight per cent.)*

Benefits payable 'till the Age of 21.

($\lambda.K_{s,x}$ from Tables LV. and LVI.: $\lambda.D_{s,x}$ from Tables XLVI. and XLVII.)

Ages.		$\lambda.K_{s,x}$ = (1) $\lambda.D_{s,x}$ = (2)	(1) − (2)	Value of Benefits.	Ages.		$\lambda.K_{s,x}$ = (1) $\lambda.D_{s,x}$ = (2)	(1) − (2)	Value of Benefits.
s	x				s	x			
0	55	1·57446 8·65287	2·92159	834·81	0	60	1·53935 8·50831	3·03104	1074·09
1	56	·53800 ·53950	2·99850	996·55	1	61	·50480 ·39177	·11303	1297·27
2	57	·49925 ·46685	3·03240	1077·46	2	62	·46656 ·31518	·15138	1417·03
3	58	·45815 ·40643	·05172	1126·47	3	63	·42444 ·25011	·17433	1493·93
4	59	·41537 ·34980	·06557	1162·97	4	64	·37936 ·18817	·19119	1553·07
5	60	·37011 ·30316	·06695	1166·68	5	65	·33078 ·13560	·19518	1567·40
6	61	·32143 ·24115	·08028	1203·04	6	66	·27811 ·06714	·21097	1625·44
7	62	·26848 ·18724	·08124	1205·70	7	67	·22066 8·00629	·21437	1638·21
8	63	·20981 ·13303	·07678	1193·38	8	68	·15731 7·94455	·21276	1632·15
9	64	·14517 ·07775	·06742	1167·94	9	69	·08771 ·88103	·20668	1609·46
10	65	1·07298 8·02128	·05170	1126·42	10	70	1·01022 ·81555	·19467	1565·56
11	66	0·99098 7·96354	3·02744	1065·22	11	71	0·92229 ·74788	·17441	1494·20
12	67	·89573 ·90454	2·99119	979·92	12	72	·82014 ·67795	·14219	1387·36
13	68	·79024 ·84399	·94625	883·59	13	73	·70699 ·60535	·10164	1263·69
14	69	·67184 ·78159	·89025	776·69	14	74	·58014 ·52966	3·05048	1123·26
15	70	·53681 ·71704	·81977	660·34	15	75	·43575 ·45041	2·98534	966·81
16	71	·37965 ·64989	·72976	536·74	16	76	·26818 ·36716	·90102	796·20
17	72	0·19137 ·58014	·61123	408·54	17	77	0·06833 ·27940	·78893	615·08
18	73	9·95665 ·50718	·44947	281·49	18	78	9·82022 ·18687	·63335	429·88
19	74	·64138 ·43082	2·21056	162·39	19	79	9·49020 7·08922	2·40098	251·76
20	75	9·14159 7·35073	1·79886	62·93	20	80	8·98215 6·98619	1·99596	99·07

p_s = Present value of the pensions to fatherless children (Sons), as given in Table XXXVI. (or as given in Table XXXIX. in the case of Daughters), then as in page 55 will

$$\lambda.\mathrm{H}_{x,s} = \lambda.\delta_{x-1} + \lambda.l_{s-1} + \lambda.p_s + \lambda.v^{\frac{1}{2}} + \lambda.v^{\frac{1}{2}(x+s)-1}$$

Tables XLIX. to LVI. have been constructed according to this formula,

$$\Sigma\,\mathrm{H}_{(x+s)+1} = \mathrm{K}_{x,s}, \text{ and therefore}$$

$\lambda.\dfrac{\mathrm{K}_{x,s}}{\mathrm{D}_{x,s}} = \lambda.\mathrm{K}_{x,s} - \lambda.\mathrm{D}_{x,s} =$ Log. of the present value of the Sons' Contingent Pension, and on referring to Tables LVII. and LXIV. inclusive, the present values of Sons' Contingent Pensions will be found, whether extended or otherwise, and for all ages of Sons from 0—21, and for eight Disparities of ages for Fathers of the children, being for each quinquennium from age 25 to age 60.

(143.) The contingent pensions payable to the daughters of the present Members involve the element of marriage, and they do not cease absolutely on attaining the ages of eighteen or twenty-one as in the case of sons, but in the majority of instances continue till death or marriage. The most convenient way by which to deduce their values will be from Table XX. and Tables LXV. to LXXII. inclusive, for example,

(144.) The daughters' pension, as already pointed out, consists of

(1) *Rs.* 180 while under two years of age
(2) An increase of 90 above two and ... seven ...
(3) do. 70 ... seven ... eleven ...
(4) do. 280 ... eleven years of age, and to continue until death or marriage in cases of extended pensions, but to cease at age twenty-one in cases of unextended pensions.

(145.) The first item of the pension is simply an ordinary reversionary annuity payable in the event of the daughter outliving, and remaining unmarried, her father, and is at once deduced from the expression

$$\frac{\mathrm{N}_d}{\mathrm{D}_d} - \frac{\mathrm{N}_{x,d}}{\mathrm{D}_{x,d}} = a_d - a_{x,d}$$

(146.) In like manner do the other items of the pension resolve themselves into deferred reversionary annuities, subject to the same contingencies, and may be found as follows :—

$$\frac{\mathrm{N}_{d+n}}{\mathrm{D}_d} - \frac{\mathrm{N}_{(x,d)+n}}{\mathrm{D}_{x,d}} = a_{\rceil d+n} - a_{\rceil (x,d)+n}$$

In which n represents the number of years to elapse absolutely before the annuity can take effect, and which in the case of a child just born, would in order to complete the full value of

[an extended

Table LXV.

Contingent Benefits to Children of Living Members.

DAUGHTERS.—(*Eight per cent.*)

($\lambda . l_x$ from Table XI; $\lambda . l_d$ from Table XVIII.)

Ages.		$\lambda . l_x = (1)$	$\lambda . l_d = (2)$	$(1) + (2) = (3)$	$\lambda . v^{\frac{1}{2}(x+d)} = (4)$	$(3) + (4) =$ $\lambda . D$	D	N	$\lambda . N$
d	x								
0	25	4·92729	5·00000	9·92729	9·56549	9·49278	31101·4	196912·9	0·29427
1	26	·91712	4·93130	·84842	·53207	·38049	24015.4	172897·5	·23780
2	27	·90685	·90364	·81049	·49864	·30913	20376·5	152521·0	·18333
3	28	·89646	·88870	·78516	·46522	·25038	17798·4	134722·6	·12943
4	29	·88594	·87817	·76411	·43180	·19591	15700·4	119022·2	·07562
5	30	·87529	·87041	·74570	·39837	·14407	13933·8	105088·4	0·02156
6	31	·86447	·86424	·72871	·36495	·09366	12406·8	92681·55	9·96700
7	32	·85349	·85926	·71275	·33152	9·04427	11073·1	81608·45	·91173
8	33	·84235	·85518	·69753	·29810	8·99563	9899·88	71708·57	·85557
9	34	·83110	·85131	·68241	·26468	·94709	8852·99	62855·58	·79835
10	35	·81975	·84765	·66740	·23125	·89865	7918·63	54936·95	·73986
11	36	·80833	·84420	·65253	·19784	·85037	7085·49	47851·46	·67989
12	37	·79685	·84107	·63792	·16441	·80233	6343·51	41507·95	·61813
13	38	·78534	·83818	·62352	·13098	·75450	5681·98	35825·97	·55420
14	39	·77378	·83543	·60921	·09756	·70677	5090·61	30735·36	·48763
15	40	·76218	·82830	·59048	·06413	·65461	4514·50	26220·86	·41865
16	41	·75055	·81664	·56719	9·03071	·59790	3961·87	22258·99	·34751
17	42	·73890	·79801	·53691	8·99729	·53420	3421·37	18837·62	·27503
18	43	·72721	·77232	·49953	·96386	·46339	2906·63	15930·99	·20224
19	44	·71547	·73783	·45330	·93044	·38374	2419·58	13511·41	·13069
20	45	·70368	·70451	·40819	·89702	·30521	2019·34	11492·07	9·06040
21	46	·69182	·67261	·36443	·86359	·22782	1689·74	9802·334	8·99133
22	47	·67990	·64232	·32222	·83017	·15239	1420·33	8382·004	·92335
23	48	·66798	·61371	·28169	·79674	·07843	1197·93	7184·074	·85637
24	49	·65613	·58683	·24296	·76332	8·00628	1014·57	6169·504	·79025
25	50	·64443	·56243	·20686	·72990	7·93676	8644·91	5305·053	·72469
26	51	·63295	·53995	·17290	·69647	·86937	7402·36	4564·777	·65942
27	52	·62177	·51892	·14069	·66305	·80374	636·414	3928·363	·59422
28	53	·61076	·49897	·10973	·62963	·73936	548·732	3379·631	·52887
29	54	·59978	·47976	·07954	·59620	·67574	473·958	2905·673	·46325
30	55	·58874	·46040	·04914	·56278	·61192	409·185	2496·488	·39733
31	56	·57749	·44116	9·01865	·52935	·54800	353·183	2143·305	·33108
32	57	·56592	·42231	8·98823	·49593	·48416	304·902	1838·403	·26444
33	58	·55387	·40405	·95792	·46251	·42043	263·287	1575·116	·19731
34	59	·54119	·38656	·92775	·42908	·35683	227·421	1347·695	·12959
35	60	4·52773	4·37008	8·89781	8·39566	7·29347	196·549	1151·146	8·06111

Table LXV.—*(continued.)*

Ages.		$\lambda . l_x = (3)$	$(1) + (2) = (3)$	$(3) + (4) =$	D	N	$\lambda . N$
d	*x*	$\lambda . l_d = (2)$	$\lambda . v^{\frac{1}{2}(x+d)} = (4)$	$\lambda . D$			
36	61	4·51332	8·86796	7·23020	173·860	9772·850	7·99002
		4·35464	8·36224				
37	62	·49781	·83804	·16685	146·842	834·0439	·91931
		·34023	·32881				
38	63	·48111	·80795	·10334	126·865	703·5789	·84731
		·32684	·29539				
39	64	·43612	·77754	7·03950	109·522	594·0569	·77383
		·31442	·26196				
40	65	·44373	·74088	6·97542	94·4974	499·5595	·69859
		·30315	·22854				
41	66	·42287	·71507	·91079	81·4310	418·1285	·62131
		·29280	·19512				
42	67	·40042	·68352	·84521	70·0181	348·1104	·54172
		·28310	·16169				
43	68	·37618	·65003	·77830	60·0206	288·0898	·45953
		·27385	·12827				
46	69	·34996	·61479	·70964	51·2436	236·8462	·37447
		·26483	·09485				
45	70	·32156	·57762	·63904	43·5552	193·2910	·28621
		·25606	·06142				
46	71	·29077	·53802	·56602	36·8146	156·4764	·19446
		·24725	8·02800				
47	72	·25739	·49558	·49015	30·9136	125·5628	7·09885
		·23819	7·99457				
48	73	·22110	·44979	·41094	25·7597	99·80309	6·99914
		·22869	·96115				
49	74	·18159	·40023	·32796	21·2794	78·52369	·89500
		·21864	·92773				
50	75	·13849	·34581	·24011	17·3824	61·14129	·78633
		·20732	·89430				
51	76	·09149	·28662	·14750	14·0443	47·09699	·67299
		·19513	·86088				
52	77	4·04021	·22261	6·05007	11 2220	35·87499	·55479
		·18240	·82746				
53	78	3·98435	·15379	5·94782	8·86788	27·00711	·43148
		·16944	·79403				
54	79	·92355	·08043	·84104	6·93490	20·07221	·30259
		·15688	·76061				
55	80	·85751	8·00112	·72830	5·34934	14·72287	·16800
		·14361	·72718				
56	81	·78583	7·91606	·60982	4·07212	10·65075	6·02739
		·13023	·69376				
57	82	·70808	·82507	·48541	3·05781	7·592944	5·88041
		·11699	·66034				
58	83	·62387	·72811	·35502	2·26475	5·328194	·72658
		·10424	·62691				
59	84	·53275	·62517	·21866	1·65447	3·673724	·56510
		·09242	·59349				
60	85	·43425	·51506	5·07507	1·18869	2·485034	·39533
		·08075	·56007				
61	86	·32777	·39699	4·92354	·838571	1·646463	·21656
		·06913	·52664				
62	87	·21272	·27005	·76327	·579816	1·066647	5·02800
		·05733	·49322				
63	88	3·08920	7·13421	·59400	·392645	·6740020	4·82866
		·04501	·45979				
64	89	2·95665	6·98839	·41476	·259872	·4141300	·61714
		·03174	·42637				
65	90	·81491	·83238	·22533	·168008	·2461220	·39115
		·01747	·39295				
66	91	·66276	·66479	4·02431	·105757	·1403650	4·14727
		4·00203	·35952				
67	92	·50106	·48645	3·81255	·0649456	·0754194	3·87748
		3·98539	·32610				
68	93	·32015	·28751	·58019	·0380356	·0373838	·57269
		·96736	·29268				
69	94	2·11059	6·05849	·31774	·0207845	·0165993	3·22008
		·94790	·29525				
70	95	1·85733	5 78412	3·00995	·0102318	·0063675	2·80397
		·92679	·22583				
71	96	·54407	·44801	2·64041	·0043693	·0019982	2·30064
		·90394	·19240				
72	97	1·14613	5·02521	2·18419	·0015282	·0004700	1·67210
		·87908	·15898				
73	98	0·60206	4·45417	1·57973	·9003800	·0000900	0·95424
		·85211	·12556				
74	99	0·00000	3·82272	0·91485	·0000822	·0000078	9·89209
		·82272	·09213				
75	100	9·04139	2·83217	9·89088	·0000078	·0000000	..
		3·79078	7·05871				

Table LXVI.

Contingent Benefits to Children of Living Members.

DAUGHTERS.—(*Eight per cent.*)

($\lambda . l_x$ from Table XI; $\lambda . l_d$ from Table XVIII.)

Ages.		$\lambda . l_x = (1)$ $\lambda . l_d = (2)$	$(1) + (2) = (3)$ $\lambda . v^{\frac{1}{2}(x+d)} = (4)$	$(3) + (4) =$ $\lambda .$ D	D	N	$\lambda .$ N
s	*x*						
0	30	4·87529 5·00000	9·87529 9·48194	9·35723	22763·0	142671·1	0·15433
1	31	·86447 4·93130	·79577 ·44851	·24428	17550·1	155121·0	·09733
2	32	·85349 ·90364	·75713 ·41509	·17222	14866·9	110254·1	0·04238
3	33	·84235 ·88870	·73105 ·38166	·11271	12963·1	97290·98	9·98807
4	34	·83110 ·87817	·70927 ·34824	·05751	11415·9	85875·08	·93387
5	35	·81975 ·87041	·69016 ·31482	9·00498	10115·3	75759·78	·87944
6	36	·80833 ·86424	·67257 ·28139	8·95396	8994·15	66765·63	·82456
7	37	·79685 ·85926	·65611 ·24797	·90408	8018·26	58747·37	·76899
8	38	·78534 ·85518	·64052 ·21455	·85507	7162·59	51584·78	·71252
9	39	·77378 ·85131	·62509 ·18112	·80621	6400·44	45184·34	·65498
10	40	·76218 ·84765	·60983 ·14770	·75753	5721·77	39462·57	·59619
11	41	·75055 ·84420	·59475 ·11427	·70902	5117·05	34345·52	·53588
12	42	·73890 ·84107	·57997 ·08085	·66082	4579·52	29766·00	·47372
13	43	·72721 ·83818	·56539 ·04743	·61282	4100·34	25665·66	·40936
14	44	·71547 ·83543	·55090 9·01400	·56490	3671·98	21993·68	·34230
15	45	·70368 ·82830	·53198 8·98058	·51256	3255·07	18738·61	·27275
16	46	·69182 ·81664	·50846 ·94716	·45562	2855·09	15883·52	·20096
17	47	·67990 ·79801	·47881 ·91373	·39254	2469·11	13414·41	·12756
18	48	·66798 ·77232	·44030 ·88031	·32061	2092·23	11322·18	9·05392
19	49	·65613 ·73783	·39396 ·84688	·24084	1741·17	9581·053	8·98142
20	50	·64443 ·70451	·34894 ·81346	·16240	1453·45	8127·603	·90996
21	51	·63295 ·67261	·30556 ·78004	·08560	1217·87	6909·733	·83946
22	52	·62177 ·64232	·26409 ·74661	8·01070	1024·94	5884·793	·76973
23	53	·61076 ·61371	·22447 ·71319	7·93766	8662·83	5108·510	·70057
24	54	·59978 ·58683	·18661 ·67977	·86638	7351·57	4283·353	·63179
25	55	·58874 ·56243	·15117 ·64634	·79751	6273·50	3656·003	·56301
26	56	·57749 ·53905	·11744 ·61292	·73036	5374·77	3118·526	·49395
27	57	·56592 ·51892	·08484 ·57950	·66434	461·679	2656·847	·42436
28	58	·55387 ·49897	·05284 ·54607	·59891	397·109	2259·738	·35405
29	59	·54119 ·47976	9·02095 ·51265	·53360	341·065	1918·073	·28287
30	60	·52773 ·46040	8·98813 ·47922	·46735	293·326	1624·747	·21077
31	61	·51332 ·44116	·95448 ·44580	·40028	251·351	1373·396	·13780
32	62	·49781 ·42231	·92012 ·41238	·33250	215·031	1158·365	8·06386
33	63	4·48111 4·40405	8·88516 8·37895	7·26411	183·700	9746·647	7·98885

Table LXVI.—(*continued.*)

Ages.		$\lambda . l_x = (1)$ $\lambda . l_d = (2)$	(1) + (2) = (2) $\lambda . c^{\frac{1}{2}(x+d)} = (4)$	(3) + (4) = λ.D	D	N	λ.N
s	*x*						
34	64	4·46312 4·38656	8·84968 8·34553	7·19521	156·751	8179·137	7·91271
35	65	·44373 ·37008	·81381 ·31210	·12591	133·032	684·2817	·83523
36	66	·42287 ·35464	·77751 ·27868	7·05619	113·813	570·4687	·75623
37	67	·40042 ·34023	·74065 ·24526	6·98591	96·8077	473·6610	·67547
38	68	·37618 ·32684	·70302 ·21183	·91485	82·1959	391·4651	·59270
39	69	·34906 ·31442	·66438 ·17841	·84279	69·6290	321·8361	·50764
40	70	·32156 ·30315	·62471 ·14499	·76970	58·8437	262·9924	·41994
41	71	·29077 ·29280	·58357 ·11156	·69513	49·5499	213·4425	·32928
42	72	·25739 ·28310	·54049 ·07814	·61863	41·5556	171·8869	·23525
43	73	·22110 ·27385	·49495 ·04471	·53966	34·6466	137·2403	·13748
44	74	·18159 ·26483	·44642 8·01129	·45771	28·6886	108·5517	7·03563
45	75	·13849 ·25606	·39455 7·97787	·37242	23·5733	84·97835	6·92931
46	76	·09149 ·24725	·33874 ·94444	·28318	19·1946	65·78375	·81812
47	77	4·04021 ·23819	·27840 ·91102	·18942	15·4675	50·31625	·70171
48	78	3·98435 ·22869	·21304 ·97760	6·09064	12·3208	37·99545	·57973
49	79	·92355 ·21864	·14219 ·84417	5·98636	9·69081	28·30464	·45185
50	80	·85751 ·20732	8·06483 ·81075	·87558	7·50896	20·79568	·31798
51	81	·78583 ·19513	7·78096 ·77732	·75828	5·73165	15·06403	·17794
52	82	·70808 ·18240	·89048 ·74390	·63438	4·40941	10·65462	6·02755
53	83	·62387 ·16944	·79331 ·71048	·50379	3·19000	7·464624	5·87301
54	84	·53275 ·15688	·68963 ·67705	·36668	2·32638	5·138244	·71081
55	85	·43425 ·14361	·57786 ·64363	·22149	1·66529	3·472954	·54070
56	86	·32777 ·13023	·45800 ·61021	5·06821	1·17007	2·302884	·36228
57	87	·21272 ·11699	·32971 ·57678	4·90649	·806288	1·496596	5·17511
58	88	3·08920 ·10424	·19344 ·54336	·73680	·545507	·9510890	4·97822
59	89	2·95665 ·09242	7·04907 ·50993	·55900	·362243	·5888460	·77000
60	90	·81491 ·08075	6·89566 ·47651	·37217	·235597	·3532490	·54808
61	91	·66276 ·06913	·73189 ·44309	4·17498	·149617	·2036320	·30884
62	92	·50106 ·05733	·55839 ·40966	3·96805	·0929073	·1107247	4·04423
63	93	·32015 ·04501	·36516 ·37624	·74140	·0551315	·0555932	3·74502
64	94	2·11059 ·03174	6·14233 ·34282	·48515	·0305598	·0250334	3·39851
65	95	1·85733 ·01747	5·87480 ·30939	3·18419	·0152824	·0097510	2·98905
66	96	·54407 4·00203	·54610 ·27597	2·82207	·0066385	·0031125	2·49311
67	97	1·14613 3·98539	5·13152 ·24254	2·37406	·0023662	·0007463	1·87291
68	98	0·60206 ·96736	4·56942 ·20912	1·77854	·0056005	·0001458	1·16376
69	99	0·00000 ·94790	3·94790 ·17569	1·12359	·0001329	·0000129	0·11059
70	100	9·04139 3·92079	2·96818 7·14227	0·11045	·0000129	·0000000	..

Table LXVII.

Contingent Benefits to Children of Living Members.

DAUGHTERS.—(*Eight per cent.*)

($\lambda.l_x$ from Table XI; $\lambda.l_d$ from Table XVIII.)

Ages.		$\lambda.l_x = (3)$ $\lambda.l_d = (2)$	$(1) + (2) = (3)$ $\lambda.v^{\frac{1}{2}(x+d)} = (4)$	$(3) + (4) =$ $\lambda.D$	D	N	$\lambda.N$
d	x						
0	35	4·81975 5·00000	9·81975 9·39837	9·21812	16524·2	102850·8	0·01220
1	36	·80883 4·93130	·74013 ·36495	·10508	12737·4	90113·42	9·95479
2	37	·79685 ·90364	·70049 ·33152	9·03201	10764·9	79348·52	·89403
3	38	·78534 ·88870	·67404 ·29810	8·97214	9378·64	69969·88	·84491
4	39	·77378 ·87817	·65195 ·26468	·91663	8253·35	61716·53	·79040
5	40	·76218 ·87041	·63259 ·23125	·86384	7308·70	54407·83	·73566
6	41	·75055 ·86424	·61479 ·19784	·81263	6495·76	47912·07	·68044
7	42	·73890 ·85926	·59816 ·16441	·76257	5788·55	42123·52	·62453
8	43	·72721 ·85518	·58239 ·13098	·71337	5108·57	36954·95	·56767
9	44	·71547 ·85131	·56678 ·09756	·66434	4616·79	32338·16	·50971
10	45	·70368 ·84765	·55133 ·06413	·61546	4125·34	28212·82	·45045
11	46	·69182 ·84420	·53602 9·03071	·56673	3687·48	24525·34	·38961
12	47	·67990 ·84107	·52097 8·99729	·51826	3298·07	21227·27	·32689
13	48	·66798 ·83818	·50616 ·96386	·47002	2951·35	18275·92	·26188
14	49	·65613 ·83543	·49156 ·93044	·42200	2642·41	15633·51	·19407
15	50	·64443 ·82830	·47273 ·89702	·36975	2342·88	13290·63	·12356
16	51	·63295 ·81664	·44959 ·86359	·31318	2056·74	11233·89	9·05053
17	52	·62177 ·79801	·41978 ·83017	·24995	1778·08	9455·810	8·97570
18	53	·61076 ·77232	·38308 ·79674	·17982	1512·93	7942·880	·89998
19	54	·59978 ·73783	·33761 ·76332	·10093	1261·62	6681·260	·82486
20	55	·58874 ·70451	·29325 ·72990	8·02315	1054·75	5626·510	·75024
21	56	·57749 ·67261	·25010 ·69647	7·94657	884·240	4742·270	·67599
22	57	·56592 ·64232	·20824 ·66305	·87129	743·516	3998·754	·60193
23	58	·55387 ·61371	·16758 ·62963	·79721	626·917	3371·837	·52786
24	59	·54119 ·58683	·12802 ·59620	·72422	529·932	2841·905	·45361
25	60	·52773 ·56243	·09016 ·56278	·65294	449·718	2392·187	·37880
26	61	·51332 ·53995	·05327 ·52935	·58262	382·490	2009·697	·30313
27	62	·49781 ·51892	9·01673 ·49593	·51266	325·582	1684·115	·22637
28	63	·48111 ·49897	8·98008 ·46251	·44259	277·070	1407·045	·14829
29	64	·46312 ·47976	·94288 ·42908	·37196	235·483	1171·562	8·06878
30	65	4·44373 4·46040	8·90413 8·39566	7·29979	199·430	972·132	7·98772

Table LXVII.—(*continued.*)

Ages.		$\lambda . l_x = (1)$ $\lambda . l_d = (2)$	$(1) + (2) = (3)$ $\lambda . v^{\frac{1}{2}(x+d)} = (4)$	$(3) + (4) =$ $\lambda . D$	D	N	$\lambda . N$
d	*x*						
31	66	4·42287 4·44116	8·86403 8·36224	7·22627	168·373	803·759	7·90513
32	67	·40042 ·42231	·82273 ·32881	·15154	141·756	662·003	·82086
33	68	·37618 ·40405	·78023 ·29539	7·07562	119·020	542·9832	·73478
34	69	·34996 ·38656	·73652 ·26196	6·99848	99·6506	443·3326	·64673
35	70	·32156 ·37008	·69164 ·22854	·92018	83·2109	360·1217	·55645
36	71	·29077 ·35464	·64541 ·19512	·84053	69·2676	290·8541	·46367
37	72	·25739 ·34023	·59762 ·16169	·75931	57·4526	233·4015	·36810
38	73	·22110 ·32684	·54794 ·12827	·67621	47·4471	185·9544	·26940
39	74	·18159 ·31442	·49601 ·09485	·59086	38·9816	146·9728	·16723
40	75	·13849 ·30315	·44164 ·06142	·50306	31·8464	115·1264	7·06119
41	76	·09149 ·29280	·38429 8·02800	·41229	25·8399	89·28653	6·95079
42	77	4·04021 ·28310	·32331 7·99457	·31788	20·7912	68·49533	·83566
43	78	3·98435 ·27385	·25820 ·96115	·21935	16·5711	51·92423	·71537
44	79	·92355 ·26483	·18838 ·92773	·11611	13·0650	38·85923	·58949
45	80	·85751 ·25606	·11357 ·89430	6·00787	10·1829	28·67633	·45752
46	81	·78583 ·24725	8·03308 ·86088	5·89396	7·83358	20·84275	·31896
47	82	·70808 ·23819	7·94627 ·82746	·77373	5·93923	14·90352	·17330
48	83	·62387 ·22869	·85256 ·79403	·64659	4·43190	10·47162	6·02003
49	84	·53275 ·21864	·75139 ·76061	·51200	3·25087	7·220750	5·85859
50	85	·43425 ·20732	·64157 ·72718	·36875	2·33749	4·883260	·68871
51	86	·32777 ·19513	·52290 ·69376	·21666	1·64687	3·236390	·51006
52	87	·21272 ·18240	·39512 ·66034	5·05546	1·13621	2·100180	·32226
53	88	3·08920 ·16944	·25864 ·62691	4·88555	·768334	1·331846	5·12444
54	89	2·95665 ·15688	7·11353 ·59349	·70702	·509354	·8224923	4·91513
55	90	·81491 ·14361	6·95852 ·56007	·51859	·330058	·4924343	·69234
56	91	·66276 ·13023	·79299 ·52664	·31063	·208752	·2836823	·45283
57	92	·50106 ·11699	·61805 ·49322	4·11127	·129202	·1544803	4·18887
58	93	·32015 ·10424	·42439 ·45979	3·88418	·0765914	·0778889	3·89148
59	94	2·11059 ·09242	6·20801 ·42637	·62938	·0425971	·0352918	·54768
60	95	1·85733 ·08075	5·93808 ·39295	3·33103	·0214304	·0138614	3·14179
61	96	·54407 ·06913	·61320 ·35952	2·97272	·0093912	·0044702	2·65033
62	97	1·14613 ·05733	5·20346 ·32610	2·52956	·0033850	·0010852	2·03551
63	98	0·60206 ·04501	4·64707 ·29268	1·93975	·0008705	·0002147	1·33183
64	99	0·00000 ·03174	4·03174 ·25925	1·29099	·0001954	·0000193	0·28556
65	100	9·04139 4·01747	3·05886 7·22583	0·28469	·0000193	·0000000	..

Table LXVIII.

Contingent Benefits to Children of Living Members.

DAUGHTERS.—(*Eight per cent.*)

($\lambda . l_x$ from Table XI ; $\lambda . l_d$ from Table XVIII.)

Ages.		$\lambda . l_x = (1)$ $\lambda . l_d = (2)$	$(1) + (2) = (2)$ $\lambda . v^{\frac{1}{2}(x+d)} = (4)$	$(3) + (4) =$ $\lambda . \text{D}$	D	N	$\lambda . \text{N}$
s	*x*						
0	40	4·76218 5·00000	9·76218 9·31482	9·07700	11939·9	73842·09	9·86830
1	41	·75055 4·93130	·68185 ·28139	8·96324	9188·40	64653·69	·81060
2	42	·73890 ·90364	·64254 ·24797	·89051	7771·59	56882·10	·75497
3	43	·72721 ·88870	·61591 ·21454	·83045	6767·84	50114·26	·69996
4	44	·71547 ·87817	·59364 ·18112	·77476	5953·33	44160·93	·64504
5	45	·70368 ·87041	·57409 ·14770	·72179	5269·75	38891·18	·58985
6	46	·69182 ·86424	·55606 ·11427	·67033	4680·91	34210·27	·53415
7	47	·67990 ·85926	·53916 ·08085	·62001	4168·79	30041·48	·47771
8	48	·66798 ·85518	·52316 ·04743	·57059	3720·40	26321·08	·42030
9	49	·65613 ·85131	·50744 9·01400	·52144	3322·31	22998·77	·36171
10	50	·64443 ·84765	·49208 8·98058	·47266	2969·34	20029·43	·30166
11	51	·63295 ·84420	·47715 ·94715	·42430	2656·44	17372·99	·23987
12	52	·62177 ·84107	·46284 ·91373	·37657	2379·96	14993·03	·17589
13	53	·61076 ·83818	·44894 ·88031	·32925	2134·27	12858·76	·10921
14	54	·59978 ·83543	·43521 ·84688	·28209	1914·65	10944·11	9·03918
15	55	·58874 ·82830	·41704 ·81346	·23050	1700·20	9243·906	8·96586
16	56	·57749 ·81664	·39413 ·78004	·17417	1493·38	7750·526	·88933
17	57	·56592 ·79801	·36393 ·74661	·11054	1289·85	6460·676	·81028
18	58	·55387 ·77232	·32619 ·71304	8·03933	1094·79	5365.886	·72964
19	59	·54119 ·73783	·27902 ·67976	7·95878	909·453	4456·433	·64898
20	60	·52773 ·70451	·23224 ·64634	·87858	756·101	3700·332	·56824
21	61	·51332 ·67261	·18593 ·61292	·79885	629·289	3071·043	·48728
22	62	·49781 ·64232	·14013 ·57949	·71962	524·349	2546·694	·40598
23	63	·48111 ·61371	·09482 ·54607	·64089	437·411	2109·283	·32414
24	64	·46312 ·58683	·04995 ·51265	·56260	365·258	1744·025	·24155
25	65	·44373 ·56243	9·00616 ·47922	·48538	305·760	1438·265	·15785
26	66	·42287 ·53995	8·96282 ·44580	·40862	256·224	1182·041	8·07262
27	67	·40042 ·51892	·91934 ·41237	·33171	214·640	967·4009	7·98561
28	68	4·37618 4·49897	8·87515 8·37895	7·25410	179·515	787·8859	7·89645

Table LXVIII.—(*continued*).

Ages.		$\lambda . l_x = (1)$ $\lambda . l_d = (2)$	$(1) + (2) = (3)$ $\lambda . v^{\frac{1}{2}(x+d)} = (4)$	$(3) + (4) =$ $\lambda . \text{D}$	D	N	$\lambda . \text{N}$
s	*x*						
29	69	4·34996 4·47976	8·82972 8·34553	7·17525	149·710	638·1759	7·80494
30	70	·32156 ·46040	·78196 ·31210	·09406	124·182	513·9939	·71095
31	71	·29677 ·44116	·73193 ·27868	7·01061	102·473	411·5209	·61439
32	72	·25739 ·42231	·67970 ·24526	6·92496	84·1318	327·3891	·51507
33	73	·22110 ·40405	·62515 ·21183	·83698	68·7037	258·6854	·41278
34	74	·18159 ·38656	·56815 ·17841	·74656	55·7905	202·8949	·30726
35	75	·13849 ·37008	·50857 ·14498	·65355	45·0350	157·8599	·19827
36	76	·09149 ·35464	·44613 ·11156	·55769	36·1152	121·7447	7·08543
37	77	4·04021 ·34023	·38044 ·07814	·45858	28·7462	92·99848	6·96847
38	78	3·98435 ·32684	·31119 ·04471	·35590	22·6934	70·30508	·84699
39	79	·92355 ·31442	·23797 8·01129	·24926	17·7525	52·55258	·72060
40	80	·85751 ·30315	·16066 7·97787	·13853	13 7572	38·19538	·58878
41	81	·78583 ·29280	8·07863 ·94444	6·02307	10·5456	28·24978	·45102
42	82	·70808 ·28310	7·99118 ·91102	5·90220	7·98362	20·26616	·30677
43	83	·62387 ·27385	·89772 ·87759	·77531	5·96088	14·30528	6·15549
44	84	·53275 ·26483	·79758 ·84417	·64175	4·38278	9·922497	5·99662
45	85	·43425 ·25666	·69031 ·81075	·50106	3·17001	6·752487	·82946
46	86	·32777 ·24725	·57502 ·77732	·35234	2·25082	4·501667	·65338
47	87	·21272 ·23819	·45091 ·74390	·19481	1·56607	2·935597	·46770
48	88	3·08920 ·22869	·31789 ·71048	5·02837	1·06751	1·868087	·27140
49	89	2·95665 ·21864	·17529 ·67705	4·85234	·711771	1·156316	5·06307
50	90	·81491 ·20732	7·02223 ·64363	·66586	·463298	·6930177	4·84075
51	91	·66276 ·19513	6·85789 ·61020	·46809	·293826	·3991917	·60118
52	92	·50106 ·18240	·68346 ·57678	·26024	·182071	·2171207	·33670
53	93	·32015 ·16944	·48959 ·54336	4·03295	·107882	·1092387	4·03838
54	94	2·11059 ·15688	·26747 ·50993	3·77740	·0598963	·0493424	3·69322
55	95	1·85733 .14361	6·00094 ·47651	·47745	·0300227	·0193197	3·28601
56	96	·54407 ·13023	5·67430 ·44309	3·11739	·0131036	·0062161	2·79352
57	97	1·14613 ·11699	5·26312 ·40966	2·67278	·0047074	·0015087	2·17860
58	98	0·60206 ·10424	4·70630 ·37624	2·08254	·0012093	·0002994	1·47625
59	99	0·00000 ·09242	4·09242 ·34281	1·43523	·0002724	·0000270	0·43153
60	100	9·04139 4·08075	3·12214 7·30939	0·43153	·0000270	·0000000	..

Table LXIX.

Contingent Benefits to Children of Living Members.

Daughters.—(*Eight per cent.*)

($\lambda . l_x$ from Table XI.; $\lambda . l_d$ from Table XVIII.)

Ages.		$\lambda . l_x = (1)$	$(1) + (2) = (3)$	$(3) + (4) =$	D	N	$\lambda . \text{N}$
d	*x*	$\lambda . l_d = (2)$	$\lambda . v^{\frac{1}{2}(x+d)} = (4)$	$\lambda . \text{D}$			
0	45	4·70368 5·00000	9·70368 9·23125	8·93493	8608·55	52713·48	9·72192
1	46	·69182 4·93130	·62312 ·19784	·82096	6621·56	46091·92	·66363
2	47	·67990 ·90364	·58354 ·16441	·74795	5596·93	40494·99	·60740
3	48	·66798 ·88870	·55668 ·13098	·68766	4871·47	35623·52	·55174
4	49	·65613 ·87817	·53430 ·09756	·63186	4284·10	31339·42	·49609
5	50	·64443 ·87041	·51484 ·06413	·57897	3792·89	27546·53	·44007
6	51	·63295 ·86424	·49719 9·03071	·52790	3372·10	24174·43	·38335
7	52	·62177 ·85926	·48103 8·99729	·47832	3008·29	21166·14	·32564
8	53	·61076 ·85518	·46594 ·96386	·42980	2690·30	18475·84	·26661
9	54	·59978 ·85131	·45109 ·93044	·38153	2407·30	16068·54	·20599
10	55	·58874 ·84765	·43639 ·89702	·33341	2154·82	13913·72	·14345
11	56	·57749 ·84420	·42169 ·86359	·28528	1928·77	11984·95	·07864
12	57	·56592 ·84107	·40699 ·83017	·23716	1726·47	10258·48	9·01106
13	58	·55387 ·83818	·39205 ·79674	·18879	1544·51	8713·971	8·94022
14	59	·54119 ·83543	·37662 ·76332	·13994	1380·19	7333·781	·86533
15	60	·52773 ·82830	·35603 ·72990	·08593	1218·79	6114·991	·78640
16	61	·51332 ·81664	·32996 ·69647	8·02643	1062·75	5052·241	·70348
17	62	·49781 ·79801	·29582 ·66305	7·95887	909·641	4142·600	·61727
18	63	·48111 ·77232	·25343 ·62963	·88306	763·941	3378·659	·52875
19	64	·46312 ·73783	·20095 ·59620	·79715	626·830	2751·829	·43962
20	65	·44373 ·70451	·14824 ·56278	·71102	514·067	2237·762	·34982
21	66	·42287 ·67261	·09548 ·52935	·62483	421·532	1816·230	·25916
22	67	·40042 ·64232	·04274 ·49593	·53867	345·677	1470·553	·16749
23	68	·37618 ·61371	·98989 ·46251	·45240	283·400	1187·153	8·07452
24	69	·34996 ·58683	·93679 ·42908	·36587	232·204	954·9485	7·97998
25	70	·32156 ·56243	·88399 ·39566	·27965	190·393	764·5555	·88341
26	71	4·29077 4.53995	9·83072 8·36224	7·19296	155·941	608·6145	7.78434

Table LXIX.—(*continued.*)

Ages.		$\lambda . l_x = (3)$	$(1) + (2) = (3)$	$(3) + (4) =$	D	N	$\lambda . \text{N}$
d	*x*	$\lambda . l_d = (2)$	$\lambda . v^{\frac{1}{2}(x+d)} = (4)$	$\lambda . \text{D}$			
27	72	4·25739 4·51892	8·77631 8·32881	7·10512	127·386	481·2285	7·68235
28	73	·22110 ·49897	·72007 ·29539	·01546	103·624	377·6045	·57703
29	74	·18159 ·47976	·66135 ·26196	6·92331	83·8127	293·7918	·46804
30	75	·13849 ·46040	·59889 ·22854	·82743	67·2094	226·5824	·35522
31	76	·09149 ·44116	·53265 ·19512	·72777	53·4281	173·1543	·23842
32	77	4·04021 ·42231	·46252 ·16169	·62421	42·0930	131·0613	7·11747
33	78	3·98435 ·40405	·38840 ·12827	·51667	32·8602	98·20110	6·99212
34	79	·92355 ·38656	·31011 ·09485	·40496	25·4074	72·79370	·86210
35	80	·85751 ·37008	·22759 ·06142	·28901	19·4541	53·33960	·72705
36	81	·78583 ·35464	·14047 ·02800	·16847	14·7391	38·60150	·58660
37	82	·70808 ·34023	8·04831 ·99457	6·04288	11·0377	27·56280	·44033
38	83	·62387 ·32684	7·95071 ·96115	5·91186	8·14442	19·41838	·28820
39	84	·53275 ·31442	·84717 ·92773	·77490	5·95525	13·46313	6·12914
40	85	·43425 ·30315	·73740 ·89430	·63170	4·28253	9·180599	5·96287
41	86	·32777 ·29280	·62057 ·86088	·48145	3·03005	6·150549	·78891
42	87	·21272 ·28310	·49582 ·82746	·32328	2·10514	4·045409	·60696
43	88	3·08920 ·27385	·36305 ·79403	·15708	1·43575	2·609659	·41659
44	89	2·98665 ·26483	·25148 ·76061	5·01209	1·02823	1·581429	5·19904
45	90	·81491 ·25606	7·07097 ·72718	4·79815	·628275	·9531536	4·97916
46	91	·66276 ·24725	6·91001 ·69376	·60377	·401578	·5515756	·74177
47	92	·50106 ·23819	·73925 ·66034	·39559	·248651	·3029246	·48133
48	93	·32015 ·22869	·54884 ·62691	4·17575	·149882	·1530426	4·18481
49	94	2·11059 ·21864	·32923 ·59349	3·92272	·0836990	·0693436	3·84101
50	95	1·85733 ·20732	6·06465 ·56007	·62472	·0421425	·0272011	3·43458
51	96	·54407 ·19513	5·73920 ·52664	3·26584	·0184434	·0087577	2·94239
52	97	1·14613 ·18240	5·32853 ·49322	2·82175	·0066336	·0021241	2·32718
53	98	0·60206 ·16944	4·77150 ·45979	2·23129	·0017033	·0004208	1·62408
54	99	0·00000 ·15688	4·15688 ·42637	1·58325	·0003830	·0000378	0·57749
55	100	9·04139 4·14361	3·18500 7·39295	0·57795	·0000378	.0000000	...

Table LXX.

Contingent Benefits to Children of Living Members.

DAUGHTERS.—*(Eight per cent.)*

($\lambda . l_x$ from Table XI; $\lambda . l_d$ from Table XVIII.)

Ages.		$\lambda . l_x = (1)$	$(1) + (2) = (3)$	$(3) + (4) =$	D	N	λ.N
d	x	$\lambda . l_d = (2)$	$\lambda . v^{\frac{1}{2}(x+d)} = (4)$	λ.D			
0	50	4·64443 5·00000	9·64443 9·14770	8·79213	6196·27	37215·84	9·57073
1	51	·63295 4·93130	·56425 ·11427	·67852	4770·02	32445·82	·51116
2	52	·62177 ·90364	·52541 ·08085	·60626	4038·87	28406·95	·45343
3	53	·61076 ·88870	·49946 ·04742	·54688	3522·74	24884·21	·39592
4	54	·59978 ·87817	·47795 9·01400	·49195	3104·20	21780·01	·33806
5	55	·58874 ·87041	·45915 8·98058	·43973	2752·52	19027·49	·27937
6	56	·57749 ·86424	·44173 ·94715	·38888	2448·39	16579·10	·21956
7	57	·56592 ·85926	·42518 ·91373	·33891	2182·28	14396·82	·15827
8	58	·55387 ·85518	·40905 ·88031	·28936	1946·97	12449·85	·09517
9	59	·54119 ·85131	·39250 ·84688	·23938	1735·32	10714·53	9·02999
10	60	·52773 ·84765	·37538 ·81346	·18884	1544·69	91698·39	8·96236
11	61	·51332 ·84420	·35752 ·78003	·13755	1372·62	7797·219	·89194
12	62	·49781 ·84107	·33888 ·74661	·08549	1217·56	6579·659	·81821
13	63	·48111 ·83818	·31929 ·71319	8·03248	1077·66	5501·999	·74052
14	64	·46312 ·83543	·29855 ·67976	7·97831	951·284	4550·715	·65808
15	65	·44373 ·82830	·27203 ·64634	·91837	828·649	3722·066	·57079
16	66	·42287 ·81664	·23951 ·61292	·85243	711·918	3010·148	·47858
17	67	·40042 ·79801	·19843 ·57949	·77792	599·681	24104·667	·38211
18	68	·37618 ·77232	·14850 ·54592	·69442	494·789	1915·678	·28233
19	69	·34996 ·73783	·08779 ·51264	·60043	398·502	1517·176	·18104
20	70	·32156 ·70451	9·02607 ·47922	·50529	320·103	1197·073	8·07813
21	71	·29077 ·67261	8·96338 ·44580	·40918	256·555	940·5183	7·97337
22	72	·25739 ·64232	·89971 ·41237	·31208	205·154	735·3643	·86650
23	73	4·22110 4·61371	8·83481 8·37896	7·21377	163·595	571·7693	7·75722

Table LXX.—*(continued.)*

Ages.		$\lambda . l_x = (1)$ $\lambda . l_d = (2)$	(1) + (2) = (2) $\lambda . v^{\frac{1}{2}(x+d)} = (4)$	(3) + (4) = λ.D	D	N	λ.N
s	x						
24	74	4·18159 4·58683	8·76842 8·34553	7·11395	130·002	441·7673	7·64520
25	75	·13849 ·56243	·70092 ·31210	7·01302	103·043	338·7243	·52984
26	76	·09149 ·53995	·63144 ·27868	6·91012	81·3055	257·4188	.41064
27	77	4·04021 ·51892	·55913 ·24525	·80438	63·7353	193·6835	·28708
28	78	3·98435 ·49897	·48332 ·21183	·69515	49·5621	144·1214	·15872
29	79	·92355 ·47976	·40331 ·17841	·58172	38·1698	105·9516	7·02510
30	80	·85751 ·46040	·31791 ·14498	·46289	29·0329	76·91874	6·88603
31	81	·78583 ·44116	·22699 ·11156	·33855	21·8047	55·11404	·74126
32	82	·70808 ·42231	·13039 ·07814	·20853	16·1630	38·95104	·59052
33	83	·62387 ·40405	8·02792 ·04471	6·07263	11·8203	27·13074	·43347
34	84	·53275 ·38656	7·91931 ·01129	5·93060	8·52315	18·60759	·26970
35	85	·43425 ·37008	·80433 ·97786	·78219	6·05606	12·55153	6·09871
36	86	·32777 ·35464	·68241 ·94444	·62685	4·23497	8·316557	5·91995
37	87	·21272 ·34023	·55295 ·91102	·46397	2·91052	5·406037	·73288
38	88	3·08920 ·32684	·41604 ·87759	·29363	1·96621	3·439827	·53653
39	89	2·95665 ·31442	·27107 ·84417	5·11534	1·30419	2·135637	·32952
40	90	·81491 ·30315	7·11806 ·81075	4·92881	·848809	1·286828	5·10951
41	91	·66276 ·29280	6·95556 ·77732	·73288	·540605	·7462225	4·87287
42	92	·50106 ·28310	·78416 ·74390	·52806	·337334	·4089885	·61161
43	93	·32015 ·27385	·59400 ·71047	·30447	·201591	·2072975	4·31660
44	94	2·11059 ·26483	·37542 ·67705	4·05247	·112842	·0944555	3·97518
45	95	1·85733 ·25606	6·11339 ·64363	3·75702	·0571505	·0373050	3·57177
46	96	·54407 ·24725	5·79132 ·61020	3·40152	·0252069	·0120981	3·08271
47	97	1·14613 ·23819	5·38432 ·57678	2·96110	·0091432	·0029549	2·47054
48	98	0·60206 ·22869	4·83075 ·54336	2·37411	·0023665	·0005884	1·76967
49	99	0·00000 ·21868	4·21868 ·50993	1·72861	·0005353	·0000531	0·72509
50	100	9·04139 4·20732	3·24871 7·47651	0·72522	·0000531	·0000000	...

Table LXXI.

Contingent Benefits to Children of Living Members.

DAUGHTERS.—(*Eight per cent.*)

($\lambda . l_x$ from Table XI; $\lambda . l_d$ from Table XVIII.)

Ages.		$\lambda . l_x = (1)$	$(1) + (2) = (3)$	$(3) + (4) =$	D	N	$\lambda .$ N
s	x	$\lambda . l_d = (2)$	$\lambda . v^{\frac{1}{2}(x+d)} = (4)$	$\lambda .$ D			
0	55	4·58874 5·00000	9·58874 9·06413	8·65287	4496·45	25585·82	9 40800
1	56	·57749 4·93130	·50879 9·03071	·53950	3463·38	22122·44	·34482
2	57	·56592 ·90364	·46956 8·99729	·46685	2929·88	19192·56	·28314
3	58	·55387 ·88870	·44257 ·96386	·40643	2549·35	16643·21	·22123
4	59	·54119 ·87817	·41936 ·93044	·34980	2237·69	14405·52	·15854
5	60	·52773 ·87041	·39814 ·89702	·29516	1973·15	12432·37	·09454
6	61	·51332 ·86424	·37756 ·86359	·24115	1742·41	10689·96	9·02898
7	62	·49781 ·85926	·35707 ·83017	·18724	1539·01	9150·951	8·96147
8	63	·48111 ·85518	·33629 ·79674	·13303	1358·41	7792·541	·89168
9	64	·46312 ·85131	·31443 ·76332	·07775	1196·05	6596·491	·81931
10	65	·44373 ·84765	·29138 ·72990	8·02128	1050·22	5546·271	·74400
11	66	·42287 ·84420	·26707 ·69647	7·96354	919·475	4626·796	·66528
12	67	·40042 ·84107	·24149 ·66305	·90454	802·676	3824·120	·58253
13	68	·37618 ·83818	·21436 ·62963	·84399	698·216	3125·904	·49498
14	69	·34996 ·83543	·18539 ·59620	·78159	604·770	2521·134	·40159
15	70	·32156 ·82830	·14986 ·56278	·71264	515·989	2005·145	·30214
16	71	·29077 ·81664	·10741 ·52935	·63676	433·271	1571·877	·19642
17	72	·25739 ·79801	9·05540 ·49593	·55133	355·902	1215·972	8·08493
18	73	·22110 ·77232	8·99342 ·46251	·45593	285·713	9302·585	7·96860
19	74	·18159 ·73783	·91942 ·42908	·34850	223·100	707·1585	·84952
20	75	·13849 ·70451	·84300 ·39566	·23866	173·245	533·9135	·72747
21	76	4·09149 4·67261	8·76410 8·36224	7·12634	133·764	400·1495	7·60222

Table LXXI.—(*continued.*)

Ages.		$\lambda . l_x = (3)$	$(1) + (2) = (3)$	$(3) + (4) =$	D	N	$\lambda . N$
d	x	$\lambda . l_d = (2)$	$\lambda . v^{\frac{1}{2}(x+d)} = (4)$	$\lambda . D$			
22	77	4·04021 4·64232	8·68253 8·32881	7·01134	102·646	297·5035	7·47349
23	78	3·98435 ·61371	·59806 ·29539	6·89345	78·2438	219·2597	·34096
24	79	·92355 ·58683	·51038 ·26196	·77234	59·2025	160·0572	·20428
25	80	·85751 ·56243	·41994 ·22854	·64848	44·5123	115·5449	7·06273
26	81	·78583 ·53995	·32578 ·19512	·52090	33·1818	82·36313	6·91573
27	82	·70808 ·51892	·22700 ·16169	·38869	24·4732	57·88993	·76260
28	83	·62387 ·49897	·12284 ·12827	·25111	17·8283	40·06163	·60273
29	84	·53275 ·47976	8·01251 ·09485	6·10736	12·8044	27·25723	·43548
30	85	·43425 ·46040	7·89465 ·06142	5·95607	90·3795	18·21928	·26052
31	86	·32777 ·44116	·76893 8·02800	·79693	6·26513	11·95415	6·07751
32	87	·21272 ·42231	·63503 7·99457	·62960	4·26187	7·692281	5·88606
33	88	3·08920 ·40405	·49325 ·96115	·45440	2·84708	4·845201	·68531
34	89	2·95665 ·38656	·34321 ·92773	·27094	1·86612	2·979081	5·47409
35	90	·81491 ·37008	·18499 ·89430	5·07929	1·20030	1·778781	·25013
36	91	·66276 ·35464	7·01740 ·86088	4·87828	·755579	1·023202	5·00996
37	92	·50106 ·34023	6·84129 ·82746	·66875	·466391	·556811	4·74571
38	93	·32015 ·32684	·64699 ·79403	·44102	·276075	·280736	·44830
39	94	2·11059 ·31442	·42501 ·76061	4·18562	·153328	·127408	4·10520
40	95	1·85733 ·30315	6·16048 ·72718	3·88766	·0772076	·0502006	3·70071
41	96	·54407 ·29280	5·83687 ·69376	·53063	·0339336	·0162670	3·21131
42	97	1·14613 ·28310	5·42923 ·66034	3·08957	·0122905	·0039765	2·59950
43	98	0·60206 ·27385	4·87591 ·62691	2·50282	·0031829	·0007936	1·89960
44	99	0·00000 ·26483	4·26483 ·59349	1·85832	·0007216	·0000720	0·85752
45	100	9·04139 4·25606	3·29745 7·56007	0·85752	·0000720	·0000000	...

Table LXXII.

Contingent Benefits to Children of Living Members.

DAUGHTERS.—*(Eight per cent.)*

($\lambda . l_x$ from Table XI; $\lambda . l_d$ from Table XVIII.)

Ages.		$\lambda . l_x = (1)$	$(1) + (2) = (3)$	$(3) + (4) =$	D	N	$\lambda . \text{N}$
s	*x*	$\lambda . l_d = (2)$	$\lambda . v^{\frac{1}{2}(x+d)} = (4)$	$\lambda . \text{D}$			
0	60	4·52773 5·00000	9·52773 8·98058	8·50831	3223·37	16627·06	9·22081
1	61	·51332 4·93130	·44462 ·74715	·39177	2464·73	14162·33	·15112
2	62	·49781 ·90364	·40145 ·91373	·31518	2066·24	12096·09	·08264
3	63	·48111 ·88870	·36981 ·88030	·25011	1778·73	10317·36	9·01355
4	64	·46312 ·87817	·34129 ·84688	·18817	1542·30	8775·057	8·94325
5	65	·44373 ·87041	·31414 ·81346	·12760	1341·53	7433·527	·87119
6	66	·42287 ·86424	·28711 ·78003	·06714	1167·19	6266·337	·79701
7	67	·40042 ·85926	·25968 ·74661	8·00629	1014·59	5251·747	·72030
8	68	·37618 ·85518	·23136 ·71319	7·94455	880·136	4371·611	·64064
9	69	·34996 ·85131	·20127 ·67976	·88103	760·379	3611·232	·55765
10	70	·32156 ·84765	·16921 ·64634	·81555	653·958	2957·274	·47090
11	71	·29077 ·84420	·13497 ·61291	·74788	559·603	2397·671	·37979
12	72	·25739 ·84107	·09846 ·57949	·67795	476·376	1921·295	·28360
13	73	·22110 ·83818	·05928 ·54607	·60535	403·042	1518·253	·81136
14	74	·18159 ·83543	9·01702 ·51264	·52966	338·579	1179·674	8·07177
15	75	·13849 ·82830	8·96679 ·47922	·44601	279·261	900·4133	7·95444
16	76	·09149 ·81664	·90813 ·44580	·35393	225·907	674·5063	·82899
17	77	4·04021 ·79801	·83822 ·41237	·25059	178·070	496·4363	·69587
18	78	3·98435 ·77232	·75667 ·37895	·13562	136·653	359·7833	·55604
19	79	·92355 ·73783	·66138 ·34552	7·00690	101·602	258·1813	·41192
20	80	·85751 ·70451	·56202 ·31210	6·87412	74·8376	183·3437	·26326
21	81	·78583 ·67261	·45844 ·27868	·73712	54·5909	128·7528	7·10975
22	82	·70808 ·64232	·35040 ·24525	·59565	39·4140	89·33879	6·95104
23	83	·62387 ·61371	·23758 ·21184	·44942	28·1462	61·19259	·78670
24	84	·53275 ·58683	8·11958 ·17841	·29799	19·8605	41·33209	·61629
25	85	3·43425 4·56243	7·99668 8·14498	6·14166	13·8567	27·47539	6·43894

Table LXXII.—(*continued.*)

Ages.		$\lambda . l_x = (3)$ $\lambda . l_d = (2)$	$(1) + (2) = (3)$ $\lambda . v^{\frac{1}{2}(x+d)} = (4)$	$(3) + (4) =$ $\lambda . \mathrm{D}$	D	N	$\lambda . \mathrm{N}$
d	*x*						
26	86	3·32777 4·53995	7·86772 8·11156	5·97928	9·53411	1·794128	6·25385
27	87	·21272 ·51982	·73164 ·07813	·80977	6·45312	1·148816	6·06024
28	88	3·08920 ·49897	·58817 ·04471	·63288	4·29418	7·193984	5·85697
29	89	2·95667 ·47976	·43641 8·01129	·44770	2·80350	4·390484	·64251
30	90	·81491 ·46040	·27531 7·97786	·25322	1·79151	2·598974	·41481
31	91	·66276 ·44116	7·10392 ·94444	5·04836	1·11779	1·481184	5·17061
32	92	·50106 ·42231	6·92337 ·91102	4·83439	·682952	·7982317	4·90213
33	93	·32015 ·40405	·72420 ·87759	·60179	·399751	·3984807	·60041
34	94	2·11059 ·38656	·49715 ·84417	·34132	·219442	·1790387	4·25295
35	95	1·85733 ·37008	·22741 ·81074	4·03815	·109182	·0698567	3·84421
36	96	·54407 ·35464	5·89871 ·77732	3·67603	·0474275	·0224292	3·35081
37	97	1·14613 ·34023	5·48636 ·74390	3·23026	·0169926	·0054366	2·73533
38	98	0·60206 ·32684	4·92890 ·71047	2·63937	·0043588	·0010778	2·03254
39	99	0·00000 ·31442	4·31442 ·67705	1·99147	·0009805	·0000973	0·98817
40	100	9·04139 4·30315	3·34454 7·64363	0·98817	·0000973	·0000000	...

an extended pension be *two*, *seven*, and *eleven* years respectively, and at other ages corresponding numbers, so as to make the increase of pension always take place at the same ages.

(147.) The whole pension will therefore always consist,

Under age *two*, of	one Immediate Reversionary Annuity,	and *three*	Deferred Reversionary Annuities.
Age 2 and under *seven*, of .	ditto	... *two*	ditto
... 7 ... *eleven*, of	ditto	... *one*	ditto, and at

... 11 and upwards, it will consist of an Immediate Reversionary Annuity only.

(148.) The present value of the Daughters' Contingent Pension will hence be

$$\text{At birth } = (a_d - a_{x,d})\,180 + (a_{\rceil d+2} - a_{\rceil (x,d)+2})\;90 + (a_{\rceil d+7} - a_{\rceil (x,d)+7})\;70 + (a_{\rceil d+11} - a_{\rceil (x,d)+11})\;280$$

$$\text{At age 2 } = (a_d - a_{x,d})\,270 + (a_{\rceil d+5} - a_{\rceil (x,d)+5})\;70 + (a_{\rceil d+9} - a_{\rceil (x,d)+9})\;280$$

$$\text{At age 7 } = (a_d - a_{x,d})\,340 + (a_{\rceil d+4} - a_{\rceil (x,d)+5})\,280 \text{ and}$$

$$\text{At age 11} = (a_d - a_{x,d})\;620$$

(149.) If from the above there be deducted $(a_{\urcorner d+n} - a_{\urcorner (x,d)+n})$ 620 in which n will vary so as to make the deferred period always at twenty-one years of age, the results will be the values of unextended pensions to daughters.

(150.) The calculations of the above values will be found carried out for the immediate reversionary annuities on daughters' lives in Table LXXIII., for immediate annuities on the joint existence of the father and the daughter while she is unmarried in Table LXXIV., and for the deferred annuities on the daughters' lives, as well as on the two joint lives in Table LXXV. The combined results representing the aggregate present contingent pension will be found in Table LXXVI.

(151.) The deferred reversionary annuities found in Table LXXV. under the expression $\frac{N_{d+n}}{D_d} - \frac{N_{(x,d)+n}}{D_{x,d}}$ might obviously have been arrived at from

$$\left(\frac{N_{d+n}}{D_{d+n}} \cdot \frac{D_{d+n}}{D_d}\right) - \left(\frac{N_{(x,d)+n}}{D_{(x,d)+n}} \cdot \frac{D_{(x,d)+n}}{D_{x,d}}\right)$$

(152.) In Tables LVII. to LX. inclusive are given the values of the unextended contingent pensions to which the sons of the present members are entitled, for every age of the child under eighteen, and for eight different disparities of age between father and son, beginning with twenty-five years and ending with sixty, being each quinquennium for the father's age, which will be sufficient to meet all cases likely to arise. Again Tables LXI. to LXIV. inclusive give the corresponding values for the extended pensions to the age of twenty-one.

(153.) In using those Tables the age of the son will always be found in the first column, and when the disparity of age between father and son happens to be twenty-five, thirty, thirty-five, forty, forty-five, fifty, fifty-five, or sixty years, the father's age will be in the second column. For example, take the case of a son who has completed his tenth year, and the disparity of age between him and his father thirty-five years, on referring to Table LVIII. the value of the unextended pension will be found given in the fifth column as *Rs.* 380·60, and the value of the extended pension will be found given in the corresponding column of Table LXII. as *Rs.* 584·39; but if the disparity of age is between any two of the preceding mentioned quinquennial numbers, then, for all practical purposes, the values will be found with sufficient accuracy by taking the arithmetical means between them. Take the case No. 8, being the first entered in the second list referred to in Abstract T following, namely, for ages sixteen to fifty-eight.

According to Table LXIII. ages 16–61, the value . . . . . = *Rs.* 257·37
Do. LXII. ages 16–56, do. . . . . . = 193·09

Difference of value owing to a disparity of five years in age of father . = *Rs.* 64·28
Then two-fifths of this difference added to lower value, or three-fifths of it taken from the upper value, will give the value required,—

$$193{\cdot}09 + \left(\frac{64{\cdot}28}{5} \times 2\right) = \text{value for ages 16–58} \quad . \quad . \quad . \quad . \quad = Rs.\ 218{\cdot}81$$

Table LXXIII.

DAUGHTERS.—(*Eight per cent.*)

($\lambda.N_d$ and $\lambda.D_d$ from Table XX.)

Age (d)	$\lambda.N_d$ $\lambda.D_d$	$\lambda.N_d-\lambda.D_d$ $\frac{N_d}{D_d}=a_d$	Age (d)	$\lambda.N_d$ $\lambda.D_d$	$\lambda.N_d-\lambda.D_d$ $\frac{N_d}{D_d}=a_d$
0	5·89819 5·00000	0·89819 7·910	21	4·84212 3·97071	0·87141 7·437
1	·58247 4·89788	·95459 9·007	22	·78852 ·90699	·88153 7·613
2	·80842 ·83679	·97163 9·368	23	·73601 ·84496	·89105 7·781
3	·76482 ·78842	·97640 9·471	24	·68449 ·78467	·89982 7·940
4	·72127 ·74448	·97679 9·480	25	·63377 ·72683	·90694 8·071
5	·67746 ·70329	·97417 9·423	26	·58368 ·67093	·91275 8·180
6	·63321 ·66370	·96951 9·322	27	·53411 ·61648	·91763 8·272
7	·58832 ·62529	·96303 9·184	28	·48501 ·56310	·92191 8·354
8	·54262 ·58779	·95483 9·012	29	·43633 ·51047	·92586 8·431
9	·49598 ·55050	·94548 8·820	30	·38814 ·45769	·93045 8·520
10	·44824 ·51341	·93483 8·607	31	·34046 ·40502	·93544 8·619
11	·39923 ·47654	·92269 8·369	32	·29332 ·35275	·94057 8·721
12	·34869 ·43998	·90871 8·104	33	·24669 ·30106	·94563 8·823
13	·29638 ·40367	·89271 7·811	34	·20055 ·25015	·95040 8·921
14	·24195 ·36749	·87446 7·490	35	·15482 ·20025	·95457 9·007
15	·18563 ·32695	·85868 7·222	36	·10944 ·15139	·95805 9·079
16	·12773 ·28186	·84587 7·012	37	·06434 ·10356	·96078 9·137
17	·06900 ·22981	·83919 6·905	38	4·01941 ·05674	·96267 9·176
18	5·01032 ·17069	·83963 6·912	39	3·97459 3·01089	·96370 9·198
19	4·95296 ·10277	·85019 7·083	40	3·92976 2·96620	0·96356 9·195
20	4·89691 4·03604	0·85087 7·259			

Table LXXIV.

(Eight per cent.)

Daughters' Age (d)	Disparity 25 Years.		Disparity 30 Years.		Disparity 35 Years.		Disparity 40 Years.		Daughters' Age (d)
	$\lambda . N_{x,d}$ $\lambda . D_{x,d}$	$\lambda . N_{x,d} - \lambda . D_{x,d}$ $\frac{N_{x,d}}{D_{x,d}} = a_{x,d}$	$\lambda . N_{x,d}$ $\lambda . D_{x,d}$	$\lambda . N_{x,d} - \lambda . D_{x,d}$ $\frac{N_{x,d}}{D_{x,d}} = a_{x,d}$	$\lambda . N_{x,d}$ $\lambda . D_{x,d}$	$\lambda . N_{x,d} - \lambda . D_{x,d}$ $\frac{N_{x,d}}{D_{x,d}} = a_{x,d}$	$\lambda . N_{x,d}$ $\lambda . D_{x,d}$	$\lambda . N_{x,d} - \lambda . D_{x,d}$ $\frac{N_{x,d}}{D_{x,d}} = a_{x,d}$	
0	0·29427 9·49278	0·80149 6·331	0·15433 9·35723	0·79710 6·268	0·01220 9·21812	0·79408 6·224	9·86830 9·07700	0·79130 6·184	0
1	·23780 ·38049	·85731 7·200	·09733 ·24428	·85305 7·129	9·95479 ·10508	·84971 7·075	·81060 8·96324	·84736 7·037	1
2	·18333 ·30913	·87420 7·485	0·04238 ·17222	·87016 7·416	·89403 9·03201	·86202 7·278	·75497 ·89051	·86446 7·319	2
3	·12943 ·25038	·87905 7·569	9·98807 ·11271	·87536 7·505	·84491 8·97214	·87277 7·461	·69996 ·83045	·86951 7·405	3
4	·07562 ·19591	·87971 7·581	·93387 ·05751	·87636 7·522	·79040 ·91663	·87377 7·478	·64504 ·77476	·87028 7·418	4
5	0·02156 ·14407	·87749 7·542	·87944 9·00498	·87446 7·490	·73566 ·86384	·87182 7·444	·58985 ·72179	·86806 7·380	5
6	9·96700 ·09366	·87334 7·470	·82456 8·95396	·87060 7·423	·68044 ·81263	·86781 7·376	·53415 ·67033	·86382 7·308	6
7	·91173 9·04427	·86746 7·370	·76899 ·90408	·86491 7·327	·62453 ·76257	·86196 7·277	·47771 ·62001	·85770 7·206	7
8	·85557 8·99563	·85994 7·243	·71252 ·85507	·85745 7·202	·56707 ·71337	·85430 7·150	·42030 ·57059	·84971 7·075	8
9	·79835 ·94709	·85126 7·100	·65498 ·80621	·84877 7·059	·50971 ·66434	·84537 7·004	·36171 ·52144	·84027 6·923	9
10	·73986 ·89865	·84121 6·938	·59619 ·75753	·83866 6·897	·45045 ·61546	·83499 6·839	·30166 ·47266	·82900 6·745	10
11	·67989 ·85037	·82952 6·753	·53588 ·70902	·82686 6·712	·38961 ·56673	·82288 6·651	·23987 ·42430	·81557 6·540	11
12	·61813 ·80233	·81580 6·543	·47372 ·66082	·81290 6·500	·32689 ·51826	·80863 6·436	·17589 ·37657	·79932 6·300	12
13	·55420 ·75450	·79970 6·305	·40936 ·61282	·79654 6·260	·26188 ·47002	·79186 6·192	·10921 ·32925	·77996 6·025	13
14	·48763 ·70677	·78086 6·098	·34230 ·56490	·77740 5·990	·19407 ·42200	·77207 5·917	9·03918 ·28209	·75709 5·716	14
15	·41865 ·65461	·76404 5·808	·27275 ·51250	·76019 5·757	·12356 ·36975	·75381 5·673	8·96586 ·23050	·73536 5·437	15
16	·34751 ·59790	·74961 5·618	·20096 ·45562	·74534 5·563	9·05053 ·31318	·73735 5·462	·88933 ·17417	·71516 5·190	16
17	·27503 ·53420	·74083 5·506	·12756 ·39254	·73502 5·433	8·97570 ·24995	·72575 5·318	·81028 ·11054	·69974 5·009	17
18	·20224 ·46339	·73885 5·481	9·05392 ·32061	·73331 5·411	·89998 ·17982	·72016 5·250	·72964 8·03933	·69031 4·901	18
19	·13069 ·38374	·74695 5·584	8·98142 ·24084	·74058 5·503	·82480 ·10093	·72393 5·296	·64898 7·95878	·69020 4·900	19
20	9·06040 ·30521	·75519 5·691	·90996 ·16240	·74756 5·592	·75024 8·02315	·72709 5·334	·56824 ·87858	·68966 4·894	20
21	8·99133 ·22782	·76351 5·801	·83946 ·08560	·75386 5·674	·67590 7·94657	·72942 5·363	·48728 ·79885	·68843 4·880	21
22	·92335 ·15239	·77096 5·901	·76973 8·01070	·75903 5·742	·60193 ·87129	·73064 5·378	·40598 ·71962	·68636 4·857	22
23	·85637 ·07843	·77794 5·997	·70057 7·93766	·76291 5·793	·52786 ·79721	·73065 5·378	·32414 ·64089	·68325 4·822	23
24	·79025 8·00628	·78397 6·081	·63179 ·86638	·76541 5·827	·45361 ·72422	·72939 5·363	·24155 ·56260	·67895 4·775	24
25	·72469 7·93676	·78793 6·137	·56301 ·79751	·76550 5·828	·37880 ·65294	·72586 5·319	·15785 ·48538	·67247 4·704	25
26	·65942 ·86937	·79005 6·167	·49395 ·73026	·76359 5·802	·30313 ·58262	·72051 5·254	8·07262 ·40862	·66400 4·613	26
27	·59442 ·80374	·79048 6·173	·42436 ·66434	·76002 5·755	·22637 ·51266	·71371 5·173	7·98561 ·33171	·65390 4·507	27
28	·52887 ·73936	·78951 6·150	·35405 ·59891	·75514 5·690	·14829 ·44259	·70570 5·078	·89645 ·25410	·64235 4·389	28
29	·46325 ·67574	·78751 6·131	·28287 ·53360	·74927 5·614	8·06873 ·37196	·69682 4·975	·80494 ·17525	·62969 4·263	29
30	·39733 ·61192	·78541 6·101	·21077 ·46735	·74342 5·539	7·98772 ·29979	·68793 4·874	·71095 ·09406	·61689 4·139	30
31	·33108 ·54800	·78308 6·068	·13780 ·40028	·73752 5·464	·90513 ·22627	·67886 4·774	·61439 7·01061	·60378 4·016	31
32	·26444 ·48416	·78028 6·029	8·06386 ·33250	·73136 5·387	·82806 ·15154	·67652 4·748	·51507 6·92496	·59011 3·891	32
33	·19731 ·42043	·77688 5·982	7·98885 ·26411	·72474 5·306	·73478 7·07562	·65916 4·562	·41278 ·83698	·57580 3·765	33
34	·12959 ·35683	·77276 5·926	·91271 ·19521	·71750 5·218	·64673 6·99848	·64825 4·449	·30726 ·74656	·56070 3·637	34
35	8·06111 ·29347	·76764 5·857	·83523 ·12591	·70932 5·121	·55645 ·92018	·63627 4·328	·19827 ·65355	·54472 3·505	35
36	7·99002 ·23020	·75982 5·752	·75623 7·05619	·70004 5·012	·46367 ·84053	·62314 4·199	7·08543 ·55769	·52774 3·371	36
37	·91931 ·16085	·75246 5·655	·67547 6·98591	·68956 4·893	·36810 ·75931	·60879 4·062	6·96847 ·45858	·50989 3·235	37
38	·84731 ·10334	·74397 5·546	·59270 ·91485	·67785 4·763	·26940 ·67621	·59319 3·919	·84699 ·35590	·49109 3·098	38
39	·77383 7·03950	·73433 5·424	·50764 ·84279	·66485 4·622	·16723 ·59086	·57637 3·770	·72060 .24926	·47134 2·960	39
40	7·69859 6·97542	0·72317 5·287	7·41994 6·76970	0·65024 4·469	7·06119 6·50380	0·55733 3·609	6·58878 6·13853	0·45025 2·820	40

Table LXXIV.—(*continued.*)

(Eight per cent.)

	Disparity 45 Years.		Disparity 50 Years.		Disparity 55 Years.		Disparity 60 Years.		
Daughters' Age (d)	$\lambda . N_{x,d}$ $\lambda . D_{x,d}$	$\lambda . N_{x,d} - \lambda . D_{x,d}$ $\frac{N_{x,d}}{D_{x,d}} = a_{x,d}$	$\lambda . N_{x,d}$ $\lambda . D_{x,d}$	$\lambda . N_{x,d} - \lambda . D_{x,d}$ $\frac{N_{x,d}}{D_{x,d}} = a_{x,d}$	$\lambda . N_{x,d}$ $\lambda . D_{x,d}$	$\lambda . N_{x,d} - \lambda . D_{x,d}$ $\frac{N_{x,d}}{D_{x,d}} = a_{x,d}$	$\lambda . N_{x,d}$ $\lambda . D_{x,d}$	$\lambda . N_{x,d} - \lambda . D_{x,d}$ $\frac{N_{x,d}}{D_{x,d}} = a_{x,d}$	Daughters' Age (d)
0	9·72192 8·93493	0·78699 6·123	9·57073 8·9213	0·77860 6·006	9·40800 8·65287	0·75513 5·690	9·22081 8·50831	0·71250 5·158	0
1	·66363 ·82096	·84267 6·961	·51116 ·67852	·83264 6·802	·34482 ·53950	·80532 6·386	·15112 ·39177	·75935 5·746	1
2	·60740 ·74795	·85945 7·235	·45343 ·60626	·84717 7·033	·28314 ·46685	·81629 6·551	·08264 ·31518	·76746 5·854	2
3	·55174 ·68766	.86408 7·313	·39592 ·54688	·84904 7·064	·22123 ·40643	·81480 6·528	9·01355 ·25011	·76344 5·800	3
4	·49609 ·63186	·86423 7·315	·33806 ·49195	·84611 7·016	·15854 ·34980	·80874 6·438	8·94325 ·18817	·75508 5·690	4
5	·44007 ·57897	·86110 7·263	·27937 ·43973	·83964 6·913	·09454 ·29516	·79938 6·301	·87119 ·12760	·74359 5·541	5
6	·38335 ·52790	·85545 7·169	·21956 ·38888	·83068 6·771	9·02898 ·24115	·78783 6·135	·79701 ·06714	·72987 5·369	6
7	·32564 ·47832	·84732 7·036	·15827 ·33891	·81936 6·597	8·96147 ·18724	·77423 5·946	·72030 8·00629	·71401 5·176	7
8	·26631 ·42950	·83681 6·868	·09517 ·28936	·80581 6·395	·89168 ·13303	·75865 5·737	·64064 7·94455	·69609 4·967	8
9	·20599 ·38153	·82446 6·675	9·02999 ·23938	·79061 6·175	·81931 ·07775	·74156 5·515	·55765 ·88103	·67662 4·749	9
10	·14345 ·33341	·81004 6·457	8·96236 ·18884	·77352 5·936	·74400 8·02128	·72272 5·281	·47090 ·81555	·65535 4·522	10
11	·07864 ·28528	·79336 6·214	·89194 ·13755	·75439 5·681	·66528 7·96354	·70174 5·032	·37979 ·74788	·63191 4·285	11
12	9·01106 ·23716	·77390 5·942	·81821 ·08549	·73272 5·404	·58523 ·90454	·68069 4·794	·28360 ·67795	·60565 4·033	12
13	8·94022 ·18879	·75145 5·642	·74052 8·03248	·70804 5·106	·49498 ·84399	·65099 4·477	·18136 ·60535	·57601 3·767	13
14	·86533 ·13994	·72539 5·314	·65808 7·97831	·67977 4·784	·40159 ·78159	·62000 4·169	8·07177 ·52966	·54211 3·484	14
15	·78640 ·08593	·70047 5·017	·57079 ·91837	·65242 4·492	·30214 ·71264	·58950 3·976	7·95444 ·44601	·50843 3·224	15
16	·70348 8·02063	·67705 4·754	·47858 ·85243	·62615 4·228	·19642 ·63676	·55966 3·628	·82899 ·35393	·47506 2·986	16
17	·61727 7·95887	·65840 4·554	·38211 ·77792	·60419 4·020	8·08493 ·55133	·53360 3·417	·69587 ·25059	·44528 2·788	17
18	·52875 ·88306	·64569 4·423	·28233 ·69442	·58791 3·872	7·96860 ·45593	·51267 3·256	·55604 ·13562	·42042 2·633	18
19	·43962 ·79715	·64247 4·390	·18104 ·60043	·58061 3·807	·84952 ·34850	·50102 3·170	·41192 7·00690	·40502 2·541	19
20	·34982 ·71102	·63880 4·353	8·07813 ·50529	·57284 3·740	·72747 ·23866	·48881 3·082	·26326 6·87412	·38914 2·450	20
21	·25916 ·62483	·63433 4·309	7·97337 ·40918	·56419 3·666	·60222 ·12634	·47588 2·991	7·10975 ·73712	·37263 2·358	21
22	·16749 7·53867	·62882 4·254	·86650 ·31208	·55442 3·584	·47349 7·01134	·46215 2·898	6·95104 ·59565	·35539 2·267	22
23	8·07452 7·45240	·62212 4·189	·75722 ·21377	·54345 3·495	·34096 6·89345	·44751 2·802	·78670 ·44942	·33728 2·174	23
24	7·97998 ·36587	·61411 4·113	·64520 ·11395	·53125 3·398	·20428 ·77234	·43194 2·704	·61629 ·29799	·31830 2·081	24
25	·88341 ·27965	·60376 4·016	·52984 7·01302	·51682 3·287	7·06273 ·64848	·41425 2·596	·43894 6·14166	·29728 1·983	25
26	·78434 ·19296	·59138 3·903	·41064 6·91012	·50052 3·166	6·91573 ·52090	·39483 2·482	·25385 5·97928	·27457 1·882	26
27	·68235 ·10512	·57723 3·778	·28708 ·80438	·48270 3·039	·76260 ·38869	·37391 2·365	6·06024 ·80977	·25047 1·780	27
28	·57703 7·01546	·56157 3·644	·15872 ·69515	·46357 2·908	·60273 ·25111	·35162 2·247	5·85697 ·63288	·22409 1·675	28
29	·46804 6·92331	·54473 3·505	7·02510 ·58172	·44308 2·776	·43548 6·10736	·32812 2·129	·64251 ·44770	·19481 1·566	29
30	·35522 ·82743	·52779 3·371	6·88603 ·46289	·42314 2·649	·26052 5·95607	·30445 2·016	·41481 ·25322	·16159 1·451	30
31	·23842 ·72777	·51065 3·241	·74126 ·33855	·40271 2·528	6·07751 ·79693	·28058 1·908	5·17061 5·04836	·12225 1·325	31
32	7·11747 ·62421	·49326 3·114	·59052 ·20853	·38199 2·410	5·88606 ·62960	·25646 1·805	4·90213 4·83439	0·06774 1·169	32
33	6·99212 ·51667	·47545 2·988	·43347 6·07263	·36084 2·295	·68531 ·45440	·23091 1·702	·60041 ·60179	9·99862 ·997	33
34	·86210 ·40496	·45714 2·865	·26970 5·93060	·33910 2·183	·47409 ·27094	·20315 1·596	4·25295 ·34132	·91163 ·816	34
35	·72705 ·28901	·43804 2·742	6·09871 ·78219	·31652 2·073	·25013 5·07929	·17084 1·482	3·84421 4·03815	·80606 ·640	35
36	·58660 ·16847	·41813 2·619	5·91995 ·62685	·29310 1·964	5·00996 4·87828	·13168 1·354	3·35081 3·67603	·67478 ·473	36
37	·44033 6·04288	·39745 2·497	·73288 ·46397	·26891 1·857	4·74571 ·66875	·07696 1·194	2·73533 3·23026	·50507 ·320	37
38	·28820 5·91186	·37634 2·379	·53653 ·29363	·24290 1·749	·44830 ·44102	0·00728 1·017	2·03254 2·63937	9·39317 ·247	38
39	6·12014 ·77490	·35424 2·261	·32052 5·11534	·21418 1·637	4·10520 4·18562	9·91958 ·831	0·98817 1·99147	8·99670 ·099	39
40	5·96287 5·63170	0·33117 2·144	5·10591 4·92881	0·17710 1·503	3·70071 3·88766	9·81305 ·650			40

Table LXXV.

DAUGHTERS.—*(Eight per cent.)*

$\lambda.N_{d+n}$ and $\lambda.D_d$ from Table XX.

$\lambda.N_{(x,d)+n}$ and $\lambda.D_{x,d}$ from Tables LXV. to LXXII.

DIFFERENCE OF AGE, 25 YEARS.

Age	$\lambda.N_{d+n} = 5·80842$ $\lambda.N_{(x,d)+n} = 0·18333$ Constants for Age 2.			$\lambda.N_{d+n} = 5·58832$ $\lambda.N_{(x,d)+n} = 9·91173$ Constants for Age 7.			$\lambda.N_{d+n} = 5·39923$ $\lambda.N_{(x,d)+n} = 9·67989$ Constants for Age 11.		
d	$\lambda.N_{d+n} - \lambda.D_d$ $\lambda.N_{(x,d)+n} - \lambda.D_{x,d}$	$\frac{N_{d+n}}{D_d}$ $\frac{N_{(x,d)+n}}{D_{x,d}}$	$a_{d\,\overline{n}\vert} - a_{(x,d)\,\overline{n}\vert} = (1)$ 1 × 90	$\lambda.N_{d+n} - \lambda.D_d$ $\lambda.N_{(x,d)+n} - \lambda.D_{x,d}$	$\frac{N_{d+n}}{D_d}$ $\frac{N_{(x,d)+n}}{D_{x,d}}$	$a_{d\,\overline{n}\vert} - a_{(x,d)\,\overline{n}\vert} = (1)$ 1 × 70	$\lambda.N_{d+n} - \lambda.D_d$ $\lambda.N_{(x,d)+n} - \lambda.D_{x,d}$	$\frac{N_{d+n}}{D_d}$ $\frac{N_{(x,d)+n}}{D_{x,d}}$	$a_{d\,\overline{n}\vert} - a_{(x,d)\,\overline{n}\vert} = (1)$ (1) × 280
0	0·80842 0·69055	6·433 4·904	1·529 137·61	0·58832 0·41895	3·875 2·624	1·251 87·57	0·39923 0·18711	2·507 1·539	·968 271·04
1	0·91054 0·80284	8·138 6·351	1·787 160·83	·69044 ·53124	4·903 3·398	1·505 105·35	·50135 ·29940	3·172 1·993	1·179 230·12*
2				·75153 ·60260	5·643 4·005	1·638 114·66	·56244 ·37076	3·651 2·348	1·303 364·80†
3				·79990 ·66135	6·308 4·585	1·723 120·61	·61081 ·42951	4·081 2·689	1·392 389·76
4				·84384 ·71582	6·980 5·198	1·782 124·74	·65475 ·48398	4·516 3·048	1·468 411·04
5				·88503 ·76766	7·674 5·857	1·817 127·19	·69594 ·53582	4·965 3·434	1·531 428·68
6				0·92462 0·81807	8·407 6·577	1·830 128·10	·73553 ·58623	5·439 3·857	1·582 442·96
7							·77394 ·63562	5·942 4·321	1·621 453·88
8							·81144 ·68426	6·478 4·833	1·645 460·68
9							·84873 ·73280	7·059 5·405	1·654 463·12
10							0·88582 0·78124	7·688 6·043	1·645 460·60

* Read 330·12.

† Do. 364·84.

Table LXXV.—(*continued.*)

DIFFERENCE OF AGE, 30 YEARS.

Age	$\lambda . N_{d+n}$ = 5·80842 $\lambda . N_{(x,d)+n}$ = 0·01238 } Constants for Age 2.			$\lambda . N_{d+n}$ = 5·58832 $\lambda . N_{(x,d)+n}$ = 9·76899 } Constants for Age 7.			$\lambda . N_{d+n}$ = 5·39923 $\lambda . N_{(x,d)+n}$ = 9·53588 } Constants for Age 11.		
d	$\lambda . N_{d+n} \quad - \lambda . D_d$ $\lambda . N_{(x,d)+n} - \lambda . D_{x,d}$	$\frac{D_{d+n}}{D_d}$ $\frac{N_{(x,d)+n}}{D_{x,d}}$	$a_{d\rceil n} - a_{(x,d)\rceil n}$ = (1) (1) × 90	$\lambda . N_{d+n} \quad - \lambda . D_d$ $\lambda . N_{(x,d)+n} - \lambda . D_{x,d}$	$\frac{N_{d+n}}{D_d}$ $\frac{N_{(x,d)+n}}{D_{x,d}}$	$a_{d\rceil n} - a_{(x,d)\rceil n}$ = (1) (1) × 70	$\lambda . N_{d+n} \quad - \lambda . D_d$ $\lambda . N_{(x,d)+n} - \lambda . D_{x,d}$	$\frac{N_{d+n}}{D_d}$ $\frac{N_{(x,d)+n}}{D_{x,d}}$	$a_{d\rceil n} - a_{(x,d)\rceil n}$ = (1) (1) × 280
0	0·80842 0·68515	6·433 4·843	1·590 143·10	0·58832 0·41176	3·875 2·581	1·294 90·58	0·39923 0·17865	2·507 1·509	·998 279·44
1	0·91054 0·79810	8·138 6·282	1·856 166·04	·69044 ·52471	4·903 3·347	1·556 108·92	·50135 ·29160	3·172 1·957	1·215 340·20
2				·75153 ·59677	5·643 3·952	1·691 118·37	·56244 ·36366	3·651 2·310	1·341 372·48
3				·79990 ·65628	6·308 4·532	1·776 124·32	·61081 ·42317	4·081 2·650	1·431 400·68
4				·84384 ·71148	6·980 5·146	1·834 128·38	·65475 ·47837	4·516 3·009	1·507 421·96
5				·88503 ·76401	7·674 5·808	1·866 130·62	·69594 ·53090	4·965 3·395	1·570 439·60
6				0·92462 0·81503	8·407 6·532	1·875 131·25	·73553 ·58192	5·439 3·819	1·620 453·60
7							·77394 ·63180	5·942 4·284	1·658 464·24
8							·81144 ·68081	6·478 4·795	1·683 471·24
9							·84873 ·72967	7·059 5·366	1·693 474·04
10							0·88582 0·77835	7·688 6·003	1·685 471·80

Table LXXV.—(*continued.*)

Age	DIFFERENCE OF AGE, **35** YEARS.								
	$\lambda.N_{d+n} = 5{\cdot}80842$ $\lambda.N_{(x,d)+n} = 9{\cdot}89403$ } Constants for Age 2.			$\lambda.N_{d+n} = 5{\cdot}58832$ $\lambda.N_{(x,d)+n} = 9{\cdot}62453$ } Constants for Age 7.			$\lambda.N_{d+n} = 5{\cdot}39923$ $\lambda.N_{(x,d)+n} = 9{\cdot}38961$ } Constants for Age **11.**		
d	$\lambda.N_{d+n} - \lambda.D_d$	$\frac{N_{d+n}}{D_d}$	$a_{\overline{d}\rceil n} - a_{\overline{(x,d)}\rceil n} = (1)$	$\lambda.N_{d+n} - \lambda.D_d$	$\frac{N_{d+n}}{D_d}$	$a_{\overline{d}\rceil n} - a_{\overline{(x,d)}\rceil n} = (1)$	$\lambda.N_{d+n} - \lambda.D_d$	$\frac{N_{d+n}}{D_d}$	$a_{\overline{d}\rceil n} - a_{\overline{(x,d)}\rceil n} = (1)$
	$\lambda.N_{(x,d)+n} - \lambda.D_{x,d}$	$\frac{N_{(x,d)+n}}{D_{x,d}}$	(1) × 90	$\lambda.N_{(x,d)+n} - \lambda.D_{x,d}$	$\frac{N_{(x,d)+n}}{D_{x,d}}$	(1) × 70	$\lambda.N_{(x,d)+n} - \lambda.D_{x,d}$	$\frac{N_{(x,d)+n}}{D_{x,d}}$	(1) × 280
0	0·80842	6·433	1·692	0·58832	3·875	1·326	0·39923	2·507	1·023
	0·67591	4·741	152·28	0·40641	2·549	92·82	0·17149	1·484	286·44
1	0·91054	8·138	1·987	·69044	4·903	1·596	·50135	3·172	1·247
	0·78895	6·151	178·83	·51945	3·307	111·72	·28453	1·925	349·16
2				·75153	5·643	1·730	·56244	3·651	1·373
				·59252	3·913	121·10	·35760	2·278	384·44
3				·79990	6·308	1·817	·61081	4·081	1·466
				·65239	4·491	127·19	·41747	2·615	410·48
4				·84381	6·980	1·876	·65475	4·516	1·544
				·70790	5·104	131·32	·47298	2·972	432·32
5				·88503	7·674	1·910	·65954	4·965	1·609
				·76069	5·764	133·70	·52577	3·356	450·52
6				0·92462	8·407	1·922	·73553	5·439	1·663
				0·81190	6·485	134·54	·57698	3·776	465·64
7							·77394	5·942	1·705
							·62704	4·237	477·40
8							·81144	6·478	1·733
							·67624	4·745	485·24
9							·84873	7·059	1·747
							·72527	5·312	489·16
10							0·88582	7·688	1·743
							0·77415	5·945	488·04

Table LXXV.—(*continued.*)

DIFFERENCE OF AGE, 40 YEARS.

Age	$\lambda . N_{d+n}$ = 5·80842 $\lambda . N_{(x,d)+n}$ = 9·75497 } Constants for Age 2.			$\lambda . N_{d+n}$ = 5·58832 $\lambda . (N_{x,d})+n$ = 9·47771 } Constants for Age 7.			$\lambda . N_{d+n}$ = 5·39923 $\lambda . N_{(x,d)+n}$ = 9·23987 } Constants for Age 11.		
d	$\lambda . N_{d,n} - \lambda . D_d$ $\lambda . N_{(x,d)+n} - \lambda . D_{x,d}$	$\frac{N_{d+n}}{D_d}$ $\frac{N_{(x,d)+n}}{D_{x,d}}$	$a_{d\urcorner n} - a_{(x,d)\urcorner n} = (1)$ (1) × 90	$\lambda . N_{d+n} - \lambda . D_d$ $\lambda . N_{(x,d)+n} - \lambda . D_{x,d}$	$\frac{N_{d+n}}{D_d}$ $\frac{N_{(x,d)+n}}{D_{x,d}}$	$a_{d\urcorner n} - a_{(x,d)\urcorner n} = (1)$ (1) × 70	$\lambda . N_{d+n} - \lambda . D_d$ $\lambda . N_{(x,d)+n} - \lambda . D_{x,d}$	$\frac{N_{d+n}}{D_d}$ $\frac{N_{(x,d)+n}}{D_{x,d}}$	$a_{d\urcorner n} - a_{(x,d)\urcorner n} = (1)$ (1) × 280
0	0·80842 0·67797	6·433 4·764	1·669 150·21	0·58332 0·40071	3·875 2·516	1·359 95·13	0·39923 0·16287	2·507 1·455	1·052 294·56
1	0·91054 0·79178	8·138 6·191	1·947 175·23	·69044 ·51447	4·903 3·269	1·634 114·38	·50135 ·27663	3·172 1·891	1·281 358·68
2				·75153 ·58720	5·643 3·865	1·778 124·46	·56244 ·34936	3·651 2·235	1·416 396·48
3				·79990 ·64726	6·308 4·439	1·869 130·83	·61081 ·40942	4·081 2·567	1·514 423·92
4				·84384 ·70295	6·980 5·046	1·934 135·38	·65475 ·46511	4·516 2·918	1·598 447·44
5				·88503 ·75572	7·674 5·698	1·976 138·32	·65954 ·51808	4·965 3·297	1·668 467·04
6				0·92462 0·80728	8·407 6·416	1·991 139·37	·73553 ·56954	5·439 3·711	1·728 483·84
7							·77394 ·61986	5·942 4·167	1·775 497·00
8							·81144 ·66928	6·478 4·670	1·808 506·24
9							·84873 ·71843	7·059 5·229	1·830 512·40
10							0·88582 0·76271	7·658 5·851	1·807 505·96

Table LXXV.—(*continued.*)

Difference of Age, 45 Years.

Age	$\lambda . N_{d+n}$ = 5·80842 $\lambda . N_{(x,d)+n}$ = 9·60740 Constants for Age 2.			$\lambda . N_{d+n}$ = 5·58832 $\lambda . N_{(x,d)+n}$ = 9·32564 Constants for Age 7.			$\lambda . N_{d+n}$ = 5·39923 $\lambda . N_{(x,d)+n}$ = 0·07864 Constants for Age 11.		
d	$\lambda . N_{d+n} - \lambda . D_d$ $\lambda . N_{(x,d)+n} - \lambda . D_{x,d}$	$\frac{D_{d+n}}{D_d}$ $\frac{N_{(x,d)+n}}{D_{x,d}}$	$a_{d\overline{\rceil n}} - a_{(x,d)\overline{\rceil n}} = (1)$ (1) × 90	$\lambda . N_{d+n} - \lambda . D_d$ $\lambda . N_{(x,d)+n} - \lambda . D_{x,d}$	$\frac{N_{d+n}}{D_d}$ $\frac{N_{(x,d)+n}}{D_{x,d}}$	$a_{d\overline{\rceil n}} - a_{(x,d)\overline{\rceil n}} = (1)$ (1) × 70	$\lambda . N_{d+n} - \lambda . D_d$ $\lambda . N_{(x,d)+n} - \lambda . D_{x,d}$	$\frac{N_{d+n}}{D_d}$ $\frac{N_{(x,d)+n}}{D_{x,d}}$	$a_{d\overline{\rceil n}} - a_{(x,d)\overline{\rceil n}} = (1)$ (1) × 280
0	0·80842	6·433	1·729	0·58832	3·875	1·416	0·39923	2·507	1·115
	0·67247	4·704	155·61	0·39071	2·459	99·12	0.14371	1·392	312·20
1	0·91054	8·138	2·022	·69044	4·903	1·706	·50135	3 172	1·362
	0·78644	6·116	181·98	·50468	3·197	119·42	·25768	1·810	381·36
2				·75153	5·643	1·861	·56244	3·651	1·510
				·57769	3·782	130·27	·33069	2·141	422·80
3				·79990	6·308	1·963	·61081	4·081	1·621
				·63798	4·345	137·41	·39098	2·460	453·88
4				·84384	6·980	2·039	·65475	4·516	1·718
				·69378	4·941	142·73	·44678	2·798	481·04
5				·88503	7·674	2·094	·69594	4·965	1·805
				·74667	5·580	146·58	·49967	3·160	505·40
6				0·92462	8·407	2·130	·73533	5·439	1·885
				0·79774	6·277	149·10	·55074	3·554	527·80
7							·77394	5·942	1·958
							·60032	3·984	548·24
8							·81144	6·478	2·023
							·64884	4·455	566·44
9							·84873	7·059	2·080
							·69711	4·979	582·40
10							0·88582	7·688	2·126
							0·74523	5·562	595·24

Table LXXV.—(*continued.*)

DIFFERENCE OF AGE, 50 YEARS.

Age	$\lambda.N_{d+n} = 5{\cdot}80842$ $\lambda.N_{(x,d)+n} = 9{\cdot}45343$ } Constants for Age 2.			$\lambda.N_{d+n} = 5{\cdot}58832$ $\lambda.N_{(x,d)+n} = 9{\cdot}15827$ } Constants for Age 7.			$\lambda.N_{d+n} = 5{\cdot}39923$ $\lambda.N_{(x,d)+n} = 8{\cdot}89194$ } Constants for Age 11.		
d	$\lambda.N_{d+n} - \lambda.D_d$ $\lambda.N_{(x,d)+n} - \lambda.D_{x,d}$	$\frac{N_{d+n}}{D_d}$ $\frac{N_{(x,d)+n}}{D_{x,d}}$	$a_{d\urcorner n} - a_{(x,d)\urcorner n} = (1)$ 1 × 90	$\lambda.N_{d+n} - \lambda.D_d$ $\lambda.N_{(x,d)+n} - \lambda.D_{x,d}$	$\frac{N_{d+n}}{D_d}$ $\frac{N_{(x,d)+n}}{D_{x,d}}$	$a_{d\urcorner n} - a_{(x,d)\urcorner n} = (1)$ 1 × 70	$\lambda.N_{d+n} - \lambda.D_d$ $\lambda.N_{(x,d)+n} - \lambda.D_{x,d}$	$\frac{N_{d+n}}{D_d}$ $\frac{N_{(x,d)+n}}{D_{x,d}}$	$a_{d\urcorner n} - a_{(x,d)\urcorner n} = (1)$ (1) × 280
0	0·80842 0·66130	6·433 4·585	1·848 166·32	0·58832 0·36614	3·875 2·323	1·552 108·64	0·39923 0·09981	2·507 1·258	1·249 349·72
1	0·91054 0·77491	8·138 5·955	2·183 196·47	·69044 ·47975	4·903 3·018	1·885 131·95	·50135 ·21342	3·172 1·635	1·537 430·36
2				·75153 ·55201	5·643 3·565	2·078 145·46	·56244 ·28568	3·651 1·931	1·720 481·60
3				·79990 ·61139	6·308 4·087	2·221 155·47	·61081 ·34506	4 081 2·213	1·868 523·04
4				·84384 ·66632	6·980 4·638	2·342 163·94	·65475 ·39999	4·516 2·512	2·004 561·72
5				·88503 ·71854	7·674 5·230	2·444 171·08	·69594 ·45221	4·965 2·833	2·132 596·96
6				0·92462 0·76939	8·407 5·880	2·527 176·89	·73553 ·50306	5·439 3·185	2·254 631·12
7							·77394 ·55303	5·942 3·573	2·369 663·32
8							·81144 ·60250	6·478 4·005	2·473 692·44
9							·84873 ·65256	7·059 4·493	2·566 718·48
10							0·88582 0·70310	7·688 5·048	2·640 739·20

Table LXXV.—(*continued.*)

Difference of Age, 55 Years.

Age	$\lambda . N_{d+n}$ = 5·80842 $\lambda . N_{(x,d)+n}$ = 9·28314 } Constants for Age 2.			$\lambda . N_{d+n}$ = 5·58832 $\lambda . N_{(x,d)+n}$ = 8·96147 } Constants for Age 7.			$\lambda . N_{d+n}$ = 5·39923 $\lambda . N_{(x,d)+n}$ = 8·66528 } Constants for Age 11.		
d	$\lambda . N_{d+n} - \lambda . D_d$ $\lambda . N_{(x,d)+n} - \lambda . D_{x,d}$	$\frac{D_{d+n}}{D_d}$ $\frac{N_{(x,d)+n}}{D_{x,d}}$	$a_{d\overline{n}\vert} - a_{(x,d)\overline{n}\vert} = (1)$ (1) × 90	$\lambda . N_{d+n} - \lambda . D_d$ $\lambda . N_{(x,d)+n} - \lambda . D_{x,d}$	$\frac{N_{d+n}}{D_d}$ $\frac{N_{(x,d)+n}}{D_{x,d}}$	$a_{d\overline{n}\vert} - a_{(x,d)\overline{n}\vert} = (1)$ (1) × 70	$\lambda . N_{d+n} - \lambda . D_d$ $\lambda . N_{(x,d)+n} - \lambda . D_{x,d}$	$\frac{N_{d+n}}{D_d}$ $\frac{N_{(x,d)+n}}{D_{x,d}}$	$a_{d\overline{n}\vert} - a_{(x,d)\overline{n}\vert} = (1)$ (1) × 280
0	0·80842	6·433	2·165	0·58832	3·875	1·840	0·39923	2·507	1·478
	0·63027	4·268	194·85	0·30860	2·035	128·80	0·01241	1·029	413·84
1	0·91054	8·138	2·596	·69044	4·903	2·261	·50135	3·172	1·836
	0·74364	5·542	233·64	·42197	2·642	158·27	·12578	1·336	514·08
2				·75153	5·643	2·520	·56244	3·651	2·072
				·49462	3·123	176·40	·19843	1·579	580·16
3				·79990	6·308	2·718	·61081	4·081	2·266
				·55504	3·590	190·26	·25885	1·815	634·44
4				·84384	6·980	2·891	·65475	4·516	2·448
				·61167	4·089	202·37	·31548	2·068	685·44
5				·88503	7·674	3·036	·69594	4·965	2·620
				·66631	4·638	212·52	·37012	2·345	733·60
6				0·92462	8·407	3·155	·73553	5·439	2·784
				0·72032	5·252	220·85	·42413	2·655	780·52
7							·77394	5·942	2·936
							·47804	3·006	822·08
8							·81144	6·478	3·072
							·53225	3·406	860·16
9							·84873	7·059	3·191
							·58753	3·868	893·48
10							0·88582	7·688	3·282
							0·64400	4·406	918·96

Table LXXV.—*(continued.)*

DIFFERENCE OF AGE, 60 YEARS.

Age	$\lambda . N_{d+n} = 5·80842$ $\lambda . N_{(x,d)+n} = 9·08264$ Constants for Age 2.			$\lambda . N_{d+n} = 5·58832$ $\lambda . N_{(x,d)+n} = 8·72030$ Constants for Age 7.			$\lambda . N_{d+n} = 5·39923$ $\lambda . N_{(x,d)+n} = 8·37979$ Constants for Age 11.		
d	$\lambda . N_{d+n} - \lambda . D_d$	$\frac{N_{d+n}}{D_d}$	$a_{d\rceil n} - a_{(x,d)\rceil n} = (1)$	$\lambda . N_{d+n} - \lambda . D_d$	$\frac{N_{d+n}}{D_d}$	$a_{d\rceil n} - a_{(x,d)\rceil n} = (1)$	$\lambda . N_{d+n} - \lambda . D_d$	$\frac{N_{d+n}}{D_d}$	$a_{d\rceil n} - a_{(x,d)\rceil n} = (1)$
	$\lambda . N_{(x,d)+n} - \lambda . D_{x,d}$	$\frac{N_{(x,d)+n}}{D_{x,d}}$	1 × 90	$\lambda . N_{(x,d)+n} - \lambda . D_{x,d}$	$\frac{N_{(x,d)+n}}{D_{x,d}}$	1 × 70	$\lambda . N_{(x,d)+n} - \lambda . D_{x,d}$	$\frac{N_{(x,d)+n}}{D_{x,d}}$	(1) × 280
0	0·80842	6·433	2·860	0·58832	3·875	2·246	0·39923	2·507	1·763
	0·57433	3·570	257·40	0·21190	1·629	157·22	9·87148	·744	493·64
1	0·91054	8·138	3·230	·69044	4·903	2·772	·50135	3·172	2·199
	0·69087	4·908	290·70	·32853	2·131	194·04	9·98802	·973	615·72
2				·75153	5·643	3·101	·56244	3·651	2·491
				·40512	2·542	217·07	0·06461	1·160	691·48
3				·79990	6·308	3·362	·61081	4·081	2·733
				·46919	2·946	235·34	·12968	1·348	765·24
4				·84384	6·980	3·575	·65475	4·516	2·961
				·53213	3·405	250·25	·19162	1·555	829·08
5				·88503	7·674	3·759	·69594	4·965	3·178
				·59270	3·915	263·13	·25219	1·787	889·84
6				0·92462	8·407	3·908	·73553	5·439	3·385
				0·65316	4·499	273·56	·31265	2·054	947·80
7							·77394	5·942	3·579
							·37350	2·363	1002·12
8							·81144	6·478	3·754
							·43524	2·724	1051·12
9							·84873	7·059	3·906
							·49876	3·153	1093·68
10							0·88582	7·658	3·992
							0·56424	3·666	1117·76

Table LXXVI.

DAUGHTERS.—*(Eight per cent.)*

$\left(\frac{N_d}{D_d}\text{ from Table LXXIII.; }\frac{N_{x,d}}{D_{x,d}}\text{ from Table LXXIV.}\right)$

	DISPARITY OF AGE BETWEEN FATHER AND DAUGHTER.							
	25 YEARS.				30 YEARS.			
Age d	$\frac{N_d}{D_d}=a_d$ $\frac{N_{x,d}}{D_{x,d}}=a_{x,d}$	$a_d-a_{x,d}$ $=(1)$	$(1)\times p_d$ Σ Table LXXV.	Total Value of Benefits.	$\frac{N_d}{D_d}=a_d$ $\frac{N_{x,d}}{D_{x,d}}=a_{x,d}$	$a_d-a_{x,d}$ $=(1)$	$(1)\times p_d$ Σ Table LXXV.	Total Value of Benefits.
0	7·910 6·331	1·579	284·22 496·22	780·44	7·910 6·268	1·642	295·56 513·12	808·68
1	9·007 7·200	1·807	325·26 496·30 *	821·56 †	9·007 7·129	1·878	338·04 615·16	953·20
2	9·368 7·485	1·883	508·41 479·50	987·91	9·368 7·416	1·952	527·04 490·85	1017·89
3	9·471 7·569	1·902	513·54 510·37	1023·91	9·471 7·505	1·966	530·82 525·00	1055·82
4	9·480 7·581	1·899	512·73 535·78	1048·51	9·480 7·522	1·958	528·66 550·34	1079·00
5	9·423 7·542	1·881	507·87 555·87	1063·74	9·423 7·490	1·933	521·91 573·22	1092·13
6	9·322 7·470	1·852	500·04 571·06	1071·10	9·322 7·423	1·899	512·73 584·85	1097·58
7	9·184 7·370	1·814	616·76 453·88	1070·64	9·184 7·327	1·857	631·38 464·24	1095·62
8	9·012 7·243	1·769	601·46 460·68	1062·14	9·012 7·202	1·810	615·40 471·24	1086·64
9	8·820 7·100	1·720	584·80 463·12	1047·92	8·820 7·059	1·761	598·74 474·04	1072·78
10	8·607 6·938	1·669	567·46 460·60	1028·06	8·607 6·897	1·710	581·40 471·80	1053·20
11	8·369 6·753	1·616	1001·92	1001·92	8·369 6·712	1·657	1027·34	1027·34
12	8·104 6·543	1·561	967·82	967·82	8·104 6·500	1·604	994·48	994·48
13	7·811 6·305	1·506	933·72	933·72	7·811 6·260	1·551	961·62	961·62
14	7·490 6·038	1·452	900·24	900·24	7·490 5·990	1·500	930·00	930·00
15	7·222 5·808	1·414	876·68	876·68	7·222 5·757	1·465	908·30	908·30
16	7·012 5·618	1·394	864·28	864·28	7·012 5·563	1·449	898·38	898·38
17	6·905 5·516	1·389	861·18	861·18	6·905 5·433	1·472	912·64	912·64
18	6·912 5·481	1·431	887·22	887·22	6·912 5·411	1·501	930·62	930·62
19	7·083 5·584	1·499	929·38	929·38	7·083 5·503	1·580	979·60	979·60
20	7·259 5·691	1·568	972·16	972·16	7·259 5·592	1·667	1033·54	1033·54
21	7·437 5·801	1·636	1015·32	1015·32	7·437 5·674	1·763	1093·06	1093·06
22	7·613 5·901	1·712	1061·44	1061·44	7·613 5·742	1·871	1160·02	1160·02
23	7·781 5·997	1·784	1107·94	1107·94	7·781 5·793	1·988	1232·56	1232·56
24	7·940 6·081	1·859	1152·58	1152·58	7·940 5·827	2·113	1310·06	1310·06
25	8·071 6·137	1·934	1199·04	1199·04	8·071 5·828	2·243	1390·66	1390·66
26	8·180 6·167	2·013	1248·06	1248·06	8·180 5·802	2·378	1474·36	1474·36
27	8·272 6·173	2·099	1301·38	1301·38	8·272 5·755	2·517	1560·54	1560·54
28	8·354 6·159	2·195	1360·90	1360·90	8·354 5·690	2·664	1651·68	1651·68
29	8·431 6·131	2·300	1426·00	1426·00	8·431 5·614	2·817	1746·54	1746·54
30	8·520 6·101	2·419	1499·78	1499·78	8·520 5·539	2·981	1848·22	1848·22
31	8·619 6·068	2·551	1581·62	1581·62	8·619 5·464	3·155	1956·10	1956·10
32	8·721 6·029	2·692	1669·04	1669·04	8·721 5·387	3·334	2067·08	2067·08
33	8·823 5·982	2·841	1761·42	1761·42	8·823 5·306	3·517	2180·54	2180·54
34	8·921 5·926	2·995	1856·90	1856·90	8·921 5·218	3·703	2295·86	2295·86
35	9·007 5·857	3·150	1953·00	1953·00	9·007 5·121	3·886	2409·32	2409·32
36	9·070 5·752	3·327	2062·74	2062·74	9·079 5·012	4·067	2521·54	2521·54
37	9·137 5·655	3·482	2158·84	2158·84	9·137 4·893	4·244	2631·28	2631·28
38	9·176 5·546	3·630	2250·60	2250·60	9·176 4·763	4·413	2736·06	2736·06
39	9·198 5·424	3·774	2339·88	2339·88	9·198 4·622	4·576	2837·12	2837·12
40	9·195 5·287	3·908	2422·96	2422·96	9·195 4·469	4·726	2930·12	2930·12

* Read 596·30.

† Do. 921.56.

Table LXXVI.—(*continued.*)

Age d	Disparity of Age between Father and Daughter.							
	35 Years.				40 Years.			
	$\frac{N_d}{D_d} = a_d$ $\frac{N_{x,d}}{D_{x,d}} = a_{x,d}$	$a_d - a_{x,d}$ = (1)	(1) × p_d Σ Table LXXV.	Total Value of Benefits.	$\frac{N_d}{D_d} = a_d$ $\frac{N_{x,d}}{D_{x,d}} = a_{x,d}$	$a_d - a_{x,d}$ = (1)	(1) × p_d Σ Table LXXV.	Total Value of Benefits.
0	7·910 6·224	1·686	303·48 531·54	835·02	7·910 6·184	1·726	317·16 539·90	857·06
1	9·007 7·075	1·932	347·76 539·71[*]	887·47[†]	9·007 7·037	1·970	354·60 648·29	1002·89
2	9 368 7·278	2·090	564·30 505·54	1069·84	9·368 7·319	2·049	553·23 520·94	1074·17
3	9·471 7·461	2·010	542·70 537·67	1080·37	9·471 7·405	2·066	557·82 554·75	1112·57
4	9·480 7·478	2·002	540·54 563·64	1104·18	9·480 7·418	2·062	556·74 582·82	1139·56
5	9·423 7·444	1·979	534·33 584·22	1118·55	9·423 7·380	2·043	551·61 605·36	1156·97
6	9·322 7·376	1·946	525·42 600·18	1125·60	9·322 7·308	2·014	543·78 623·21	1166·99
7	9·184 7·277	1·907	648·38 477·40	1125·78	9·184 7·206	1·978	672·52 497·00	1169·52
8	9·012 7·150	1·862	633·08 485·24	1118·32	9·012 7·075	1·937	658·58 506·24	1164·82
9	8·820 7·004	1·816	617·44 489·16	1106·60	8·820 6·923	1·797	610·98 512·40	1123·38
10	8·607 6·839	1·768	601·12 488·48	1089·16	8·607 6·745	1·862	633·08 505·96	1139·04
11	8·369 6·651	1·718	1065·16	1065·16	8·369 6·540	1·829	1133·98	1133·98
12	8·104 6·436	1·668	1034·16	1034·16	8·104 6·300	1·804	1118·48	1118·48
13	7·811 6·192	1·619	1003·78	1003·78	7·811 6·025	1·786	1107·32	1107·32
14	7·490 5·917	1·573	975·26	975·26	7·490 5·716	1·774	1099·88	1099·88
15	7·222 5·673	1·549	960·38	960·38	7·222 5·437	1·785	1106·70	1106·70
16	7·012 5·462	1·550	961·00	961·00	7·012 5·190	1·822	1129·64	1129·64
17	6·905 5·318	1·587	983·94	983·94	6·905 5·009	1·896	1175·52	1175·52
18	6·912 5·250	1·662	1030·44	1030·44	6·912 4·901	2·011	1246·82	1246·82
19	7·083 5·296	1·787	1107·94	1107·94	7·083 4·900	2·183	1353·46	1353·46
20	7·259 5·334	1·925	1193·50	1193·50	7·259 4·894	2·365	1466·30	1466·30
21	7·437 5·363	2·074	1285·88	1285·88	7·437 4·800	2·557	1585·34	1585·34
22	7·613 5·378	2·235	1385·70	1385·70	7·613 4·857	2·756	1708·72	1708·72
23	7·781 5·378	2·403	1489·86	1489·86	7·781 4·822	2·959	1834·58	1834·58
24	7·940 5·363	2·577	1597·74	1597·74	7·940 4·775	3·165	1962·30	1962·30
25	8·071 5·319	2·752	1706·24	1706·24	8·071 4·704	3·367	2087·54	2087·54
26	8·180 5·254	2·926	1814·12	1814·12	8·180 4·613	3·567	2211·54	2211·54
27	8·272 5·173	3·099	1921·38	1921·38	8·272 4·507	3·765	2334·30	2334·30
28	8·354 5·078	3·276	2031·12	2031·12	8·354 4·389	3·965	2458·30	2458·30
29	8·431 4·975	3·456	2142·72	2142·72	8·431 4·263	4·168	2584·16	2584·16
30	8·520 4·874	3·646	2260·02	2260·02	8·520 4·139	4·381	2716·22	2716·22
31	8·619 4·774	3·845	2383·90	2383·90	8·619 4·016	4·603	2853·86	2853·86
32	8·721 4·748	3·973	2463·26	2463·26	8·721 3·891	4·830	2994·60	2994·60
33	8·823 4·562	4·261	2641·82	2641·82	8·823 3·765	5·058	3135·96	3135·96
34	8·921 4·449	4·472	2772·64	2772·64	8·921 3·637	5·284	3296·08	3296·08
35	9·007 4·328	4·679	2900·98	2900·98	9·007 3·505	5·502	3411·24	3411·24
36	9·079 4·199	4·880	3025·60	3025·60	9·079 3·371	5·708	3538·96	3538·96
37	9·137 4·062	5·075	3146·50	3146·50	9·137 3·235	5·902	3659·24	3659·24
38	9·176 3·919	5·257	3259·34	3259·34	9·176 3·098	6·078	3768·36	3768·36
39	9·198 3·770	5·428	3365·36	3365·36	9·198 2·960	6·238	3867·56	3867·56
40	9·195 3·609	5·586	3463·32	3463·32	9·195 2·820	6·375	3952·50	3952·50

[*] Read 639·71.

[†] Do. 987·47.

Table LXXVI.—*(continued.)*

Age	Disparity of Age between Father and Daughter.							
	45 Years.				50 Years.			
d	$\frac{N_d}{D_d}=a_d$ $\frac{N_{x,d}}{D_{x,d}}=a_{x,d}$	$a_d-a_{x,d}$ = (1)	(1) × p_d Σ Table LXXV.	Total Value of Benefits.	$\frac{N_d}{D_d}=a_d$ $\frac{N_{x,d}}{D_{x,d}}=a_{x,d}$	$a_d-a_{x,d}$ = (1)	(1) × p_d Σ Table LXXV.	Total Value of Benefits.
0	7·910 6·123	1·787	321·66 566·93	888·59	7·910 6·006	1·904	342·72 624·68	967·40
1	9·007 6·961	2·046	368·28 682·76	1051·04	9·007 6·802	2·205	396·90 758·78	1155·68
2	9·368 7·235	2·133	570·51 553·07	1123·58	9·368 7·033	2·335	630·45 627·06	1257·51
3	9·471 7·313	2·158	582·66 591·29	1173·95	9·471 7·064	2·407	649·89 678·51	1328·40
4	9·480 7·315	2·165	584·55 623·77	1208·32	9·480 7·016	2·464	665·28 725·06	1390·34
5	9·423 7·263	2·160	583·20 651·98	1235·18	9·423 6·913	2·510	667·70 768·04	1445·74
6	9·322 7·169	2·153	581·31 676·90	1258·21	9·322 6·771	2·551	688·77 808·01	1496·78
7	9·184 7·036	2·148	730·32 548·24	1278·56	9·184 6·597	2·587	879·58 663·32	1542·90
8	9·012 6·868	2·144	728·96 566·44	1295·40	9·012 6·395	2·617	889·78 692·44	1582·22
9	8·820 6·675	2·145	729·30 582·40	1311·70	8·820 6·175	2·645	899·30 718·48	1617·78
10	8·607 6·457	2·150	731·00 595·24	1326·24	8·607 5·936	2·671	908·14 739·20	1647·34
11	8·369 6·214	2·155	1336·10	1336·10	8·369 5·681	2·688	1666·56	1666·56
12	8·104 5·942	2·162	1340·44	1340·44	8·104 5·404	2·700	1674·20	1674·20
13	7·811 5·642	2·169	1344·78	1344·78	7·811 5·106	2·705	1677·10	1677·10
14	7·490 5·314	2·176	1349·12	1349·12	7·490 4·784	2·706	1677·72	1677·72
15	7·222 5·017	2·205	1368·10	1368·10	7·222 4·492	2·730	1692·60	1692·60
16	7·012 4·754	2·258	1399·96	1399·96	7·012 4·228	2·784	1726·08	1726·08
17	6·905 4·554	2·351	1457·62	1457·62	6·905 4·020	2·885	1788·70	1788·70
18	6·912 4·423	2·489	1543·18	1543·18	6·912 3·872	3·040	1884·80	1884·80
19	7·083 4·390	2·693	1669·66	1669·66	7·083 3·807	3·276	2031·12	2031·12
20	7·259 4·353	2·906	1801·72	1801·72	7·259 3·740	3·519	2181·78	2181·72
21	7·437 4·309	3·128	1939·36	1939·36	7·437 3·666	3·771	2338·02	2338·02
22	7·613 4·254	3·359	2082·58	2082·58	7·613 3·584	4·029	2517·98	2517·98
23	7·781 4·189	3·592	2227·04	2227·04	7·781 3·495	4·286	2657·32	2657·32
24	7·940 4·113	3·827	2372·74	2372·74	7·940 3·398	4·542	2816·04	2816·04
25	8·071 4·016	4·055	2514·10	2514·10	8·071 3·287	4·784	2966·08	2966·08
26	8·180 3·903	4·277	2651·74	2651·74	8·180 3·166	5·014	3108·68	3108·68
27	8·272 3·778	4·494	2786·28	2786·28	8·272 3·039	5·233	3244·46	3244·46
28	8·354 3·644	4·710	2920·20	2920·20	8·354 2·908	5·446	3376·52	3376·52
29	8·431 3·505	4·926	3054·12	3054·12	8·431 2·776	5·655	3506·10	3506·10
30	8·520 3·371	5·149	3192·38	3192·38	8·520 2·649	5·871	3640·00	3640·00
31	8·619 3·241	5·378	3334·36	3334·36	8·619 2·528	6·091	3776·42	3776·42
32	8·721 3·114	5·607	3476·34	3476·34	8·721 2·410	6·311	3912·82	3912·82
33	8·823 2·988	5·835	3617·70	3617·70	8·823 2·295	6·528	4047·36	4047·36
34	8·921 2·865	6·056	3754·72	3754·72	8·921 2·183	6·738	4177·56	4177·56
35	9·007 2·742	6·265	3884·30	3884·30	9·007 2·073	6·934	4299·08	4299·08
36	9·079 2·619	6·460	4005·20	4005·20	9·079 1·964	7·115	4411·30	4411·30
37	9·137 2·497	6·640	4116·80	4116·80	9·137 1·857	7·280	4513·60	4513·60
38	9·176 2·379	6·797	4214·14	4214·14	9·176 1·749	7·427	4604·72	4604·72
39	9·198 2·261	6·937	4280·94	4280·94	9·198 1·637	7·561	4687·82	4687·82
40	9·195 2·144	7·051	4371·62	4371·62	9·195 1·503	7·692	4769·04	4769·04

Table LXXVI.—(*continued.*)

	Disparity of Age between Father and Daughter.							
	55 Years.				60 Years.			
Age d	$\frac{N_d}{D_d} = a_d$ $\frac{N_{x,d}}{D_{x,d}} = a_{x,d}$	$a_d - a_{x,d}$ = (1)	(1) × p_d Σ Table LXXV.	Total Value of Benefits.	$\frac{N_d}{D_d} = a_d$ $\frac{N_{x,d}}{D_{x,d}} = a_{x,d}$	$a_d - a_{x,d}$ = (1)	(1) × p_d Σ Table LXXV.	Total Value of Benefits.
0	7·910 5·690	2·220	399·60 737·49	1137·09	7·910 5·158	2·752	495·36 908·26	1403·62
1	9·007 6·386	2·621	471·78 905·99	1377·77	9·007 5·745	3·261	586·98 1100·46	1687·44
2	9·368 6·551	2·817	760·59 756·86	1517·15	9·368 5·854	3·514	948·78 968·55	1857·33
3	9·471 6·528	2·943	794·61 824·70	1619·31	9·471 5·800	3·671	991·17 1000·58	1991·75
4	9·480 6·438	3·042	821·34 887·81	1709·15	9·480 5·690	3·790	1023·30 1079·33	2102·63
5	9·423 6·301	3·122	842·94 946·12	1789·06	9·423 5·541	3·882	1048 14 1152·97	2201·11
6	9·322 6·135	3·187	860·49 1001·37	1861·86	9·322 5·369	3·953	1067·31 1221·36	2288·67
7	9·184 5·946	3·238	1100·92 822·08	1923·00	9·184 5·176	4·008	1362·72 1002·12	2364·84
8	9·012 5·737	3·275	1113·50 860·16	1973·66	9·012 4·967	4·045	1375·30 1051·12	2426·42
9	8 820 5·515	3 305	1123·70 893·48	2017·18	8·820 4·749	4·071	1384·14 1093·68	2477·82
10	8·607 5·281	3·326	1130·84 918·96	2049·80	8·607 4·522	4·085	1388·90 1117·76	2506·66
11	8·369 5·032	3·337	2068·94	2068·94	8·369 4·285	4·084	2532·08	2532·08
12	8·104 4·794	3 310	2052·20	2052·20	8·104 4·033	4·071	2524·02	2524·02
13	7 811 4·477	3·334	2067·08	2067·08	7·811 3·767	4·044	2507·28	2507·28
14	7·490 4·169	3·321	2050·02	2050·02	7·490 3·484	4·006	2483·72	2483·72
15	7·222 3·976	3 246	2012·82	2012·82	7·222 3·224	3·998	2478·76	2478·76
16	7·012 3·628	3·384	2098·08	2098·08	7·012 2·986	4·026	2496·12	2496·12
17	6·905 3·417	3·488	2162·56	2162·56	6·905 2·788	4·117	2552·54	2552·54
18	6·912 3·256	3·656	2266·72	2266·72	6·912 2·633	4·279	2652·99	2652·99
19	7·083 3·170	3·913	2426·06	2426·06	7·083 2·541	4·542	2816·04	2816·04
20	7·259 3·082	4·177	2589·74	2589·74	7·259 2·450	4·809	2981·58	2981·58
21	7 437 2·991	4·446	2756·52	2756·52	7·437 2·358	5·079	3148·98	3148·98
22	7·613 2·898	4·715	2923·30	2923·30	7·613 2·267	5·346	3314·52	3314·52
23	7·781 2·802	4·979	3086·99	3086 99	7·781 2·174	5·607	3476·34	3476·34
24	7·940 2·704	5·236	3246 32	3246·32	7·940 2·081	5·859	3632·58	3632·58
25	8·071 2·596	5·475	3394·50	3394·50	8·071 1·983	6·088	3774·56	3774·56
26	8·180 2·482	5·698	3532·76	3532·76	8·180 1·882	6·298	3904·77	3904·77
27	8·272 2·365	5·907	3662·34	3662·34	8·272 1·780	6·492	4025·04	4025·04
28	8·354 2·247	6·107	3786·34	3786·34	8·354 1·675	6·679	4140·98	4140·98
29	8·431 2·129	6·302	3907·24	3907·24	8·431 1·566	6·865	4256·30	4256·30
30	8·520 2·016	6·504	4032·48	4032·48	8·520 1·451	7·069	4382·78	4382·78
31	8·619 1·908	6·711	4160·82	4160·82	8·619 1·325	7·294	4522·28	4522·28
32	8·721 1·805	6·916	4287·92	4287·92	8·721 1·169	7·552	4682·24	4682·24
33	8·823 1·702	7·121	4415·02	4415·02	8·823 ·997	7·826	4852·12	4852·12
34	8·921 1·596	7·325	4541·50	4541·50	8·921 ·816	8·105	5025·10	5025·10
35	9·007 1·402	7·525	4665·50	4665·50	9·007 ·640	8·367	5187·54	5187·54
36	9·079 1·354	7·725	4789·50	4789·50	9·079 ·473	8·606	5335·72	5335·72
37	9·137 1·194	7·943	4924·66	4924·66	9·137 ·320	8·817	5466·54	5466·54
38	9·176 1·017	8·159	5058·58	5058·58	9·176 ·247	8·929	5535·98	5535·98
39	9·198 ·831	8·367	5187·54	5187·54	9·198 ·099	9·099	5641·38	5641·38
40	9·195 ·680	8·545	5297·90	5297·90	9·195			

(154.) And in like manner may other values be found, when the disparity of the father's age is not one of the quinquennial numbers. On referring to cases No. 73, 78, 115, &c. in the second list distinguished in Abstract T following, they will be found to be derived from the respective Tables directly by inspection. It will also be seen that on the 1st May, 1855, there were 215 sons of present members contingent claimants on the Fund, and the

Total present value of the liabilities thence arising was = *Rs.* 1,00,489·22.

(155.) The average disparity of age between father and son at the same date was 37·587 years.

(156.) It has already been said that Tables LXXIII. to LXXVI. inclusive contained the final details of the valuation of the daughters' contingent pensions. In the fifth column of each section of the last mentioned Table will be found aggregate value of all the items of which the pension is composed for every age of the daughter from birth to age forty, and for eight different disparities of age. When it happens that the actual disparity of age between father and daughter is other than the exact quinquennial number fixed on in the Table, the value of the pension may be readily found by the means pointed out in page 179 for the case of sons.

(157.) The values of the contingent pensions to which all the present daughters are entitled will be found collected together in Abstract U, and it will be seen that on the 1st of May, 1855, there were 201 daughters under the age of twenty-seven, and the

Total present values of their liabilities was *Rs.* 1,81,132·17.

The average disparity of age between father and daughter was 35·991 years.

(158.) Having now determined the present value of all the items of liability on account of incumbent and contingent pensions, the following summary will represent their aggregate amount.

" Present value "	of pensions to 72 incumbent widows, as per Table XXX. . . . =	*Rs.* 10,43,047·08	
" Do."	of pensions to 56 fatherless sons, as per Abstract R . . . =	1,41,922·35	
" Do."	of pensions to 80 fatherless daughters, as per Abstract S . . . =	3,47,051·89	
	Total present value of incumbent pensions		= *Rs.* 15,32,021·32
" Present value "	of contingent pensions to 165 wives of members, as per Abstract Q . =	*Rs.* 6,19,624·20	
" Do."	of contingent pensions to 26 married daughters, as per Table XXXII. (*See Note to this Table.*) . . =	36,458·48	
" Do."	of contingent pensions to 8 re-married widows, as per Table XXXIII. . =	32,986·42	
" Do."	of contingent pensions to 215 sons of present members, as per Abstract T =	1,00,489·22	
" Do."	of contingent pensions to 201 daughters of present members, as per Abstract U . . . . =	1,81,132·17	
	Total " Present value " of contingent pensions		= *Rs.* 9,70,690·49
	Total " Present value " of pensions incumbent and contingent		= *Rs.* 25,02,711·81

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[(159.) It is next

Abstract T.

Sons' Contingent Pensions.

Consecutive Numbers in Schedule 3.	Age of		Amount of Pension.	Pension to cease.	Value of Pension.	Consecutive Numbers in Schedule 3.	Age of		Amount of Pension.	Pension to cease.	Value of Pension.
	Son last B. Day.	Father.					Son last B. Day.	Father			
Prior to the Year 1838.						45	12	52	Full	21	437·19
102	20	58	Full	21	17·61	46	10	52	,,	,,	587·17
114	17	57	,,	,,	276·90	47	8	52	,,	,,	694·27
121	20	55	,,	,,	15·54	48	15	57	,,	,,	278·67
122	16	55	,,	,,	191·36	49	14	57	,,	,,	355·52
127	18	53	,,	,,	81·75	50	11	57	,,	,,	606·44
128	16	53	,,	,,	187·86	55	15	52	,,	,,	547·45
132	18	59	,,	,,	88·65	57	14	52	,,	,,	310·57
138	20	57	,,	,,	16·92	58	8	52	$\frac{2}{3}$	,,	462·84
139	18	57	,,	,,	90·39	59	13	61	Full	,,	554·17
142	19	58	,,	,,	49·59	60	5	61	,,	,,	1246·82
144	16	58	,,	,,	218·81	61	15	52	$\frac{2}{3}$	,,	364·96
146	19	53	$\frac{2}{3}$	,,	29·54	62	15	52	Full	,,	547·45
166	19	60	Full	,,	55·51	63	14	52	,,	,,	310·57
177	19	48	,,	,,	46·64	64	11	52	,,	,,	518·14
184	18	52	,,	,,	83·01	65	5	52	,,	,,	821·43
187	20	51	,,	,,	16·28	66	3	52	,,	,,	878·35
188	17	51	,,	,,	130·81	67	7	50	,,	,,	728·14
189	19	46	,,	,,	46·57	68	14	50	Half	,,	156·00
191	19	52	,,	,,	44·76	69	2	49	Full	,,	834·36
193	20	52	,,	,,	16·09	70	10	52	,,	,,	587·17
194	18	52	$\frac{651}{1000}$	,,	56·53	71	16	40	,,	,,	190·77
198	19	46	Full	,,	46·57	72	1	40	Half	,,	381·46
202	17	47	,,	,,	138·25	73	0	40	,,	,,	329·18
208	17	46	,,	,,	137·78	77	7	51	Full	,,	728·14
213	17	61	,,	,,	182·01	78	3	48	,,	,,	813·35
214	17	43	,,	18	16·48	79	1	48	,,	,,	794·30
215	17	41	Half	,,	8·17	82	15	48	,,	,,	250·11
226	17	73	Full	21	449·85	83	9	48	,,	,,	632·41
227	16	52	,,	,,	186·11	87	5	46	Half	,,	383·28
						88	3	46	,,	,,	404·99
From the Year 1838 to 1855.						89	12	46	Full	,,	453·36
8	16	58	Full	21	218·81	90	9	47	,,	,,	633·81
9	9	58	,,	,,	810·06	91	8	46	,,	,,	678·45
10	13	62	,,	,,	589·35	92	5	46	,,	,,	766·56
12	9	60	,,	,,	911·51	93	14	48	,,	,,	314·30
13	7	60	,,	,,	955·26	95	11	45	,,	,,	523·06
14	6	60	,,	,,	1143·53	96	9	45	,,	,,	636·61
15	4	60	,,	,,	1240·99	97	6	45	,,	,,	753·97
23	14	58	,,	,,	370·98	103	13	52	,,	,,	373·75
24	6	58	,,	,,	1024·55	104	15	46	Half	,,	127·02
25	4	58	,,	,,	1111·36	105	15	44	,,	,,	192·14
26	15	58	,,	,,	293·26	106	15	44	$\frac{333}{1000}$	18	30·97
27	9	58	,,	,,	810·06	108	11	44	$\frac{333}{1000}$	,,	109·42
28	4	58	,,	,,	1111·36	109	9	44	$\frac{333}{1000}$	,,	144·83
30	10	57	,,	,,	694·86	110	7	44	$\frac{333}{1000}$	,,	176·80
32	14	57	,,	,,	355·52	111	6	44	$\frac{333}{1000}$	,,	189·23
33	12	57	,,	,,	508·92	113	1	44	Half	,,	304·57
34	12	53	,,	,,	451·54	114	6	43	Full	21	755·75
37	14	55	,,	,,	324·60	115	16	46	,,	,,	194·77
38	11	55	,,	18	324·75	116	14	46	,,	,,	317·46
39	14	53	,,	21	309·86	117	13	46	,,	,,	384·28
40	9	53	,,	,,	654·75	118	11	46	,,	,,	523·07
43	15	52	,,	,,	547·45	119	6	46	,,	,,	753·06
44	13	52	,,	,,	373·75	120	1	46	,,	,,	772·84

Abstract T.—(*continued.*)

Consecutive Numbers in Schedule 3.	Age of		Amount of Pension.	Pension to cease.	Value of Pension.	Concecutive Numbers in Schedule 3.	Age of		Amount of Pension.	Pension to cease.	Value of Pension.
	Son last B. Day.	Father.					Son last B. Day.	Father.			
121	0	46	Full	18	546·09	198	0	43	Full	21	663·11
122	15	43	,,	21	254·30	199	7	37	,,	,,	720·01
123	12	43	,,	,,	454·71	200	6	37	,,	,,	752·29
124	10	43	,,	,,	583·92	201	4	37	⅝	18	384·85
125	6	43	,,	,,	755·75	202	0	37	Full	,,	538·29
126	3	43	,,	,,	804·93	203	2	36	,,	21	794·26
127	15	47	,,	,,	252·07	204	4	35	Half	18	305·60
128	14	47	,,	,,	315·88	205	0	35	,,	,,	268·95
129	4	47	Half	,,	400·94	206	2	50	Full	21	847·44
132	13	43	,,	18	96·74	207	7	43	⅗	,,	482·67
133	10	43	,,	,,	188·52	208	5	43	⅗	,,	510·97
134	9	43	,,	,,	215·13	209	2	43	⅗	,,	533·88
136	11	43	,,	21	261·52	210	0	43	Full	,,	663·11
138	10	43	,,	,,	291·96	211	6	40	¾	,,	567·17
139	6	43	,,	,,	377·87	212	4	40	¾	,,	598·58
140	16	43	,,	18	23·07	213	2	40	¾	,,	598·56
141	15	41	,,	,,	43·41	214	1	40	¾	,,	572·19
142	13	41	,,	,,	96·12	215	4	31	Full	,,	772·92
143	14	42	Full	21	318·57	216	4	48	Half	18	306·91
144	10	42	,,	,,	583·69	217	1	48	⅔	21	529·53
145	6	42	,,	,,	759·31	218	6	35	Full	,,	747·03
146	3	42	,,	,,	804·70	219	3	36	,,	,,	799·77
147	1	42	,,	,,	771·09	220	2	33	,,	,,	786·88
148	14	40	,,	,,	316·52	221	0	39	Half	18	269·35
149	15	43	,,	,,	254·30	223	6	39	Full	21	754·91
150	14	43	,,	,,	319·59	224	3	39	,,	,,	803·99
151	8	43	,,	,,	684·78	225	2	39	Half	,,	398·81
158	13	37	,,	,,	380·12	226	1	49	Full	,,	805·02
160	1	37	,,	,,	506·96	227	0	49	,,	,,	699·24
162	12	43	,,	,,	454·71	228	4	47	,,	,,	801·88
163	11	43	,,	,,	523·04	229	1	47	,,	,,	783·57
164	7	43	,,	,,	724·01	230	5	37	$\frac{755}{1000}$	,,	577·96
165	6	43	Half	,,	377·87	231	3	37	Half	18	316·11
167	5	38	Full	,,	766·77	232	3	29	Full	,,	602·72
169	4	37	Half	18	307·87	233	1	29	,,	,,	592·04
170	9	49	Full	21	631·03	234	2	46	,,	21	806·35
171	10	50	,,	,,	567·13	235	1	46	,,	,,	772·84
173	7	38	,,	,,	721·09	236	3	27	Half	18	296·50
174	0	38	Half	,,	328·44	237	1	27	⅔	,,	387·93
175	2	46	Full	,,	806·35	238	3	30	Half	,,	303·79
176	1	46	Half	,,	386·42	239	1	36	,,	,,	308·50
177	4	41·	,,	18	309·17	240	2	34	Full	21	789·34
178	2	41	,,	,,	318·74	241	1	40	Half	,,	381·46
179	9	38	,,	,,	213·80	242	2	36	Full	,,	794·26
180	2	38	,,	21	398·59	243	0	31	⅔	18	350·48
182	0	41	Full	,,	659·94	244	0	32	Full	21	645·97
184	5	38	⅝	18	363·94	245	1	37	,,	18	602·12
185	3	38	⅝	21	396·72	246	15	40	Half	,,	43·26
187	3	35	Full	,,	797·78	247	7	40	,,	,,	262·47
188	7	42	Half	,,	362·71	248	5	40	,,	,,	293·19
189	5	42	,,	,,	383·70	249	0	38	⅔	,,	359·00
190	3	42	,,	,,	402·35						
191	5	49	Full	,,	772·56	215	Total present value of Sons' Contingent Pensions				= *Rs.*1,00,48·922
192	4	49	,,	,,	805·94						
195	2	56	,,	,,	1036·67						
196	6	43	,,	,,	755·74						
197	4	43	,,	,,	796·38						

Average Age of Fathers . . . . = 46·140
,, ,, Sons . . . . . . = 8·553

Average Disparity . . . . = 37·587

Abstract U.

Children of Living Members.

DAUGHTERS.

First List:—to the Year 1838.

Consecutive Numbers in Schedule 3.	Age of		Amount of Pension.	Pension to cease.	Value of Pension.
	Daughter last B. Day.	Father.			
31	23	73	Full	D. or M.	2657·32
32	22	73	,,	,,	2599·04
65	19	59	,,	,,	1353·46
66	17	59	,,	,,	1288·36
67	16	59	,,	,,	1291·82
75	18	62	,,	21	106·11
79	26	58	,,	D. or M.	1610·26
80	25	58	,,	,,	1580·01
82	19	58	,,	,,	1304·36
92	25	55	,,	,,	1380·66
95	17	53	,,	,,	1022·26
96	16	53	,,	,,	1028·46
110	18	53	$\frac{2}{3}$	,,	686·96
118	20	52	Full	,,	1097·52
127	19	50	Half	21	18·73
128	17	50	,,	,,	51·15
129	22	49	Full	D. or M.	1100·87
139	17	48	,,	,,	926·90
142	19	50	,,	,,	1005·27
147	19	52	,,	,,	1056·60
148	17	52	,,	,,	983·94
149	18	46	Half	21	64·36
150	17	52	Full	D. or M.	983·94
152	17	49	,,	,,	941·19
159	16	46	,,	21	146·32
160	17	52	,,	D. or M.	983·94
170	17	42	,,	,,	861·18
174	17	40	,,	,,	840·62
178	20	43	,,	21	14·51
179	18	43	,,	,,	68·20
180	16	43	,,	D. or M.	877·92
183	16	52	,,	,,	994·93

Second List:—1839 to 1855.

Consecutive Numbers in Schedule 3.	Age of		Amount of Pension.	Pension to cease.	Value of Pension.
	Daughter last B. Day.	Father.			
5	14	58	Full	D. or M.	1299·27
6	12	58	,,	,,	1407·19
7	7	58	,,	,,	1618·92
8	1	60	,,	,,	1625·51
9	12	63	,,	,,	1749·80
10	5	55	,,	,,	1445·74
11	13	59	,,	,,	1411·24
16	15	58	,,	,,	1263·54
18	12	58	,,	,,	1407·19
20	14	57	,,	,,	1249·42
21	15	55	,,	,,	1106·70
22	13	55	,,	,,	1202·30
23	8	57	,,	,,	1524·86
25	8	53	,,	,,	1295·40
28	12	55	,,	,,	1162·87
29	10	55	$\frac{633}{1000}$	21	333·63
30	11	53	Full	D. or M.	1214·83
31	5	53	,,	,,	1361·52
32	15	59	,,	,,	1315·82
33	13	59	,,	,,	1411·24
39	14	58	,,	,,	1299·27
40	14	53	$\frac{2}{3}$	,,	727·30
41	9	53	$\frac{2}{3}$	,,	849·36
42	6	53	$\frac{425}{1000}$	21	353·64
45	13	52	Full	D. or M.	1086·62
48	10	50	,,	,,	1139·04
50	8	49	,,	,,	1190·94
51	14	52	,,	,,	1062·03
52	12	52	,,	,,	1118·48
53	7	52	,,	,,	1278·56
53	15	49	Half	,,	474·98
54	13	49	,,	,,	512·25
59	12	51	Full	,,	1101·62
60	5	51	,,	,,	1277·29
61	12	48	,,	,,	1051·02
62	14	52	,,	,,	1062·03
63	13	52	,,	,,	1086·62
66	7	48	,,	,,	1191·33
69	14	46	,,	21	243·78
70	6	46	Half	D. or M.	583·50
71	15	47	Full	,,	929·13
72	13	47	,,	,,	995·35
73	11	47	,,	,,	1078·92
75	13	46	,,	,,	986·92
76	11	46	,,	,,	1065·16
77	0	46	,,	,,	904·35
80	13	43	,,	,,	961·62
81	13	45	,,	,,	978·48
82	6	45	,,	,,	1158·71
88	10	46	Half	,,	549·57
92	16	44	$\frac{333}{1000}$	,,	294·91
93	12	44	$\frac{333}{1000}$	21	121·23
95	11	43	Full	D. or M.	1042·47
96	10	46	,,	,,	1099·14
97	13	43	,,	,,	961·62
98	9	43	,,	,,	1099·84
99	7	43	,,	,,	1134·53
100	1	43	,,	,,	1022·15
101	12	47	Half	,,	517·08
102	10	47	,,	,,	554·56
103	8	47	,,	,,	577·76
104	6	47	,,	,,	592·62
112	13	43	Full	,,	961·62
113	8	43	,,	,,	1118·32
114	5	43	,,	,,	1141·60
115	2	43	Half	,,	542·03
116	12	41	,,	,,	494·58
117	9	41	,,	,,	543·16
118	12	42	Full	,,	994·48

Abstract U.—(*continued.*)

Consecutive Numbers in Schedule 3.	Age of		Amount of Pension.	Pension to cease.	Value of Pension.	Consecutive Numbers in Schedule 3.	Age of		Amount of Pension.	Pension to cease.	Value of Pension.
	Daughter last B. Day.	Father.					Daughter last B. Day.	Father.			
119	9	42	Full	D. or M.	1093·07	192	7	31	Full	D. or M.	1065·64
120	16	40	,,	,,	857·46	193	6	31	,,	,,	1071·10
121	12	40	,,	,,	983·82	194	3	31	,,	,,	1043·18
122	8	40	$\frac{287}{1000}$	,,	315·50	195	1	31	,,	,,	953·20
123	2	40	Half	,,	536·22	196	13	38	Half	21	150·97
124	13	43	Full	,,	961·62	197	11	38	,,	,,	211·55
125	12	43	,,	,,	1002·42	198	8	38	,,	,,	285·71
126	11	43	,,	,,	1042·47	199	2	35	Full	D. or M.	1049·06
127	9	43	,,	,,	1099·84	200	6	36	,,	,,	1097·58
133	13	57	,,	,,	1297·29	201	2	36	$\frac{204}{1000}$	,,	216·13
136	13	43	Hall	,,	480·81	202	1	38	Half	21	304·69
137	9	43	,,	,,	549·92	203	16	40	$\frac{2}{3}$	D. or M.	571·64
138	7	43	,,	,,	567·26	204	12	40	,,	,,	655·88
140	14	57	Full	,,	1249·42	205	9	40	,,	,,	719·69
142	10	57	,,	,,	1454·68	206	7	40	,,	,,	742·48
143	9	57	,,	,,	1495·35	207	3	40	,,	,,	724·54
144	8	57	,,	,,	1524·86	209	1	39	Full	,,	956·72
145	6	57	,,	,,	1569·82	210	5	39	Half	,,	556·64
146	1	57	,,	,,	1439·70	211	3	39	,,	,,	543·41
149	10	37	Half	21	238·20	212	5	49	Full	,,	1219·54
150	12	49	Full	D. or M.	1067·89	213	3	49	,,	,,	1204·84
151	5	49	,,	,,	1219·54	214	9	36	Half	21	262·02
152	11	47	,,	,,	1078·92	215	3	47	Full	D. or M.	1161·67
154	12	38	,,	,,	973·15	217	4	37	$\frac{531}{1000}$	21	362·04
155	8	38	,,	,,	1086·64	218	3	37	$\frac{529}{1000}$	,,	365·24
158	2	38	Half	,,	535·36	219	3	32	Full	,,	680·54
159	11	46	Full	,,	1065·16	220	1	34	$\frac{2}{3}$	D. or M.	609·17
161	4	46	,,	,,	1167·06	221	3	48	Full	,,	1173·95
162	11	41	Half	,,	513·67	*222	2	48	,,	,,	1150·37
163	7	41	,,	21	305·68	223	0	48	Half	,,	467·94
164	0	41	,,	D. or M.	431·69	224	7	35	Full	,,	1085·63
165	11	38	,,	21	211·55	225	4	37	$\frac{497}{1000}$	,,	543·77
166	5	38	$\frac{531}{1000}$	,,	353·27	226	0	37	Half	21	291·72
167	8	41	Half	D. or M.	552·83	227	3	36	Full	D. or M.	1070·55
168	1	41	Full	,,	857·06	229	0	34	,,	21	578·65
172	7	38	$\frac{535}{1000}$	21	325·68	230	6	32	$\frac{333}{1000}$	D. or M.	358·00
174	2	35	Full	D. or M.	1049·06	231	1	41	Full	,,	1002·89
175	0	35	,,	,,	835·02	232	0	41	Half	21	570·26
176	9	42	,,	,,	1093·07	233	2	32	Full	D. or M.	1017·89
177	6	42	,,	,,	1133·88	234	2	30	Half	,,	502·95
178	8	49	,,	,,	1190·94	235	0	30	,,	21	283·13
179	3	49	,,	,,	1204·84	236	1	25	,,	D. or M.	397·62
180	0	49	,,	,,	935·88	237	18	40	,,	21	33·79
182	8	41	,,	,,	1105·65	238	10	40	,,	,,	283·08
183	4	56	,,	,,	1517·86	239	0	35	Full	,,	582·06
184	7	43	,,	,,	1134·53	240	0	37	,,	D. or M.	843·84
185	2	43	,,	,,	1084·06	243	5	33	Half	,,	540·39
186	2	37	,,	,,	1069·84	244	1	33	,,	21	310·01
188	2	35	Half	21	350·62						
189	7	50	Full	D. or M.	1234·94	201	Total present value of Daughters' Contingent Pensions				= *Rs.*1,81,132·17
190	3	50	,,	,,	1235·73						
191	4	43	,,	,,	1132·48						

* Full Pension from 21 to Death or Marriage.

Average Age of Father . . . . = 45·920
,, ,, Daughter . . . . = 9·403

Average Disparity . . . . = 36·517

(159.) It is next required to find the value of the Contingent Assets of the Fund, or the "present value" of the contributions payable by members to provide pensions for their wives and children.

(160.) I do not find that any of the lists or schedules forwarded to me contain an exact record of the amounts which each member is required to contribute. The information in Schedule 10 is not sufficient for the purpose; nor are the details in pp. 31–40 of the cash accounts for 1853–4 precise enough, as they only furnish the amount of subscriptions actually paid within the year ending the 30th April, 1854, and not the fixed scale adjusted to the benefits. The valuation however of 1853 contains nearly all the information needed on this head; although there are some slight discrepancies between it and other of the lists. For example: the names Nos. 22, 25, and 49, in pp. 25–6, of the valuation of 1853, and the same names in the cash account, 1853–4, pp. 31–40, being therein Nos. 126, 69, and 42, do not appear anywhere in the manuscript Schedule 2. I also observe, that one of the subscribers in

Abstract V.

Value of Subscriptions for Wives.

(Value of Annuity from Table XXXI.)

Consecutive Number.	Age of		Value of an Annuity of One Rupee + ·458.	Amount of Monthly Subscription for the whole Year.	Present Value of Subscription.	Consecutive Number.	Age of		Value of an Annuity of One Rupee + ·458.	Amount of Monthly Subscription for the whole Year.	Present Value of Subscription.
	Husband.	Wife.					Husband.	Wife.			
1	44	36	7·773	*Rs.* 99	*Rs.* 769·527	32	37	31	8·077	*Rs.* 288	*Rs.* 2329·056
2	37	32	8·037	264	2121·768	33	34	35	7·938	288	2286·144
3	37	31	8·077	288	3326·176	34	34	21	8·466	114	965·124
4	38	35	7·901	264	2085·864	35	53	45	7·059	252	1778·858
5	36	23	8·391	288	2416·608	36	27	27	8·270	220½	1823·535
6	34	24	8·384	126¾	1062·672	37	57	53	6·352	216	1372·032
7	50	54	6·726	12	80·712	38	38	35	7·901	288	2275·488
8	52	38	7·417	360	2670·120	39	38	27	8·233	288	2371·104
9	38	38	7·763	288	2235·744	40	56	65	5·545	240	1330·800
10	52	41	7·306	300	2191·800	41	37	35	7·911	204	1613·844
11	51	58	6·413	360	2308·680	42	41	32	7·987	240	1916·880
12	32	35	7·958	240	1909·920	43	46	26	8·111	360	2919·960
13	52	36	7·493	360	2697·480	44	57	48	6·577	360	2367·720
14	36	31	8·088	258	2086·704	45	32	25	8·376	129	1080·504
15	31	25	8·391	118½	994·334	46	39	21	8·399	252	2116·548
16	38	43	7·510	252	1892·520	47	31	40	7·669	147	1127·343
17	42	40	7·621	288	2194·788	48	43	43	7·460	255	1902·300
18	47	32	7·861	360	2829·960	49	46	47	7·214	288	2077·632
19	35	33	8·016	288	2308·608	50	38	35	7·901	288	2275·188
20	25	26	8·453	150	1267·950	51	38	26	8·270	280½	2319·735
21	40	30	8·080	288	2327·040	52	35	34	7·974	252	2009·448
22	36	29	7·948	204	1621·392	53	48	34	7·759	288	2234·135
23	43	39	7·656	180	1378·080	54	52	42	7·255	177	1284·135
24	36	35	7·920	288	2280·960	55	47	24	8·139	324	2637·036
25	41	26	8·224	288	2368·512	56	51	41	7·354	180	1323·720
26	55	45	6·895	236	1627·220	57	30	29	8·241	157½	1297·958
28	33	29	8·203	246	2017·938	58	34	27	8·278	288	2384·064
29	38	33	7·986	288	2299·968						
30	40	39	7·695	288	2216·160					*Rs.*	1,11,310·321
31	38	33	7·986	288	2299·968						

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page 25 of valuation 1853 died in the ensuing year; and that subscribers Nos. 35, 37, 67, 152, 169, and 214 in the cash account of 1853–4, do not appear in the valuation list of 1853 (but No. 169 is a widower), although actually subscribing. However, from the practice of benefits being very generally provided partly by donation and partly by monthly subscription, and in varying proportions of these the amount of their actual monthly payments in the cash account within given years bear of course no fixed ratio to the scale of benefits to which their wives are entitled, as stated in manuscript Schedule 2, and I therefore resolved on taking the valuation lists of 1853.

(161.) This course will on reflection be seen to be free from any serious objections, as, on examination, the lists will be found subject to little change within so short a period; and, also, should your scales of contributions undergo reversion, a fresh valuation will, in any case, need to be made of the contingent assets, and accurate lists may be prepared; and, with the aid of the present Tables, any one possessing an ordinary knowledge of arithmetic may perform the calculations of this part of the valuation.

(162.) The preceding re-valuation in Abstract V., however, of the future subscriptions payable on account of wives' contingent benefits, according to the existing data, will be found not to differ so much as might have been expected from the results of the valuation of 1853.

(163.) For the present therefore, and in the absence of lists of the members up to data who are liable for the payment of periodical contributions, and distinguishing the individual amount of contribution payable by each, the results of the valuation of 1853 for contingent assets may be considered correct*. The item in respect to wives is the most important, and, from the preceding abstract, the effect of calculating by the present data does not, it will be seen, in any serious way, disturb the results.

(164.) It then appears, from page 29 of the valuation of 1853, that the "present value" of the contingent assets on account of members' future subscriptions is *Rs.* 1,59,282·00.

(165.) It also appears, from Vol. IV. p. 94 of Proceedings, that on the 1st of May, 1855, the realised assets amounted to no less than *Rs.* 28,51,002·38.

Realised assets of the Branch	*Rs.*28,51,002·38 ×
"Present value" of the contingent assets =	1,59,282·00
Total assets =	*Rs.*30,10,284·38 ×
But the total liabilities have already been shewn, p. 195, to amount to	25,02,711·81
Excess of assets over liabilities	*Rs.* 5,07,572·57 – Surplus

(166.) It will hereafter be seen how this surplus has arisen. The above liabilities should however, to some extent, be augmented, on account of the rate of advances made by the Honourable Court of Directors, being at the rate of 2*s.* 3*d.* per Co. rupee; while the pensions payable to incumbents are converted at 8·75 rupees per £1 sterling. But my attention has, in a letter of the 21st of May, 1855, been directed to an important fact, in regard to the rate of interest realised on the Funds. It appears that four per cent. is received quarterly and half-yearly on all assets, and the difference of four per cent. is made good by the Honourable Court, in the form of

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* Since the above was written I have been furnished with a list of the monthly payments for which the members were liable on the 1st May, 1855, and as expected it does not differ widely from that for 1853.

donation annually; thus, in fact, reaping more than eight per cent. per annum, the rate assumed in the calculations. This is an advantage in favour of the Fund, but I should not recommend it to be valued as an asset, and would rather allow it to be placed against the loss from exchange and other drawbacks.

(167.) With regard to your communication of the 13th of October, 1855, referring to the proposition contained in the Printed Proceedings, Vol. IV. p. 110, I beg to state that I have carefully considered the whole of the question therein submitted, and cannot see why any of the restrictive regulations in respect to children's pensions should be persevered in. It appears to me, that Mr. Davies, in writing par. 124, page 36, of his Report, must have been under some misapprehension of the real nature of the item of liability then under consideration. He says:—

> " If the father were allowed to subscribe by equated annual payments, or by monthly " payments, such payments would be unequal to the risk of the Fund during the first part of " the term for which the subscriptions are payable, and more than the risk towards the latter " part of the said term; and if the father were then to discontinue his subscriptions, the " cutting off the child from the benefit of the Fund thenceforth would not be an adequate " compensation for the Society."

(168.) This is very clear and distinct; but it is, at the same time, obvious that the paragraph must have found its way inadvertently into his Report. It could never have been meant to apply to your own Fund. It is applicable to an ordinary assurance on a child's life, when secured by equated, or uniform annual or other periodical premiums; but in your own case, that of a reversionary annuity, the conditions are exactly reversed. For example: take the case of a son's benefits, disparity of age 35, as provided for in Appendix 21, p. 74, of Mr. Davies' own Report. In the first instance, let us find the annual value of the risk to which the Fund is exposed during the first two years of life, which simply amounts to a temporary reversionary annuity of *Rs.*180 during the first two years of life, provided the father should die, leaving the child surviving him, and may be expressed as follows:—

Let $a_{\overline{s}|}$ = Present value of a temporary annuity on the life of a male child during the first two years of life, and

$a_{\overline{s,x}|}$ = Present value of a temporary annuity for two years, on the joint existence of father, aged 35, and son just born; then

$\dfrac{a_{\overline{s}|} - a_{\overline{x,s}|}}{a_{\overline{x,s}|} + \cdot 458}$ = Annual premium required to meet the risk to which the Fund is exposed by the death of a child during the first two years of age for a temporary annuity of one rupee. Also

$a_{\overline{s}|} = \dfrac{N_0 - N_2}{D_0}$ in Appendix 19, page 67, of Mr. Davies' Report, and

$a_{\overline{x,s}|} = \dfrac{N_{35,0} - N_{37,2}}{D_{15}}$ in Appendix 21, page 74, of the same Report, and will be found to produce

$$\frac{a_{\overline{s}|} - a_{\overline{x,s}|}}{a_{\overline{x,s}|} + \cdot 458} = \frac{1\cdot 640368 - 1\cdot 547305}{2\cdot 005} = \cdot 046415, \text{ and}$$

therefore ·046415 × 180 = *Rs.* 8·3547, which is the yearly value of the risk to which the Fund is exposed for the payment of the temporary annuity or pension of *Rs.* 180 during the first two years of age. Again employing the same formula, and the same Tables in Mr. Davies' Report, let us determine the risk during the latter period of the term to which the Fund is exposed to the risk of a son's pension, say from sixteen to eighteen years of age; the last two years of the unextended benefits, then

$$\frac{N_{16} - N_{18}}{D_{16}} = a_{\overline{s}|} \quad \text{and} \quad \frac{N_{51,16} - N_{53,18}}{D_{51,16}} = a_{\overline{x,s}|}$$

and, in the same manner as before, will

$$\frac{a_{\overline{s}|} - a_{\overline{x,s}|}}{a_{\overline{x,s}|} + {\cdot}458} = \frac{1{\cdot}768212 - 1{\cdot}661242}{2{\cdot}119} = {\cdot}050481,$$

and therefore ·050481 × 620 = *Rs.* 31·29822, which is the yearly value of the risk to which the Fund is exposed in the last two years of the unextended term of the son's benefits, and which it will be observed is nearly four times that for the first two years of the term.

(169.) If, in like manner, the risk for any intermediate period of two years were determined, it will be found to range between the preceding results; say for ages eight to ten, in which

$$\frac{N_{8} - N_{10}}{D_{8}} = a_{\overline{s}|} \quad \text{and} \quad \frac{N_{43,8} - N_{45,10}}{D_{43,8}} = a_{\overline{x,s}|}$$

and accordingly, as in the other cases, will

$$\frac{a_{\overline{s}|} - a_{\overline{x,s}|}}{a_{\overline{x,s}|} + {\cdot}458} = 1{\cdot}773790 - 1{\cdot}670409 = {\cdot}048581,$$

and therefore ·048581 × 340 = *Rs.* 16·517540, which is the yearly value of the risk to which the Fund is exposed while the child is passing through the ninth and tenth years of life.

(170.) It is, therefore, obvious that, on account of contingent pensions to children, the risk to which the Fund is exposed is an increasing and not a decreasing one.

(171.) In the same manner may the aggregate value of the pension be found, as follows:—

$$a_{\overline{0-2}|} \times 180 = 295{\cdot}272$$

$$\frac{D_2}{D_0} \times a_{\overline{2-7}|} \times 270 = 792{\cdot}352$$

$$\frac{D_7}{D_2} \times a_{\overline{7-11}|} \times 340 = 547{\cdot}881$$

$$\frac{D_{11}}{D_7} \times a_{\overline{11-18}|} \times 620 = 1130{\cdot}690$$

Rs. 2766·195 Carried forward.

Brought forward, *Rs.* 2766·195

$$a_{x,\overline{0-2|}} \times 180 = 278{\cdot}460$$

$$\frac{D_{37,2}}{D_{35,0}} \times a_{x,\overline{2-7|}} \times 270 = 654{\cdot}295$$

$$\frac{D_{42,7}}{D_{37,2}} \times a_{x,\overline{7-11|}} \times 340 = 375{\cdot}771$$

$$\frac{D_{46,11}}{D_{42,7}} \times a_{x,\overline{11-18|}} \times 620 = 625{\cdot}524$$

Rs. 1934·050

Present value of Sons' Contingent Pension . . . . } *Rs.* 832·145 and

therefore $832{\cdot}145 \div \frac{N_{35,8} - N_{53,18}}{D_{35,0}} = \frac{832{\cdot}145}{6{\cdot}543} = 127{\cdot}181$ = yearly contribution according to Mr. Davies' Tables, which is necessary to provide a Son's Contingent Benefit until the age of 18, and consequently the average annual contribution for each two years of risk of the whole term, for which the Fund is liable, is

$$\frac{127{\cdot}181}{9} = 14{\cdot}131$$

(172.) These illustrations, from Mr. Davies' own data and Tables, conclusively shew, that the risk incurred by the Fund in respect to the contingent pensions to children is an increasing one.

In the first two years of life . . . { The yearly payment necessary to meet the risk of the two years } = *Rs.* 8·355

In passing through ages 9–10 . . . . . Ditto . . = 16·518

In passing through ages 17–18 . . . . . Ditto . . = 31·298

(173.) For the average of each two years of the whole period, the yearly payment necessary to cover the risk to which the Fund is exposed is, as has been above pointed out, *Rs.* 14·131. It is, therefore, evident that paragraph 124 of his Report, must either have been written by Mr. Davies under some misapprehension of the question submitted to him, or, what is much more likely, it has inadvertently found its way into it by some oversight on the part of the person engaged in transcribing his Report.

(174.) If the preceding calculations had been made from the Tables herein prepared for the present investigation into your affairs, it would have been found that the risk incurred by the Fund on account of contingent benefits to children would have increased in even a still more rapid ratio.

(175.) It is clear, from a perusal of the proceedings of the Fund, as well as from the contents of your letter of the 13th of October, 1855, that the restrictive regulations, in respect to the modes by which members have been permitted to provide for the contingent benefits to their children, have arisen from the belief that it was really necessary, for the security of the Fund, to practically carry out the views expressed by Mr. Davies in par. 124. Had Mr. Davies' views as to the nature of the risk incurred been correct, there could be no doubt about the propriety of the restrictive measures imposed by the plan of 1841; but, inasmuch as those views were erroneous, so also are the measures for carrying them into effect objectionable, and should be altered immediately.

(176.) It however appears evident that, notwithstanding the existence of par. 124, Mr. Davies has elsewhere in his Report, and by the form into which he has put his Tables, assumed that a subscriber might at any period after birth secure his child a pension. If the liability of the Fund were determined by the child's death, as in an ordinary assurance, then the risk of the Fund would be a decreasing one and equated, or uniform periodical contributions at the younger ages would not be permissible; but as the child's death relieves the Fund from any further liability, the risk, as already shewn, is an increasing one, and therefore free from the objections hitherto assumed to belong to it.

- (*a*) So far, therefore, as the safety of the Fund is concerned, subscribers, provided they are themselves in good health, may be permitted to secure for their children not only the extended pension, but the whole or any portion of the unextended pension at any period after birth within which the benefits are payable.
- (*b*) This privilege may, with the same security, be extended to annuities.
- (*c*) The contributions to provide for all or any portion of such benefits, whether extended or unextended, may, with equal safety to the Fund, be made either by single payments or donations, or by monthly or other periodical payments, or partly by donation and partly by periodical contribution, as may be most agreeable to the members and consistent with the other arrangements of the Fund for collecting subscriptions.
- (*d*) The suggested modifications in clauses (*a*), (*b*), and (*c*) preceding may, obviously, with safety have retrospective effect.
- (*e*) The remaining query of your letter of the 13th of October, 1855, has already been fully answered in various parts of this Report. The Tables hitherto in use for the adjustment of the contingent benefits to children, will need to be relinquished in favour of those now prepared.

(177.) In regard to that portion of clause (5) of the printed letter of instructions, which directs me to enquire into the sources of the surplus which has arisen in your funds since the period of Mr. Davies' valuation, it is obvious, from the facts adduced in the early part of this Report, that a large portion of it must be due to the reduced rate of mortality compared with that of Mr. Davies' Table, to which the members have in fact been subject. One mode of arriving at this conclusion is to eliminate the data constituting Mr. Davies' Appendix (10), and which are given in a condensed form in Table IX. preceding, from those composing Tables IV. and VIII. The results of this will show the rate of mortality between the date at which his observations ceased and the year 1854, and will be found in the following Table.

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improved con
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Charity Fund
but only after
deducting
debt

Table LXXVII.

Ages.	Living, Table IV., 1760—1854. Living, Table IX., 1760—1838.		Died 1760—1854. Died 1760—1838.		Σ	Mortality per cent.	Number of Deaths according to Davies, Table IX., page 18 *ante*.	Σ
		Difference		Difference				
24 to 25	1418 992	426	41 27	14		3·268	11·596	
26 ... 30	3905·5 2738	1167·5	147 100	47	61	4·025	42·637	54·233
31 ... 35	2977 1930	1047	100 76	24	85	2·295	41·231	95·474
36 ... 40	2182 1271	911	80 58	22	107	2·415	41·569	137·033
41 ... 45	1413 768	645	50 28	22	129	3·411	23·517	160·550
46 ... 50	799·5 481	318·5	19 14	5	134	1·570	9·268	169·818
51 ... 55	397·5 229	168·5	15 9	6	140	3·561	6·622	176·440
56 ... 60	201 117	84	11 8	3	143	3·571	5·744	182·184
60 ... 65	86·5 38	48·5	9 6	3	143	6·186	6·382	188·566
66 and upwards.	84·5 9	75·5						
Total ...	13464·5 8573	4891·5	472 326	146		2·985	188·566	

(178.) It thus appears that the actual number of deaths which has taken place in the period which has elapsed since Mr. Davies terminated his observations is 146, while that contemplated by the Tables prepared by him for the regulation of your affairs is no less than 188. It is therefore evident that as the number of members who have died is less than that for which your Tables provide, a surplus must have arisen in the funds of the institution from such cause. It should, however, be here stated that in Tables I. to VIII. inclusive, as well as in the Table employed by Mr. Davies, retired members were excluded from observation subsequent to the date of their retirement, and to apply the results of such Tables to the affairs of the Fund, without making provision for the reduced rate of mortality to which retired members are subject, is obviously an error, for a large portion of the subscribing members who retire on annuities are generally subject to European mortality only. Mr. Davies' Tables should obviously have been adjusted for this circumstance.

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(179.) Table XI., which is the basis of the monetary Tables of the present Report, so far as the mortality of members affect them has, as already stated, been so adjusted. If the numbers exposed to risk in the third column of the preceding Table be assumed, subject to the rate of mortality of Table XI., the number of deaths would be 127, the actual number having been 146; but it should be kept in view that Table XI. makes provision for retirement, which the preceding Table does not. The principal difference, however, arises from anomalous results at ages 24–25, and 26–30, particularly in the latter of these periods of life, and the explanation of this will immediately appear.

Table LXXVIII.

Mortality amongst Married Subscribers during the Years 1838-54.

Years of Service. (*a*)	Number entered in each year. (*b*)	Number remaining under observation from year preceding. (*c*)	Total Number under observation in each year. (*d*)	Died. (*e*)		Discontinued. Resigned, ceased to pay, and ejected. (*f*)	Alive in 1854. (*g*)	Total gone off. (*h*)	Half of Discontinued. (*i*)	Number exposed to risk of Mortality. (*k*)		Mortality per cent. (*l*)
0	36		36	1	1		0	1		76·	36·	1·316
1	5	35	40		0		4	4			40·	
2	13	36	49	5	1		4	5		293·	49·	1·704
3	8	44	52		1		2	3			52·	
4	10	49	59		1		4	5			59·	
5	12	54	66		1	1	3	5	·5		65·5	
6	7	61	68		1		4	5			68·	
7	14	63	77	8	3		0	3		471·	77·	1·699
8	10	74	84		0		4	4			84·	
9	15	80	95		2		4	6			95·	
10	14	89	103		2		3	5			103·	
11	14	98	112		1		4	5			112·	
12	14	107	121	11	2		9	11		542·5	121·	2·028
13	6	110	116		5		7	12			116·	
14	2	104	106		3	1	9	13	·5		105·5	
15	7	93	100		0		8	8			100·	
16	8	92	100		1		5	6			100·	
17	3	94	97	9	1		5	6		466·	97·	1·931
18	7	91	98		2		9	11			98·	
19	5	67	92		3		5	8			92·	
20	6	84	90		3		4	7			90·	
21	6	83	89		0		4	4			89·	
22	2	85	87	7	3		4	7		376·	87·	1·862
23	3	80	83		1		6	7			83·	
24	0	76	76		1		10	11			76·	
25	3	65	68		1		8	9			68·	
26	3	59	62		1		3	4			62·	
27	1	58	59	5	2		16	18		214·	59·	2·336
28	1	41	42		1		4	5			42·	
29	1	37	38		0		2	2			38·	
30	2	36	38		0		2	2			38·	
31	1	36	37		2		3	5			37·	
32	1	32	33	4	0		7	7		143·	33·	2·797
33	5	26	31		2		4	6			31·	
34	3	25	28		1		3	4			28·	
35	2	24	26		1		1	2			26·	
36	1	24	25		0		3	3			25·	
37	3	22	25	7	1		0	1		116·	25·	6·035
38	1	24	25		1		1	2			25·	
39	1	23	24		1		1	2			24·	
40	0	22	22		3		0	3			22·	
41	1	19	20		1		1	2			20·	
42	1	18	19	5	1		2	3		77·	19·	6·494
43			16		1		0	1			16·	
44			15		1		0	1			15·	
45			14		1		0	1			14·	
46			13		1		0	1			13·	
47			12	7	3		0	3		36·	12·	19·444
48			9		2		0	2			9·	
49			7		0		2	3			7·	
50			4		1		0	0			4·	
51			4		1		1	2			4·	
52			2				1	1		3·	2·	
53			1				1	1			1·	
54			0								0·	
Total	258		2815	69		2	187	258	1·		2814·	2.452

Table LXXIX.

Mortality amongst Unmarried Subscribers during the Years 1838–54.

Years of Service. (a)	Number entered in each Year. (b)	Number remaining under observation from Year preceding. (c)	Total Number under observation in each Year. (d)	Died. (e)		Discontinued. Resigned, Ceased to Pay, and Ejected. (f)	Alive in 1854. (g)	Total gone off. (h)	Half of Discontinued. (i)	Number exposed to Risk of Mortality. (k)		Mortality per cent. (l)
0	124		124	9						252·5	124·	3·564
1	5	124	129		9	1	18	28	·5		128·5	
2	10	101	111	22	7	1	4	12	·5	476·5	110·5	4·617
3	6	99	105		4	3	8	15	1·5		103·5	
4	1	90	91		2	0	8	10	0·		91·	
5	5	181	86		5	0	1	6	0·		86·	
6	6	80	86		4	1	4	9	·5		85·5	
7	2	77	79	15	0		1	1		373·	79·	4·021
8	3	78	81		5		7	12			81·	
9	5	69	74		5		3	8			74·	
10	5	66	71		3		4	7			71·	
11	4	64	68		2		1	3			68·	
12	2	65	67	14	3		5	8		290·	67·	4·828
13	1	59	60		3		4	7			60·	
14	4	53	57		1		8	9			57·	
15	7	48	55		3		4	7			55·	
16	3	48	51		4		4	8			51·	
17	4	43	47	8	2		1	3		221·5	47·	3·612
18	3	44	47		3		3	6			47·	
19	3	41	44		0	1	2	3	·5		43·5	
20	1	41	42		1		0	1			42·	
21	1	41	42		2		3	5			42·	
22	2	37	39	7	1		1	2		175·	39·	4·000
23	1	37	38		2		2	4			38·	
24	0	34	34		2		3	5			34·	
25	5	29	34		2		2	4			34·	
26	0	30	30		0		0	0			30·	
27	0	30	30	2	1		3	4		143·	30·	1·399
28	3	26	29		0		2	2			29·	
29	1	27	28		0		1	1			28·	
30	0	27	27		0		2	2			27·	
31	4	25	29		1		3	4			29·	
32	2	25	27	3	0		2	2		141·	27·	2·127
33	5	25	30		1		2	3			30·	
34	2	27	29		1		2	3			29·	
35	2	26	28		0		2	2			28·	
36	1	26	27		1		2	3			27·	
37	2	24	26	6	1		0	1		130·	26·	4·615
38	1	25	26		1		1	2			26.	
39	2	24	26		2		0	2			26·	
40	2	24	26		1		1	2			26·	
41	2	24	26		1		2	3			26·	
42	2	23	25	0	0		0	0		129·	25·	0·000
43	2	25	27		0		0	0			27·	
44	0	27	27		0		3	3			27·	
45	0	24	24		0		1	1			24·	
46	3	23	26		0		0	0			26·	
47	3	26	29	3	1		1	2		139·	29·	2·159
48	2	27	29		0		2	2			29·	
49	0	27	27		1		4	5			27·	
50	5	22	27		0		1	1			27·	
51	1	26	27		1		2	3			27·	
52	1	24	25	3	0		0	0		114·	25·	2·631
53			25		1		0	1			25·	
54			24		0		2	2			24·	
55			22		2		2	4			22·	
56			18		0		1	1			18·	
57			17	2	0		1	1		70·	17·	2·857
58			16		1		0	1			16·	
59			15		1		3	4			15·	
60			11				0	0			11·	
61			11				0	0			11·	
62			11				2	2		42·	11·	0·000
63			9				0	0			9·	
64			9				2	2			9·	
65			7				1	1			7·	
66			6				5	5			6·	
67			1				0	0		2·	1·	0·000
68			1				1	1			1·	
69			0								0·	
Total	261		2702	94		7	160	261	3·5	2698·5		3·484

(180.) In Tables LXXVIII. and LXXIX. an analysis is made of the mortality which has prevailed among the members since July 1838, the married and unmarried members being formed into two distinct classes, the observations on unmarried members as such ceasing at the date of marriage, when they are entered in the married class, so that the observations on married members are continued during the period they are in the married condition only, or widowers. After the explanations which have been given of former Tables, the construction of the two preceding will be easily understood.

(181.) The results of these Tables are very instructive, and merit careful consideration; but it may be well to remark that Mr. Davies' Tables made from Messrs. Dodwell and Miles' List do not extend to new entrants after the year 1832, and therefore the 326 deaths recorded in Appendix 10 of his Report, and accordingly in Table IX. and Table LXXVII. preceding, are less than the actual number specified in Schedule No. 1 submitted to him, in which the number of deaths, exclusive of these amongst retired members, was 348, difference 22, and which deaths took place amongst members entering between 1832 and July 1838. This explanation, and the fact of the preceding two Tables including observations on the retired members since July 1848, will account for the discrepancies which might otherwise appear between the figures in the preceding two Tables and others in this Report. The following Abstract gives a succinct view of the results arrived at.

Abstract W.

Ages.	Married Members' Table LXXVIII.			Unmarried Members' Table LXXIX.		
	Number Exposed to Risk.	Died.	Mortality per cent.	Number Exposed to Risk.	Died.	Mortality per cent.
24 to 25	76	1	1·316	252·5	9	3·564
26 ... 30	293·5	5	1·704	476·5	22	4·617
31 ... 35	471	8	1·699	373	15	4·021
36 ... 40	542·5	11	2·028	290	14	4·828
41 ... 45	466	9	1·931	221·5	8	3·612
46 ... 50	376	7	1·862	175	7	4·000
51 ... 55	214	5	2·336	143	2	1·399
56 ... 60	143	4	2·797	141	3	2·127
61 ... 65	116	7	6·035	130	6	4·615
66 ... 70	77	5	6·494	129	0	0·000
71 ... 75	36	7	19·444	139	3	2·159
76 and upwards	3		0·000	228	5	2·194
Total...	2814	69	2·452	2698·5	94	3·484

(182.) The facts disclosed in this Abstract are somewhat remarkable, until age fifty the mortality of the married members is greatly below that of the unmarried; but above age fifty the mortality of the married group is very much higher than that of the unmarried group. Taking, however, the whole range of the above Abstract, the mortality of married members is very much less. The following are the general results, by which it will be seen that there is a difference in favour of married members of 42 per cent.

H H H

Remarkable but clearly the result of the greater living of married men of necessity of their position as such

Abstract **W**(*a*).

Ages.	Mortality per cent. among		Difference per cent.
	Married Members.	Unmarried Members.	
24 to 50	1·843	4·193	+ 127·509
51 and upwards	4·754	2·088	− 56·079
24 and upwards, being all ages	2·452	3·484	+ 42·088

(183.) In the period of life 24–50 it thus appears that the mortality in the unmarried group of members is in excess of that of the married members no less than 127 per cent. This is a very remarkable distinction, and one for which few will be prepared. Again, in the term of life "fifty-one and upwards," the mortality of the unmarried group is 56 per cent. less than that in the married group. If these results were peculiar to your own Fund, it might be said that the strange differences found to prevail between the mortality of the two groups were due entirely to the small numbers over which the observations extend. No doubt the fluctuations are partly attributable to that circumstance, but on extending the inquiry into other communities, a similar distinction will be found to exist. For example, about the end of the year 1851, I reported on the state of the "Royal Army Medical Fund," and in regard to the mortality of the married and unmarried members, obtained results having precisely the same relation to each other as those observed between the married and unmarried members of your own. I considered the results of sufficient importance to communicate them to the Statistical Society in a paper entitled the "Mortality of the Medical Profession," which with some extended data since obtained, will be found in the third edition of "Contributions to Vital Statistics," pp. 102–33. The whole of that section will well repay perusal to those interested in the Vital Statistics of the Medical Profession.

(184.) The following shews the general results obtained in regard to the mortality among the members of the "Royal Army Medical Fund," in the same shape as the condensed results just given in respect to your own Fund.

Abstract **W**(*b*).

Ages.	Mortality per cent. among		Difference per cent.
	Married Members.	Unmarried Members.	
25 to 54	1·831	2·559	+ 39·760
55 and upwards	4·247	1·918	— 54·839
25 and upwards, being all ages	2·580	2·504	— 2·946

(185.) It hence appears that both classes of results, your own experience since July 1838, and that of the "Royal Army Medical Fund" from its foundation in the year 1816, manifest very similar characteristics for the mortality of unmarried members, namely, an exceedingly high mortality during the middle and more active period of life, but at more advanced ages a greatly reduced rate of mortality. It is also evident that, as applicable to the affairs of such institutions as your own, an important difference obtains between the law of mortality which affects married and unmarried life.

(186.) Those who have been accustomed to regard the Tables hitherto in use by your Funds as a correct exponent of the value of European life in India, might in the absence of a careful examination of the facts herein adduced, be disposed to regard the Monetary Tables now presented, as based on the assumption of an undue prolongation of life. If, however, your own experience since 1838 in respect to the mortality of married members be any criterion, the opposite conclusion would be the right one. It is the mortality of married members apart from that of the unmarried which of course affects the condition of the Fund, so far as the principal part of the present calculations extend.

(187.) It has already been pointed out in regard to Table LXXIX. that if the mortality had been the same as in Table XI., on which the Auxiliary Tables are founded, the number of deaths would have been only 127 instead of 146. On the other hand, if the mortality in Table LXXVIII. for married members had been in strict accordance with the ratios of the same Table XI., the number of deaths between ages 24–75 would have been 79·421, whereas the actual number was only 69; and considering the very limited number of observations to which the inquiry in Table LXXVIII. extends, it is somewhat remarkable to find its results, as shewn in Abstract X., run so parallel throughout the whole period of life with those in Table XI., and which are derived from an extensive series of observations.

(188.) The following Abstract shews the actual number of deaths which has taken place in quinquennial periods of life between ages 24–75 since July 1838 in each group of members, in the two classes combined and also that which would have taken place according to the ratio of mortality in Table XI.

Abstract X.

Ages.	Married and Unmarried, 1838—54.				Married Members, 1838—54.		Unmarried Members, 1838—54.	
	Number exposed to Risk.	Mortality per cent.	Deaths.		Deaths.		Deaths.	
			Actual.	According to Table XI.	Actual.	According to Table XI.	Actual.	According to Table XI.
24 to 25	328·5	3·044	10	7·606	1	1·760	9	5·846
26 ... 30	770	3·506	27	18·419	5	7·021	22	11·398
31 ... 35	844	2·725	23	21·591	8	12·049	15	9·542
36 ... 40	832·5	3·003	25	21·861	11	14·246	14	7·615
41 ... 45	687·5	2·479	17	18·334	9	12·427	8	5·907
46 ... 50	551	2·541	14	14·826	7	10·117	7	4·709
51 ... 55	357	1·961	7	8·903	5	5·337	2	3·566
56 ... 60	284	2·465	7	8·171	4	4·114	3	4·057
61 ... 65	246	5·285	13	9·982	7	4·707	6	5·275
66 ... 70	206	2·427	5	12·069	5	4·511	0	7·558
71 ... 75	175	5·714	10	15·223	7	3·132	3	12·091
Total ...	5281·5	2·992	158	156·985	69	79·421	89	77·564

(189.) From this Abstract it appears that according to the actual experience of your own Fund, the number of deaths which have taken place amongst married members is less than according to the ratio of Table XI., and amongst unmarried members the number of deaths has been in excess of that resulting from the ratio of Table XI., while, for the combined results, the actual number of deaths shews a most remarkable agreement, and much closer approximation than could have been fairly expected from data so limited, both in respect to the duration of the observations, and the comparatively small number of persons to which they extend, the actual number of deaths being 158, and that which would have taken place according to the actual ratio of mortality in Table XI. is 157.

(190.) This Abstract also possesses another feature of some importance. It will be found on examination of columns (4) and (5), that according to Table XI., although the mortality for the whole period of life 24–75 agrees almost precisely with the actual experience of the Fund for both classes of members, still in regard to the different terms of life Table XI. exhibits too low a ratio for the younger ages, and too high a ratio for the advanced ages.

(191.) In regard, however, to columns (6) and (7), which apply to married members only, the reverse of this state of things is the case; Table XI. providing for too many deaths at the earlier ages, and for too few at the older ages.

(192.) It is not, however, to be concluded that the relation shewn between columns (6) and (7) in Abstract *(b)* will be permanently maintained. From the facts herein adduced, there is evidently a real distinction between the mortality of married and unmarried members, but for the present, and until more comprehensive data should confirm the results of column (6), it must be assumed that they are partially affected by the fluctuations to which observations on small numbers are so much subject, and my own opinion is, that further observation and experience will strengthen the faith to be reposed in the gradation of mortality shewn in Table XI. At the same time, taking into consideration the circumstances which are known hitherto to have affected European life in the military community of India, and which are likely to affect it for the future, including of course those who retire to Europe, I am disposed to think that even the rate of mortality indicated by Table XI. may at no very distant period be found too high, still I do not consider I should be justified in recommending the adoption of any diminished ratio of mortality for the present regulation of your financial affairs.

(193.) According to Table LXXVII. the actual number of deaths within a given period, excluding retired members, was found to have been 146, and the anticipated number by the Table hitherto employed in the adjustment of your financial affairs would have been 188·566, or an increase of nearly 30 per cent. since July 1838; the actual number of deaths amongst the married members, including those retired, as shewn in Table LXXVIII. and Abstracts W and X is 69, but if the number had agreed with the ratio in Mr. Davies' Appendix 10, or Table IX. of this Report, it would have been 116·541, or an increase of about 68 per cent. It is hence obvious that a large portion of the present surplus in your assets is owing to the circumstance of the mortality amongst your members being so very much below that anticipated in the construction of the Tables by which your contributions and benefits have for some time been adjusted.

(194.) It has already been shewn that there is a surplus of assets over liabilities amounting to *Rs.*5,07,571·57; and the question is asked in clause (5) of the printed letter of Instructions, dated 20th March, 1855, "What portion of it has arisen from each source?" It has been just amply shewn, that the principal cause of this surplus is owing to the fact, that your contributions and benefits have been adjusted by Tables which assumed much too high a rate of mortality for the members, compared with that to which they have in fact been subject; and the immediate consequence of this has been to overstate the value of the contingent benefits to wives, as well as the value of the contingent benefits to children. The share, however, of this surplus which might appear to belong to the members' contributions for contingent pensions to their wives, is reduced to some extent by the fact that Mr. Davies assumed too low a duration of widowhood.

(195.) This will be apparent on comparing the following values of widows' pensions, taken from Table XXIX. preceding, with those in his Appendix 14 and Table VI.

Ages.	Value of Widows' Pensions according to			
	Table XXIX.		Mr. Davies' Table.	
	One Rupee.	*Rs.* 2000.	Appendix 14. One Rupee.	Table VI. *Rs.* 2000.
20 to 31	8·896	*Rs.* 17792	7·841	*Rs.* 15682
40 ... 41	9·497	18994	8·433	16866
50 ... 51	8·783	17566	8·330	16660
60 ... 61	7·913	15826	7·335	14670
70 ... 71	6·054	12108	5·670	11340

(196.) Notwithstanding the greatly increased value now assigned to a widow's pension, it is far from counterbalancing the undue weight heretofore assigned to a wife's contingent pension, arising from the high rate of mortality to which the members were assumed to be subject.

(197.) The following illustrations for a few ages will shew the values of contingent pensions to wives, as deduced from the present data, and according to Mr. Davies' Tables.

Ages.		Value of Wife's Contingent Pension of *Rs.* 2000 according to		
Husband.	Wife.	Tables XXV. and XXVIII.	Davies' Table VII.	Difference per cent.
40	20	*Rs.* 4140	*Rs.* 5040	+ 21·7
	30	4194	5126	+ 24·6
	40	3830	4893	+ 27·7
	50*	3180		
50	20	4736	5418	+ 14·4
	30	4730	5493	+ 16·1
	40	4254	5219	+ 22·7
	50	3456	4474	+ 26·6
	60*	2488		
60	30	6748	6408	− 5·0
	40	6190	6019	− 2·8
	50	5158	5082	− 1·5
	60	3770	3868	+ 2·5
	70*	2160		

* Mr. Davies' Tables do not provide for cases in which the Age of the Wife exceeds that of the Husband.

(198.) The Tables which you have had hitherto in use assume that a husband dying, under the age of thirty-nine, will leave his widow a pension of *Rs.*1400 only, the two sets of Tables under that age for the husband do not therefore admit of direct comparison; but this is unimportant, as the great majority of deaths amongst married members have, since the year 1838, as appears by Table VI. preceding, taken place above that period of life; and, also, at the time of Mr. Davies making his valuation, the average age of the married members was 40·137 years, that of their wives 32·290 years, difference 7·847 years; while on the 1st of May, 1855, the date up to which the present valuation has been made, the average age of married members had increased to 45·394 years, and that of their wives to 36·818 years, being a difference of 8·576 years, shewing that, practically, the bulk of the contributions from which surplus can have arisen falls within the scope of the preceding illustration.

(199.) From the last column of the preceding examples of the values of wives' contingent pensions, according to the two sets of Tables, it will be seen, that at the middle periods of life the values arrived at by Mr. Davies are from about 20 to 25 per cent. in excess of those in the present valuation, or, in other words, if they had been reduced from about 16½ to 20 per cent. they would have approximated close to the present rates; but as the age of the husband increases, the difference between the two classes of results diminishes, and at the advanced age those now submitted are actually higher in value. This arises from the mortality of the present Tables being greater at the older ages than in the Tables of Mr. Davies.

(200.) It will also be observed, that the age of the husband being the same in the two sets of Tables, the relative value of the contingent pension decreases with the wife's increase of age, which is accounted for by the fact of the tendency to re-marriage being greater at the middle period of life in the present Tables.

(201.) In like manner will the value of the contingent pensions to the children of the present members, if compared, be found to produce corresponding differences; for example, at the date of Mr. Davies' valuation the average age of fathers providing benefits for their sons was 43·669 years, and that of their sons 6·441 years, difference 37·228 years; but, on referring to Abstract T. preceding, it will be seen that the average age of the father is 46·140 years, and of their sons 8·553 years, being a difference of 37·587 years. Let us, therefore, examine the relative value of the contingent benefits to sons for two different disparities of age, namely, disparity thirty-five years and disparity forty years, so as to include the actual average disparity.

Age.		Value of Son's extended Contingent Pension, according to		
Father.	Son.	Table LXII.	Davies, Table 10.	Difference per cent.
40	5	*Rs.*769·29	*Rs.*1064	+ 38·3 per cent.
45	10	584·39	798	+ 36·5 ...
50	15	246·17	353	+ 43·5 ...
45	5	764·56	1083	+ 41·6 ...
50	10	567·13	821	+ 44·8 ...
55	15	249·49	368	+ 47·5 ...

(202.) The average difference shewn here is from 40 to 45 per cent., or, in other words, a reduction of 28 to 31 per cent. from Mr. Davies' rates would make the results agree with those now presented. However, since the restrictive law of 1841 has been in force, the proper illustration should be drawn from the values of contingent benefits at birth, or say at age one. Quoting from the same Tables as preceding, it will be found that at

Ages 36 and 1 { The values of the present contingent benefits to sons are less than those of Mr. Davies' by exactly . . } 28·8 per cent.
and at ages 41 and 1 . . . . Ditto ditto . . . . . . 29·5 per cent.

(203.) Under this view of the matter, the rate might have been with safety reduced to the extent now pointed out. The following gives the corresponding values by the two sets of Tables of daughters' contingent benefits.

(204.) At the date of Mr. Davies' valuation, the average age of the father providing benefits for their daughters was 42·318 years, that of the daughters 6·327, difference 35·991 years; but on the 1st of May, 1855, the average age of the fathers was 45·920, that of daughters 9·403, difference of age 36·517 years.

Age.		Value of Daughter's extended Pension according to		
Father.	Daughter.	Table LXXVI.	Davies, Table 12.	Difference per cent.
40	5	*Rs.*1118·55	*Rs.*1424	27·3 per cent.
45	10	1089·16	1303	19·6 ...
50	15	960·38	1050	9·3 ...
45	5	1156·97	1459	26·1 ...
50	10	1139·04	1353	18·8 ...
55	15	1106·70	1110	0·3 ...

(205.) This shews a much less difference in the values determined by the two sets of Tables than appeared in regard to sons; but the reasons for this have already been fully given in preceding portions of this Report, and need not be again entered on farther than simply remarking on the unprecedently high ratio of dimissions assumed in the decennial period of life, 16–25 for daughters, in Table 4 of Mr. Davies' Report. Since the law of 1841, however, has been in force, the values in the first year of life are the more important to compare, as shewing the manner in which the contributions hitherto exacted were adjusted to the actual liabilities. On comparing the values given in the respective Tables for daughters' contingent pensions, it will be found that at

Ages 36 and 1 { The values of the present contingent benefits for daughters are less than those of Mr. Davies' by } 32·9 per cent.
Ages 41 and 1 . . . Ditto ditto . . . . . 25·3 per cent.

(206.) It hence appears that, regarding the contributions hitherto made in respect to both sons' and daughters' contingent pensions in the aggregate, and as the law of 1841 affects the

[period for

Table LXXX.

Year.	Payments on account of Widows. Schedule 8. 20 per cent. = (1)	λ. (1) Value of £1 per annum at 8 per cent. = λ. (2)	λ. (1) + λ. (2)	Accumulated Sums on the 1st May, 1855.
1842	×217311 43462	4·63811 0·43451	5·07262	118200·7
1843	81662 16332	4·21304 0·40109	4·61413	41127·3
1844	27145 5429 ~~54229~~	3·73472 0·36766	4·10238	12658·4
1845	49111 9822	3·99220 0·33424	4·32644	21205·1
1846	52203 10441	4·01874 0·30081	4·31955	20871·3
1847	39302 7860	3·89542 0·26739	4·16281	14548·2
1848	37195 7439	3·87151 0·23397	4·10548	12749·4
1849	48607 9722	3·98776 0·20054	4·18830	15427·7
1850	51443 1028	4·01237 0·16712	4·17949	15117·9
1851	47588 9518	3·97855 0·13370	4·11225	12949·4
1852	54276 10855	4·13590 0·10027	4·13563	13674·1
1853	42768 8554	3·93217 0·06685	3·99902	9977·5
1854	52853 10571	4·02412 0·03342	4·05754	11416·7
				Rs. 3,19,923·7

The Sum must
include subscriptions
for 1835-1840-1841
other K. or from
1st July 1838 when
Dr Dor's [illegible]
was made.
[illegible]
on the
subscriptions
[illegible] large for that
[illegible]

Year.	Payments on account of Children. Schedule 8. 30 per cent. = (1) .	λ. (1) Value of £1 per annum at 8 per cent. = λ. (2)	λ. (1) + λ. (2)	Accumulated Sums on the 1st May, 1855.
1842	25562 7669	3·88474 0·43451	4·31925	20856·9
1843	52474 15742	4·19706 0·40109	4·59815	39041·5
1844	44895 13469	4·12934 0·36766	4·49700	31405·1
1845	27458 8237	3·91577 0·33424	4·25001	17783·2
1846	34684 10405	4·01724 0·30081	4·31805	20799·4
1847	31266 9380	3·97220 0·26739	4·23959	17361·6
1848	27033 8110	3·90902 0·22397	4·13299	13582·8
1849	32883 9865	3·99410 0·20054	4·19464	15654·5
1850	27930 8379	3·92319 0·16712	4·09031	12311·5
1851	34506 10352	4·01502 0·13370	4·14872	14083·8
1852	38873 11662	4·06677 0·10027	4·16704	14690·6
1853	45885 13766	4·13881 0·06685	4·20546	16049·4
1854	37198 11159	4·04763 0·03342	4·08105	12051·8
				Rs. 2,46,272·1

period for which they must be subscribed, it may be safely stated that they were susceptible of a reduction of about 30 per cent.

(207.) So, also, it has been shewn that, in regard to the contributions for wives' contingent pensions, the rates actually exacted at the principal period of subscription were such as to admit, on the average, of a reduction of nearly 20 per cent.

(208.) Assuming this to be near the truth, let us see how it will accord with the financial statement in Schedule No. 8, the fifth column of which gives the receipts from year to year on account of wives' contingent pensions, and the sixth column gives the receipts on account of children's pensions. In the preceding Table LXXX. these items will be found inserted in the second column in black ink; the figures in red ink in the one part of the Table being 20 per cent., and in the other 30 per cent. of the respective items of receipts. In the last column will be found the amounts to which such fractional sums would have accumulated on the 1st of May, 1855, and it appears that such proportions of the thirteen years' (1842–54) subscriptions accumulated at 8 per cent. interest, would amount to (3,19,923·7 + 2,45,672·1) = *Rs.*5,65,595·8, exceeding the surplus of assets by (5,65,595·8 — 5,07,571·57) = *Rs.*58,024·23. or £5802

(209.) From the preceding Table it hence appears, that the accumulations on the 20 per cent. of the contributions made in respect to wives' pensions, would amount to *Rs.*3,19,923·7, and the accumulations on 30 per cent. of the contributions made in respect to children's pensions would in like manner amount to *Rs* 2,45,672·1. It therefore follows, that whatever gross sum may be appropriated amongst the members, whether the whole or a portion of the before-mentioned surplus, that it should be divided between the children's branch and the wives' and widows' branch of the Fund, in the ratio of these two members to each other.

(210.) It may be important here to direct attention to the fact, that as the accumulations which would have arisen since 1842 on the specified surcharge of the donations and subscriptions, irrespective of any other source of accumulations, exceed the actual ascertained surplus of *Rs.*5,07,571·57, it is evident that at the beginning of 1842 there must have been a deficit; and it should at the same time be kept in view, that the present calculations assume a heavier liability to prevail than has actually obtained in the Fund since the year 1838; but this favourable state of things beyond that assumed in the calculation is supposed to be due to temporary causes, and had it not been for these, the surplus must have been much below that which it is now found to be. Seeing, therefore, that a portion of the surplus is due to fluctuating causes, it may happen that, during the next similar period of years, the fluctuations will be on the adverse side; and as with the limited number of Members to which the Fund is confined this is not at all an improbable result, it is quite necessary not to appropriate the whole of the present surplus. It is a matter of which those Members who give much attention to the affairs of the Fund may judge of as well as myself; but, taking into consideration all the circumstances which bear on the subject now under consideration, and also not overlooking the fact that if the scale of rates paid by the present contributing Members should be reduced, the direct effect of such reduction will be to reduce the present contingent assets, and hence, also, the before-mentioned surplus of *Rs.*5,07,571·57. I am of opinion, that not more than *three lacs* of rupees should be now appropriated, and which, as already stated, should be divided between the two classes of benefits in the ratio of the numbers 3,19,923·7 and 2,45,672·1 to each other.

(211.) Next, in regard to the "most just course for the subscribers to adopt in disposing "of the surplus money," as asked of me in the concluding portion of clause (5) of the printed letter of instructions, the answer is simply to return it to the source from whence it arose. This, although rarely done in any institution, is certainly the fair and just mode of appropriating a surplus. If, for example, when adjusting your rates of contributions after the receipt of Mr. Davies' Report, the members could have foreseen what would have been the effect of the steps then taken in the production of the present large surplus, it is quite certain they would never have given their consent to the adoption of the scales of donations and contributions then decided upon. The object in view was strictly to make the Fund secure, and their intention was to contribute no more than would guarantee the payment of the various pensions, incumbent and contingent. Finding now, however, that the rates of contribution imposed have been excessive, the margin belongs to those who have contributed it, not to the present surviving members only, but to the representatives of deceased members as well. Some may consider it an unnecessary refinement to carry the principles of appropriation so far, but being asked to give my opinion "on the most "just course to adopt," I have deemed it essential to direct your attention to this circumstance.

(212.) Again, as regards the appropriation of the surplus, it may be accomplished either by a return of the surplus, an equivalent reduction in the future contributions in the instances in which that course is practicable, or by an increase in the benefits; but whatever plan may be adopted, it will be necessary, for the purpose of carrying it out correctly, to distinguish in the first place the amount in present money of the whole surplus to be appropriated which belongs to each member, and that having been done, it can if necessary be converted into its equivalent in either of the other two forms.

(213.) In finding the amount of present money to which each member is entitled, it will not suffice to determine it by any fixed ratio on the amount of his subscriptions; for although the contributions have in the aggregate been excessive, it is still evident from the foregoing illustrations and examples that there are many cases in which the values of benefits by the Tables hitherto in use have been understated, and to make any return to such parties as may have been contributing inadequately, would of course be unjust to those who have been subscribing at a rate much above the value of the benefits assigned them. When the gross amount and the mode of appropriation has therefore been agreed to, it will be necessary to prepare a Schedule on the plan of No. 10, but somewhat more in detail, so as to include the subsisting claimants for contingent benefits who may have made payments prior to the new law taking effect, and at the same time distinguishing the dates at which payments by periodical subscriptions ceased in all cases, and stating for each contributor the existing scale of periodical subscription still in force.

(214.) Assuming this to have been done, the appropriation to each person of his share of the surplus becomes exceedingly simple, and consists merely in allowing him to share in the gross surplus assigned to each class of benefits in the ratio in which the surcharge on his own contributions to that class bears to the whole amount of surcharge on the total amount of contributions to that class.

(215.) As respects the presumed sources of surplus enumerated in clause 5 of the printed letter of instructions it will be inferred, that I attach no importance to any of them except those

Dr. S attaches great importance
to the Arrears being paid off

which have already been so much dwelt upon. The margin referred to in paragraph 60 of Mr. Davies' Report it will be seen has now, from the present mode of calculation, disappeared.

(216.) From the many observations made in the previous portions of this Report on the relation of your past scale of donations and subscriptions to those now submitted, it is almost unnecessary to state, in reply to the last part of clause (6) of the printed letter of instructions, that it is my opinion that the contributions heretofore in use may be safely and advantageously reduced, both for existing and future members. The amount of reduction will depend on the age of the individual member, on the age of his wife, and the ages of his children; but as the Tables herein supplied are in their final results expressed in a very simple form, a moderate amount of attention given to their structure, and the explanations of them offered in this Report will enable any one to determine the amount of contribution suitable to each case, whether made wholly by donation, wholly by periodical contribution, or partly by the one and partly the other. Should it be desired to make the periodical contributions of members uniform in amount for corresponding benefits, then the difference in values arising from difference of age must be provided for by unequal amounts of donation, as is very clearly and simply explained by Mr. G. Harding, in Vol. II. of the proceedings. By this means the condition will be preserved of " each subscriber contributing to the fund in exact proportion to the benefits he expects to " derive from it," as imposed in clause 5 of your letter.

In the present valuation I have taken no notice of the necessary working expenses of the Institution. The management has evidently been in excellent hands, and as this part of the subject must be better understood by those taking an active and regular part in the conduct of its affairs, it is better to leave it entirely to yourselves than to offer any observations of my own.

The plan of having triennial valuations of your affairs is an excellent protection against any adverse influence being permitted to affect the stability of the Fund.

Having thus made a patient and searching investigation into the condition of the Fund, and thoroughly analysed and tested every element which appeared to me likely to affect its interest, it now only remains to express my satisfaction at finding its affairs so prosperous and its pecuniary resources so much more than commensurate to meet all its Liabilities, Incumbent and Contingent.

I have the honour to be,

Your most obedient Servant,

FRANCIS G. P. NEISON.

16th February, 1856.

To

F. G. P. Neison, Esq.

Sir,

I have the honour, by desire of the Trustees of the Madras Medical Fund, to forward, by this mail, two copies of the printed proceedings of the General Meeting of Subscribers, held on the 1st of January, 1856. These, the Trustees desire me to send, to bring to your notice the re-marriage of the widow of the late Assistant-Surgeon Cowie, and also the wish of the Subscribers to be favoured with your opinion as to the advisability or otherwise of the Society's allowing to widows a moiety or portion of their pensions on re-marriage.

The Trustees would wish you, when examining into the affairs of the Charity Branch of the Madras Medical Fund, to give this subject also your best consideration, and they will be happy to receive from you the results of your examination of it.

I have the honour to be,
Sir,
Your most obedient Servant,
EDWARD BALFOUR,
Secretary, Medical Fund.

Madras,
12th January, 1856.

The following is that portion of the Printed Proceedings to which reference is made in the preceding letter:—

" Read the following correspondence.

" Extract from a letter from Messrs. Alexander, Fletcher, and Co., dated 25th June, 1855.

" Messrs. Crawford, Colvin, and Co., of this City, have informed us of the marriage of Mrs. Catherine " Anne Cowie, widow of Assistant-Surgeon C. J. Cowie, which took place on the 27th March last.

" The Trustees propose that an intimation be given to Mr. Neison of the alteration announced in the " above correspondence, as the data connected with the re-marriage, &c. of widows are so limited that any item " may be deemed of sufficient value to be made known to the Actuary while engaged in his present calculations.

" While making the proposed communication, the Trustees suggest to the General Meeting, that amongst " the other points connected with the interests of the Charity Branch of this Society, which will receive " Mr. Neison's attention, the condition of the widows of Subscribers be also brought to his notice, with a view " to his favouring them with his opinion as to the advisability or otherwise of the Society allowing to widows a " moiety or portion of their pension on re-marriage.

" The Trustees, in the returns which they transmitted to Mr. Neison, with their letter, dated 21st May, " 1855, furnished two lists of all the widows who, from the year 1807 until 1855, have been admitted on the " Madras Medical Fund. The number so admitted amounts to 108, of whom have died 26*; and of whom " have re-married 12; leaving 72 still pensioners on this Fund. The Trustees are inclined to believe that, " looking at the few cases of re-marriage amongst the Society's widow pensioners, the Subscribers generally will " concur with them in opinion that their abstaining from re-marrying may often have been resolved upon from " the circumstances of the existing rule depriving them of the whole of their pension. And, without regarding " the question in a social point of view, the Trustees believe that it would be for the interest of the Society " pecuniarily, were its widows allowed to retain, on their re-marriage, a portion, say a moiety, of their pensions " from the Fund."

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* See Paragraph No. 2 of the following Report.

TO

THE SECRETARY OF THE MADRAS MEDICAL FUND.

Sir,

Soon after the despatch of my Report of the 16th February last, I was favoured with your communication of the 12th of January of this year, and also with copies of the Printed Proceedings of the Quarterly Meeting of the Subscribers, held on the 1st of January, 1856.

(2.) On perusal of that Report you will find that as the ratio of re-marriages was not deduced exclusively from your own data the fact of the re-marriage of Mrs. Cowie, of which you now give intimation, will not, for the reasons which are given at length throughout that Report, affect in any way the data from which the duration of widowhood has been actually determined in the various calculations which have been made on the state and condition of your Fund. I would here observe, however, that as two of the widows, those entered as Nos. 11 and 23 in Schedule 4 sent to me, married prior to their decease, they should only be entered in the married column of Table XIII. of the Report, as during the continuance of that event they were disconnected with the Fund, and not entered in the column headed " Died " of that Table. Therefore the number of deaths stated as 26 in page 129 of the Printed Proceedings just mentioned, should be 24 as entered in Table XIII., and for a like reason should the number of marriages be increased two, that is from 12 to 14 as done in that Table.

(3.) With respect to the other point to which my attention is directed in the same communication, namely, as to the advisability or otherwise of the Society allowing to widows a moiety or portion of their pension on re-marriage. To this particular question I have given my best and most deliberate consideration, and shall now endeavour to submit the results at which I have arrived in as intelligible a form as possible.

(4.) In Abstract O of my Report will be found the combined ratio of deaths and re-marriages amongst widows according to the experience of several Indian Funds, and if a further analysis be made of one of the columns of that Abstract, namely, that for the Bombay Military Fund, the results will be found to have an important bearing on the question now under consideration. For this purpose let the ratio of re-marriages only be represented and compared with the ratio of re-marriages as determined for the purposes of your Fund in Tables XVI., XVII. and XVIII., and a somewhat striking distinction will be found to obtain. It should at the same time be borne in mind that the ratio of re-marriage entering into the construction of Tables XVI., XVII. and XVIII. was derived from the experience of the Bengal Military Fund, in which as in your own Fund, the pension of the widow ceases after re-marriage, while in the Bombay Military Fund, the widow during re-marriage is permitted to receive one-half the amount of the pension to which she is entitled during widowhood. If the experience of both Funds were of sufficient magnitude and duration, the results of such a comparison as that proposed to be instituted would afford the necessary means of fully solving the question now under consideration.

(5.) The following gives the ratio of re-marriage per annum amongst the widows in each of these Funds.

Abstract (a).

Ages.	Re-marriages per Annum.		Excess per cent. in the Bombay Fund.
	Bombay Fund.	Bengal Fund.	
21 to 25	7·298 per cent.	5·102 per cent.	43·042
26 ... 30	4·757 „	3·329 „	42·896
31 ... 35	3·040 „	2·857 „	6·405
36 ... 40	2·012 „	1·653 „	21·718
41 ... 45	1·203 „	0·802 „	50·000
46 ... 50	1·118 „	0·877 „	27·480

(6.) It will thus be seen that the re-marriages are in a much higher ratio in the Bombay Fund than in the Bengal; but the data from which the above results in regard to the Bombay Fund are derived are not of so recent date as those in respect to the Bengal Fund, and if the facts in regard to the former were in the above shape brought up to a more recent period, a very remarkable increase in the ratio of re-marriages would be found to have taken place, and therefore shewing a still greater disparity between the two classes of results.

(7.) As stated in the Report itself, sometime ago I had submitted to me a schedule prepared by the secretary of the Bombay Military Fund, shewing, amongst other things, the ratio of re-married widows receiving half annuities in each year to the total number of widows, from the 30th of April, 1818, to the 30th of April, 1851. From this document I find that, prior to the year 1830, very few re-marriages on half pension took place; but subsequent to that date they have increased rapidly, and are still increasing. The following gives a condensed summary of the results since the beginning of 1831 :—

Abstract (b).

Period.	Aggregate Number of Widows for each Year of the Period.	Aggregate Number of existing re-marriages for each Year of the Period.	Per centage of existing Re-marriages to the total Number of Widows for the time being.
1831 to 1835	315	13	4·1 per cent.
1836 ... 1840	494	73	14·8 „
1841 ... 1845	729	124	17·0 „
1846 ... 1850	1035	197	19·3 „
1851	242	51	21·0 „

(8.) The very rapid increase in the ratio of re-marriages is here evident, and if the facts in Abstract (*a*), in which distinction of age is observed, had been brought up to as recent a period as in Abstract (*b*), the disparity between the ratios for the Bombay and Bengal Funds would have been much more striking. In order, however, to institute a comparison between the preceding results and the experience of the Bengal Fund, I have made an Abstract corresponding in form to the preceding one for precisely the same years. On the question of marriage it is quite necessary that the data should have a cotemporary origin to admit of fair comparison. All statistical observers being fully aware that, even amongst the highest classes, marriage is much influenced by the state and condition of the times, and therefore the twenty-one years embraced in Abstract (*b*) for the Bombay Fund, will be taken in regard to the Bengal Fund, the results of which are as follows :—

Abstract (c).

Period.	Aggregate Number of Widows for each Year of the Period.	Aggregate Number of existing Re-marriages for each Year of the Period.	Per centage of existing Re-marriages to the total Number of Widows for the time being.
1831 to 1835	988	40·505	4·1 per cent.
1836 ... 1840	1290	129·553	10·0 ,,
1841 ... 1845	1803	239·185	13·3 ,,
1846 ... 1850	2414	368·689	15·3 ,,
1851	521	85·863	16·5 ,,

(9.) The diminished ratio of re-marriages as shewn in this Abstract from that in Abstract (*b*) for the Bombay Fund is very decided, and, viewed in connection with the results of Abstract (*a*), clearly points to the operation of some influence in the Bombay Fund not common to the other.

(10.) It may, however, be necessary to explain the appearance of fractional quantities in column (3) of the preceding Abstract. In the Bombay Fund as widows on re-marriage receive one-half their former pensions, there exists the same means of tracing them as of the widows themselves, and, accordingly, in column (3) of Abstract (*b*) there is given the absolute number of re-married widows who were alive within the respective periods; but in the Bengal Fund the widows on re-marriage, ceasing to receive any pension, are lost sight of, unless second widowhood should ensue. It is therefore necessary to calculate the deaths which may have taken place amongst re-married widows in the Bengal Fund. This was done on the assumption that they were subject to the rate of mortality as those who continue widows, as given in Table XVIII., column (2) of the Report, and the results are the figures given in column (3) of the preceding Abstract, from which it appears that of all the widows on the Bengal Fund who re-married since the beginning of the year 1831, there were alive at the end of 1851 eighty-six, or, as determined by the calculated result, exactly 85·863.

(11.) It hence appears that of the aggregate number of widows, within that period, amounting to 7016, or what is equivalent to 7016 widows being a full year on the Fund, there remained and were alive at the end of 1851 exactly 85·863, that is :—

$\frac{85\cdot863}{7016}$ = 1·224 per cent. of the aggregate years' risk or widowhood passed on the Fund during the period in question, but from Abstract (*b*) it will be seen that the corresponding ratio is

$\frac{51}{2815}$ = 1·812 per cent. being an increase on the preceding ratio of

$\frac{1\cdot812 - 1.224}{1\cdot224}$ = 48·039 per cent.

(12.) It consequently follows that, to whatever cause the result may be assigned of the widows on the two Funds within the period 1831–51, there were re-married and alive at the end of this period 48 per cent. more in the Bombay than in the Bengal Fund. Again,

(13.) If the experience of the Bengal Fund in regard to re-marriages had been the same as the Bombay, within the twenty-one years 1831–51, there should have taken place re-marriages sufficient to have produced

$\frac{51 \times 7016}{2815}$ = 127·110 re-married widows alive at the end of the year 1851, being 41·247 in excess of the actual number, or about 48 per cent., as already pointed out.

(14.) The experience of these two Funds affords almost the only data which are practically available for the solution of the question you have submitted. I have accordingly availed myself of these sources of information. The data as supplied in the official document from the Secretary of the Bombay Fund are no doubt to be relied on, and every pains has been taken to ensure accuracy in my analysis of the results taken from the records of the Bengal Military Fund. Looking at the whole case from various points of view, it appears to me that it may be fairly assumed that the effect of a regulation permitting widows on re-marriage to continue in receipt of one-half of the amount of pension payable during widowhood will be to accelerate re-marriage 50 per cent. beyond the ratio entering into the construction of Tables XVI., XVII., and XVIII., and on this hypothesis the following Tables are constructed, in order to shew the values of widows' pensions under such circumstances.

(15.) The first Table is constructed precisely on the plan of Table XVIII. in the Report, only that the ratio of re-marriages is increased 50 per cent. from ages 14 to 61, and, consequently, the red ink figures alternating with those in black ink in the second column of the following Table will be found increased 50 per cent. beyond the corresponding figures in Table XVIII. of the Report.

(16.) From Table 1 following, the auxiliary Table 2 has been constructed in precisely the same manner in which Table XX. of the Report has been deduced from Table XVIII., and by aid of the results the values of pensions during widowhood may be found in the way in which the values in Table XXIX. of the Report were determined. It is, therefore, only necessary to refer to the Report itself for information on the mode by which the present Tables are calculated.

(17.) From Table 2 following, the values of annuities during widowhood are found in the same manner in which those in Table XXIX. of the Report was derived from Table XX.

Table 1.

The expected Rate of Mortality, combined with the Ratio of Marriage, for the Widows and Daughters of the Fund.

Age.	Mortality per cent. $= d_y$ Marriages per cent. $= m_y$	$d_y + m_y$ $1-\frac{d_y + m_y}{100}$	$5 + \Sigma(c) = \lambda . l_y$ $\lambda.\left(1-\frac{d_y+m_y}{100}\right)=(c)$	Number living Unmarried $= l_y$	Number Dying or Marrying.	Age.	Mortality per cent. $= d_y$ Marriages per cent. $= m_y$	$d_y + m_y$ $1-\frac{d_y + m_y}{100}$	$5 + \Sigma(c) = \lambda . l_y$ $\lambda.\left(1-\frac{d_y+m_y}{100}\right)=(c)$	Number living Unmarried $= l_y$	Number Dying or Marrying.
0	14·631	14·631 ·85369	5·0000000 9·9313002	100000	14631	24	·918 6·819	7·737 ·92263	4·4747561 9·9650276	29837	2309
1	6·170	6·170 ·93830	4·9313002 ·9723471	85369	5268	25	·938 6·159	7·097 ·92903	·4397837 ·9680297	27528	1953
2	3·383	3·383 ·96617	·9036419 ·9850535	80101	2708	26	·958 5·652	6·610 ·93390	·4078134 ·9703004	25575	1691
3	2·394	2·394 ·97606	·8886954 ·9894765	77393	1854	27	·977 5·271	6·248 ·93752	·3781138 ·9719805	23884	1492
4	1·771	1·771 ·98229	·8781719 ·9922397	75539	1338	28	·997 4·994	5·991 ·94009	·3500943 ·9731694	22392	1342
5	1·411	1·411 ·98589	·8704116 ·9938285	74201	1047	29	1·016 5·018	6·034 ·93966	·3232637 ·9729707	21050	1270
6	1·140	1·140 ·98860	·8642401 ·9950206	73154	834	30	1·035 4·947	5·982 ·94018	·2962344 ·9732110	19780	1183
7	·935	·935 ·99065	·8592607 ·9959202	72302	676	31	1·053 4·793	5·846 ·94154	·2694454 ·9738388	18597	1087
8	·887	·887 ·99113	·8551809 ·9961306	71644	636	32	1·073 4·568	5·641 ·94359	·2432842 ·9747833	17510	988
9	·839	·839 ·99161	·8513115 ·9963409	71008	595	33	1·089 4·286	5·375 ·94625	·2180675 ·9760059	16522	888
10	·792	·792 ·99208	·8476524 ·9965467	70413	558	34	1·107 3·924	5·031 ·94969	·1940734 ·9775819	15634	786
11	·718	·718 99282	·8441991 ·9968705	69855	501	35	1·123 3·555	4·678 ·95322	·1716553 ·9791931	14848	695
12	·663	·663 ·99337	·8410696 ·9971110	69354	460	36	1·138 3·188	4·326 ·95674	·1508484 ·9807939	14153	612
13	·632	·632 ·99368	·8381806 ·9972465	68894	435	37	1·153 2·826	3·979 ·96021	·1316423 ·9823662	13541	539
14	·627 1·500	2·127 ·97873	·8354271 ·9906629	68459	1457	38	1·167 2·480	3·647 ·96353	·1140085 ·9838652	13002	474
15	·649 3·000	3·649 ·96351	·8260900 ·9838562	67002	2446	39	1·181 2·168	3·349 ·96651	·0978737 ·9852064	12528	420
16	·699 5·250	5·949 ·94051	·8099462 ·9733634	64556	3839	40	1·194 1·743	2·937 ·97063	·0830801 ·9870537	12108	356
17	·745 7·500	8·245 ·91755	·7833096 ·9626297	60717	5006	41	1·212 1·494	2·706 ·97294	·0701338 ·9880861	11752	317
18	·786 10·273	11·059 ·88941	·7459393 ·9491020	55711	6161	42	1·231 1·317	2·548 ·97452	·0582199 ·9887908	11435	292
19	·819 9·848	10·667 ·89333	·6950413 ·9510119	49550	5286	43	1·253 1·203	2·456 ·97544	·0470107 ·9892006	11143	273
20	·844 9·357	10·201 ·89799	·6460532 ·9532715	44264	4516	44	1·277 1·083	2·360 ·97640	·0362113 ·9896278	10870	257
21	·860 8·817	9·677 ·90323	·5993247 ·9557984	39748	3846	45	1·307 1·052	2·359 ·97641	·0258391 ·9896322	10613	250
22	·878 8·244	9·122 ·90878	·5551231 ·9584588	35902	3275	46	1·337 1·092	2·429 ·97571	·0154713 9893208	10363	252
23	·899 7·653	8·552 ·91448	4·5135819 9·9611742	32627	2790	47	1·373 1·185	2·558 ·97442	4·0047921 9·9887462	10111	259

Table 1.—(*continued.*)

Age.	Mortality per cent. = d_y Marriages per cent. = m_y	$d_y + m_y$ $1-\frac{d_y+m_y}{100}$	$5 + \Sigma(c) = \lambda . l_y$ $\lambda.(1-\frac{d_y+m_y}{100})=(c)$	Number living Unmarried. = l_y	Number Dying or Marrying.	Age.	Mortality per cent. = d_y Marriages per cent. = m_y	$d_y + m_y$ $1-\frac{d_y+m_y}{100}$	$5 + \Sigma(c) = \lambda . l_y$ $\lambda.(1-\frac{d_y+m_y}{100})=(c)$	Number living Unmarried = l_y	Number Dying or Marrying.
48	1·411 1·316	2·727 ·97273	3·9935383 9·9879923	9852	268	75	7·711	7·711 ·92289	3·5273979 9·9651499	3368	260
49	1·455 1·677	3·132 ·96868	·9815306 ·9861803	9584	301	76	8·368	8·368 ·91632	·4925478 ·9620472	3108	260
50	1·503 1·898	3·401 ·96599	·9677109 ·9849726	9283	315	77	9·103	9·103 ·90897	·4545950 ·9585495	2848	259
51	1·558 1·995	3·553 ·96447	·9526835 ·9842887	8968	319	78	9·876	9·876 ·90124	·4131445 ·9548405	2589	256
52	1·617 1·986	3·603 ·96397	·9369722 ·9840635	8649	311	79	10·732	10·732 ·89268	·3679850 ·9506958	2333	250
53	1·690 1·889	3·579 ·96421	·9210357 ·9841716	8338	299	80	11·621	11·621 ·88379	·3186808 ·9463491	2083	242
54	1·768 1·863	3·631 ·96369	·9052073 ·9839374	8039	292	81	12·588	12·588 ·87412	·2650299 ·9415711	1841	232
55	1·866 1·751	3·617 ·96383	·8891447 ·9840004	7747	280	82	13·589	13·589 ·86411	·2066010 ·9365690	1609	219
56	1·982 1·532	3·514 ·96486	·8731451 ·9844643	7467	262	83	14·674	14·674 ·85326	·1431700 ·9310814	1390	204
57	2·100 1·190	3·290 ·96710	·8576094 ·9854714	7205	237	84	15·789	15·789 ·84211	3·0742514 ·9253688	1186	189
58	2·215 ·707	2·922 ·97078	·8430808 ·9871208	6968	204	85	17·020	17·020 ·82980	2·9996202 ·9189734	999	170
59	2·348 ·456	2·804 ·97196	·8302016 ·9876484	6764	190	86	18·312	18·312 ·81688	·9185936 ·9121583	829	152
60	2·479 ·242	2·721 ·97279	·8178500 ·9880191	6574	179	87	19·708	19·708 ·80292	·8307519 ·9046723	677	133
61	2·625 ·083	2·708 ·97292	·8058691 ·9880771	6395	173	88	21·162	21·162 ·78838	·7354242 ·8967356	544	115
62	2·797	2·797 ·97203	·7939462 ·9876797	6222	174	89	22·706	22·706 ·77294	·6321598 ·8881458	429	98
63	3·008	3·008 ·96992	·7816259 ·9867359	6048	182	90	24·268	24·268 ·75732	·5203056 ·8792794	331	80
64	3·233	3·233 ·96767	·7683618 ·9857273	5866	189	91	25·846	25·846 ·74154	·3995850 ·8701346	251	65
65	3·492	3·492 ·96508	·7540891 ·9845633	5677	199	92	27·404	27·404 ·72596	·2697196 ·8609127	186	51
66	3·761	3·761 ·96239	·7386524 ·9833511	5478	206	93	28 999	28·999 ·71001	2·1306323 ·8512645	135	39
67	4·065	4·065 ·95935	·7220035 ·9819771	5272	214	94	30·625	30·625 ·69375	1·9818968 ·8412030	96	29
68	4·383	4·383 ·95617	·7039806 ·9805351	5058	222	95	32·193	32·193 ·67807	·8230998 ·8312745	67	22
69	4·744	4·744 ·95256	·6845157 ·9788923	4836	229	96	33·724	33·724 ·66276	·6543743 ·8213563	45	15
70	5·126	5·126 ·94874	·6634080 ·9771472	4607	236	97	35·223	35·223 ·64777	·4757306 ·8114208	30	11
71	5·563	5·563 ·94437	·6405552 ·9751422	4371	243	98	36·642	36·642 ·63358	·2871514 ·8018015	19	7
72	6·022	6·022 ·93978	·6156974 ·9730262	4128	249	99	37·971	37·971 ·62029	1·0889529 ·7925948	12	4
73	6·543	6·543 ·93457	·5887236 ·9706118	3879	254	100	39·300	39·300 ·60700	0·8815477 9·7831887	8	
74	7·090	7·090 ·92910	3·5593354 9·9680625	3625	257						

Table 2.

Preparatory to the determination of Pensions and Annuities to Widows and Children, the probabilities of Mortality and Marriage being combined.—(Eight per cent.)

Age (y)	$\lambda . l_y = (1)$ $\lambda . v^y = (2)$	$(1) + (2) = \lambda . D_y$	D_y	N_y	$\lambda . N_y$	Age (y)
0	5·0000000 0·0000000	5·0000000	100000·0	764923·61	5·8836180	0
1	4·9313002 9·9665762	4·8978764	79045·36	685878·25	·8362470	1
2	·9036419 ·9331525	·8367944	68674·33	617203·92	·7904286	2
3	·8886954 ·8997287	·7884241	61436·17	555767·75	·7448934	3
4	·8781719 ·8663050	·7444769	55523·51	500244·24	·6991821	4
5	·8704116 ·8328812	·7032928	50500·16	449744·08	·6529655	5
6	·8642401 ·7994575	·6636976	46099·65	403644·43	·6059989	6
7	·8592607 ·7660337	·6252944	42198·25	361446·18	·5580436	7
8	·8551809 ·7326100	·5877909	38707·12	322739·06	·5088515	8
9	·8513115 ·6991862	·5504977	35522·02	287217·04	·4582102	9
10	·8476524 ·6657624	·5134148	32614·81	254602·23	·4058621	10
11	·8441991 ·6323387	·4765378	29959·73	224642·50	·3514920	11
12	·8410696 ·5989149	·4399845	27541·30	197101·20	·2946892	12
13	·8381806 ·5654912	·4036718	25332·13	171769·07	·2349451	13
14	·8354271 ·5320674	·3674945	23307·43	148461·64	·1716142	14
15	·8260900 ·4986437	·3247337	21121·93	127339·71	·1049639	15
16	·8099462 ·4652199	·2751661	18843·70	108496·01	5·0354138	16
17	·7833096 ·4317962	·2151058	16409·89	92086·117	4·9641942	17
18	·7459393 ·3983724	·1443117	13941·57	78144·547	·8928987	18
19	·6950413 ·3649486	4·0599899	11481·27	66663·277	·8238867	19
20	·6460532 ·3315249	3·9775781	9496·818	57166·459	·7571413	20
21	·5993247 ·2981011	·8974258	7896·340	49270·119	·6925837	21
22	·5551231 ·2646774	·8198005	6603·901	42666·318	·6300841	22
23	·5135819 ·2312536	·7448355	5556·937	37109·281	·5694825	23
24	·4747561 ·1978399	·6725960	4705·394	32403·887	·5105971	24
25	·4397837 ·1644061	·6041898	4019·664	28384·223	·4530770	25
26	·4078134 ·1309824	·5387958	3457·767	24926·456	·3966606	26
27	·3781138 ·0975586	·4756724	2990·009	21936·447	·3411663	27
28	·3500943 ·0641348	·4142291	2595·549	19340·898	·2864767	28
29	·3232637 9·0307111	·3539748	2259·305	17081·593	·2325283	29
30	4·2962344 8·9972873	3·2935217	1965·721	15115·872	4·1794332	30

Table 2.—(*continued.*)

Age (y)	$\lambda . l_y = (1)$ $\lambda . v^y = (2)$	$(1) + (2) =$ $\lambda . D_y$	D_y	N_y	$\lambda . N_y$	Age (y)
31	3·2694454 8·9638636	4·2333090	1711·232	13404·640	4·1272551	31
32	·2432842 ·9304398	·1737240	1491·846	11912·794	·0760136	32
33	·2180675 ·8970161	·1150836	1303·418	10609·376	4·0256900	33
34	·1940734 ·8635923	·0576657	1141·999	9467·3771	3·9762296	34
35	·1716553 ·8301686	3·0018239	1004·208	8463·1691	·9275331	35
36	·1508484 ·7967448	2·9475932	886·3254	7576·8437	·8794883	36
37	·1316423 ·7633210	·8949633	785·1693	6791·6744	·8319769	37
38	·1140085 ·7298973	·8439058	698·0809	6093·5935	·7848735	38
39	·0978737 ·6964735	·7943472	622·7980	5470·7955	·7380505	39
40	·0830801 ·6630498	·7461299	557·3525	4913·4430	·6913859	40
41	·0701338 ·6296260	·6997598	500·9101	4412·5329	·6446879	41
42	·0582199 ·5962023	·6544222	451·2552	3961·2777	·5978353	42
43	·0470107 ·5627785	·6097892	407·1826	3554·0951	·5507269	43
44	·0362113 ·5293548	·5655661	367·7614	3186·3337	·5032913	44
45	·0258391 ·4959310	·5217701	332·4835	2853·8502	·4554311	45
46	·0154713 ·4625072	·4779785	300·5928	2553·2574	·4070945	46
47	4·0047921 ·4290835	·4338756	271·5661	2281·6913	·3582568	47
48	3·9935383 ·3956597	·3891980	245·0180	2036·6733	·3089112	48
49	·9815306 ·3622360	·3437666	220·6819	1815·9914	·2591136	49
50	·9677109 ·3288122	·2965231	197·9352	1618·0562	·2089940	50
51	·9526835 ·2953884	·2480719	177·0402	1441·0160	·1586688	51
52	·9369722 ·2619647	·1989369	158·1019	1282·9141	·1081976	52
53	·9210357 ·2285410	·1495767	141·1161	1141·7980	·0575894	53
54	·9052073 ·1951172	·1003245	125·9866	1015·8114	3·0068129	54
55	·8891447 ·1616934	·0508381	112·4186	903·39277	2·9558767	55
56	·8731451 ·1282697	2·0014148	100·3263	803·06647	·9047515	56
57	·8576094 ·0948459	1·9524553	89·62949	713·43698	·8533557	57
58	·8430808 ·0614222	·9045030	80·26071	633·17627	·8015246	58
59	·8302016 8·0279984	·8582000	72·14396	561·08231	·7489878	59
60	·8178500 7·9945747	·8124247	64·92691	496·10540	·6955740	60
61	·8058691 ·9611509	·7670200	58·48170	437·62370	·6411009	61
62	·7939462 ·9277272	·7216734	52·68335	384·94035	·5853935	62
63	·7816259 ·8943034	·6759293	47·41648	337·52387	·5283046	63
64	·7683618 ·8608796	·6292414	42·56351	294·94036	·4697343	64
65	3·7540891 7·8274559	1·5815450	38·15443	256·78593	2·4095712	65

Table 2.—*(continued.)*

Age (y)	$\lambda . l_y = (1)$ $\lambda . v^y = (2)$	(1) + (2) = $\lambda . D_y$	D_y	N_y	$\lambda . N_y$	Age (y)
66	3·7386524 7·7940321	1·5326845	34·09452	222·69141	2·3477035	66
67	·7220035 ·7606084	·4826119	30·38169	192·30972	·2840012	67
68	·7039806 ·7271846	·4311652	26·98766	165·32206	·2183309	68
69	·6845157 ·6937609	·3782766	23·89332	141·42874	·1505376	69
70	·6634080 ·6603371	·3237451	21·07391	120·35483	·0804634	70
71	·6405552 ·6269134	·2674686	18·51265	101·84218	2·0079278	71
72	·6156974 ·5934896	·2091870	16·18777	85·654411	1·9327497	72
73	·5887236 ·5600658	·1487894	14·08606	71·568351	·8547210	73
74	·5593354 ·5266421	·0859775	12·18926	59·379091	·7736336	74
75	·5273979 ·4932183	1·0206162	10·48615	48·892941	·6892462	75
76	·4925478 ·4597946	0·9523424	8·960709	39·932232	·6013236	76
77	·4545950 ·4263708	·8809658	7·602575	32·329657	·5096011	77
78	·4131445 ·3929471	·8060916	6·398698	25·930959	·4138185	78
79	·3679850 ·3595233	·7275083	5·339718	20·591241	·3122035	79
80	·3186808 ·3260996	·6447804	4·413371	16·177870	·2089213	80
81	·2650299 ·2926758	·5577057	3·611650	12·566220	1·0992047	81
82	·2066010 ·2592521	·4658531	2·923164	9·6430555	0·9842148	82
83	·1431700 ·2258283	·3689983	2·338828	7·3042275	·8635744	83
84	3·0742514 ·1924045	·2666559	1·847804	5·4564235	·7369081	84
85	2·9996202 ·1589808	·1586010	1·440791	4·0156325	·6037539	85
86	·9185936 ·1255570	0·0441506	1·107908	2·9077245	·4635534	86
87	·8307519 ·0921332	9·9228851	·8373077	2·0704168	·3160579	87
88	·7354242 ·0587095	·7941337	·6224919	1·4479249	0·1607461	88
89	·6321598 7·0252858	·6574456	·4544076	·9935173	9·9971754	89
90	·5203056 6·9918620	·5121676	·3252128	·6683045	·8249744	90
91	·3995850 ·9584383	·3580233	·2280464	·4402581	·6437074	91
92	·2697196 ·9250145	·1947341	·1565792	·2836789	·4528270	92
93	2·1306323 ·8915907	9·0222230	·1052502	·1784287	·2514647	93
94	1·9818968 ·8581670	8·8400638	·0691933	·1092354	9·0383635	94
95	·8230998 ·8247432	·6478430	·0444471	·0647883	8·8114966	95
96	·6543743 ·7913195	·4456938	·0279058	·0368825	·5668204	96
97	·4757306 ·7578957	·2336263	·0171248	·0197577	8·2957364	97
98	·2871514 ·7244720	8·0116234	·0102713	·0094864	7·9771014	98
99	1·0889529 ·6910482	7·7800011	·0060256	·0034608	7·5391865	99
100	0·8815477 6·6576245	7·5391722	·0034608	·0000000	...	100

Table 3.

Value of Annuities during Widowhood, that is, till Death or Re-marriage.

($\lambda.N_y$ and $\lambda.D_y$ from Table **2.**)

Age (y)	$\lambda.N_y$ $\lambda.D_y$	$\lambda.N_y-\lambda.D_y$	$\frac{N_y}{D_y}=a_y$ $\frac{1+A'_y}{4}$	$A'_y=$ $\cdot9615-\frac{1}{13}a_y$	$a_y+\frac{1+A'_y}{4}$ $\frac{\left(a_y+\frac{1+A'_y}{4}\right)+\left(a_{y+1}+\frac{1+A'_y}{4}\right)}{2}={}^wa_y$	Age (y)
19	4·82389 4·05999	0·76390	5·806 ·379	·515	6·185 6·290	19
20	·75714 3·97758	·77956	6·019 ·375	·499	6·394 6·503	20
21	·69258 ·89743	·79515	6·240 ·371	·482	6·611 6·719	21
22	·63008 ·81980	·81028	6·461 ·366	·465	6·827 6·934	22
23	·56948 ·74484	·82464	6·678 ·362	·448	7·040 7·143	23
24	·51060 ·67260	·83800	6·887 ·358	·432	7·245 7·331	24
25	·45308 ·60419	·84889	7·061 ·355	·419	7·416 7·489	25
26	·39666 ·53880	·85786	7·209 ·352	·407	7·561 7·624	26
27	·34117 ·47567	·86550	7·337 ·350	·398	7·687 7·743	27
28	·28648 ·41423	·87225	7·452 ·347	·389	7·799 7·853	28
29	·23253 ·35397	·87856	7·561 ·345	·380	7·906 7·970	29
30	·17943 ·29352	·88591	7·690 ·343	·370	8·033 8·103	30
31	·12726 ·23331	·89395	7·833 ·340	·359	8·173 8·248	31
32	·07601 ·17372	·90229	7·985 ·337	·348	8·322 8·398	32
33	4·02569 ·11508	·91061	8·140 ·334	·336	8·474 8·548	33
34	3·97623 ·05767	·91856	8·290 ·331	·324	8·621 8·689	34
35	·92753 3·00182	·92571	8·428 ·329	·314	8·757 8·816	35
36	·87949 2·94759	·93190	8·549 ·326	·304	8·875 8·925	36
37	·83198 ·89496	·93702	8·650 ·324	·297	8·974 9·013	37
38	·78487 ·84391	·94096	8·729 ·323	·291	9·052 9·079	38
39	3·73805 2·79435	0·94370	8·784 ·322	·286	9·106 9·122	39

Table 3.—(*continued*).

Age (y)	$\lambda . N_y$ $\lambda . D_y$	$\lambda . N_y - \lambda . D_y$	$\frac{N_y}{D_y} = a_y$ $\frac{1 + A'_y}{4}$	$A'_y =$ $\cdot 9615 - \frac{1}{12} a_y$	$a_y + \frac{1 + A'_y}{4}$ $\frac{\left(a_y + \frac{1 + A'_y}{4}\right) + \left(a_{y+1} + \frac{1 + A'_y}{4}\right)}{2} = {}^{w}a_y$	Age (y)
40	3·69139 2·74613	0·94526	8·816 ·321	·284	9·137 9·134	40
41	·64469 ·69976	·94493	8·809 ·321	·284	9·130 9·115	41
42	·59784 ·65442	·94342	8·778 ·322	·287	9·100 9·076	42
43	·55073 ·60979	·94094	8·729 ·323	·291	9·052 9·020	43
44	·50329 ·56557	·93772	8·664 ·324	·296	8·988 8·949	44
45	·45543 ·52177	·93366	8·583 ·326	·302	8·909 8·865	45
46	·40709 ·47798	·92911	8·494 ·327	·309	8·821 8·776	46
47	·35826 ·43388	·92438	8·402 329	·316	8·731 8·687	47
48	·30891 ·38920	·91971	8·312 ·331	·323	8·643 8·602	48
49	·25911 ·34377	·91534	8·229 ·332	·329	8·561 8·535	49
50	·20899 ·29652	·91247	8·175 ·333	·333	8·508 8·491	50
51	·15867 ·24807	·91060	8·140 ·334	·336	8·474 8·462	51
52	·10820 ·19894	·90926	8·114 ·335	·338	8·449 8·438	52
53	·05759 ·14958	·90801	8·091 ·335	·340	8·426 8·413	53
54	3·00681 ·10032	·90649	8·063 ·336	·342	8·399 8·386	54
55	2·95588 ·05084	·90504	8·036 ·336	·344	8·372 8·357	55
56	·90475 2·00141	·90334	8·005 ·337	·346	8·342 8·320	56
57	·85336 1·95246	·90090	7·960 ·338	·350	8·298 8·263	57
58	·80152 ·90450	·89702	7·889 ·339	·355	8·228 8·173	58
59	·74899 ·85820	·89079	7·777 ·341	·364	8·118 8·052	59
60	·69557 ·81242	·88315	7·641 ·344	·374	7·985 7·908	60
61	·64110 ·76702	·87408	7·483 ·347	·386	7·830 7·744	61
62	·58539 ·72167	·86372	7·307 ·350	·400	7·657 7·565	62
63	2·52830 1·67593	0·85237	7·118 ·354	·414	7·472	63

Table 4.

Value of Annuities to Widows during the whole of Life.

($\lambda . N_y$ and $\lambda . D_y$ from Table XXI. of the First Report.)

Age (y)	$\lambda . N_y$ $\lambda . D_y$	$\lambda . N_y - \lambda . D_y$	$\frac{N_y}{D_y} = a_y$ $\frac{1 + A'_y}{4}$	$A'_y =$ $\cdot 9615 - \frac{1}{13} a_y$	$a_y + \frac{1 + A'_y}{4}$ $\frac{(a_y + \frac{1 + A'_y}{4}) + (a_{y+1} + \frac{1 + A'_y}{4})}{2} \; {}^{u}a_y$	Age (y)
19	5·22226 4·18510	1·03716	10·893 ·281	·124	11·174 11·159	19
20	·18401 ·14810	·03591	10·862 ·282	·126	11·144 11·129	20
21	·14566 ·11100	·03466	10·831 ·282	·129	11·113 11·098	21
22	·10719 ·07382	·03337	10·799 ·283	·131	11·082 11·066	22
23	·06862 4·03656	·03206	10·766 ·284	·134	11·050 11·033	23
24	5·02993 3·99923	·03070	10·732 ·284	·136	11·016 11·000	24
25	4·99112 ·96179	·02933	10·699 ·285	·139	10·984 10·967	25
26	·95220 ·92427	·02793	10·664 ·286	·142	10·950 10·933	26
27	·91315 ·88667	·02648	10·629 ·286	·144	10·915 10·897	27
28	·87397 ·84898	·02499	10·592 ·287	·147	10·879 10·861	28
29	·83465 ·81120	·02345	10·555 ·288	·150	10·843 10·824	29
30	·79520 ·77335	·02185	10·516 ·288	·153	10·804 10·785	30
31	·75561 ·73540	·02021	10·476 ·289	·156	10·765 10·745	31
32	·71587 ·69738	·01849	10·435 ·290	·159	10·725 10·704	32
33	·67596 ·65927	·01669	10·392 ·291	·163	10·683 10·661	33
34	·63590 ·62109	·01481	10·347 ·292	·166	10·639 10·616	34
35	·59565 ·58284	·01281	10·299 ·293	·170	10·592 10·568	35
36	·55523 ·54451	·01072	10·250 ·294	·174	10·544 10·518	36
37	·51460 ·50611	·00849	10·197 ·295	·178	10·492 10·465	37
38	·47376 ·46765	·00611	10·142 ·296	·182	10·438 10·409	38
39	·43268 ·42913	·00355	10·082 ·297	·186	10·379 10·348	39
40	·39137 ·39055	1·00082	10·019 ·298	·191	10·317 10·284	40
41	·34978 ·35191	0·99787	9·951 ·299	·196	10·250 10·215	41
42	·30790 ·31319	·99471	9·879 ·301	·202	10·180 10·143	42
43	·26572 ·27438	·99134	9·803 ·302	·208	10·105 10·066	43
44	·22319 ·23548	·98775	9·722 ·304	·214	10·026 9·983	44
45	·18030 ·19648	·98382	9·634 ·305	·221	9·939 9·895	45
46	4·13702 3·15734	0·97968	9·543 ·307	·228	9·850 9·803	46

Table 4.—(*continued.*)

Age (y)	$\lambda.N_y$ $\lambda.D_y$	$\lambda.N_y-\lambda.D_y$	$\frac{N_y}{D_y}=a_y$ $\frac{1+A'_y}{4}$	$A'_y=$ $\cdot 9615-\frac{1}{13}a_y$	$a_y+\frac{1+A'_y}{4}$ $\frac{\left(a_y+\frac{1+A'_y}{4}\right)+\left(a_{y+1}+\frac{1+A'_y}{4}\right)}{2}={}^{w}a_y$	Age (y)
47	4·09332 3·11807	0·97525	9·446 ·309	·235	9·755 9·705	47
48	·04917 ·07864	·97053	9·344 ·311	·243	9·655 9·613	48
49	4·00452 3·03905	·96647	9·257 ·313	·250	9·570 9·504	49
50	3·95934 2·99926	·96008	9·122 ·315	·260	9·437 9·379	50
51	·91359 ·95926	·95433	9·002 ·318	·270	9·320 9·258	51
52	·86723 ·91902	·94821	8·876 ·320	·279	9·196 9·131	52
53	·82020 ·87851	·94169	8·744 ·322	·289	9·066 8·998	53
54	·77245 ·83769	·93476	8·605 ·325	·300	8·930 8·860	54
55	·72394 ·79652	·92742	8·461 ·328	·311	8·789 8·716	55
56	·67460 ·75491	·91969	8·312 ·331	·323	8·643 8·568	56
57	·62438 ·71279	·91159	8·158 ·334	·334	8·492 8·415	57
58	·57323 ·67015	·90308	8·000 ·337	·347	8·337 8·256	58
59	·52106 ·62700	·89406	7·835 ·340	·359	8·175 8·092	59
60	·46781 ·58326	·88455	7·666 ·343	·372	8·009 7·923	60
61	·41338 ·53893	·87445	7·489 ·347	·386	7·836 7·747	61
62	·35767 ·49396	·86371	7·307 ·350	·400	7·657 7·565	62
63	·30059 ·44821	·85238	7·118 ·354	·414	7·472 7·378	63
64	·24202 ·40152	·84050	6·926 ·357	·429	7·283 7·187	64
65	·18185 ·35383	·82802	6·730 ·361	·444	7·091 6·994	65
66	·11998 ·30497	·81501	6·531 ·365	·460	6·896 6·798	66
67	3·05628 ·25489	·80139	6·330 ·369	·475	6·699 6·599	67
68	2·99061 ·20345	·78716	6·126 ·373	·491	6·499 6·398	68
69	·92282 ·15056	·77226	5·919 ·377	·507	6·296 6·194	69
70	·85274 ·09603	·75671	5·711 ·381	·523	6·092 5·989	70
71	·78021 2·03975	·74046	5·501 ·385	·539	5·886 5·783	71
72	·70503 1·98147	·72356	5·291 ·389	·555	5·680 5·577	72
73	·62700 ·92107	·70593	5·081 ·393	·571	5·474 5·371	73
74	·54591 ·85826	·68765	4·870 ·397	·587	5·267 5·166	74
75	2·46152 1·79290	0·66862	4·663 ·401	·603	5·065	75

(18.) From Table (3) it will be seen that the value of a pension payable during widowhood is, at the earlier ages, very much less than that according to Table XXIX. of the Report. The following gives a comparative view of the two classes of results:—

Abstract (d).

Present value of an annuity of £1, or of one rupee per annum, payable by half-yearly instalments up to date of death or during widowhood.

Age.	Value according to Table XXIX. of Report.	Value according to Table (3) preceding.
25	8·460	7·489
30	8·896	8·103
35	9·360	8·816
40	9·497	9·134
45	9·196	8·865
50	8·783	8·491
55	8·475	8·357
60	7·913	7·908

(19.) If, however, a proposal to allow a widow to draw one-half the amount of her pension after re-marriage was carried into practice, the correct value of it would be then one-half of the value in the preceding Abstract payable during widowhood only, *plus* the other half payable not only during widowhood but also after re-marriage, or, in other words, during the " whole of life." The value of the second half of the annuity payable for the " whole of life " may be readily determined from Table XXI. of the Report, in the same manner in which the values in Table (3) preceding were derived from Table (2). This has accordingly been done in Table (4).

(20.) If the mean of the results of this Table and of Table (3) be now taken, we shall find the value of annuities payable to widows on the plan of continuing the payment of one-half the amount after re-marriage. The following Abstract gives a succinct view of such values, compared with those already presented:—

Abstract (e).

	Value of Annuities of £1 or One Rupee.				
	Table (3). Table (4).	Sum of Values.	One-Half during Widowhood, the other Half for " Whole of Life."	Table XXIX. of the Report.	Table (3) preceding.
25	7·489 10·967	18·456	9·228	8·460	7·489
30	8·103 10·785	18·888	9·444	8·896	8·103
35	8·816 10·568	19·384	9·692	9·360	8·816
40	9·134 10·284	19·318	9·659	9·497	9·134
45	8·865 9·895	18·760	9·380	9·196	8·865
50	8·491 9·379	17·870	8·935	8·783	8·491
55	8·357 8·716	17·073	8·536	8·475	8·357
60	7·908 7·923	15·831	7·915	7·913	7·908

Table 5.

Total Present Value of Incumbent Widows' Pensions under the proposed Regulation.

$\frac{^wa_y + a_{y+1}}{2}$ = Mean of Values in Red Figures in Column 6 of Tables **3** and **4**.

Age.	Consecutive Number in Schedule 4. *	Number of Widows on the 1st May, 1855.	Amount of Pension Payable = (1) $\frac{^wa_y + ^wa_{y+1}}{2} = 2$	λ.(1) λ.(2)	λ.(1) + λ.(2) = λ.(3)	(3) = Total Present Value of Widows' Pensions.
			Rs.			*Rs.*
26	40, 55, 58	3	4334 9·304	3·63689 0·96867	4·60556	40323·67
29	53	1	1400 9·397	3·14613 0·97299	4·11912	13155·68
31	17	1	1400 9·497	3·14613 0·97759	4·12372	13205·97
32	22, 48	2	1750 9·551	3·24304 0·98005	4·22309	16714·37
33	43	1	2000 9·605	3·30103 0·98250	4·28353	19210·12
36	46	1	1400 9·722	3·14613 0·98776	4·13389	13611·00
37	20, 47	2	2934 9·739	3·46746 0·98851	4·45597	28573·93
38	31, 34	2	2700 9·744	3·43136 0·98874	4·42010	26308·74
40	45	1	1400 9·709	3·14613 0·98717	4·13330	13592·52
41	36	1	1333 9·665	3·12483 0·98520	4·11003	12883·39
42	42, 46, 38	3	5400 9·610	3·73239 0·98272	4·71511	51893·15
43	5, 15, 35, 50, 51, 52	6	9806 9·543	3·99149 0·97968	4·97117	93577·19
44	3	1	2000 9·466	3·30103 0·97617	4·27720	18932·15
45	8, 10, 31	3	4800 9·380	3·68124 0·97220	4·65344	45023·58
46	11, 18, 45	3	6000 9·290	3·77815 0·96802	4·74617	55740·39
47	17, 56, 57	3	6800 9·196	3·83251 0·96360	4·79611	62533·11
48	37	1	1000 9·108	3·00000 0·95942	3·95942	9107·94
49	16, 37	2	3400 9·020	3·53148 0·95521	4·48669	30668·32
50	29, 44	2	4000 8·935	3·60206 0·95109	4·55315	35739·63
51	12, 39, 47	3	5400 8·860	3·73239 0·94743	4·67982	47843·18
52	39	1	2000 8·785	3·30103 0·94374	4·24477	17569·93
53	41, 40, 42, 49	4	5400 8·706	3·73239 0·93982	4·67221	47012·14
54	9, 21, 23, 30	4	9400 8·623	3·97313 0·93566	4·90879	81056·90
55	49	1	2000 8·537	3·30103 0·93131	4·23234	17074·19
56	38	1	2000 8·444	3·30103 0·92655	4·22758	16888·07
57	32	1	1400 8·339	3·14613 0·92111	4·06724	11674·55
58	44, 26	2	4000 8·215	3·60206 0·91461	4·51667	32860·18
61	42, 19	2	3426 7·746	3·53479 0·88908	4·42387	26538·11
62	54	1	2000 7·565	3·30103 0·87881	4·17984	15130·04
63	30	1	1550 7·378	3·19033 0·86794	4·05827	11435·89
64	16, 17	2	2885 7·187	3·46015 0·85655	4·31670	20734·81
65	13, 6, 9	3	5374 6·994	3·73020 0·84473	4·57493	37577·68
66	13	1	2226 6·798	3·34753 0·83238	4·17991	15132·48
67	33, 22, 41	3	6000 6·599	3·77815 0·81948	4·59763	39594·06
71	35	1	2000 5·783	3·30103 0·76215	4·06318	11565·92
72	14	1	2156 5·577	3·33365 0·74640	4·08005	12024·03
	TOTAL, . . .	72	*Rs.*1,23,074			*Rs.*10,62,597·21

* NOTE.—Those inserted in *red* figures were admitted as Widows prior to 1839; and
Those „ *black* „ „ „ between 1839 and 1855.

Table 6.

Ages.		$\lambda . \delta_{x-1} = (1)$	$(1) + (2) = (3)$	$(3) + (4) = (5)$	$(5) + (6) + \lambda . v^{\frac{1}{2}}$ $= \lambda . \mathrm{H}$	H	K	λ. K
y	x	$\lambda . l_{y-1} = (2)$	$\lambda . {}^{w}a_{y} = (4)$	$\lambda . v^{\frac{1}{2}(x+y)-1} = (6)$				
20	28	3·28035 3·33244	6·61279 0·81311	7·42590 9·23125	6·64012	4366365·	46554486·	7·66796
21	29	·27531 ·32797	·60328 ·82730	·43058 ·19784	·61139	4086862·	42467624·	·62806
22	30	·27045 ·32346	·59391 ·84098	·43489 ·16441	·58227	3821818·	38645806·	·58711
23	31	·26623 ·31890	·58513 ·85388	·43901 ·13098	·55296	3572399·	35073407·	·54498
24	32	·26198 ·31429	·57627 ·86516	·44143 ·09756	·52196	3326289·	31747118·	·50170
25	33	·25672 ·30963	·56635 ·87442	·44077 ·06413	·48787	3075176·	28671942·	·45746
26	34	·25018 ·30492	·55510 ·88218	·43728 9·03071	·45096	2824620·	25847322·	·41241
27	35	·24279 ·30016	·54295 ·88891	·43186 8·99729	·41212	2582974·	23264348·	·36669
28	36	·23401 ·29535	·52936 ·89504	·42440 ·96386	·37123	2350878·	·20913470	·32042
29	37	·22453 ·29048	·51501 ·90146	·41647 ·93044	·32988	2137371·	18776099·	·27360
30	38	·21458 ·28511	·49969 ·90865	·40834 ·89702	·28833	1942361·	16833738·	·22618
31	39	·20466 ·27944	.48410 ·91035	·40045 ·86359	·24701	1766078·	15067660·	·17805
32	40	·19451 ·27370	·46821 ·92418	·39239 ·83017	·20553	1605203·	13462457·	·12911
33	41	·18412 ·26764	·45176 ·93186	·38362 ·79674	·16333	1456565·	12005892·	·07940
34	42	·17348 ·26102	·43450 ·93879	·37347 ·76332	·11976	1317528·	10688364·	7·02890
35	43	·16316 ·25455	·41771 ·94527	·36298 ·72990	·07585	1190831·	9497533·1	6·97761
36	44	·15320 ·24773	·40093 ·95061	·35154 ·69647	6·03098	1073940·	8423593·1	·92550
37	45	·14333 ·24080	·38413 ·95487	·33900 ·66305	5·98502	966095·4	7457497·7	·87259
38	46	·13386 ·23325	·36711 ·95804	·32515 ·62963	·93775	866463·0	6591034·7	·81895
39	47	·12450 ·22583	·35033 ·96009	·31042 ·59620	·88959	775514·6	5815520·1	·76459
40	48	·11261 ·21801	·33062 ·96066	·29128 ·56278	·83703	687115·9	5128404·2	·70998
41	49	·09795 ·21005	·30800 ·95976	·26776 ·52935	·78008	602670·6	4525733·6	·65568
42	50	·08063 ·21040	·29103 ·95789	·24892 ·49593	·72782	534342·8	3991390·8	·60112
43	51	·06070 ·19257	·25327 ·95521	·20848 ·46251	·65396	450775·2	3540615·6	·54908
44	52	·03822 ·18327	·22149 ·95177	·17326 ·42908	·58531	384866·4	3155749·2	·49910
45	53	·02036 ·17406	·19442 ·94768	·14210 ·39566	·52073	331688·2	2824061·0	·45088
46	54	3·00775 3·16406	6·17181 0·94330	7·11511 8·36224	5·46032	288615·7	2535445·3	6·40405

Table **6.**—*(continued).*

Ages.		$\lambda . \delta_{x-1}$ = (1)	(1) + (2) = (3)	(3) + (4) = (5)	(5) + (6) + $\lambda . v^{\frac{1}{2}}$ = λ.H	H	K	λ.K
y	x	$\lambda . l_{y-1}$ = (2)	$\lambda . {}^{w}a_{y}$ = (4)	$\lambda . v^{\frac{1}{2}(x+y)-1}$ = (6)				
47	55	2·99957 3·15381	6·15338 0·93887	7·09225 8·32881	5·40403	253530·4	2281914·9	6·35830
48	56	·99651 ·14333	·13984 ·93460	·07444 ·29539	·35280	225320·1	2056594·8	·31315
49	57	2·99739 ·13258	·12997 ·93120	·06117 ·26196	·30610	202348·5	1854246·3	·26816
50	58	3·00303 ·12123	·12426 ·92896	·05322 ·22854	·26473	183962·8	1670283·5	·22280
51	59	·01284 ·10992	·12276 ·92747	·05023 ·19512	·22832	169168·7	1501114·8	·17641
52	60	·02572 ·09760	·12332 ·92624	·04956 ·16169	·19422	156394·0	1344720·8	·12862
53	61	·04139 ·08493	·12632 ·92495	·05127 ·12827	·16251	145381·8	1199339·0	·07893
54	62	·05843 ·07188	·13031 ·92355	·05386 ·09485	·13168	135419·1	1063919·9	6·02690
55	63	·07445 ·05843	·13288 ·92205	·05493 ·06142	·09932	125695·6	938224·29	5·97231
56	64	·08955 ·04454	·13409 ·92012	·05421 8·02800	·06518	116193·0	822031·29	·91489
57	65	·10312 ·03019	·13331 ·91714	·05045 7·99457	5·02799	106657·2	715374·09	·85453
58	66	·11494 ·01536	·13030 ·91238	·04268 ·96115	4·98680	97006·31	618367·78	·79125
59	67	·12516 3·00000	·12516 ·90590	·03106 ·92773	·94176	87450·04	530917·74	·72503
60	68	·13513 2·98408	·11921 ·89807	·01728 ·89430	·89455	78442·24	452475·50	5·65560
61	69	·14395 ·96755	·11150 ·88897	7·00047 ·86088	·84432	69874·71	382600·79	·58274
62	70	·15137 ·95036	·10173 ·87881	6·98054 ·82746	·79097	61797·37	320803·42	·50623
63	71	·15685 ·93247	·08932 ·86794	·95726 ·79403	·73426	54232·55	266570·87	·42581
64	72	·15987 ·91381	·07368 ·85655	·93023 ·76061	·67381	47185·66	219385·21	·34122
65	73	·16137 ·89432	·05569 ·84473	·90042 ·72718	·61057	40791·53	178593·68	·25186
66	74	·16047 ·87390	·03437 ·83238	·86675 ·69376	·54348	34952·64	143641·04	·15727
67	75	·15685 ·85248	6·00933 ·81948	·82881 ·66034	·47212	29656·51	113984·53	5·05682
68	76	·14953 ·82995	5·97948 ·80604	·78552 ·62691	·39540	24854·21	89130·320	4·95002
69	77	·13830 ·80618	·94448 ·79197	·73645 ·59349	·31291	20554·65	68575·670	·83617
70	78	·12189 ·78032	·90221 ·77735	·67956 ·56007	·22260	16695·52	51880·150	·71500
71	79	·10037 ·75358	·85395 ·76223	·61618 ·52664	·12579	13359·49	38520·660	·58570
72	80	·07298 ·72346	·79644 ·74648	·54292 ·49322	4·01911	10449·85	28070·810	·44826
73	81	3·03981 2·69285	5·73266 0·73014	6·46280 7·45979	3·90556	8045·629	20025·181	4·30157

Table 6.—(*continued.*)

Ages.		$\lambda.\delta_{x-1} = (1)$	$(1) + (2) = (3)$	$(3) + (4) = (5)$	$(5) + (6) + \lambda.v^{\frac{1}{2}} = \lambda.\text{H}$	H	K	$\lambda.\text{K}$
s	x	$\lambda.l_{y-1} = (2)$	$\lambda.{}^{w}a_{y} = (4)$	$\lambda.v^{\frac{1}{2}(x+y)-1} = (6)$				
74	82	3·00043 2·65801	5·65844 0·71324	6·37168 7·42637	3·78102	6039·764	13985·417	4·14567
75	83	2·95424 ·62221	·57645 ·69574	·27219 ·39295	·64811	4447·439	9537·978	3·97946
76	84	·90091 ·58320	·48411 ·67779	·16190 ·35952	·50439	3194·405	6343·573	·80233
77	85	·84011 ·54158	·38169 ·65935	6·04104 ·32610	·35011	2239·288	4104·285	·61324
78	86	·77159 ·49554	·26713 ·64038	5·90751 ·29268	·18316	1524·614	2579·671	·41157
79	87	·69461 ·44560	5·14021 ·62118	·76139 ·25925	3·00361	1008·347	1571·324	3·19626
80	88	·60638 ·39270	4·99908 ·60152	·60060 ·22583	2·80940	644·7628	926·5610	2·96687
81	89	·50920 ·33445	·84365 ·58149	·42514 ·19240	·60051	398·5749	527·9861	·72262
82	90	·40140 ·27184	·67324 ·56122	·23446 ·15898	·37641*	237·9085	290·0776	·46252
83	91	·28556 ·19866	·48422 ·54058	5·02480 ·12556	2·13333	135·9346	154·1430	2·18791
84	92	·15534 ·12385	·27919 ·51957	4·79876 ·09213	1·87386	74·79284	79·35019	1·89955
85	93	2·03342 2·03342	4·06684 ·49803	·56487 ·05871	·60655	40·41569	38·93450	·59034
86	94	1·90309 1·93952	3·84261 ·47654	·31915 7·02529	·32741	21·25250	17·68200	1·24753
87	95	·75587 ·83885	·59472 ·45484	4·04956 6·99186	1·02439	10·57767	7·104328	0·85152
88	96	·56820 ·72428	3·29248 ·43329	3·72577 ·95844	0·66718	4·647078	2·457250	0·39046
89	97	·32222 ·60206	2·92428 ·41196	3·33624 ·92501	0·24422	1·754769	·7024807	9·84664
90	98	1·00000 ·49136	2·49136 ·39111	2·88247 ·89159	9·75703	·5715181	·1309626	9·11714
91	99	0·47712 ·34242	1·81954 ·37070	2·19024 ·85817	9·03138	·1074930	·0234696	8·37051
92	100	9·94939 ·23045	1·17984 ·35064	1·53048 ·82474	8·33819	·0217866	·0016830	7·22608
93	101	9·04139 1·07918	0·12057 0·33122	0·45179 6·79132	7·22608	·0016830	·0000000	...

(21.) The differences between the figures in the fourth and fifth columns of Abstract (*e*) preceding will shew the increase in the values of widows' annuities which results from carrying into practice the proposed regulation, and in Table (5), page 237 *ante*, will be found a re-calculation of the values in Table XXX. of the Report on this principle, and, therefore, shewing the present value of the pensions to all the incumbent widows on the Fund on the 1st of May, 1855, on the hypothesis that in the event of re-marriage each will be permitted to continue in the enjoyment of one-half of her present pension.

(22.) From this Table it appears that the total value of the incumbent pensions is

Rs. 10,62,597·21, but according to Table XXX. of the Report the total value was *Rs.* 10,43,047·08, being a difference of *Rs.* 19,550·13, or an increase consequent on carrying out such a regulation as that under consideration of 1·874 per cent., considerably under 2 per cent. The increase occasioned in the incumbent liabilities of widows is thus shewn, and it is therefore next necessary to determine in what manner such a regulation will affect the value of the contingent pensions.

(23.) For this purpose Table (6) has been prepared. It is constructed on precisely the same principle as Tables XXVII. and XXVIII. of the Report, and for which the formulæ are therein given and fully explained, the only difference now being, that the value of the symbol ${}^{w}a_y$ is taken from Table (3) preceding instead of from Table XXIX. of the Report. The average disparity of age between the present members and their wives is shewn in the Report to 8·576 years. Table (6) has therefore been constructed for Disparity Eight Years, and the results will represent the average case of all the members, and shew how the proposed regulation will affect the value of the contingent pensions generally.

(24.) From Table (6) the value of contingent pensions are easily found, and they are calculated for all ages from 20 to 50 for the wife and from 28 to 58 for the husband in Table (7) following.

(25.) The corresponding values according to the Tables in the Report, the results of which are deduced from Table XXVIII., Disparity Eight Years, are given in Table (8) following. The figures in Table (8) will, of course, give the values of pensions according to the ratio of re-marriages on which the Tables in the Report are constructed, and a comparison with the figures in Table (7) will shew the effect which the presumed difference in the ratio of re-marriages under the proposed regulation would have on the value of contingent pensions.

Abstract (f.)

Values of Contingent Pensions to Wives of Members, according to the ratio of Re-marriages assumed in the Report, and that which it is held would prevail under the proposed Regulation.

Ages.	According to the Report and Table (8.)	According to proposed Regulations and Table (7.)	Decrease of Value in Table (7.) per cent.
20 to 28	*Rs.* 3829·30	*Rs.* 3503·40	8·51 per cent.
25 ... 33	4053·60	3785·74	6·61 ,,
30 ... 38	4141·72	3943·48	4·78 ,,
35 ... 43	4170·90	4016·16	3·71 ,,
40 ... 48	4114·90	3977·68	3·38 ,,
45 ... 53	4204·66	4072·12	3·15 ,,
50 ... 58	4674·60	4562·78	2·39 ,,

(26.) It hence appears that the increased ratio of marriages presumed to take place consequent on carrying out the proposed Regulation has the effect of reducing the value of contingent pensions from about 8½ per cent. to about 2½ per cent., varying with age, the difference being of course greatest at the younger ages. The values in the preceding examples do not, however, provide for the continuance of one-half the pension after re-marriage. It will be,

Table 7.

$\lambda.K_{x,y}$ from Table 6.
$\lambda.D_{x,y}$ and $\lambda.N_{x,y}$ from Table XXV. of the Report.

Ages.		$\lambda.K_{x,y}$	$\lambda.K_{x,y}-\lambda.D_{x,y}$	$\frac{K_{x,y}}{D_{x,y}}=$ Present Value of Wife's Contingent Pension of £1 or One Rupee.	Present Value of Wife's Contingent Pension of *Rs.* 2000.	$\lambda.N_{x,y}$	$\lambda.N_{x,y}-\lambda.D_{x,y}$	$\frac{N_{x,y}}{D_{x,y}}=$ Present Value of an Annuity of £1, or One Rupee, on the Joint Lives of Husband and Wife.
Wife (y)	Husband (x)	$\lambda.D_{x,y}$				$\lambda.D_{x,y}$		
20	28	7·66796 7·42450	0·24346	1·75170	3503·40	8·33425 7·42450	0·90975	8·12363
21	29	·62806 ·37607	·25199	1·78645	3572·90	·28357 ·37607	·90750	8·08165
22	30	·58711 ·32746	·25965	1·81824	3626·48	·23267 ·32746	·90521	8·03915
23	31	·54498 ·27864	·26634	1·84646	3692·92	·18147 ·27864	·90283	7·99521
24	32	·50170 ·22959	·27211	1·87116	3742·32	·13004 ·22959	·90045	7·95152
25	33	·45746 ·18034	·27712	1·89287	3785·74	·07831 ·18034	·89797	7·90624
26	34	·41241 ·13094	·28147	1·91192	3823·84	8·02629 ·13094	·89535	7·85869
27	35	·36669 ·08138	·28531	1·92890	3857·80	7·97396 ·08138	·89258	7·80872
28	36	·32042 7·03170	·28872	1·94411	3888·22	·92129 7·03170	·88959	7·75515
29	37	·27360 6·98166	·29194	1·95857	3917·14	·86827 6·98166	·88661	7·70212
30	38	·22618 ·93133	·29485	1·97174	3943·48	·81491 ·93133	·88358	7·64857
31	39	·17805 ·88064	·29741	1·98340	3966·80	·76119 ·88064	88055	7·59539
32	40	·12911 ·82961	·29950	1·99297	3985·94	·70712 ·82961	·87751	7·54241
33	41	·07940 ·77823	·30117	2·00065	4001·30	·65269 ·77823	·87446	7·48962
34	42	7·02890 ·72671	·30219	2·00535	4010·70	·59787 ·72671	·87116	7·43293
35	43	6·97761 ·67483	·30278	2·00808	4016·16	·54265 ·67483	·86782	7·37599
36	44	·92550 62280	·30270	2·00771	4015·42	·48701 ·62280	·86421	7·31493
37	45	·87259 ·57035	·30224	2·00585	4011·16	·43091 ·57035	·86056	7·25371
38	46	·81895 ·51771	·30124	2·00097	4001·94	·37436 ·51771	·85665	7·18869
39	47	·76459 ·46461	·29998	1·99517	3990·34	·31731 ·46461	·85270	7·12361
40	48	·70998 ·41138	·29860	1·98884	3977·68	·25971 ·41138	·84833	7·05229
41	49	·65568 ·35781	·29787	1·98550	3971·00	·20156 ·35781	·84375	6·97831
42	50	·60112 ·30394	·29718	1·98235	3964·70	·14276 ·30394	·83882	6·89954
43	51	·54908 ·25012	·29896	1·99049	3980·98	·08329 ·25012	·83317	6·81036
44	52	·49910 ·19613	·30297	2·00895	4017·90	7·02296 ·19613	·82683	6·71166
45	53	·45088 ·14209	·30879	2·03606	4072·12	6·96169 ·14209	·81960	6·60085
46	54	·40405 ·08757	·31648	2·07243	4144·86	·89940 ·08757	·81183	6·48381
47	55	·35830 6·03274	·32556	2·11622	4232·44	·83594 6·03274	·80320	6·35624
48	56	·31315 5·97746	·33569	2·16616	4332·32	·77119 5·97746	·79373	6·21914
49	57	·26816 ·92156	·34660	2·22126	4442·52	·70500 ·92156	·78344	6·07351
50	58	6·22280 5·86460	0·35820	2·28139	4562·78	6·63726 5·86460	0·77266	5·92461

Table 8.

Ages.		$\lambda . K_{x,y}$	$\lambda . K_{x,y} - \lambda . D_{x,y}$	$\frac{K_{x,y}}{D_{x,y}} =$ Present Value of Wife's Contingent Pension of £1 or One Rupee.	Present Value of Wife's Contingent Pension of *Rs.* 2000.
Wife (y)	Husband (x)	$\lambda . D_{x,y}$			
20	28	7·70659 7·42450	0·28209	1·91465	3829·30
21	29	·66468 ·37607	·28861	1·94361	3887·22
22	30	·62186 ·32746	·29440	1·96970	3939·40
23	31	·57802 ·27864	·29938	1·99242	3984·84
24	32	·53309 ·22959	·30350	2·01141	4022·82
25	33	·48715 ·18034	·30681	2·02680	4053·60
26	34	·44041 ·13094	·30947	2·03925	4078·50
27	35	·39294 ·08138	·31156	2·04909	4098·18
28	36	·34492 7·03170	·31328	2·05722	4114·44
29	37	·29642 6·98166	·31476	2·06424	4128·48
30	38	·24748 ·93133	·31615	2·07086	4141·72
31	39	·19800 ·88064	·31736	2·07663	4153·26
32	40	·14792 ·82961	·31831	2·08118	4162·36
33	41	·09722 ·77823	·31899	2·08444	4168·88
34	42	7·04599 ·72671	·31928	2·08584	4171·68
35	43	6·99404 ·67483	·31921	2·08550	4171·00
36	44	·94145 ·62280	·31865	2·08281	4165·62
37	45	·88815 ·57035	·31780	2·07874	4157·48
38	46	·83420 ·51771	·31649	2·07248	4144·96
39	47	·77958 ·46461	·31497	2·06524	4130·48
40	48	·72471 ·41138	·31333	2·05745	4114·90
41	49	·67009 ·35781	·31228	2·05249	4104·98
42	50	·61631 ·30394	·31237	2·05291	4105·82
43	51	·56393 ·25012	·31381	2·05973	4119·46
44	52	·51354 ·19613	·31741	2·07687	4153·74
45	53	·46479 ·14209	·32270	2·10233	4204·66
46	54	·41736 ·08757	·32979	2·13693	4273·86
47	55	·37092 6·03274	·33818	2·17861	4357·22
48	56	·32506 5·97746	·34760	2·22638	4452·76
49	57	·27942 ·92156	·35786	2·27961	4559·22
50	58	6·23350 5·86460	0·36890	2·33830	4676·60

therefore, necessary to determine the value of contingent pensions under a similar arrangement to that in the case of incumbent pensions. It will obviously consist of two portions. One being the value of a reversionary annuity of *Rs.* 1000 payable to the wife in the event of outliving the husband, and payable up to the date of her own death; the other a similar reversionary annuity of *Rs.* 1000, to commence at the husband's death, but to cease in the event of her re-marriage. The value of the latter moiety of this pension is evidently one-half of that given in column (6) in Table (7), and the value of the former moiety may be derived from the expression

$$a_y - a_{x,\,y}$$

In which a_y represents the value of an annuity on the life of the wife, and $a_{x,\,y}$ the value of an annuity on the joint lives of husband and wife. The value of annuities on the joint lives for

Table 9.

Age (y)	D_y	N_y	Age (y)	D_y	N_y
20	458·92	4798·46	59	10·474	74·5394
21	420·55	4377·90	60	9·3425	65·1969
22	385·36	3992·54	61	8·3213	56·7856
23	353·06	3639·48	62	7·4002	49·4754
24	323·44	3316·04	63	6·5697	42·9057
25	296·27	3019·77	64	5·8218	37·0839
26	271·35	2748·42	65	5·1485	31·9354
27	248·50	2499·92	66	4·5432	27·3922
28	227·54	2272·38	67	3·9992	23·3930
29	208·22	2064·16	68	3·5108	19·8822
30	190·41	1873·75	69	3·0729	16·8093
31	174·00	1699·75	70	2·6790	14·1333
32	158·90	1540·85	71	2·3211	11·8122
33	145·00	1395·85	72	2·0040	9·8082
34	132·28	1263·57	73	1·7212	8·0870
35	120·59	1142·98	74	1·4693	6·6177
36	109·91	1033·07	75	1·2484	5·3693
37	100·08	932·993	76	1·0522	4·31714
38	91·113	841·880	77	·88080	3·43634
39	82·872	759·008	78	·73154	2·70480
40	75·352	683·656	79	·60184	2·10296
41	68·450	615·206	80	·48947	1·61349
42	62·117	553·089	81	·39434	1·21915
43	56·346	496·743	82	·31245	·90670
44	51·056	445·687	83	·24389	·66281
45	46·240	399·447	84	·18689	·47592
46	41·828	357·619	85	·13988	·33604
47	37·817	319·802	86	·10281	·233227
48	34·170	285·632	87	·074198	·159047
49	30·856	254·776	88	·052658	·106391
50	27·824	226·952	89	·037098	·069293
51	25·072	201·880	90	·025517	·043776
52	22·557	179·323	91	·017262	·026514
53	20·277	159·046	92	·011777	·014737
54	18·210	140·836	93	·007789	·006948
55	16·339	124·497	94	·004327	·002621
56	14·645	109·852	95	·002003	·000618
57	13·112	96·740	96	·000618	·000000
58	11·727	85·013			

[all combinations

all combinations of ages may be easily determined from Table XXV. of the Report, but they will be found calculated for disparity eight years in Table (7) preceding. By means of Table (9) which has been deduced from Table XII. of the Report in precisely the same manner in which Table XXI. of that Report has been deduced from Table XIX., and in which Table (2) preceding has been constructed from Table (1), the value of a_y may be found.

(27.) It is, however, necessary here to explain that the value of the symbol a_y, which represents an annuity on the life of the wife, in the expression $a_y - a_{x,y}$, although it is under ordinary circumstances correctly applied in finding the value of a reversionary annuity, yet in the present instance it would not be so. On referring to the Report itself it will be seen that the rate of mortality in Table XII. applies to members' wives up to the time they may become widows only, and that during widowhood they are supposed to be subject to the reduced rate of mortality in Table XIX. It therefore follows that the symbol a_y should be made to depend partly on the one Table and partly on the other. In the following illustration a_y has therefore been taken as the mean of the values deduced from Table XIX. of the Report and Table (9) preceding, and at nearly all ages this will be sufficiently correct for the purpose of the practical illustrations given in the next Abstract. The value of a_y deduced from Tables XIX. and XXI. will be found in Table (4) preceding.

(28.) In the next Abstract the value of that moiety of the contingent pension which is not affected by re-marriage will be found determined.

Abstract (g.)

Ages.		In Tables (9) and (4). $\frac{N_y}{D_y} = a_y$ In Table (7). $\frac{N_{x,y}}{D_{x,y}} = a_{x,y}$	$a_y - a_{x,y}$	Value of Contingent Pension of *Rs.* 1000 which is not affected by re-marriage.
Wife (y)	Husband (x)			
20	28	10·659 8·124	2·535	*Rs.* 2535
25	33	10·446 7·906	2·540	2540
30	38	10·178 7·649	2·529	2529
35	43	9·888 7·376	2·512	2512
40	48	9·546 7·052	2·494	2494
45	53	9·136 6·601	2·535	2535
50	58	8·639 5·925	2·714	2714

(29.) If to the figures in the last column of this Abstract be added one-half the values in Table (7), column (6), or one-half the values in column (3) of Abstract (*f*), the result will shew the full value of contingent pensions according to the terms of the proposed Regulation now under consideration. This will be found done in the following Abstract. In a parallel column will be found the corresponding values under existing regulations, and in the last column the ratio of increase in the contingent liabilities which would arise from the adoption of the proposed Regulation.

Abstract (h.)

Ages.		Value from	Total Value of Pensions under the proposed Regulation.	Value of Pension under existing Regulations. Abstract (*f*)	Excess or difference per cent.
Wife.	Husband.	Abstract (*g*), col. (3). Abstract (*f*), col. (3)			
20	28	*Rs.* 2535 *Rs.* 1751·70	*Rs.* 4286·70	*Rs.* 3829·30	11·94 per cent.
25	33	2540 1892·87	4432·87	4053·60	9·36 „
30	38	2529 1971·74	4500·74	4141·72	8·67 „
35	43	2512 2008·08	4520·08	4171·00	8·37 „
40	48	2494 1988·84	4482·84	4114·90	8·94 „
45	53	2535 2036·06	4571·06	4204·66	8·71 „
50	58	2714 2281·39	4995·39	4676·60	6·82 „

(30.) From the figures in the last column of this Abstract, it appears that the values of the contingent pensions would be increased by the proposed Regulation from about 7 to nearly 12 per cent., the increase varying with age. In the latter portion of the Report, page 214 *ante*, it will be found that on the 1st May, 1855, the average age of the married members was 45·394 years, and that of their wives 36·818. Let, therefore, the case of a member aged 45, and his wife aged 37, be taken as a type of the whole, and the difference between the values of the contingent pension, according to the proposed and the existing Regulations, will be found to be

$$4510{\cdot}58 - 4157{\cdot}48 = 353{\cdot}10, \text{ or about } 8\tfrac{1}{2} \text{ per cent.}$$

Hence if the estimate of the value of contingent pensions to wives, as given in Abstract Q of the Report, be increased 8½ per cent., the full extent of the increased liabilities on account of the wives' contingent pensions will be seen.

(31.) According to Abstract Q of the Report, the " Present Value" of these pensions was *Rs.* 6,19,677·2 and therefore the increased value will be

(6,19,677·2 × 1·085) = *Rs.* 6,72,349·76

But it has been shewn that the effect of introducing the proposed Regulation will increase the value of Incumbent Pensions to Widows from *Rs.* 10,43,047·08 to . . . . = *Rs.* 10,62,597·21

Total under proposed Regulation . . = *Rs.* 17,34,946·97

Under the existing Regulations these items of Liability amount to (6,19,677·2 + 10,43,047·08) . . . . = 16,62,724·28

Exhibiting an increase or difference . . = *Rs.* 72,222·69

On referring to page 195 of the Report it will be found that the whole liabilities of the Fund, incumbent and contingent, amount to *Rs.* 25,02,711·81, so that the adoption of the proposed Regulation would increase its liabilities 2·885 per cent., or an increase of considerably less than three per cent. on its whole liabilities.

(32.) Having thus gone fully into all the points of the case so far as permitting widows on re-marriage to receive a moiety of their pensions would affect the financial condition of the Fund, I beg to state that apart from the powerful moral considerations which may be urged in favour of adopting the proposed Regulation, it is my opinion, having regard to the very large surplus of assets over liabilities which exists, amounting to upwards of five lacs of rúpees, that the adoption of such a Regulation as that referred to in page 129 of the Printed Proceedings, and to which my attention has been directed by your letter of the 12th January last, would greatly tend to increase the importance and usefulness of your Fund, and place the administration of its affairs in a more satisfactory condition.

I have the honour to be,

Your most obedient Servant,

F. G. P. NEISON.

29th May, 1856.

APPENDIX.

The following is a recapitulation of the Formulæ which have been employed in the construction of the Preparatory Tables of the preceding Reports :—

In any Table of Mortality

Let d = The mortality per cent. per annum at a given age ; then

$\frac{d}{100}$ = Probability of the death of a single individual ; but as the sum of the probabilities of two incompatible events equals unity, therefore

$1 - \frac{d}{100}$ = Probability of a person of the given age living one year, and in like manner in respect to the probabilities of either of these events at other ages.

Let d_x, d_{x+1}, d_{x+2}, d_{x+3}, ... d_{x+n} represents the mortality per cent. at the ages x, $x+1$, $x+2$, $x+3$, &c. up to $x+n$; and

Let l_x denote the number living at the age x, and

l_{x+n} the number living at age $x+n$, then

$$l_{x+n} = l_x\left(1-\frac{d_x}{100}\right)\cdot\left(1-\frac{d_{x+1}}{100}\right)\cdot\left(1-\frac{d_{x+2}}{100}\right)\cdot\ \cdot\ \cdot\ \cdot\left(1-\frac{d_{x+n-1}}{100}\right)$$

Make x the initial age of the Table, and let l_x be the radix, which, in Table XI., at age 24 = 86544, and in Tables XVIII. and XIX. of the first Report = 100000 at birth ; the radix is the same in Table 1 of the second Report, then the numbers living at each successive age in these Tables are found by the process just given, only it will be observed that, in the three last-mentioned Tables, the symbol d_y is substituted for d_x and this distinction is maintained throughout the Report, x always indicating the Member's age, and y that of the wife or widow, as the case may be.

It will also be seen that in Tables XVIII. and **1** the decrement d_y is augmented by the increment m_y, denoting the ratio of marriage at age y; but this does not in any way affect the principle of construction just pointed out.

For the method of interpolation adopted in finding the intermediate quantities in Table XVII., see pp. 36–7 *ante*, and pp. 205–13 of the third edition of "Contributions to Vital "Statistics."

I.—*Calculation of the Present Value of the Annuities or Pensions payable to existing Incumbents or Widows.*

Let l_y = Number living at age y, in the fifth column of Table XVIII., and

v^y = Present value of £1 or one rupee due y years hence; then in Table XX.

$D_y = l_y . v^y$ and

$\lambda . D_y = \lambda . l_y + \lambda . v^y$, also

$N_y = \Sigma D_{y+1}$

$\frac{N_y}{D_y} = a_y$ = Present value of £1 or one rupee annuity, payable yearly in arrear until the death or marriage of a widow, or other female incumbent on the Fund.

But as the annuities are payable half-yearly, they are obviously more valuable than when payable yearly, inasmuch as the interest of the money of the first half-yearly instalment paid at the end of the first six months of the year is lost to the Fund for the remaining six months of the year, and also the annuitant does not run the risk from mortality incurred by waiting to the end of the year. The increased value of an annuity payable more frequently than yearly is usually determined from the expression $\frac{n-1}{2n}$, the number of payments per annum being indicated by n; to the value therefore of an annuity, as determined from the expression $\frac{N_y}{D_y}$ there must be added in consideration of its being paid half-yearly $\frac{2-1}{2 \times 2} = {\cdot}25$, therefore $a_y + {\cdot}25$ is the value of an annuity payable half-yearly in arrear.

The annuities are also payable up to the date of death, and as it may for all practical purposes be assumed that of all annuitants dying between the fixed dates for payment of annuities, they will one with another die at the middle of the interval, and consequently, on an average, one quarter of a year's annuity will be due to each at death, and there must therefore be added to the above-mentioned increment the present value of the reversion to one quarter of a year's annuity.

a_y Being as already stated the present value of an annuity of £1 or one rupee, payable yearly in arrear on a life aged y.

Let r = The amount of interest realised in one year, by the investment of £1 or one rupee, so that at the end of one year, by the operation of interest, £1 has increased to $1 + r$; therefore

$r\,a_y$ = Present value of an annuity r payable yearly on a life aged y. Hence

$1 - r\,a_y$ = Present value of the reversion of £1 to be received at the moment when the last instalment of the annuity r has been paid, previous to the decease of y; but the life has an equal chance of surviving six months after the date of the last payment of the annuity y, if the above expression be therefore discontinued for six months.

$\dfrac{1 - r\,a_y}{1 + \frac{r}{2}} = (1 - r\,a_y) \cdot \dfrac{1}{1 + \frac{r}{2}}$ = Present value of the reversion of £1 payable at the instant of the death of y; but ordinary assurances being usually assumed to be payable at six months after death will make the interval between payment of the last instalment of annuity r, and the receipt of the assurance one year, consequently the expression $1 - r\,a_y$ will need to be discontinued for one year, and therefore

$\dfrac{1 - r\,a_y}{1 + r} = (1 - r\,a_y) . \dfrac{1}{1 + r} = (1 - r\,a_y) . v$ = Present value of an assurance of £1 payable six months after death, and will be found identical with the ordinary formula given in treatises on life contingencies. It is in the present case, however, only necessary to find the value of the reversion at the instant of death, and this may be done from either of the expressions.

$\dfrac{1 - r\,a_y}{1 + \frac{r}{2}} = (1 - r\,a_y) . v^{\frac{1}{2}}$ The value of which may be indicated by $A'y$

At 8 per cent. $A'_y = \dfrac{1 - {\cdot}08\,a_y}{1{\cdot}04} = \dfrac{1}{1{\cdot}04} - \dfrac{{\cdot}08}{1{\cdot}04}\,a_y = {\cdot}9615 - \frac{1}{13}\,a_y$

And therefore the simplest practical manner of finding the value of this increment is

$A'_y = {\cdot}9615 - \frac{1}{13}\,a_y$, and this will accordingly be found done in the fifth column of Table XXIX.

It has, however, been pointed out, that as the annuity is in fact payable half-yearly, the reversion to the whole annuity of £1 or one rupee would not be receivable, but only one quarter of a year's annuity, and the reversion to it will be therefore worth only $\frac{A'_y}{4}$ and this is the increment to be added to the expression $\frac{N_y}{D_y}$ on account of the annuity being payable up to the date of death. It has also been shewn that because the annuity is payable by half-yearly instalments, the same expression receives the increase of ·25, and consequently

$$\frac{N_y}{D_y} + {\cdot}25 + \frac{A'_y}{4} = a_y + {\cdot}25 + \frac{A'_y}{4} = a_y + \frac{1 + A'_y}{4} =$$ Present value of an annuity of £1 or one rupee payable by half-yearly instalments, and up to the date of death.

If therefore the values of annuities payable yearly in arrear be increased by the £$\frac{1}{4} + \frac{A'_y}{4} = \frac{1 + A'_y}{4}$ the result will give the values of annuities payable half-yearly, and to the date of death or marriage, as the case may be. In this manner were the values of the incumbent pensions in Tables XXIX., XXXIV., XXXVII., and Table **3** obtained.

II.—*Calculation of the Present Value of Annuities on the Joint Lives of Members and their Wives.*

Let $l_x =$ Number living at age x in the second column of Table XI. (members) and

$l_y =$ Number living at age y in the second column of Table XII. (members' wives)

$p_x = \frac{l_{x+1}}{l_x}$ Probability of living one year at age x, and therefore

$\lambda . p_x = \lambda . l_{x+1} - \lambda . l_x$ In like manner will

$\lambda . p_{x,y} =$ Log. of the probability of the joint survivorship for one year of the two lives age x and y; also let

$r =$ 0·80, Eight per cent. being the rate of interest adopted in the calculation of all the Tables in Report.

$1 + r = 1{\cdot}08,\ \lambda . (1 + r) = 0{\cdot}0334238$, and therefore $\frac{1}{2}\lambda . (1 + r) = 0{\cdot}0167119$.

$v = \frac{1}{1 + r} = \frac{1}{1{\cdot}08} = {\cdot}92592593$ being the present value of £1 due one year hence, consequently

$\lambda . v = 9{\cdot}9665762 \quad 44513$, and therefore $\lambda . \sqrt{v} = \frac{1}{2}\lambda . v = \frac{1}{2}\lambda \cdot \left(\frac{1}{1{\cdot}08}\right) = 9{\cdot}9832881 \quad 222565$.

$v\,\frac{1}{2} = \frac{1}{1+\frac{r}{2}} = \frac{1}{1{\cdot}04} = {\cdot}96153846$ being the present value of £1 due six months hence, and therefore

$\lambda.v^{\frac{1}{2}} = \lambda\cdot\left(\frac{1}{1+\frac{r}{2}}\right) = \lambda.\left(\frac{1}{1{\cdot}04}\right)$ 9·9829666 60701, which is not to be confounded with $\frac{1}{2}\,\lambda.r$, the quantity employed in the determination of the vertical series in Tables XXII. and XXIII.

Then in the construction of Tables XXII., XXIII., XXIV., and XXV.

$$\mathrm{D}_{x,y} = l_x \,.\, l_y \,.\, v^{\frac{1}{2}(x+y)} = l_{x,y} \,.\, v^{\frac{1}{2}(x+y)}$$

$$\mathrm{D}_{(x,y)+1} = l_{(x,y)+1} \cdot v^{\frac{1}{2}(x,y)+1}$$

$$\lambda.\mathrm{D}_{(x,y)+1} = \lambda.\mathrm{D}_{x,y} + \Delta\,\lambda.\mathrm{D}_{x,y}$$

$$\Delta\,\lambda.\mathrm{D}_{x,y} = \lambda.v\,p_{x,y} = (\Delta\,\lambda.l_x + \tfrac{1}{2}\lambda.v) + (\Delta\,\lambda.l_y + \tfrac{1}{2}\lambda.v)$$

If, therefore, the initial $\lambda.\mathrm{D}_{x,y}$ for any particular disparity of age be found, the successive $\lambda.\mathrm{D}_{x,y}$ are easily determined by the continuous addition of the values of $\lambda.vp_{x,y}$ According to the preceding formula, the result of each step in the order of differences will determine the values of $\lambda.\mathrm{D}_{x,y}$ for a variation of one year in the age of each of the lives x and y; but the calculation might be accomplished by allowing one of the ages x, to remain constant, and the other y to vary one year by each step in the manipulation.

Thus $\mathrm{D}_{x,y} = l_{x,y} \,.\, v^{\frac{1}{2}(x+y)}$

$\mathrm{D}_{x,y+1} = l_{x,y+1} \,.\, v^{\frac{1}{2}(x+y+1)}$ and therefore

$\frac{\mathrm{D}_{x,y}}{\mathrm{D}_{x,y+1}} = \frac{1}{\sqrt{v}.p_y}$ and

$$\lambda.\mathrm{D}_{x,y} = \lambda.\mathrm{D}_{x,y+1} + \lambda'.\sqrt{v}.p_y = \lambda.\mathrm{D}_{x,y+1} + \lambda'.p_y + \tfrac{1}{2}\lambda.(1+r)$$

The most convenient formula will usually depend on the nature and extent of the preliminary Tables, which have been prepared for facilitating the final calculation of $\lambda.\mathrm{D}_{x,y}$. To prepare the successive $\Delta\,\lambda.\mathrm{D}_{x,y}$ from the expression $\lambda.v\,p_{x,y}$ would require an independent combination of the elements for each disparity of age, and therefore as one series of differences only of each of the quantities $(\Delta\,\lambda.l_x + \frac{1}{2}\lambda.v)$ and $(\Delta\,\lambda.l_y + \frac{1}{2}\lambda.v)$ if written on perforated slips may be combined readily for all Disparities, and as they are together equal to $\lambda . v p_{x,y}$ the successive $\Delta \lambda . \mathrm{D}_{x,y}$ will be more easily found by the use of these two slips.

Tables XXII. and XXIII. give the vertical differences actually employed in the construction of Table XXIV., and by the successive additions of which to the initial $\lambda . \mathrm{D}_{x,y}$ of each Disparity of age, the series of values of $\lambda . \mathrm{D}_{x,y}$ have been found.

The third column of Table XXIV., it will be seen, consists of $(\Delta \lambda . l_x + \frac{1}{2} \lambda . v)$ and $(\Delta \lambda . l_y + \frac{1}{2} \lambda . v)$ transferred from the two Tables preceding it for the respective ages y and x in the first and second columns, and if care be taken to find the initial $\lambda . \mathrm{D}_{x,y}$ which had better be always determined to seven places of decimals in the logarithms, thus:

$$\begin{aligned}
\lambda . l_x &= \lambda . l_{24} &&= 4{\cdot}9372370 \\
\lambda . l_y &= \lambda . l_{14} &&= 3{\cdot}3562171 \\
\lambda . v^{\frac{1}{2}(x+y)} &= \lambda . v^{\frac{1}{2}(24+14)} = \lambda . v^{19} &&= \underline{9{\cdot}3649486} \\
& && 7{\cdot}6584027 = \lambda . \mathrm{D}_{24,14}
\end{aligned}$$

and which is the initial quantity for Disparity Ten years, Table XXIV. is an example of the mode of construction of the whole of that Disparity.

A series of Tables having been calculated by the process of which Tables XXII., XXIII., and XXIV. are examples, the results were then combined, and constitute the auxiliary Table XXV., in which it will be seen that

$$\mathrm{N}_{x,y} = \Sigma \, \mathrm{D}_{(x,y)+1}$$

The values of annuities on the Joint Lives of members and their wives may be easily determined from

$$\lambda . \mathrm{N}_{x,y} - \lambda . \mathrm{D}_{x,y} = \lambda . a^{x,y}$$

The contributions by the members being payable by monthly instalments the value of the preceding expression will need to be increased by value of the symbol $\frac{n-1}{2n}$ already described, which in this case will equal $\frac{12-1}{2 \times 12} = {\cdot}458$, and hence are readily estimated the Contingent Assets of the Fund, as is done in Table XXXI. and Abstract V.

III.—*Calculation of the Present Value of the Contingent Pension to the Wives of Members.*

Let δ_{x-1} = Decrements at age x—1 in Table XI., column 3.

l_{y-1} = Number living at age y—1 in Table XII., column 4.

${}^{w}a_y$ = Present value of an annuity of £1 or one rupee during widowhood, for age y, the value of which is derived from Table XX. preceding, from the expression

$$\frac{\frac{N_y}{D_y}+\frac{N_{y+1}}{D_{y+1}}}{2}+{\cdot}25+\frac{A'_y}{4}=\left\{\left(a_y+\frac{1+A'_y}{4}\right)+\left(a_{y+1}+\frac{1+A'_y}{4}\right)\right\}\div 2$$

$v^{\frac{1}{2}}$ = Present value of £1 or one rupee due six months hence $=\frac{1}{1+\frac{r}{2}}=\frac{1}{1{\cdot}04}$ and therefore $\lambda.v^{\frac{1}{2}}=9{\cdot}9829667$, and which is the value to be used in the direct method of calculation, and also in finding the initial $\lambda.\mathrm{H}$ by the continuous method, and must not be confounded with $\frac{1}{2}\ \lambda.v$, that is $\frac{1}{2}\lambda.\left(\frac{1{\cdot}08}{1}\right)=9{\cdot}9832881$, the quantity employed in the determination of the vertical and horizontal series in Table XXVI.

$v^{\frac{1}{2}(x+y)-1}$ = Present value of £1 or one rupee due $\frac{1}{2}(x+y)-1$ years hence; then

$$\lambda.\mathrm{H}_{x,y}=\lambda.\delta_{x-1}\quad+\lambda.l_{y-1}\ +\lambda{}^{w}a_y\ +\lambda.v^{\frac{1}{2}}+\lambda.v^{\frac{1}{2}(x+y)-1}$$

$\Delta\lambda.\mathrm{H}_{x,y}=\Delta\lambda.\,l_{y-1}\ +\Delta\lambda.{}^{w}a_y+\frac{1}{2}\lambda.v$ . . . . (y, varying vertically), also

$\Delta\lambda.\mathrm{H}_{x,y}=\Delta\lambda.\delta_{x-1}\ +\frac{1}{2}\lambda.v$ . . . . (x, varying horizontally)

$\mathrm{K}_{x,y}=\Sigma\,\mathrm{H}_{(x,y)+1}$, and if p denote the amount of Contingent Pension, then

$\lambda.\frac{\mathrm{K}_{x,y}}{\mathrm{D}_{x,y}}.p=(\lambda.\mathrm{K}_{x,y}+\lambda.p)-\lambda.\mathrm{D}_{x,y})$ or $(\lambda.\mathrm{K}_{x,y}-\lambda.\mathrm{D}_{x,y})+\lambda.p=$ log. of the present value of the wife's full Contingent Pension, in which $\mathrm{D}_{x,y}$ is taken from Table XXV. And in this manner the values of the Contingent Pensions in Table XXXI. were found.

In Table **XXVI.** will be found the vertical and horizontal series of differences symbolized above.

The vertical differences as given in the fourth column of Table XXVI., if written on a perforated slip of paper, and applied to the initial $\lambda . H_{x,y}$ at the top of any column in Table XXVII., and continuously added, will produce all the $\lambda . H_{x,y}$ in each column, and the same perforated slip will serve for the construction of the whole of Table XXVII., always taking care to apply the proper difference opposite age y in the perforated slip to the initial quantity at the top of each column before proceeding with the continuous additions.

Any of the results in Table XXVII. may, at intervals in the calculation, be verified by the direct process of calculation followed in finding the initial $\lambda . H_{x,y}$ and such a precaution is always necessary; but another very good check on the correctness of the operation is to recalculate all the vertical columns after the first one has been produced as above, by the application of the horizontal series of differences given in the last column of Table XXVI.

In Table XXVII. the natural number of $\lambda . H_{x,y}$ is inserted in every alternate line in red ink, and these being transferred for the proper disparities of age, it will be seen, form the third column of Table XXVIII.

IV.—*Calculation of the present value of the Pensions payable to Children now Incumbent on the Fund.*

$\frac{N_x}{D_x}$ = Present value of an annuity of £1 or one rupee payable yearly in arrear, and

$\frac{N_x}{D_x} + \frac{1 + A'_x}{4}$ = Present value of an annuity of £1 or one rupee payable by half-yearly instalments and up to the date of death, and may be expressed by $a_x + \frac{1 + A'_x}{4}$; but as

$\frac{D_{x+n}}{D_x}$ = Present value of £1 or one rupee payable if a life of the age of x should live to $x + n$ years of age, then

$\frac{D_{x+n}}{D_x} \cdot \left(a_{x+n} + \frac{1 + A'_{x+n}}{4}\right)$ = Present value of an annuity of £1 or one rupee on a life aged x, deferred n years.

The values of the expression $a_x + \frac{1 + A'_x}{4}$ will be found calculated for all ages up to twenty-one for sons in Table XXXIV., in which $\frac{N_x}{D_x}$ is derived from Table XXI., and for daughters in Table XXXVII., in which $\frac{N_x}{D_x}$ is derived from Table XX., which includes the element of marriage. The values arrived at in Table XXXIV. for sons are accordingly higher than those in Table XXXVII. for daughters. These two Tables are preparatory to the formation of Tables XXXV. and XXXVIII. respectively, in which the values of

$$\frac{D_{x+n}}{D_x} \cdot \left(a_{x+n} + \frac{1 + A'_{x+n}}{4}\right)$$

are determined for annuities so deferred, that $x+n$ in the respective Tables for sons and daughters represents ages two, seven, eleven, eighteen, and twenty-one. The figures in red ink in the first section of Table XXXV. shew the present values of deferred annuities of *Rs.* 90 to be entered upon in the event of a child surviving to age two, ninety rupees being the increase to the original pension of *Rs.* 180 payable under the age of two, making the pension after that age *Rs.* 270.

Again, the second section of the same Table gives the value of a deferred annuity of *Rs.* 70, that being the increment to the pension in the event of attaining age seven.

The third section in like manner gives the value of a deferred annuity of *Rs.* 280, being the final increment to the pension in the event of the child completing eleven years of age, and making the full pension *Rs.* 620.

In the fourth section of the Table will be found the value of a deferred annuity of *Rs.* 620, payable after attaining the age of eighteen, and in

The fifth section is given the value of a similar annuity deferred to twenty-one years of age.

Precisely the same explanations are applicable to Table XXXVIII. for daughters.

If Tables XXXVII. and XXXIX. be referred to, they will be found to give a ready means of finding the values of the benefits to which fatherless children are entitled, or the values of what you have hither termed the absolute pensions of sons and daughters.

V.—*Calculation of the Contingent Pensions payable to the Children of the present Members.*

Let l_x = Number living at age x in the second column of Table XI. (members), and

l_c = Number living at age c in Table XVIII., column (5), or in Table XIX., column (4), according as l_c is intended to apply to the case of Daughters or Sons; then

$\lambda . l_x + \lambda . l_c + \lambda . v^{\frac{1}{2}(x+c)}$ = $\lambda . \mathrm{D}_{x,c}$ and which may be tabulated in precisely the same manner already pointed out in pp. 51–5 *ante*, and the columns headed $\lambda . \mathrm{D}_{x,s}$ and $\lambda . \mathrm{D}_{x,d}$ in Tables XL. to XLVIII. inclusive, and Tables LXI. to XLVIII. inclusive, according as intended for Sons or Daughters, were so determined. Also let

l_{s-1} = Number living at the middle of the year of age s—1 in the fourth column of Table XIX., and which will be found tabulated in Table XLVIII. Likewise let

p_s = Present value of the Pensions to fatherless children (Sons), as given in Table XXXVI. (or as given in Table XXXIX. in the case of Daughters), then as in the case of contingent pensions to wives will

$$\lambda . \mathrm{H}_{x,s} = \lambda . \delta_{x-1} + \lambda . l_{s-1} + \lambda . p_s + \lambda . v^{\frac{1}{2}} + \lambda . v^{\frac{1}{2}(x+s)-1}$$

Tables XLIX. to LVI. have been constructed according to this formula,

$$\Sigma \, \mathrm{H}_{(x+s)+1} = \mathrm{K}_{x,s}, \text{ and therefore}$$

$\lambda . \frac{\mathrm{K}_{x,s}}{\mathrm{D}_{x,s}} = \lambda . \mathrm{K}_{x,s} - \lambda . \mathrm{D}_{x,s}$ = Log. of the present value of the Sons' Contingent Pension, and on referring to Tables LVII. and LXIV. inclusive, the present values of Sons' Contingent Pensions will be found, whether extended or otherwise, and for all ages of Sons from 0—21, and for eight Disparities of ages for Fathers of the children, being for each quinquennium from age 25 to age 60.

The contingent pensions payable to the daughters of the present Members involve the element of marriage, and they do not cease absolutely on attaining the ages of eighteen or twenty-one as in the case of sons, but in the majority of instances continue till death or marriage.

The most convenient way by which to deduce their values will be from Table XX. and Tables LXV. to LXXII. inclusive, for example,

The daughters' pension, as already pointed out, consists of

(1) *Rs.* 180 while under two years of age

(2) And increase of 90 above two and ... seven ...

(3) do. 70 ... seven ... eleven ...

(4) do. 280 ... eleven years of age, and to continue until death or marriage in cases of extended pensions, but to cease at age twenty-one in cases of unextended pensions.

The first item of the pension is simply an ordinary reversionary annuity payable in the event of the daughter outliving, and remaining unmarried, her father, and is at once deduced from the expression

$$\frac{N_d}{D_d} - \frac{N_{x,d}}{D_{x,d}} = a_d - a_{x,d}$$

In like manner do the other items of the pension resolve themselves into deferred reversionary annuities, subject to the same contingencies, and may be found as follows:—

$$\frac{N_{d+n}}{D_d} - \frac{N_{(x,d)+n}}{D_{x,d}} = a_{\rceil d+n} - a_{\rceil (x,d)+n}$$

In which *n* represents the number of years to elapse absolutely before the annuity can take effect, and which in the case of a child just born, would in order to complete the full value of an extended pension be *two*, *seven*, and *eleven* years respectively, and at other ages corresponding numbers, so as to make the increase of pension always take place at the same ages.

The whole pension will therefore always consist,

Under age *two*, of	one Immediate Reversionary Annuity,	and *three*	Deferred Reversionary Annuities.
Age 2 and under *seven*, of .	ditto	... *two*	ditto
... 7 ... *eleven*, of	ditto	... *one*	ditto, and at

... 11 and upwards, it will consist of an Immediate Reversionary Annuity only.

The present value of the Daughters' Contingent Pension will hence be

At birth $= (a_d - a_{x,d})\ 180 + (a_{\rceil d+2} - a_{\rceil (x,d)+2})\ \ 90 + (a_{\rceil d+7} - a_{\rceil (x,d)+7})\ 70 + (a_{\rceil d+11} - a_{\rceil (x,d)+11})\ 280$

At age 2 $= (a_d - a_{x,d})\ 270 + (a_{\rceil d+5} - a_{\rceil (x,d)+5})\ \ 70 + (a_{\rceil d+9} - a_{\rceil (x,d)+9})\ 280$

At age 7 $= (a_d - a_{x,d})\ 340 + (a_{\rceil d+4} - a_{\rceil (x,d)+5})\ 280$ and

At age 11 $= (a_d - a_{x,d})\ 620$

If from these there be deducted $(a_{\rceil d+n} - a_{\rceil (x,d)+n})$ 620 in which n will vary so as to make the deferred period always at twenty-one years of age, the results will be the values of unextended pensions to daughters.

The calculations of the above values will be found carried out for the immediate reversionary annuities on daughters' lives in Table LXXIII., for immediate annuities on the joint existence of the father and the daughter while she is unmarried in Table LXXIV., and for the deferred annuities on the daughters' lives, as well as on the two joint lives in Table LXXV. The combined results representing the aggregate present contingent pension will be found in Table LXXVI.

The deferred reversionary annuities found in Table LXXV. under the expression $\frac{N_{d+n}}{D_d} - \frac{N_{(x,d)+n}}{D_{x,d}}$ might obviously have been derived from

$$\left(\frac{N_{d+n}}{D_{d+n}} \cdot \frac{D_{d+n}}{D_d}\right) - \left(\frac{N_{(x,d)+n}}{D_{(x,d)+n}} \cdot \frac{D_{(x,d)+n}}{D_{x,d}}\right)$$

In the first member of which the terms D_{d+n} cancel each other, and in the second member the terms $D_{(x,d)+n}$, and hence producing the expression actually used.

Table First.

Value of the Pensions to which Fatherless Sons are entitled. The amount of Pension corresponding with that stated in Clause (126), *page* 131, *of the Report.*

(Deduced from Table XXXVI.)

Son's Age.	Pension to cease at		Son's Age.
	Age 18.	Age 21.	
0	*Rs.* 2442·882	*Rs.* 2711·590	0
1	2880·825	3220·709	1
2	3137·236	3528·456	2
3	3224·416	3661·702	3
4	3290·930	3774·840	4
5	3340·608	3872·630	5
6	3381·704	3964·566	6
7	3417·652	4054·330	7
8	3377·454	4071·606	8
9	3332·036	4088·374	9
10	3280·644	4104·438	10
11	3222·822	4119·590	11
12	2872·848	3848·418	12
13	2487·378	3547·950	13
14	2069·002	3221·761	14
15	1613·488	2866·260	15
16	1119·800	2481·692	16
17	583·048	2064·228	17
		1611·624	18
		1117·240	19
		583·358	20

Table Second.

Value of the Pensions to which Fatherless Daughters are entitled. The amount corresponding with that stated in Clause (144), *page* 162, *of the Report, and page* xi. *of the Appendix.*

(Deduced from Tables XXXIX. and XXIX.)

Daughter's Age.	Value of Pension to			Value of Pension to continue until Death or Marriage.							
	Cease at Age 21.	Commence at Age 21.	Continue until Death or Marriage.	Daughter's Age.	Pension.	Daughter's Age.	Pension.	Daughter's Age.	Pension.	Daughter's Age.	Pension.
0	2642·018	451·174	3093·192	21	4826·70	41	5880·08	61	4855·84	81	2419·86
1	3142·281	570·772	3713·053	22	4933·34	42	5854·04	62	4747·34	82	2310·12
2	3427·068	657·014	4084·082	23	5035·64	43	5819·32	63	4632·64	83	2203·48
3	3550·012	734·390	4284·402	24	5132·36	44	5777·78	64	4515·46	84	2099·32
4	3649·538	812·634	4462·172	25	5211·72	45	5728·80	65	4396·42	85	1998·88
5	3734·569	893·482	4628·051	26	5278·06	46	5674·24	66	4275·52	86	1901·54
6	3813·542	978·732	4792·274	27	5334·48	47	5617·82	67	4153·38	87	1807·92
7	3889·208	1069·252	4958·460	28	5384.08	48	5561·40	68	4029·38	88	1718.64
8	3891·276	1165·662	5056·938	29	5430·58	49	5506·84	69	3903·52	89	1633·70
9	3891·826	1270·194	5162·020	30	5485·14	50	5463·44	70	3857·64	90	1553·72
10	3891·042	1383·096	5274·138	31	5545·28	51	5426·86	71	3649·32	91	1478·08
11	3886·780	1505·980	5392·760	32	5607·28	52	5393·38	72	3521.60	92	1406·16
12	3593·954	1638·226	5232·180	33	5669·28	53	5358·66	73	3393·88	93	1334·86
13	3272·484	1781·136	5053·620	34	5728·80	54	5314·64	74	3266·16	94	1264·18
14	2922·514	1935·826	4858·340	35	5780·88	55	5275·58	75	3139·68	95	1192·02
15	2570·644	2125·236	4695·880	36	5824·90	56	5233·42	76	3013.82	96	1107·94
16	2210·362	2357·798	4568·160	37	5860·24	57	5184·44	77	2889·82	97	1005·64
17	1845·058	2658·002	4503·060	38	5883·80	58	5123·68	78	2768·30	98	866·14
18	1461·836	3045·564	4507·400	39	5897·44	59	5044·94	79	2648·64	99	652·86
19	1049·784	3561·156	4610·940	40	5895·58	60	4955·66	80	2532·70	100	400·52
20	565·564	4152·636	4718·200								

Table

Shewing the Value of Contingent Benefits or Pensions to the Sons of living Members. The

Benefits payable

(Deduced from Tables

FATHER'S AGE.	SON'S								
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
25	499·88								
6	504·44	576·83							
7	508·99	581·89	598·88						
8	513·55	586·96	604·00	597·86					
9	518·11	592·03	609·12	602·71	586·99				
30	522·67	597·10	614·24	607·57	591·38	557·49			
1	525·71	602·16	619·36	612·43	595·76	561·23	541·65		
2	528·76	605·13	624·48	617·29	600·15	564·96	544·80	508·22	
3	531·81	608·10	627·33	622·14	604·54	568·70	547·96	510·75	467·23
4	534·85	611·07	630·19	624·66	608·93	572·44	551·12	513·29	469·23
35	537·89	614·04	633·05	627·19	611·20	576·18	554·28	515·83	471·24
6	538·09	617·01	635·90	629·71	613·46	578·22	557·43	518·36	473·25
7	538·30	617·13	638·75	632·23	615·73	580·26	558·93	520·89	475·25
8	538·50	617·24	638·44	634·75	618·00	582·30	560·44	522·24	477·25
9	538·70	617·36	638·12	634·13	620·27	584·34	561·95	523·59	478·46
40	538·90	617·48	637·80	633·50	619·30	586·38	56·345	524·94	479·68
1	539·47	617·60	637·48	632·87	618·33	585·04	564·95	526·29	480·90
2	540·04	618·12	637·16	632·25	617·36	583·70	564·04	527·64	482·12
3	540·62	618·65	637·49	631·63	616·39	582·35	563·12	526·26	483·33
4	541·19	619·17	637·83	631·62	615·42	581·01	562·21	524·87	481·33
45	541·76	619·69	638·17	631·60	615·02	579·67	561·30	523·49	479·32
6	546·09	620·21	638·51	631·58	614·62	579·00	560·39	522·11	477·31
7	550·41	625·86	638·84	631·56	614·21	578·34	559·21	520·73	475·31
8	554·74	631·52	645·90	631·55	613·81	577·67	558·04	519·94	473·31
9	559·07	637·17	652·97	640·79	613·41	577·00	556·86	519·15	473·60
50	563·40	642·82	660·04	650·04	625·14	576·33	555·68	518·35	473·90
1	582·70	648·47	667·11	659·29	636·87	590·69	554·50	517·56	474·20
2	602·00	674·40	674·17	668·54	648·59	605·05	572·09	516·77	474·49
3	621·30	700·33	705·31	677·78	660·32	619·41	589·68	537·01	474·78
4	640·60	726·25	736·45	713·09	672·05	633·77	607·27	557·26	496·97
55	659·90	752·18	767·59	748·41	711·10	648·13	624·86	577·51	519·17
6	699·61	778·11	798·73	783·72	750·16	689·28	642·45	597·75	541·36
7	739·31	827·66	829·87	819·03	789·22	730·44	686·40	617·99	563·56
8	779·02	877·21	885·31	854·34	828·27	771·60	730·35	662·94	585·75
9	818·73	926·76	940·74	913·56	867·32	812·76	774·30	707·90	630·47
60	858·44	976·31	996·18	972·79	929·36	853·91	818·25	752·85	675·18
1		1025·86	1051·62	1032·02	991·41	916·59	862·20	797·80	719·90
2			1107·06	1091·24	1053·45	979·28	926·94	842·75	764·62
3				1150·46	1115·49	1041·96	991·69	907·51	809·34
4					1177·53	1104·64	1056·43	572·28	873·22
65						1167·32	1121·17	1037·05	937·09
6							1185·91	1101·81	1000·97
7								1166·57	1064·85
8									1128·73
9									
70									
1									
2									
3									
4									
75									
6									
77									

Third,

amount of Pension corresponding with that stated in Clause (126), *page* 131, *of the Report.*

till the Age of 18.

LVII. to LXIV. inclusive.)

AGE.									FATHER'S AGE.
9	10	11	12	13	14	15	16	17	
									25
									6
									7
									8
									9
									30
									1
									2
									3
421·19									4
422·79	369·78								35
424·39	371·05	312·81							6
425·99	372·33	313·83	250·13						7
427·59	373·60	314·85	250·92	190·38					8
429·19	374·87	315·87	251·72	191·00	135·27				9
430·26	376·14	316·89	252·52	191·62	135·73	86·51			40
431·33	377·04	317·91	253·32	192·24	136·20	86·83	46·13		1
432·40	377·94	318·60	254·11	192·86	136·67	87·15	46·32	16·41	2
433·46	778·84	319·29	254·51	193·48	137·13	87·47	46·52	16·48	3
434·52	379·74	319·98	254·91	193·52	137·59	87·79	46·71	16·56	4
432·85	380·63	320·67	255·31	193·57	137·33	88·11	46·90	16·64	45
431·17	377·45	321·36	255·71	193·62	137·08	87·70	47·09	16·72	6
429·49	374·26	318·15	256·11	193·67	136·82	87·28	46·70	16·79	7
427·82	371·07	314·93	253·11	193·71	136·56	86·86	46·31	16·58	8
426·15	367·89	311·72	250·10	191·44	136·30	86·44	45·91	16·37	9
427·02	364·71	308·51	247·10	189·17	134·95	86·03	45·52	16·16	50
427·89	368·25	305·30	244·10	186·90	133·60	84·38	45·13	15·95	1
428·75	371·80	310·16	241·10	184·63	132·26	82·73	45·10	15·74	2
429·62	375·35	315·03	246·97	182·36	130·91	81·08	45·08	15·85	3
430·49	378·89	319·90	252·85	188·40	129·56	79·43	45·05	15·96	4
453·81	382·43	324·76	258·73	194·45	135·01	77·78	45·02	16·07	55
477·12	405·93	329·62	264·60	200·49	140·47	83·16	44·99	16·18	6
500·44	429·43	352·17	270·47	206·53	145·93	88·53	48·25	16·29	7
523·76	452·93	374·73	290·75	212·57	151·38	93·91	51·52	17·42	8
547·08	476·43	397·28	311·04	229·66	156·83	99·29	54·79	18·54	9
590·42	499·92	419·83	331·33	246·76	170·11	104·67	58·05	19·67	60
633·77	541·03	442·38	351·61	263·85	183·40	113·88	61·31	20·80	1
677·12	582·14	479·30	371·89	280·94	196·69	123·10	66·04	21·93	2
720·46	623·25	516·23	403·56	298·03	209·98	132·31	70·78	23·94	3
763·80	664·36	553·16	435·24	324·07	223·26	141·52	75·51	25·96	4
825·97	705·47	590·08	466·92	350·11	243·35	150·73	80·24	27·98	65
888·15	764·42	627·00	498·59	376·15	263·45	164·78	84·97	30·00	6
950·33	823·38	681·78	530·26	402·19	283·55	178·82	93·21	32·01	7
1012·51	882·34	736·57	578·32	428·23	303·65	192·87	101·46	35·24	8
1074·68	941·30	791·36	626·37	468·58	323·74	206·92	109·71	38·48	9
	1000·25	846·15	674·43	508·93	355·55	220·97	117·95	41·72	70
		900·93	722·49	549·28	387·36	243·69	126·19	44·95	1
			770·55	589·63	419·17	266·41	139·80	48·18	2
				629·98	450·98	289·13	153·40	53·66	3
					482·79	311·85	167·01	59·15	4
						334·57	180·62	64·64	75
							194·23	70·13	6
								75·61	77

Table

Shewing the Value of the Contingent Pensions to the Sons of Living Members. The

Benefits to continue

(Deduced from Tables

Father's Age.	SON'S									
	0	1	2	3	4	5	6	7	8	9
25	612·52									
6	618·05	714·92								
7	623·57	721·19	752·09							
8	629·10	727·45	758·55	762·32						
9	634·63	733·72	765·02	768·61	761·13					
30	640·16	739·99	771·49	774·91	767·02	736·63				
1	643·06	746·26	777·96	781·21	772·92	741·90	731·24			
2	645·97	746·53	784·42	787·51	778·82	747·18	735·19	703·64		
3	648·88	749·21	786·88	793·80	784·72	752·45	739·13	706·91	666·96	
4	651·78	751·59	789·35	795·79	790·61	757·72	743·08	710·19	669·65	623·62
35	654·68	754·86	791·81	797·79	792·22	762·99	747·03	713·47	672·35	625·87
6	655·41	759·63	794·27	799·78	793·84	764·25	750·98	716·74	675·04	628·13
7	656·15	760·45	796·73	801·77	795·45	765·51	752·29	720·01	677·73	630·38
8	656·89	761·27	797·18	803·76	797·06	766·77	753·60	721·09	680·42	632·63
9	657·62	762·09	797·62	803·99	798·67	768·03	754·91	722·18	681·29	634·88
40	658·35	762·91	798·07	804·23	798·10	769·29	756·22	723·26	682·17	635·50
1	659·93	763·73	798·52	804·47	797·52	768·35	757·53	724·34	683·04	636·13
2	661·52	765·55	798·97	804·70	796·95	767·40	756·64	725·42	683·91	636·76
3	663·11	767·38	800·81	804·93	796·38	766·45	755·74	724·01	684·78	637·39
4	664·70	769·20	802·66	806·61	795·81	765·50	754·84	722·60	682·67	638·01
45	666·28	771·02	804·51	808·30	797·83	764·56	753·95	721·18	680·56	636·62
6	674·52	772·84	806·36	809·99	799·86	766·56	753·06	719·77	678·45	635·22
7	682·77	783·57	808·20	811·67	801·89	768·56	755·45	718·36	676·34	633·82
8	691·01	794·29	821·28	813·35	803·92	770·56	757·85	721·62	674·23	632·42
9	699·25	805·02	834·35	829·60	805·94	772·56	760·24	724·88	679·23	631·03
50	707·49	815·75	847·43	845·86	825·72	774·55	762·63	728·15	684·24	636·95
1	732·95	826·48	860·51	862·12	845·50	797·99	765·02	731·41	689·25	642·88
2	758·42	860·49	873·59	878·37	865·28	821·44	793·13	734·67	694·26	648·81
3	783·89	894·51	914·36	894·62	885·06	844·88	821·24	766·26	699·26	654·73
4	809·35	928·53	955·14	940·99	904·84	868·32	849·35	797·86	734·14	660·66
55	834·81	962·54	995·92	987·36	956·46	891·76	877·46	829·46	769·02	698·01
6	882·66	996·55	1036·69	1033·73	1008·09	946·74	905·57	861·06	803·90	735·35
7	930·52	1056·69	1077·46	1080·10	1059·72	1001·73	965·06	892·65	838·78	772·70
8	978·38	1116·84	1145·37	1126·47	1111·35	1056·72	1024·56	955·26	873·66	810·05
9	1026·24	1176·99	1213·29	1199·96	1162·97	1111·70	1084·06	1017·87	937·60	847·40
60	1074·09	1237·13	1281·21	1273·46	1240·99	1166·68	1143·55	1080·48	1001·55	911·51
1		1297·27	1349·12	1346·95	1319·01	1246·82	1203·04	1143·09	1065·50	975·61
2			1417·03	1420·44	1397·03	1326·97	1287·52	1205·70	1129·44	1039·72
3				1493·93	1475·05	1407·12	1372·00	1292·20	1193·38	1103·83
4					1553·07	1487·26	1456·48	1378·71	1281·13	1167·94
65						1567·40	1540·96	1465·21	1368·89	1256·24
6							1625·44	1551·71	1456·65	1344·55
7								1638·21	1544·40	1432·86
8									1632·15	1521·16
9										1609·46
70										
1										
2										
3										
4										
75										
6										
7										
8										
9										
80										

Fourth,

amount of Pension corresponding with that stated in Clause (126), *page* 131, *of the Report.*

until Age 21.

LXI. to LXIV. inclusive.)

AGE.											FATHER'S AGE.
10	11	12	13	14	15	16	17	18	19	20	
											25
											6
											7
											8
											9
											30
											1
											2
											3
											4
573·14											35
575·15	514·87										6
577·17	516·50	448·21									7
579·19	518·14	449·60	381·33								8
581·21	519·77	450·99	382·53	315·49							9
583·22	521·40	452·38	383·74	316·51	251·75						40
583·45	523·03	453·77	384·95	317·54	252·60	191·44					1
583·69	523·04	455·16	386·16	318·57	253·44	192·10	135·98				2
583·93	523·05	454·72	387·36	319·60	254·29	192·77	136·43	87·06			3
584·16	523·06	454·27	386·34	320·62	255·14	193·44	136·89	87·27	46·50		4
584·39	523·06	453·82	385·31	319·04	255·99	194·11	137·35	87·49	46·53	16·60	45
580·94	523·07	453·37	384·28	317·47	254·03	194·77	137·80	87·71	46·60	16·58	6
577·48	519·62	452·93	383·25	315·89	252·06	192·69	138·25	87·92	46·64	16·55	7
574·03	516·17	449·78	382·23	314·31	250·09	190·60	136·39	88·13	46·68	16·52	8
570·58	512·72	446·64	380·12	312·73	248·13	188·52	134·54	86·86	46·68	16·49	9
567·13	509·27	443·49	378·00	312·01	246·17	186·44	132·68	84·58	46·04	16·47	50
577·15	505·82	440·34	375·88	311·30	246·83	184·36	130·82	83·30	45·39	16·29	1
587·16	518·14	437·19	373·76	310·58	247·50	186·10	128·96	82·02	44·75	16·10	2
597·18	530·45	451·53	371·65	309·86	248·17	187·85	131·24	81·75	44·11	15·91	3
607·20	542·77	465·88	387·04	309·14	248·83	189·60	133·53	83·91	43·47	15·72	4
617·22	555·09	480·23	402·44	324·59	249·49	191·35	135·81	86·06	45·00	15·54	55
656·03	567·41	494·58	417·84	340·05	264·07	193·09	138·09	88·22	46·53	16·23	6
694·85	606·44	508·92	433·24	355·51	278·66	205·94	140·37	90·38	48·06	16·92	7
733·67	645·46	546·65	448·63	370·97	293·25	218·79	150·77	92·54	49·59	17·61	8
772·49	684·49	584·39	483·80	386·42	307·84	231·65	161·18	99·98	51·12	18·30	9
811·30	723·52	622·13	518·98	418·01	322·42	244·52	171·59	107·43	55·51	18·99	60
874·32	762·55	659·86	554·16	449·59	349·59	257·37	182·00	114·87	59·90	21·10	1
937·35	823·08	697·59	589·34	481·18	376·75	279·54	192·40	122·31	64·29	23·20	2
1000·38	883·62	754·05	624·51	512·77	403·92	301·70	209·30	129·75	68·68	25·31	3
1063·40	944·16	810·52	676·32	544·36	431·09	323·87	226·20	141·45	73·07	27·42	4
1126·42	1004·69	866·99	728·14	590·82	458·26	346·04	243·10	153·15	79·84	27·53	65
1214·25	1065·22	923·46	779·96	637·29	478·67	368·21	260·00	164·85	86·62	30·18	6
1302·07	1151·01	979·92	831·78	683·76	499·09	401·91	276·90	176·55	93·40	32·82	7
1389·90	1236·81	1061·41	883·59	730·23	519·51	435·62	303·23	188·25	100·17	35·47	8
1477·73	1322·61	1142·89	959·61	776·69	539·93	469·33	329·55	206·90	106·94	38·12	9
1565·56	1408·41	1224·38	1035·63	846·00	660·34	503·04	355·88	225·54	118·03	40·77	70
	1494·20	1305·87	1111·65	915·32	721·63	536·74	382·21	244·19	129·12	45·20	1
		1387·36	1187·67	984·64	782·93	588·63	408·54	262·84	140·21	49·64	2
			1263·69	1053·95	844·23	640·53	449·85	281·49	151·30	54·07	3
				1123·26	905·52	692·42	491·15	311·17	162·39	58·50	4
					966·81	744·31	532·46	340·84	180·26	62·93	75
						796·20	573·77	370·52	198·14	70·16	6
							615·08	400·20	216·02	77·38	7
								429·88	233·89	84·61	8
									251·76	91·84	9
										99·07	80

Table

Value of the Contingent Pensions to which the Daughters of Living Members are entitled. The amount of
Pensions payable until
(Deduced from

FATHER'S AGE.	DAUGHTER'S									
	0	1	2	3	4	5	6	7	8	9
25	780·44									
6	786·09	921·56								
7	791·73	927·89	987·91							
8	797·38	934·21	993·91	1023·91						
9	803·03	940·54	999·91	1030·29	1048·51					
30	808·68	946·87	1005·91	1036·68	1054·61	1063·74				
1	813·95	953·20	1011·90	1043·06	1060·71	1069·42	1071·10			
2	819·21	960·05	1017·89	1049·44	1066·81	1075·09	1076·39	1070·14		
3	824·48	966·91	1028·28	1055·82	1072·91	1080·77	1081·69	1075·23	1062·14	
4	829·75	973·77	1038·67	1060·73	1079·00	1086·45	1086·99	1080·33	1067·04	1047·92
35	835·02	980·62	1049·07	1065·64	1084·03	1092·13	1092·29	1085·43	1071·94	1052·89
6	839·43	987·47	1059·45	1070·55	1089·07	1097·41	1097·58	1090·53	1076·84	1057·87
7	843·83	990·55	1069·84	1075·46	1094·11	1102·70	1103·18	1095·62	1081·74	1062·84
8	848·24	993·64	1070·71	1080·37	1099·15	1107·99	1108·79	1101·65	1086·64	1067·81
9	852·65	996·73	1071·58	1086·81	1104·18	1113·27	1114·40	1107·69	1092·97	1072·78
40	857·06	999·81	1072·45	1093·25	1111·25	1118·55	1120·00	1113·72	1099·31	1079·54
1	863·37	1002·89	1073·31	1099·69	1118·33	1126·23	1125·60	1119·75	1105·65	1086·31
2	869·68	1012·52	1074·17	1106·13	1125·41	1133·92	1133·87	1125·78	1111·99	1093·08
3	875·99	1022·15	1084·05	1112·57	1132·49	1141·61	1142·15	1134·52	1118·32	1099·84
4	882·29	1031·78	1093·94	1124·85	1139·56	1149·29	1150·43	1143·27	1127·62	1106·60
45	888·59	1041·41	1103·82	1137·13	1153·31	1156·97	1158·71	1152·02	1136·92	1109·95
6	904·35	1051·04	1113·70	1149·41	1167·06	1172·61	1166·99	1160·77	1146·22	1113·31
7	920·12	1071·97	1123·58	1161·68	1180·82	1188·26	1185·23	1169·52	1155·52	1116·67
8	935·88	1092·89	1150·37	1173·95	1194·57	1203·90	1203·48	1191·32	1164·82	1120·03
9	951·64	1113·82	1177·16	1204·84	1208·32	1219·54	1221·72	1213·13	1190·93	1123·38
50	967·40	1134·75	1203·95	1235·73	1244·72	1235·18	1239·97	1234·94	1217·05	1161·04
1	1001·34	1155·68	1230·73	1266·62	1281·13	1277·29	1258·21	1256·75	1243·17	1198·71
2	1035·27	1200·10	1257·51	1297·51	1317·54	1319·41	1305·92	1278·56	1269·29	1236·38
3	1069·21	1244·51	1309·44	1328·40	1353·94	1361·52	1353·64	1331·43	1295·40	1274·04
4	1103·15	1288·93	1361·36	1386·58	1390·34	1403·63	1401·36	1384·29	1352·76	1311·70
55	1137·09	1333·35	1413·29	1444·76	1454·10	1445·74	1449·07	1437·16	1410·13	1372·91
6	1190·40	1377·77	1465·22	1502·95	1517·86	1514·40	1496·78	1490·03	1467·50	1434·13
7	1243·71	1439·70	1517·15	1561·13	1581·63	1583·07	1569·79	1542·90	1524·86	1495·35
8	1297·02	1501·64	1585·18	1619·31	1645·39	1651·74	1642·81	1618·92	1582·22	1556·57
9	1350·32	1563·58	1653·22	1693·80	1709·15	1720·40	1715·83	1694·94	1660·51	1617·78
60	1403·62	1625·51	1721·26	1768·29	1787·84	1789·06	1788·85	1770·96	1738·79	1697·66
1		1687·44	1789·30	1842·77	1866·54	1871·47	1861·86	1846·98	1817·08	1777·54
2			1857·33	1917·26	1945·24	1953·88	1947·22	1923·00	1895·37	1857·42
3				1991·75	2023·94	2036·29	2032·59	2011·37	1973·66	1937·30
4					2102·63	2118·70	2117·95	2099·73	2064·21	2017·18
65						2201·11	2203·31	2188·10	2154·77	2109·31
6							2288·67	2276·47	2245·32	2201·43
7								2364·84	2335·87	2293·56
8									2426·42	2385·69
9										2477·82
70										
1										
2										
3										
4										
75										
6										
7										
8										
9										
80										

Fifth.

Pension corresponding with that stated in Clause (144), *page* 162, *of the Report, and page* xi. *of the Appendix.*

Death or Marriage.

Table LXXVI.)

AGE.											FATHER'S AGE.
10	11	12	13	14	15	16	17	18	19	20	
											25
											6
											7
											8
											9
											30
											1
											2
											3
											4
1028·06											35
1033·09	1001·92										6
1038·12	1007·00	967·82									7
1043·14	1012·09	973·15	933·72								8
1048·17	1017·18	978·48	939·30	900·24							9
1053·20	1022·26	983·82	944·88	906·19	876·68						40
1060·39	1027·34	989·15	950·46	912·15	883·00	864·28					1
1067·58	1034·90	994·48	956·04	918·10	889·33	871·10	861·18				2
1074·78	1042·47	1002·41	961·62	924·05	895·66	877·92	871·47	887·22			3
1081·97	1050·04	1010·35	970·05	930·00	901·98	884·74	881·77	895·90	929·38		4
1089·16	1057·60	1018·29	978·48	939·05	908·30	891·56	892·06	904·58	939·42	972·16	45
1099·13	1065·16	1026·23	986·92	948·11	918·71	898·38	902·35	913·26	949·47	984·43	6
1109·11	1078·92	1034·16	995·35	957·16	929·13	910·90	912·64	921·94	959·52	996·71	7
1119·09	1092·69	1051·02	1003·78	966·21	939·55	923·43	926·90	930·62	969·56	1008·99	8
1129·07	1106·46	1067·89	1024·49	975·26	949·97	935·96	941·16	950·58	979·60	1021·27	9
1139·04	1120·22	1084·76	1045·19	1000·18	960·38	948·48	955·42	970·55	1005·27	1033·54	50
1176·48	1133·98	1101·62	1065·90	1025·11	989·64	961·00	969·68	990·52	1030·93	1065·53	1
1213·92	1174·40	1118·48	1086·61	1050·04	1018·91	994·73	983·94	1010·48	1056·60	1097·52	2
1251·36	1214·83	1162·87	1107·32	1074·96	1048·18	1028·46	1022·25	1030·44	1082·27	1129·52	3
1288·80	1255·26	1207·26	1154·81	1099·88	1077·44	1062·18	1060·57	1073·71	1107·94	1161·51	4
1326·24	1295·68	1251·66	1202·31	1149·73	1106·70	1095·91	1098·89	1116·99	1157·04	1193·52	55
1390·46	1336·10	1296·05	1249·80	1199·57	1158·98	1129·64	1137·21	1160·27	1206·15	1248·06	6
1454·68	1402·19	1340·44	1297·29	1249·42	1211·26	1183·70	1175·52	1203·55	1255·26	1302·62	7
1518·90	1468·29	1407·19	1344·78	1299·27	1263·54	1237·77	1231·94	1246·82	1304·36	1357·18	8
1583·12	1534·38	1473·94	1411·24	1349·12	1315·82	1291·84	1288·36	1306·09	1353·46	1411·74	9
1647·34	1600·47	1540·70	1477·71	1414·84	1368·10	1345·90	1344·78	1365·37	1416·70	1466·30	60
1727·83	1666·56	1607·45	1544·18	1480·56	1433·00	1399·96	1401·20	1424·64	1479·94	1533·38	1
1808·33	1747·03	1674·20	1610·64	1546·28	1497·90	1465·18	1457·62	1483·91	1543·18	1600·47	2
1888·82	1827·51	1749·80	1677·10	1612·00	1562·80	1530·41	1523·83	1543·18	1606·42	1667·56	3
1969·31	1907·99	1825·40	1755·09	1677·72	1627·70	1595·64	1590·05	1611·50	1669·66	1734·64	4
2049·80	1988·47	1901·00	1833·09	1753·98	1692·60	1660·86	1656·27	1679·83	1741·95	1801·72	65
2141·17	2068·94	1976·60	1911·09	1830·24	1756·64	1726·08	1722·49	1748·16	1814·25	1877·73	6
2232·55	2161·57	2052·20	1989·09	1906·50	1820·69	1800·48	1788·70	1816·48	1886·54	1953·75	7
2323·92	2254·19	2146·56	2067·08	1982·76	1884·74	1874·88	1863·47	1884·80	1958·83	2029·76	8
2415·29	2346·82	2240·93	2155·12	2059·02	1948·78	1949·28	1938·24	1961·18	2031·12	2105·77	9
2506·66	2439·45	2335·30	2243·16	2143·96	2012·82	2023·68	2013·02	2037·57	2110·11	2181·78	70
	2532·08	2429·66	2331·20	2228·90	2104·01	2098·08	2087·79	2113·96	2189·09	2263·37	1
		2524·02	2419·24	2313·84	2195·19	2177·69	2162·56	2190·34	2268·08	2344·97	2
			2507·28	2398·78	2286·38	2257·29	2240·55	2266·72	2347·07	2426·56	3
				2483·72	2377·57	2336·90	2318·55	2343·97	2426·06	2508·15	4
					2478·76	2416·51	2396·55	2421·23	2504·05	2589·74	75
						2496·12	2474·55	2498·49	2582·05	2668·11	6
							2552·54	2575·74	2660·05	2746·47	7
								2652·99	2738·05	2824·84	8
									2816·04	2903·21	9
										2981·58	80

Table Fifth.

Value of the Contingent Pensions to which the Daughters of Living Members are entitled. The amount of
Pensions payable until
(Deduced from

Father's Age.	DAUGHTER'S									
	21	22	23	24	25	26	27	28	29	30
46	1015·32									
7	1030·87	1061·44								
8	1046·42	1081·15	1107·94							
9	1061·96	1100·87	1132·86	1152·58						
50	1077·51	1120·58	1157·78	1184·07	1199·04					
1	1093·06	1140·30	1182·71	1215 57	1237·36	1248·06				
2	1131·62	1160·02	1207·64	1247·07	1275·69	1293·32	1301·38			
3	1170·19	1205·15	1232·56	1278·57	1314·02	1338·58	1353·21	1360·90		
4	1208·76	1250·29	1284·02	1310·06	1352·34	1383·84	1405·05	1419·06	1426·00	
55	1247·32	1295·43	1335·48	1367·59	1390·66	1429·10	1456·88	1477·22	1490·11	1499·78
6	1285·88	1340·57	1386·94	1425·13	1453·77	1474·36	1508·71	1535·38	1554·21	1569·47
7	1345·77	1385·70	1438·40	1482·67	1516·89	1542·31	1560·54	1593·53	1618·32	1639·15
8	1405·67	1450·30	1489·86	1540·21	1580·01	1610·27	1632·71	1651·68	1682·43	1708·84
9	1465·56	1514·91	1558·80	1597·74	1643·13	1678·22	1704·87	1727·57	1746·54	1778·53
60	1525·45	1579·52	1627·75	1670·65	1706·24	1746·17	1777·04	1803·45	1825·77	1848·22
1	1585·34	1644·12	1696·70	1743·57	1782·50	1814·12	1849·21	1879·34	1905·01	1930·58
2	1656·14	1708·72	1765·64	1816·48	1858·76	1893·60	1921·38	1955·23	1984·25	2012·94
3	1726·95	1783·49	1834·58	1889·39	1935·02	1973·09	2004·00	2031·12	2063·49	2095·30
4	1797·76	1858·26	1913·07	1962·30	2011·28	2052·58	2086·63	2116·56	2142·72	2177·66
65	1868·56	1933·04	1991·56	2044·39	2087·54	2132·06	2169·26	2201·99	2231·01	2260·02
6	1939·36	2007·81	2070·06	2126·47	2172·85	2211·54	2251·88	2287·43	2319·29	2351·26
7	2019·09	2082·58	2148·55	2208·56	2258·17	2299·58	2334·50	2372·87	2407·58	2442·50
8	2098·83	2169·66	2227·04	2290·65	2343·48	2387·62	2424·86	2458·30	2495·87	2533·74
9	2178·56	2256·74	2313·09	2372·74	2428·79	2475·66	2515·22	2550·68	2584·16	2624·98
70	2258·29	2343·82	2399·15	2461·40	2514·10	2563·70	2605·58	2643·06	2678·15	2716·22
1	2338·02	2430·90	2485·21	2550·06	2604·49	2651·74	2695·93	2735·44	2772·14	2811·45
2	2421·72	2517·98	2571·27	2638·72	2694·89	2743·13	2786·28	2827·82	2866·14	2906·69
3	2505·42	2599·04	2657·32	2727·38	2785·29	2834·51	2877·92	2920·20	2960·13	3001·92
4	2589·12	2680·11	2743·25	2816·04	2875·69	2925·90	2969·56	3011·46	3054·12	3097·15
75	2672·82	2761·18	2829·18	2902·09	2966·08	3017·29	3061·20	3102·73	3144·51	3192·38
6	2756·52	2842·24	2915·12	2988·15	3051·76	3108·68	3152·83	3194·00	3234·91	3281·90
7	2835·01	2923·30	3001·06	3074·21	3137·45	3193·49	3244·46	3285·26	3325·31	3371·43
8	2913·51	3001·54	3086·99	3160·27	3223·14	3278·31	3328·04	3376·52	3415·71	3460·96
9	2992·00	3079·79	3164·86	3246·32	3308 82	3363·13	3411·62	3458·48	3506·10	3550·48
80	3070·49	3158·04	3242·73	3323·57	3394·50	3447·95	3495·20	3540·45	3586·33	3640·00
1	3148·98	3236·28	3320·60	3400·82	3470·51	3532·76	3578·77	3622·42	3666·56	3718·49
2		3314·52	3398·47	3478·08	3546·53	3607·16	3662·34	3704·38	3746·78	3796·99
3			3476·34	3555·33	3622·54	3681·57	3734·88	3786·34	3827·01	3875·49
4				3632·58	3698·55	3755·97	3807·42	3857·27	3907·24	3953·99
85					3774·56	3830·37	3879·96	3928·19	3977·05	4032·48
6						3904·77	3952·50	3999·12	4046·87	4102·54
7							4025·04	4070·05	4116·68	4172·60
8								4140·98	4186·49	4242·66
9									4256·30	4312·72
90										4382·78
1										
2										
3										
4										
95										
6										
7										
8										
9										
100										

(continued.)

ension corresponding with that stated in Clause (144), *page* 162, *of the Report, and page* xi. *of the Appendix.*

eath or Marriage.

able LXXVI.)

GE.										Father's Age.
31	32	33	34	35	36	37	38	39	40	
										46
										7
										8
										9
										50
										1
										2
										3
										4
										55
1581·62										6
1656·51	1669·04									7
1731·41	1748 65	1761·42								8
1806·31	1828·25	1845·24	1856·90							9
1881·21	1907·86	1929·07	1944·69	1953·00						60
1956·10	1987·47	2012·90	2032·49	2044·56	2062·74					1
2041·66	2067·08	2096·72	2120·28	2135·53	2154·50	2158·84				2
2127·22	2146·31	2180·54	2208·07	2226·79	2246·26	2253·33	2250·60			3
2212·78	2225·55	2272·79	2295·86	2318·06	2338·02	2347·81	2347·69	2339·88		4
2298·34	2304·79	2365·05	2391·21	2409·32	2429·78	2442·30	2444·79	2439·33	2422·96	65
2383·90	2384·03	2457·31	2486·57	2507·65	2521·54	2536·79	2541·88	2538·77	2524·39	6
2477·89	2463·26	2549·57	2581·93	2605·99	2622·35	2631·28	2638·97	2638·22	2625·83	7
2571·88	2569·23	2641·82	2677·29	2704·32	2723·17	2734·32	2736·06	2737·67	2727·26	8
2665·88	2675·79	2740·65	2772·64	2802·65	2823·98	2837·37	2840·71	2837·12	2828·69	9
2759·87	2782·06	2839·47	2877·33	2900·98	2924·79	2940·42	2945·37	2942·77	2930·12	70
2853·86	2888·33	2938·30	2982·01	3003·03	3025·60	3043·46	3050·03	3048·41	3036·76	1
2949·96	2994·60	3037·13	3086·70	3105·09	3128·27	3146·50	3154·69	3154·06	3143·40	2
3046·06	3090·95	3135·96	3191·39	3207·14	3230·94	3249·05	3259·34	3259·71	3250·04	3
3142·16	3187·29	3232·31	3296·08	3309·19	3333·62	3351·60	3361·14	3365·36	3356·68	4
3238·26	3283·64	3328·66	3387·81	3411·24	3436·29	3454·14	3462·95	3465·80	3463·32	75
3334·36	3379·99	3425·01	3479·53	3505·85	3538·96	3556·69	3564·76	3566·24	3561·15	6
3422·77	3476·34	3521·35	3571·26	3600·47	3632·21	3659·24	3666·56	3666·68	3658·99	7
3511·18	3563·63	3617·70	3662·99	3695·08	3725·45	3750·75	3768·36	3767·12	3756·83	8
3599·60	3650·93	3703·63	3754·72	3789·69	3818·70	3842·27	3857·51	3867·56	3854·67	9
3688·01	3738·23	3789·56	3839·29	3884·30	3911·95	3933·78	3946·67	3950·23	3952·50	80
3776·42	3825·53	3875·50	3923·85	3967·25	4005·20	4025·29	4035·83	4032·91	4036·32	1
3853·30	3912·82	3961·43	4008·42	4050·21	4086·42	4116·80	4124·99	4115·59	4120·15	2
3930·18	3987·84	4047·36	4092·99	4133·17	4167 64	4196·16	4214·14	4198·27	4203·98	3
4007·06	4062·86	4120·89	4177·56	4216·13	4248·86	4275·52	4292·25	4280·94	4287·80	4
4083·94	4137·88	4194·43	4250·35	4299·68	4330·08	4354·88	4370·37	4362·31	4371·62	85
4160·82	4212·90	4267·96	4323·13	4372·36	4411·30	4434·24	4448·49	4443·69	4451·10	6
4233·11	4287·92	4341·49	4395·92	4445·65	4486·94	4513·60	4526·61	4525·07	4530·59	7
4305·41	4366·78	4415·02	4468·71	4518·94	4562·58	4595·81	4604·72	4606·45	4610·08	8
4377·70	4445·65	4502·44	4541·50	4592·22	4638·22	4678·03	4695·49	4687·82	4689·56	9
4449·99	4524·52	4589·86	4638·22	4665·50	4713·86	4760·24	4786·27	4787·76	4769·04	90
4522·28	4603·38	4677·28	4734·94	4769·91	4789·50	4842·45	4877·04	4887·71	4874·81	1
	4682·24	4764·70	4831·66	4874·31	4898·74	4924·66	4967·81	4987·66	4980·59	2
		4852·12	4928·38	4978·72	5007·99	5033·03	5058·58	5087·60	5086·36	3
			5025·10	5083·13	5117·24	5141·41	5154·06	5187·54	5192·13	4
				5187·54	5226·48	5249·79	5249·54	5278·31	5297·90	95
					5335·72	5358·17	5345·02	5369·07	5387·67	6
						5466·54	5440·50	5459·84	5477·45	7
							5535·98	5550·61	5567·23	8
								5641·38	5657·01	9
									5746·78	100

Table

*Value of the Contingent Pensions of Rs.*2000 *each, to which the*

Pensions to continue until the

(Deduced from Tables

Age of Husbands.	AGE OF									
	14	15	16	17	18	19	20	21	22	23
24	3456	3508	3556	3602	3642	3680	3712	3740	3764	3782
25	3486	3538	3590	3632	3672	3710	3744	3772	3796	3814
6	3512	3564	3614	3658	3700	3738	3772	3802	3826	3844
7	3540	3591	3640	3686	3728	3766	3800	3830	3854	3874
8	3564	3620	3668	3714	3756	3794	3830	2858	3884	3902
9	3590	3644	3696	3742	3784	3822	3858	3888	3912	3932
30	3616	3670	3720	3770	3810	3850	3884	3914	3940	3953
1	3640	3694	3746	3792	3830	3876	3910	3940	3966	3984
2	3666	3718	3770	3806	3860	3902	3934	3964	3990	4008
3	3686	3744	3792	3840	3882	3922	3960	3988	4012	4032
4	3710	3764	3818	3862	3906	3944	3980	4010	4034	4054
35	3732	3788	3838	3888	3925	3966	4002	4032	4056	4076
6	3756	3812	3862	3910	3954	3990	4026	4054	4080	4098
7	3784	3838	3888	3936	3978	4020	4050	4080	4104	4122
8	3812	3866	3916	3964	4006	4044	4082	4106	4130	4148
9	3842	3896	3948	3994	4036	4074	4108	4140	4160	4178
40	3878	3930	3980	4028	4070	4108	4140	4170	4196	4208
1	3914	3970	4018	4064	4106	4144	4176	4206	4228	4240
2	3960	4010	4062	4106	4146	4184	4218	4246	4268	4282
3	3996	4062	4106	4154	4192	4228	4262	4290	4310	4326
4	4048	4100	4162	4200	4246	4278	4312	4338	4360	4374
45	4113	4156	4204	4262	4296	4336	4366	4392	4412	4428
6	4178	4229	4266	4308	4364	4392	4426	4450	4470	4484
7	4244	4303	4350	4376	4414	4458	4488	4518	4534	4548
8	4309	4377	4434	4474	4490	4524	4562	4588	4610	4620
9	4374	4451	4518	4571	4604	4608	4638	4670	4690	4706
50	4495	4524	4602	4669	4717	4740	4736	4762	4798	4800
1	4617	4662	4686	4767	4831	4871	4887	4878	4896	4916
2	4738	4801	4842	4864	4945	5003	5038	5047	5036	5046
3	4859	4940	4998	5037	5058	5135	5189	5217	5223	5208
4	4980	5078	5154	5209	5247	5266	5340	5387	5411	5413
55	5164	5216	5310	5383	5437	5471	5490	5557	5599	5618
6	5347	5413	5466	5556	5627	5676	5709	5726	5787	5823
7	5531	5610	5675	5728	5817	5881	5928	5958	5974	6028
8	5715	5807	5885	5946	6006	6086	6147	6190	6217	6232
9	5898	6004	6094	6165	6236	6290	6365	6422	6461	6486
60	6103	6200	6303	6384	6466	6529	6584	6654	6704	6738
1	6308	6413	6512	6602	6696	6769	6829	6886	6947	6991
2	6513	6626	6732	6823	6926	7009	7075	7139	7190	7244
3	6718	6839	6953	7050	7156	7249	7320	7393	7451	7496
4	6922	7052	7174	7281	7392	7488	7565	7646	7713	7765
65		7264	7394	7512	7628	7732	7810	7899	7974	8035
6			7614	7742	7864	7975	8064	8152	8235	8304
7				7972	7100	8219	8318	8413	8496	8573
8					8336	8463	8572	8674	8763	8842
9						8706	8826	8935	9030	9114
70							9080	9196	9297	9386
1								9456	9564	9658
2									9830	9939
3										10202
4										
75										
6										
7										
8										
9										
80										
1										
2										
3										
4										

Sixth,

Wives of Members are entitled after decease of their Husbands.

day of death or remarriage.

XXV. and XXVIII.)

WIVES.											AGE OF HUSBANDS.
24	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	
3796	3786	3806	3806	3802	3796	3786	3776	3762	3742	3720	24
3828	3836	3840	3838	3834	3828	3820	3810	3794	3776	3752	25
3858	3866	3868	3868	3864	3858	3850	3840	3824	3808	3782	6
3886	3896	3898	3898	3894	3888	3880	3868	3856	3836	3812	7
3916	3924	3828	3928	3924	3906	3910	3898	3884	3866	3842	8
3946	3954	3956	3956	3952	3946	3938	3928	3912	3894	3872	9
3972	3982	3984	3984	3980	3974	3966	3954	3940	3922	3898	30
3998	4008	4010	4010	4006	4000	3992	3980	3966	3948	3922	1
4022	4032	4034	4034	4030	4024	4014	4004	3988	3970	3944	2
4054	4054	4058	4056	4052	4046	4036	4024	4010	3990	3966	3
4066	4076	4078	4078	4072	4066	4056	4046	4030	4010	3984	4
4088	4096	4100	4098	4092	4086	4076	4064	4050	4030	4006	35
4110	4118	4120	4120	4114	4106	4098	4084	4068	4048	4022	6
4134	4142	4144	4142	4136	4128	4118	4106	4090	4068	4042	7
4160	4168	4170	4166	4160	4152	4142	4128	4112	4090	4064	8
4188	4196	4196	4194	4186	4178	4166	4154	4136	4114	4086	9
4220	4226	4226	4222	4216	4206	4194	4180	4162	4140	4112	40
4254	4260	4260	4256	4248	4238	4226	4210	4192	4168	4140	1
4298	4298	4296	4292	4282	4272	4260	4244	4224	4202	4172	2
4336	4346	4338	4332	4322	4312	4298	4282	4260	4236	4206	3
4382	4386	4384	4376	4366	4354	4340	4322	4302	4276	4244	4
4436	4438	4434	4426	4416	4402	4386	4368	4346	4340	4288	45
4492	4494	4490	4482	4470	4454	4438	4418	4396	4368	4334	6
4556	4556	4552	4542	4528	4512	4494	4474	4450	4422	4386	7
4626	4626	4622	4612	4596	4580	4560	4538	4512	4482	4446	8
4730	4708	4704	4692	4676	4658	4638	4614	4588	4556	4518	9
4810	4806	4800	4788	4772	4752	4730	4706	4678	4650	4606	50
4922	4926	4914	4902	4886	4866	4844	4818	4788	4754	4720	1
5060	5058	5058	5040	5024	5004	4980	4954	4924	4888	4846	2
5210	5218	5212	5206	5182	5162	5140	5112	5082	5044	5002	3
5392	5388	5392	5380	5368	5342	5320	5292	5260	5224	5180	4
5613	5590	5580	5580	5560	5548	5518	5492	5460	5424	5378	55
5835	5825	5800	5784	5780	5758	5744	5710	5678	5662	5596	6
6056	6061	6049	6020	6002	5994	5970	5954	5914	5878	5932	7
6277	6297	6298	6280	6252	6232	6222	6194	6174	6128	6084	8
6498	6533	6547	6541	6522	6496	6472	6460	6428	6402	6348	9
6759	6768	6796	6801	6792	6774	6748	6728	6706	6666	6634	60
7021	7037	7044	7062	7062	7053	7034	7006	6982	6954	6906	1
7283	7307	7321	7322	7332	7332	7321	7300	7268	7238	7202	2
7545	7577	7598	7606	7602	7610	7608	7595	7570	7530	7490	3
7806	7847	7875	7890	7203	7888	7894	7890	7872	7840	7792	4
8082	8116	8152	8174	8185	8187	8180	8184	8174	8150	8109	65
8359	8399	8428	8458	8477	8487	8487	8478	8476	8460	8426	6
8636	8682	8717	8742	8769	8786	8794	8791	8778	8770	8744	7
8912	8965	9007	9037	9060	9085	9101	9105	9098	9080	9061	8
9188	9248	9296	9332	9359	9384	9408	9419	9418	9405	9378	9
9463	9530	9585	9627	9659	9687	9714	9733	9738	9731	9707	70
9739	9808	9874	9922	9958	9990	10019	10046	10058	10056	10036	1
10015	10087	10153	10216	10257	10293	10325	10354	10378	10381	10365	2
10291	10366	10433	10495	10556	10596	10631	10662	10686	10706	10694	3
10566	10644	10712	10774	10833	10898	10937	10970	10995	11013	11022	4
	10922	10991	11053	11111	11173	11242	11278	11304	11321	11328	75
		11270	11332	11388	11449	11515	11586	11612	11629	11634	6
			11610	11665	11724	11788	11856	11920	11937	11940	7
				11942	11999	12061	12126	12187	12244	12246	8
					12274	12334	12396	12455	12509	12552	9
						12606	12666	12723	12774	12813	80
							12936	12991	13039	13075	1
								13258	13304	13336	2
									13568	13597	3
										13858	4

Age of Husbands.	AGE OF									
	35	36	37	38	39	40	41	42	43	44
25	3724									
6	3752	3720								
7	3784	3748	3710							
8	3814	3778	3738	3696						
9	3842	3806	3768	3720	3674					
30	3870	3834	3794	3750	3698	3648				
1	3894	3860	3818	3774	3724	3668	3614			
2	3916	3880	3842	3794	3746	3690	3636	3578		
3	3936	3900	3860	3814	3764	3710	3652	3592	3534	
4	3956	3918	3878	3830	3782	3726	3668	3610	3546	3488
35	3972	3936	3894	3848	3796	3742	3682	3624	3562	3498
6	3992	3954	3912	3864	3812	3756	3700	3638	3576	3514
7	4010	3972	3930	3882	3830	3772	3714	3656	3590	3528
8	4032	3992	3950	3900	3848	3790	3730	3670	3604	3542
9	4054	4014	3972	3922	3868	3808	3748	3686	3622	3558
40	4078	4038	3994	3944	3890	3830	3768	3706	3640	3576
1	4106	4066	4020	3968	3914	3854	3790	3728	3660	3594
2	4136	4096	4050	3998	3942	3880	3816	3752	3684	3616
3	4170	4128	4082	4028	3972	3910	3844	3780	3710	3642
4	4208	4166	4018	4064	4006	3942	3876	3810	3740	3670
45	4250	4206	4158	4102	4044	3980	3912	3844	3774	3702
6	4296	4250	4202	4144	4086	4020	3952	3882	3810	3738
7	4346	4300	4248	4192	4130	4064	3994	3924	3850	3776
8	4404	4356	4304	4246	4182	4114	4044	3972	3896	3822
9	4476	4426	4372	4312	4246	4176	4104	4032	3954	3878
50	4560	4510	4454	4392	4326	4254	4180	4106	4028	3948
1	4668	4614	4558	4492	4426	4352	4276	4200	4120	4038
2	4798	4744	4684	4620	4550	4474	4398	4318	4236	4154
3	4954	4896	4836	4770	4698	4620	4542	4460	4376	4292
4	5130	5072	5010	4942	4868	4790	4708	4626	4538	4452
55	5328	5270	5206	5136	5060	4980	4898	4812	4722	4634
6	5546	5486	5422	5350	5272	5190	5104	5018	4926	4834
7	5780	5720	5654	5580	5502	5418	5330	5240	5148	5054
8	6032	5970	5892	5828	5748	5662	5572	5480	5386	5290
9	6296	6234	6166	6090	6008	5920	5828	5734	5638	5538
60	6570	6510	6440	6364	6280	6190	6096	6000	5900	5800
1	6868	6792	6724	6646	6562	6468	6374	6276	6174	6070
2	7144	7106	7014	6934	6848	6754	6656	6558	6452	6348
3	7448	7378	7326	7230	7142	7046	6948	6846	6740	6632
4	7742	7690	7612	7550	7442	7346	7244	7142	7032	6924
65	8050	7990	7930	7838	7750	7650	7544	7442	7332	7220
6	8374	8304	8236	8164	8062	7962	7858	7750	7638	7526
7	8698	8633	8556	8474	8398	8282	8176	8066	7950	7836
8	9022	8963	8890	8802	8710	8622	8498	8388	8272	8118
9	9346	9293	9224	9143	9042	8936	8844	8714	8596	8476
70	9670	9623	9558	9485	9384	9270	9160	9066	8924	8804
1	10002	9952	9892	9826	9727	9612	9494	9378	9280	9132
2	10334	10285	10226	10167	10070	9954	9833	9714	9590	9496
3	10666	10618	10557	10508	10412	10296	10173	10049	9924	9798
4	10998	10951	10889	10831	10754	10638	10513	10385	10252	10130
75	11330	11284	11220	11155	11072	10980	10853	10720	10581	10451
6	11632	11616	11551	11478	11390	11291	11192	11055	10910	10772
7	11935	11914	11882	11801	11708	11603	11495	11390	11238	11093
8	12238	12212	12175	12124	12026	11914	11798	11684	11566	11414
9	12540	12510	12469	12411	12344	12225	12101	11978	11851	11734
80	12842	12808	12762	12699	12625	12536	12404	12272	12136	12009
1	13099	13106	13055	12987	12906	12809	12706	12566	12421	12285
2	13357	13359	13348	13275	13187	13083	12971	12860	12706	12560
3	13615	13613	13596	13562	13468	13356	13236	13116	12990	12835
4	13873	13867	13845	13806	13748	13629	13501	13372	13237	13110
85	14130	14121	14094	14050	13989	13902	13766	13628	13485	13351
6		14374	14342	14294	14231	14144	14030	13884	13733	13593
7			14590	14538	14473	14387	14279	14140	13981	13834
8				14782	14715	14630	14529	14409	14228	14075
9					14956	14872	14778	14679	14523	14316
90						15114	15027	14948	14819	14639
1							15276	15217	15114	14963
2								15486	15410	15286
3									15706	15609
4										15932
95										

WIVES.											AGE OF HUSBANDS.
45	46	47	48	49	50	51	52	53	54	55	
											25
											6
											7
											8
											9
											30
											1
											2
											3
											4
3438											35
3450	3390										6
3464	3400	3338									7
3478	3414	3350	3286								8
3492	3428	3364	3298	3232							9
3508	3444	3378	3312	3244	3180						40
3526	3460	3394	3326	3258	3192	3124					1
3548	3480	3412	3344	3276	3208	3138	3070				2
3572	3504	3434	3364	3294	3226	3154	3084	3010			3
3598	3528	3458	3386	3316	3246	3174	3102	3026	2948		4
3628	3558	3486	3412	3340	3268	3194	3120	3044	2964	2880	45
3662	3590	3516	3440	3366	3292	3216	3142	3064	2982	2896	6
3700	3624	3550	3472	3396	3320	3242	3166	3086	3002	2914	7
3744	3666	3590	3512	3432	3354	3274	3194	3112	3026	2936	8
3798	3720	3640	3560	3478	3398	3316	3234	3148	3060	2968	9
3868	3788	3706	3622	3540	3456	3372	3286	3198	3106	3012	50
3956	3874	3790	3704	3618	3534	3446	3358	3266	3172	3074	1
4068	3984	3898	3810	3722	3634	3542	3452	3358	3260	3158	2
4204	4118	4030	3940	3848	3758	3662	3568	3472	3370	3262	3
4362	4274	4182	4090	3996	3902	3804	3708	3606	3500	3390	4
4542	4450	4358	4262	4164	4068	3968	3866	3762	3652	3538	55
4740	4646	4550	4452	4352	4254	4150	4046	3936	3822	3704	6
4916	4860	4762	4662	4560	4456	4350	4242	4130	4012	3890	7
5190	5092	4990	4888	4782	4676	4566	4456	4340	4218	4090	8
5438	5336	5232	5128	5018	4910	4798	4686	4564	4438	4306	9
5696	5594	5485	5378	5268	5158	5042	4924	4802	4672	4536	60
5964	5858	5752	5640	5526	5414	5294	5174	5048	4916	4776	1
6240	6132	6022	5908	5794	5678	5518	5434	5304	5168	5022	2
6522	6412	6300	6184	6066	5948	5826	5700	5568	5428	5278	3
6810	6698	6584	6468	6348	6228	6102	5974	5860	5696	5542	4
7106	6992	6876	6758	6636	6514	6386	6256	6118	5972	5814	65
7408	7292	7174	7074	6930	6808	6678	6546	6406	6256	6096	6
7718	7600	7482	7360	7234	7110	6978	6846	6702	6550	6386	7
8034	7914	7794	7670	7544	7418	7286	7150	7008	6852	6684	8
8354	8234	8112	7986	7858	7732	7598	7462	7378	7172	6990	9
8678	8556	8432	8306	8178	8050	7916	7780	7634	7474	7302	70
9006	8882	8756	8630	8500	8372	8238	8100	7956	7792	7618	1
9334	9210	9084	8956	8826	8698	8562	8424	8276	8114	7938	2
9664	9538	9412	9282	9152	9022	8888	8750	8602	8438	8262	3
9996	9864	9738	9608	9476	9348	9212	9076	8928	8764	8584	4
10322	10193	10158	9930	9798	9670	9534	9400	9252	9088	8906	75
10634	10510	10380	10244	10114	9988	9854	9718	9570	9406	9226	6
10946	10813	10690	10558	10422	10298	10164	10030	9884	9720	9540	7
11258	11117	10984	10862	10728	10598	10468	10336	10190	10028	9846	8
11570	11420	11278	11147	11024	10898	10762	10634	10492	10328	10148	9
11882	11723	11572	11433	11301	11188	11056	10922	10784	10624	10442	80
12147	12026	11866	11718	11578	11457	11338	11210	11064	10910	10730	1
12413	12281	12160	12003	11855	11726	11599	11484	11346	11184	11008	2
12678	12536	12405	12288	12132	11995	11861	11738	11614	11458	11276	3
12943	12791	12650	12523	12408	12264	12123	11993	11863	11720	11542	4
13208	13046	12895	12759	12638	12532	12385	12248	12113	11966	11798	85
13447	13300	13140	12995	12868	12761	12646	12502	12362	12212	12045	6
13686	13543	13384	13231	13098	12991	12881	12756	12611	12458	12293	7
13925	13787	13645	13466	13328	13221	13117	13013	12860	12704	12541	8
14164	14030	13906	13753	13558	13451	13353	13270	13145	12950	12789	9
14402	14273	14167	14041	13868	13680	13589	13527	13430	13265	13036	90
14746	14516	14428	14328	14179	14012	13824	13784	13715	13581	13376	1
15091	14831	14688	14615	14490	14345	14169	14040	14000	13896	13716	2
15436	15187	15035	14902	14800	14678	14515	14387	14284	14211	14056	3
15780	15543	15383	15207	15110	15010	14860	14734	14602	14526	14396	4
16124	15899	15730	15513	15461	15342	15205	15081	14921	14846	14736	95

Age of Husbands.										AGE OF
	56	57	58	59	60	61	62	63	64	65
46	2806									
7	2822	2728								
8	2844	2746	2646							
9	2872	2772	2670	2566						
50	2912	2810	2706	2596	2488					
1	2970	2866	2756	2644	2532	2420				
2	3052	2942	2830	2714	2598	2480	2364			
3	3154	3040	2922	2804	2682	2560	2438	2318		
4	3276	3158	3036	2912	2786	2660	2534	2408	2282	
55	3418	3296	3170	3040	2910	2778	2646	2514	2382	2254
6	3580	3454	3322	3186	3050	2912	2774	2638	2500	2364
7	3760	3628	3490	3350	3208	3064	2920	2776	2634	2490
8	3958	3800	3676	3530	3382	3232	3080	2930	2780	2632
9	4168	4026	3876	3724	3570	3412	3256	3098	2940	2784
60	4392	4244	4090	3932	3770	3606	3442	3276	3112	2948
1	4628	4474	4314	4148	3980	3810	3638	3466	3294	3122
2	4870	4710	4546	4374	4198	4022	3844	3664	3484	3304
3	5122	4958	4786	4608	4428	4242	4056	3870	3682	3094
4	5382	5212	5034	4850	4662	4472	4278	4084	3888	3694
65	5648	5474	5292	5102	4908	4708	4508	4306	4104	3900
6	5926	5746	5558	5362	5162	4956	4748	4538	4326	4116
7	6212	6028	5834	5632	5426	5212	4998	4780	4562	4340
8	6508	6318	6120	5910	5698	5478	5256	5030	4804	4576
9	6808	6616	6412	6198	5976	5752	5522	5290	5056	4820
70	7116	6920	6710	6492	6264	6030	5796	5556	5314	5070
1	7430	7228	7016	6790	6558	6320	6074	5828	5580	5328
2	7748	7544	7326	7096	6858	6612	6362	6106	5852	5592
3	8068	7860	7638	7404	7160	6910	6652	6392	6126	5862
4	8390	8180	7954	7714	7466	7208	6934	6678	6408	6130
75	8710	8498	8268	8024	7770	7508	7240	6966	6688	6408
6	9028	8812	8580	8332	8074	7808	7530	7252	6968	6682
7	9340	9124	8888	8636	8372	8100	7820	7534	7246	6952
8	9648	9428	9190	8936	8668	8390	8104	7814	7520	7220
9	9948	9728	9488	9230	8958	8676	8386	8090	7790	7484
80	10242	10020	9778	9518	9242	8956	8662	8362	8056	7746
1	10530	10308	10064	9800	9522	9232	8932	8628	8318	8002
2	10810	10586	10340	10074	9794	9500	9196	8888	8574	8252
3	11082	10860	10612	10342	10058	9762	9456	9142	8824	8500
4	11342	11124	10876	10604	10318	10018	9708	9390	9068	8740
85	11602	11376	11132	10862	10570	10266	9952	9632	9306	8974
6	11850	11628	11374	11106	10816	10508	10190	9866	9536	9200
7	12105	11866	11616	11338	11050	10744	10420	10092	9758	9420
8	12361	12143	11854	11578	11278	10972	10654	10318	9980	9638
9	12616	12421	12160	11818	11520	10202	10882	10556	10206	9860
90	12871	12698	12466	12154	11774	11458	11122	10794	10464	10100
1	13126	12975	12772	12491	12135	11732	11400	11054	10716	10386
2	13483	13252	13078	12828	12497	12110	11742	11394	11038	10692
3	13840	13607	13384	13164	12859	12488	12115	11768	11404	11040
4	14197	13963	13687	13500	13221	12866	12488	12111	11802	11416
95	14554	14318	13991	13825	13582	13244	12861	12455	12088	11808

—(*continued.*)

WIVES.											Age of Husband.
66	67	68	69	70	71	72	73	74	75	76	
											46
											7
											8
											9
											50
											1
											2
											3
											4
											55
2232											6
2350	2212										7
2484	2338	2194									8
2630	2576	2324	2176								9
2786	2626	2466	2310	2160							60
2952	2784	2616	2450	2294	2140						1
3126	2950	2774	2602	2434	2272	2118					2
3308	3124	2940	2758	2584	2412	2248	2090				3
3498	3304	3112	2922	2728	2560	2386	2220	2080			4
3696	3494	3294	3094	2902	2716	2534	2356	2188	2024		65
3904	3694	3484	3276	3176	2878	2688	2502	2324	2150	1986	6
4122	3902	3684	3466	3256	3050	2850	2656	2470	2286	2112	7
4348	4120	3892	3666	3448	8232	3022	2818	2624	2430	2248	8
4584	4344	4110	3874	3646	3420	3202	2988	2784	2582	2390	9
4826	4580	4332	4088	3852	3618	3390	3166	2952	2740	2540	70
5074	4820	4566	4308	4064	3822	3584	3350	3128	2906	2696	1
5332	5068	4804	4540	4282	4032	3788	3542	3310	3080	2860	2
5592	5322	5050	4776	4512	4246	3994	3744	3500	3258	3030	3
5858	5578	5298	5016	4744	4472	4200	3946	3696	3444	3204	4
6120	5838	5548	5258	4978	4698	4424	4144	3892	3634	3384	75
6390	6092	5800	5502	5212	4924	4642	4362	4082	3822	3570	6
6656	6354	6044	5744	5446	5162	4858	4570	4294	4000	3748	7
6916	6612	6298	5976	5680	5376	5076	4780	4494	4208	3914	8
7176	6862	6544	6224	5900	5600	5292	4988	4694	4400	4118	9
7430	7112	6788	6460	6142	5806	5508	5196	4896	4592	4302	80
7682	7356	7028	6692	6368	6042	5700	5402	5094	4784	4484	1
7928	7598	7262	6924	6592	6258	5932	5576	5292	4972	4668	2
8170	7834	7494	7146	6814	6472	6140	5806	5444	5160	4848	3
8406	8066	7720	7368	7026	6684	6342	6004	5672	5346	5028	4
8636	8292	7940	7584	7238	6886	6548	6198	5866	5530	5204	85
8860	8512	8156	7794	7444	7088	6738	6392	6050	5706	5378	6
9074	8722	8366	7998	7642	7282	6928	6570	6230	5878	5544	7
9290	8934	8572	8202	7844	7476	7116	6756	6406	6056	5710	8
9510	9166	8782	8408	8048	7676	7270	6942	6592	6228	5888	9
9744	9382	9010	8630	8266	7892	7522	7144	6786	6428	6066	90
10002	9636	9264	8878	8504	8128	7756	7376	7006	6634	6284	1
10364	9954	9576	9188	8812	8422	8054	7668	7296	6912	6538	2
10686	10374	9922	9528	9150	8758	8366	7994	7616	7232	6858	3
11042	10684	10412	9888	9598	9112	8712	8306	7972	7558	7188	4
11404	11012	10644	10226	9860	9432	9068	8616	8228	7926	7514	95

Table Sixth.

Age of Husbands.	AGE OF						
	77	78	79	80	81	82	83
67	1946						
8	2070	1902					
9	2202	2024	1856				
70	2344	2154	1976	1810			
1	2490	2292	2104	1928	1756		
2	2644	2436	2240	2052	1870	1704	
3	2804	2588	2382	2186	1996	1816	1656
4	2970	2744	2528	2322	2122	1934	1764
75	3140	2904	2678	2464	2254	2058	1878
6	3312	3066	2832	2608	2390	2184	1996
7	3492	3226	2988	2754	2526	2314	2116
8	3662	3404	3144	2904	2664	2442	2240
9	3810	3564	3304	3052	2806	2574	2360
80	4014	3732	3464	3204	2940	2708	2486
1	4188	3900	3622	3356	3092	2840	2612
2	4364	4068	3782	3508	3236	2978	2736
3	4538	4224	3942	3660	3378	3112	2868
4	4706	4398	4120	3812	3522	3248	2994
85	4878	4558	4256	3962	3666	3384	3122
6	5046	4720	4406	4108	3806	3518	3250
7	5208	4876	4560	4244	3942	3646	3374
8	5370	5038	4710	4396	4066	3778	3496
9	5534	5194	4872	4546	4222	3888	3628
90	5722	5368	5036	4716	4382	4060	3732
1	5914	5576	5228	4896	4568	4230	3924
2	6188	5808	5498	5134	4788	4480	4132
3	6454	6128	5722	5448	5044	4724	4438
4	6806	6394	6102	5646	5446	4960	4660
95	7124	6720	6322	6064	5554	5424	4880

—(*continued.*)

WIVES.							
84	**85**	**86**	**87**	**88**	**89**	**90**	AGE OF HUSBANDS.
							67
							8
							9
							70
							1
							2
							3
1606							4
1710	1572						75
1818	1672	1542					6
1928	1774	1634	1502				7
2042	1880	1732	1592	1472			8
2162	1988	1834	1686	1556	1436		9
2274	2106	1936	1784	1646	1514	1378	80
2390	2208	2052	1882	1738	1602	1452	1
2510	2320	2146	1998	1836	1694	1534	2
2624	2436	2250	2078	1960	1790	1622	3
2750	2538	2366	2176	2014	1892	1716	4
2868	2662	2452	2296	2116	1956	1832	85
2984	2774	2598	2354	2232	2054	1864	6
3104	2876	2676	2484	2262	2172	1968	7
3222	2994	2772	2578	2410	2154	2068	8
3340	3108	2890	2670	2486	2340	2000	9
3476	3238	3012	2790	2576	2402	2244	90
3564	3382	3178	2926	2716	2532	2302	1
3826	3484	3348	3196	2906	2692	2404	2
4054	3798	3412	3233	3053	2873	2694	3
4388	4074	3796	3514	3351	3128	2906	4
4540	4376	4202	4065	3727	3490	3253	95

Table

Value of an Annuity of £1 *or One Rupee on*

(Deduced from

AGE OF HUSBANDS.	AGE OF									
	14	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
24	8·314	8·297	8·281	8·262	8·243	8·221	8·198	8·174	8·147	8·118
25	8·294	8·277	8·269	8·242	8·222	8·201	8·178	8·154	8·127	8·098
6	8·274	8·258	8·241	8·222	8·204	8·183	8·160	8·136	8·110	8·080
7	8·254	8·239	8·223	8·204	8·184	8·164	8·142	8·117	8·092	8·062
8	8·236	8·220	8·204	8·186	8·166	8·144	8·124	8·100	8·073	8·045
9	8·211	8·202	8·185	8·167	8·149	8·128	8·104	8·082	8·056	8·028
30	8·199	8·183	8·167	8·149	8·131	8·111	8·089	8·063	8·039	8·011
1	8·180	8·167	8·151	8·133	8·114	8·095	8·073	8·049	8·022	7·995
2	8·166	8·149	8·135	8·118	8·100	8·079	8·058	8·035	8·009	7·980
3	8·152	8·137	8·121	8·104	8·086	8·066	8·045	8·021	7·997	7·969
4	8·138	8·123	8·108	8·090	8·073	8·053	8·032	8·008	7·984	7·958
35	8·124	8·110	8·094	8·077	8·060	8·041	8·019	7·996	7·971	7·945
6	8·110	8·096	8·081	8·064	8·047	8·027	8·006	7·984	7·959	7·932
7	8·096	8·082	8·067	8·050	8·033	8·014	7·993	7·971	7·947	7·920
8	8·080	8·066	8·051	8·035	8·018	7·999	7·978	7·957	7·933	7·906
9	8·062	8·049	8·034	8·019	8·002	7·983	7·963	7·941	7·917	7·892
40	8·043	8·030	8·016	8·001	7·984	7·966	7·946	7·925	7·901	7·876
1	8·024	8·011	7·997	7·981	7·965	7·947	7·928	7·906	7·883	7·857
2	8·002	7·989	7·975	7·960	7·943	7·924	7·907	7·886	7·863	7·838
3	7·976	7·964	7·951	7·936	7·920	7·902	7·884	7·864	7·841	7·816
4	7·950	7·937	7·924	7·910	7·895	7·877	7·859	7·839	7·817	7·793
45	7·920	7·908	7·894	7·882	7·866	7·850	7·832	7·812	7·790	7·766
6	7·888	7·876	7·864	7·849	7·836	7·820	7·802	7·783	7·761	7·738
7	7·853	7·842	7·829	7·817	7·800	7·787	7·769	7·751	7·730	7·706
8	7·813	7·802	7·791	7·778	7·764	7·747	7·732	7·714	7·694	7·671
9	7·767	7·756	7·745	7·733	7·719	7·705	7·686	7·671	7·651	7·630
50	7·712	7·702	7·691	7·679	7·666	7·652	7·636	7·617	7·600	7·579
1	7·645	7·635	7·625	7·614	7·600	7·587	7·572	7·556	7·535	7·517
2	7·565	7·555	7·545	7·534	7·522	7·509	7·495	7·479	7·461	7·438
3	7·471	7·462	7·452	7·441	7·430	7·417	7·403	7·388	7·371	7·353
4	7·364	7·356	7·347	7·336	7·325	7·313	7·300	7·285	7·269	7·251
55	7·246	7·238	7·229	7·220	7·209	7·198	7·185	7·121	7·155	7·139
6	7·117	7·109	7·101	7·029	7·083	7·072	7·060	7·046	7·032	7·015
7	6·978	6·971	6·963	6·955	6·946	6·932	6·924	6·912	6·897	6·883
8	6·831	6·823	6·817	6·809	6·801	6·791	6·781	6·769	6·755	6·740
9	6·676	6·670	6·663	6·656	6·648	6·639	6·629	6·618	6·606	6·592
60	6·509	6·510	6·504	6·497	6·489	6·481	6·472	6·461	6·450	6·437
1	6·341	6·340	6·340	6·334	6·326	6·319	6·310	6·301	6·290	6·277
2	6·173	6·169	6·167	6·167	6·160	6·153	6·145	6·136	6·126	6·114
3	6·005	5·998	5·994	5·991	5·991	5·984	5·977	5·968	5·959	5·949
4	5·838	5·828	5·820	5·815	5·812	5·812	5·806	5·798	5·789	5·779
65		5·658	5·647	5·639	5·634	5·632	5·632	5·638	5·616	5·607
6			5·474	5·463	5·456	5·451	5·450	5·448	5·440	5·431
7				5·288	5·278	5·270	5·267	5·264	5·261	5·253
8					5·100	5·090	5·084	5·080	5·076	5·071
9						4·910	4·901	5·896	4·891	4·886
70							4·719	4·712	4·706	4·701
1								4·528	4·521	4·515
2									4·336	4·330
3										4·145
4										
75										
6										
7										
8										
9										
80										
1										
2										
3										
84										

Seventh,

the Joint Lives of a Member and his Wife.

Table XXV.)

WIVES.											AGE OF HUSBANDS.
24	25	26	27	28	29	30	31	32	33	34	
8·086	8·052	8·014	7·973	7·928	7·883	7·837	7·794	7·750	7·707	7·661	24
8·066	8·032	7·995	7·954	7·909	7·864	7·819	7·775	7·732	7·690	7·643	25
8·049	8·015	7·978	7·937	7·892	7·847	7·803	7·759	7·716	7·674	7·628	6
8·031	7·997	7·960	7·920	7·876	7·831	7·787	7·744	7·700	7·658	7·612	7
8·014	7·980	7·943	7·903	7·859	7·815	7·771	7·727	7·684	7·643	7·597	8
7·998	7·964	7·927	7·887	7·842	7·799	7·755	7·712	7·669	7·627	7·583	9
7·980	7·948	7·911	7·871	7·827	7·783	7·740	7·697	7·654	7·613	7·568	30
7·966	7·932	7·896	7·856	7·813	7·769	7·726	7·683	7·641	7·600	7·555	1
7·952	7·918	7·882	7·843	7·800	7·756	7·713	7·671	7·629	7·588	7·543	2
7·939	7·906	7·871	7·831	7·788	7·745	7·702	7·659	7·618	7·578	7·533	3
7·926	7·895	7·859	7·820	7·777	7·734	7·691	7·649	7·698	7·567	7·524	4
7·917	7·883	7·848	7·809	7·766	7·723	7·682	7·639	7·598	7·558	7·514	35
7·903	7·873	7·836	7·798	7·755	7·713	7·671	7·630	7·588	7·548	7·505	6
7·891	7·859	7·826	7·786	7·744	7·702	7·660	7·619	7·579	7·538	7·495	7
7·878	7·846	7·812	7·775	7·732	7·690	7·649	7·608	7·567	7·528	7·485	8
7·863	7·832	7·798	7·760	7·718	7·677	7·636	7·595	7·555	7·516	7·474	9
7·848	7·816	7·783	7·745	7·704	7·663	7·622	7·582	7·542	7·504	7·461	40
7·830	7·800	7·766	7·729	7·688	7·648	7·607	7·567	7·529	7 490	7·448	1
7·811	7·780	7·748	7·711	7·670	7·630	7·590	7·551	7 512	7·474	7·433	2
7·789	7·759	7·726	7·691	7·651	7·611	7·571	7·533	7·494	7·457	7·416	3
7·766	7·736	7·704	7·668	7·630	7·590	7·551	7·512	7·475	7·437	7·397	4
7·740	7·711	7·679	7·644	7·605	7·567	7·528	7·490	7·453	7·417	7·377	45
7·712	7·684	7·653	7·618	7·579	7·541	7·504	7·466	7·429	7·393	7·354	6
7·681	7·654	7·623	7·589	7·551	7·513	7·476	7·440	7·403	7·368	7·329	7
7·646	7·619	7·589	7·556	7·519	7·482	7·445	7·410	7·373	7·339	7·301	8
7·605	7·578	7·549	7·516	7·480	7·444	7·407	7·372	7·339	7·304	7·266	9
7·556	7·530	7·500	7·469	7·433	7·397	7·362	7·327	7·293	7·260	7·224	50
7·494	7·470	7·441	7·410	7·375	7·340	7·306	7·272	7 239	7·206	7·171	1
7·420	7·395	7·368	7·338	7·303	7·269	7·236	7·203	7·171	7·139	7·105	2
7·328	7·308	7·282	7·252	7·219	7·186	7·153	7·122	7·091	7·060	7·026	3
7·232	7·205	7·184	7·155	7·123	7·091	7·059	7·029	6·998	6·969	6·936	4
7·119	7·098	7·069	7·046	7·015	6·985	6·953	6·924	6·895	6·867	6·835	55
6·997	6·976	6·953	6·921	6·897	6·867	6·838	6·809	6·781	6·754	6·724	6
6·864	6·845	6·822	6·797	6·763	6·740	6·712	6·685	6·658	6·632	6·603	7
6·724	6·704	6·684	6·659	6·632	6·599	6·578	6·552	6·526	6·501	6·473	8
6·575	6·558	6·537	6·515	6·488	6·463	6·430	6·412	6·387	6·363	6·337	9
6·422	6·404	6·386	6·363	6·339	6·314	6·290	6·266	6·242	6·219	6·194	60
6·263	6·247	6·228	6·208	6·183	6·161	6·137	6·115	6·092	6·071	6·047	1
6·101	6·086	6·069	6·047	6·026	6·003	5·982	5·960	5·939	5·919	5·897	2
5·936	5·922	5·906	5·887	5·864	5·844	5·822	5·802	5·782	5·763	5·742	3
5·768	5·755	5·739	5·722	5·701	5·679	5·661	5·640	5·623	5·605	5·585	4
5·695	5·584	5·570	5·553	5·534	5·515	5·493	5·477	5·458	5·443	5·424	65
5·422	5·410	5·397	5·382	5·361	5·345	5·328	5·307	5·293	5·276	5·260	6
5·243	5·233	5·221	5·206	5·189	5·172	5·155	5·139	5·120	5·108	5·089	7
5·063	5·053	5·041	5·028	5·012	4·996	4·980	4·965	4·950	4·932	4·921	8
4·880	4·871	4·860	4·848	4·833	4·818	4·803	4·789	4·775	4·763	4·743	9
4·695	4·688	4·678	4·666	4·652	4·638	4·624	4·611	4·599	4·586	4·573	70
4·510	4·504	4·494	4·484	4·470	4·457	4·455	4·432	4·420	4·409	4·397	1
4·325	4·320	4·312	4·300	4·288	4·276	4·264	4·252	4·241	4·231	4·219	2
4·140	4·136	4·130	4·121	4·105	4·094	4·083	4·072	4·062	4·052	4·042	3
3·955	3·952	3·948	3·942	3·930	3·913	3·903	3·893	3·884	3·876	3·865	4
	3·769	3·766	3·763	3·755	3·743	3·726	3·717	3·708	3·700	3·691	75
		3·585	3·584	3·580	3·572	3·560	3·543	3·535	3·528	3·520	6
			3·405	3·405	3·401	3·393	3·382	3·366	3·360	3·352	7
				3·230	3·230	3·227	3·220	3·210	3·195	3·188	8
					3·060	3·061	3·059	3·053	3·044	3·029	9
						2·895	2·898	2·897	2·882	2·883	80
							2·737	2·741	2·740	2·736	1
								2·585	2·589	2·589	2
									2·438	2·443	3
										2·297	84

Age of Husbands.	AGE OF									
	35	36	37	38	39	40	41	42	43	44
25	7·598									
6	7·583	7·534								
7	7·568	7·519	7·472							
8	7·555	7·505	7 457	7·406						
9	7·538	7·490	7·444	7·392	7·342					
30	7·524	7·476	7·430	7·379	7·329	7·275				
1	7·511	7·464	7·417	7·367	7·318	7·264	7·211			
2	7·500	7·452	7·406	7·356	7·307	7·254	7·201	7·150		
3	7·490	7·443	7·397	7·347	7·297	7·245	7·193	7·141	7·087	
4	7·480	7·434	7 388	7·338	7·290	7·237	7·185	7·134	7·079	7·026
35	7·472	7·425	7·380	7·330	7·281	7·230	7·177	7·127	7·073	7·020
6	7·462	7·417	7·371	7·322	7·274	7·222	7·170	7·120	7·066	7·014
7	7·453	7·407	7·363	7·314	7·266	7·214	7·163	7·113	7·059	7·007
8	7·443	7·397	7·353	7·305	7·257	7·206	7·155	7·105	7·052	6·999
9	7 432	7·387	7·343	7·295	7·248	7·196	7·146	7·097	7·044	6·993
40	7·421	7·376	7·332	7·284	7·237	7·187	7·136	7·088	7·035	6·984
1	7·407	7·363	7·319	7·272	7·226	7·175	7·126	7·078	7·026	6·975
2	7·393	7·349	7·305	7·259	7·212	7·163	7·114	7·066	7·015	6·964
3	7·376	7·333	7·290	7·244	7·198	7·149	7·100	7·053	7·002	6·952
4	7·358	7·315	7·273	7·227	7·182	7·134	7·085	7·039	6·988	6·939
45	7·338	7·296	7·254	7 209	7·164	7·116	7·069	7·023	6·973	6·925
6	7·316	7·274	7·234	7·189	7·145	7·098	7·051	7·006	6·956	6·909
7	7·292	7·251	7·211	7·170	7·124	7·076	7·031	6·986	6·938	6·887
8	7·264	7·224	7·184	7·141	7·098	7·052	7·007	6·963	6·915	6·870
9	7·230	7·190	7·152	7·110	7·068	7·022	6·978	6·935	6·889	6·845
50	7·188	7·149	7·112	7·071	7·030	6·986	6·942	6 900	6 854	6·810
1	7·137	7·099	7·061	7·022	6·982	6·938	6·896	6·855	6·810	6·765
2	7·071	7·035	6·999	6·959	6·921	6·878	6·837	6 797	6·754	6·712
3	6·994	6·958	6·924	6·885	6·848	6·807	6·767	6·728	6·686	6·645
4	6·905	6·870	6·836	6·800	6·763	6·724	6·685	6·648	6·606	6·567
55	6·805	6·771	6·739	6·703	6·668	6 630	6·592	6·556	6·517	6 479
6	6·695	6·663	6·631	6·596	6·563	6 526	6·490	6·455	6·417	6·381
7	6·575	6·544	6·514	6·481	6·449	6 413	6·378	6·345	6·308	6·273
8	6·447	6·417	6·389	6·357	6 326	6·292	6·258	6·226	6·191	6 158
9	6·311	6·283	6·256	6·225	6·196	6·163	6·131	6·100	6·067	6 035
60	6·170	6·143	6·117	6·088	6·060	6·028	5·998	5·969	5·937	5·906
1	6·024	5·998	5·974	5·946	5·919	5·889	5·860	5·833	5·802	5·773
2	5·874	5·850	5·827	5·800	5·775	5·746	5·719	5·693	5·664	5·636
3	5·722	5·698	5·676	5·651	5·627	5 600	5·573	5·549	5·522	5·496
4	5·565	5·544	5·522	5·499	5·476	5 450	5·426	5 402	5·376	5·351
65	5·406	5·385	5·366	5·343	5·321	5·297	5·272	5·252	5·227	5·204
6	5·243	5·223	5·205	5·184	5·163	5·140	5·118	5·098	5·075	5·052
7	5·076	5·058	5·039	5·020	5·001	4·980	4·959	4·939	4·918	4·897
8	4·906	4·889	4·873	4·854	4·836	4·816	4·797	4·778	4·758	4·739
9	4·734	4·718	4·703	4·686	4·669	4·650	4·632	4·615	4·595	4·578
70	4·554	4·545	4·531	4·515	4·499	4·482	4·465	4 449	4·431	4·414
1	4·385	4·364	4·358	4·343	4·329	4·312	4·296	4·282	4·265	4·249
2	4·208	4·196	4·175	4·169	4·156	4·141	4·126	4·113	4·097	4·083
3	4·032	4·020	4·009	3·996	3·983	3·969	3·956	3·943	3·929	3·916
4	3·856	3·845	3·835	3·823	3·812	3·785	3·786	3·774	3 741	3·749
75	3·683	3·673	3·663	3·652	3·642	3·630	3·617	3·607	3·595	3·584
6	3·512	3·503	3·494	3·484	3·474	3·463	3·453	3·442	3·431	3·421
7	3·345	3·336	3·329	3·319	3·310	3·300	3·290	3·281	3·270	3·261
8	3·182	3·174	3·167	3·159	3·150	3·141	3·131	3·123	3·114	3·105
9	3·023	3·016	3·009	3·001	2·995	2·985	2·977	2·969	2·960	2·953
80	2·868	2·861	2·855	2·848	2·842	2·834	2.826	2·819	2·811	2·804
1	2·727	2·711	2·706	2·700	2·693	2·686	2·679	2·673	2·665	2·659
2	2·585	2·575	2·561	2·555	2·550	2·543	2·536	2·531	2·524	2·518
3	2·443	2·438	2·430	2·415	2·410	2·404	2·398	2·393	2·387	2·382
4	2·302	2·395	2·288	2·281	2·275	2·270	2·264	2·260	2·254	2·250
85	2·161	2·156	2·152	2·148	2·144	2·140	2·135	2·131	2·126	2·121
6		2·030	2·026	2·022	2 018	2·014	2·010	2·006	2·001	1·998
7			1·905	1·902	1·898	1·894	1·890	1·887	1·882	1·879
8				1·781	1·777	1·774	1·771	1·767	1·764	1·761
9					1·657	1·653	1·650	1·647	1·644	1·641
90						1·525	1·522	1·519	1·517	1·514
1							1·383	1·380	1·378	1·376
2								1·212	1·211	1·209
3									1·026	1·025
4										·834
95										

—(*continued.*)

WIVES.											Age of Husbands.
45	46	47	48	49	50	51	52	53	54	55	
											25
											6
											7
											8
											9
											30
											1
											2
											3
											4
6·963											35
6·957	6·903										6
6·952	6·897	6·840									7
6·945	6·891	6·834	6·773								8
6·937	6·884	6·828	6·767	6·703							9
6·930	6·876	6·820	6·761	6·696	6·634						40
6·921	6·869	6·812	6·753	6·690	6·628	6·562					1
6·911	6·857	6·804	6·744	6·682	6·621	6·556	6·492				2
6·900	6·848	6·793	6·735	6·672	6·612	6·548	6·485	6·419			3
6·887	6·836	6·782	6·724	6·663	6·603	6·539	6·477	6·412	6·343		4
6·873	6·823	6·770	6·712	6·652	6·592	6·529	6·467	6·404	6·336	6·264	45
6·857	6·808	6·756	6·700	6·639	6·580	6·518	6·458	6·394	6·327	6·257	6
6·840	6·792	6·740	6·685	6·626	6·568	6·506	6·446	6·384	6·317	6·248	7
6·820	6·772	6·721	6·667	6·608	6·552	6·491	6·433	6·371	6·306	6·237	8
6·795	6·748	6·703	6·644	6·587	6·531	6·472	6·414	6·354	6·290	6·223	9
6·763	6·716	6·668	6·615	6·559	6·504	6·446	6·390	6·331	6·268	6·202	50
6·720	6·676	6·628	6·577	6·522	6·468	6·412	6·357	6·299	6·238	6·173	1
6·666	6·623	6·577	6·526	6·473	6·421	6·366	6·312	6·256	6·196	6·134	2
6·601	6·559	6·514	6·465	6·413	6·363	6·309	6·257	6·203	6·145	6·084	3
6·531	6·484	6·440	6·394	6·343	6·294	6·242	6·192	6·139	6·083	6·024	4
6·437	6·398	6·356	6·311	6·263	6·215	6·165	6·117	6·065	6·011	5·955	55
6·341	6·303	6·263	6·221	6·172	6·127	6·079	6·032	5·982	5·931	5·876	6
6·235	6·199	6·160	6·119	6·074	6·030	5·983	5·939	5·892	5·842	5·789	7
6·121	6·087	6·049	6·009	5·967	5·925	5·880	5·838	5·792	5·745	5·694	8
6·000	5·967	5·932	5·893	5·852	5·812	5·770	5·732	5·686	5·641	5·593	9
5·873	5·842	5·808	5·772	5·732	5·694	5·653	5·615	5·574	5·531	5·485	60
5·742	5·712	5·680	5·645	5·607	5·571	5·532	5·496	5·457	5·416	5·372	1
5·606	5·578	5·548	5·514	5·479	5·444	5·407	5·372	5·336	5·297	5·256	2
5·467	5·440	5·411	5·380	5·346	5·314	5·279	5·246	5·211	5·174	5·135	3
5·325	5·299	5·272	5·242	5·210	5·179	5·146	5·116	5·083	5·048	5·011	4
5·178	5·155	5·129	5·101	5·070	5·041	5·010	4·981	4·951	4·918	4·883	65
5·029	5·006	4·982	4·955	4·927	4·899	4·870	4·843	4·814	4·783	4·750	6
4·875	4·854	4·831	4·806	4·779	4·753	4·726	4·700	4·673	4·645	4·614	7
4·718	4·698	4·677	4·654	4·628	4·604	4·578	4·554	4·529	4·502	4·474	8
4·558	4·540	4·520	4·498	4·474	4·452	4·427	4·405	4·382	4·357	4·330	9
4·396	4·379	4·361	4·340	4·318	4·297	4·274	4·253	4·232	4·209	4·184	70
4·232	4·217	4·206	4·181	4·159	4·140	4·119	4·099	4·079	4·058	4·035	1
4·067	4·052	4·037	4·019	3·999	3·981	3·962	3·944	3·925	3·905	3·884	2
3·901	3·887	3·873	3·857	3·839	3·822	3·803	3·787	3·770	3·751	3·732	3
3·735	3·723	3·709	3·694	3·678	3·662	3·645	3·630	3·614	3·597	3·579	4
3·571	3·560	3·548	3·534	3·518	3·504	3·488	3·474	3·460	3·444	3·428	75
3·409	3·399	3·388	3·375	3·360	3·347	3·333	3·320	3·307	3·292	3·277	6
3·251	3·241	3·231	3·219	3·206	3·193	3·180	3·169	3·156	3·143	3·130	7
3·095	3·087	3·077	3·066	3·054	3·043	3·031	3·020	3·009	2·997	2·984	8
2·944	2·936	2·927	2·917	2·906	2·896	2·885	2·875	2·865	2·854	2·842	9
2·796	2·789	2·781	2·772	2·761	2·752	2·742	2·733	2·723	2·713	2·703	80
2·651	2·645	2·638	2·630	2·620	2·612	2·602	2·594	2·586	2·576	2·567	1
2·512	2·506	2·499	2·492	2·483	2·475	2·566	2·459	2·451	2·443	2·434	2
2·376	2·370	2·365	2·358	2·350	2·343	2·335	2·328	2·321	2·314	2·306	3
2·244	2·239	2·234	2·228	2·220	2·214	2·207	2·201	2·194	2·188	2·180	4
2·116	2·112	2·107	2·101	2·095	2·089	2·082	2·077	2·071	2·065	2·059	85
1·993	1·989	1·985	1·980	1·974	1·969	1·963	1·958	1·953	1·947	1·941	6
1·875	1·871	1·868	1·863	1·858	1·853	1·847	1·843	1·838	1·833	1·828	7
1·757	1·754	1·751	1·747	1·742	1·738	1·733	1·729	1·725	1·720	1·716	8
1·638	1·636	1·633	1·629	1·625	1·621	1·617	1·613	1·610	1·606	1·602	9
1·512	1·510	1·507	1·504	1·500	1·497	1·493	1·490	1·487	1·484	1·480	90
1·374	1·372	1·370	1·368	1·365	1·362	1·359	1·356	1·353	1·351	1·348	1
1·207	1·205	1·203	1·201	1·198	1·196	1·193	1·191	1·189	1·187	1·185	2
1·024	1·022	1·021	1·019	1·017	1·015	1·013	1·012	1·010	1·008	1·006	3
·833	·832	·831	·830	·829	·827	·826	·824	·823	·822	·821	4
·650	·649	·648	·647	·647	·646	·645	·644	·643	·642	·641	95

Age of Husbands.	AGE OF									
	56	57	58	59	60	61	62	63	64	65
46	6·182									
7	6·175	6·097								
8	6·165	6·088	6·007							
9	6·151	6·076	5·996	5·912						
50	6·132	6·058	5·980	5·897	5·808					
1	6·104	6·032	5·955	5·874	5·788	5·696				
2	6·067	5·996	5·921	5·841	5·757	5·667	5·572			
3	6·019	5·950	5·877	5·799	5·717	5·629	5·537	5·438		
4	5·961	5·894	5·823	5·748	5·668	5·582	5·492	5·396	5·294	
55	5·893	5·829	5·761	5·687	5·610	5·527	5·439	5·346	5·246	5·140
6	5·818	5·755	5·689	5·619	5·543	5·464	5·378	5·287	5·191	5·087
7	5·733	5·673	5·609	5·541	5·469	5·392	5·309	5·222	5·128	5·028
8	5·640	5·583	5·522	5·457	5·387	5·313	5·234	5·149	5·058	4·961
9	5·541	5·486	5·428	5·365	5·299	5·228	5·152	5·070	4·983	4·889
60	5·436	5·383	5·328	5·268	5·205	5·136	5·063	4·985	4·901	4·811
1	5·325	5·276	5·223	5·166	5·105	5·040	4·970	4·896	4·815	4·729
2	5·212	5·164	5·114	5·060	5·002	4·940	4·874	4·802	4·725	4·643
3	5·093	5·049	5·001	4·950	4·895	4·836	4·773	4·704	4·632	4·553
4	4·971	4·929	4·884	4·836	4·784	4·728	4·669	4·604	4·534	4·459
65	4 846	4·806	4·763	4·718	4·669	4·616	4·560	4·499	4·433	4·361
6	4·715	4·678	4·639	4·595	4·550	4·500	4·447	4·388	4·327	4·259
7	4·581	4·546	4·509	4·469	4·425	4·379	4·329	4·274	4·215	4·152
8	4·443	4·411	4·376	4·338	4·298	4·253	4·207	4·156	4·100	4·040
9	4·302	4·271	4·239	4·204	4·166	4·125	4·080	4·033	3·982	3·925
70	4·157	4·129	4·099	4·066	4·031	3·993	3·952	3·907	3·859	3·806
1	4·011	3·984	3·956	3·926	3·894	3·858	3·820	3·779	3·733	3·684
2	3·861	3·837	3·811	3·784	3·753	3·721	3·685	3·647	3·605	3·558
3	3·711	3·689	3·665	3·639	3·611	3·581	3·548	3·513	3·474	3·432
4	3·560	3·539	3·518	3·494	3·468	3·441	3·410	3·378	3·342	3·303
75	3·410	3·391	3·371	3·349	3·326	3·300	3·273	3·242	3·209	3·173
6	3·261	3·244	3·225	3·205	3·184	3·161	3·135	3·108	3·077	3·044
7	3·115	3·099	3·082	3·064	3·044	3·023	2·999	2·974	2·946	2·915
8	2·971	2·956	2·941	2·924	2·906	2·886	2·865	2·842	2·817	2·789
9	2·830	2·817	2·802	2·787	2·771	2·753	2·733	2·712	2·689	2·663
80	2·692	2·680	2·667	2·653	2·633	2·622	2·604	2·585	2·564	2·540
1	2·557	2·546	2·534	2·521	2·508	2·493	2·477	2·459	2·440	2·419
2	2·425	2·415	2·405	2·393	2·381	2·367	2·353	2·337	2·320	2·300
3	2·297	2·288	2·279	2·268	2·257	2·245	2·232	2·217	2·202	2·184
4	2·173	2·165	2·156	2·147	2·136	2·126	2·114	2·101	2·086	2·071
85	2·052	2·045	2·037	2·028	2·019	2·009	1·999	1·987	1·974	1·960
6	1·935	1·929	1·921	1·914	1·906	1·897	1·887	1·877	1·865	1·852
7	1·823	1·817	1·811	1·804	1·796	1·789	1·780	1·771	1·760	1·749
8	1·710	1·706	1·700	1·694	1·687	1·680	1·673	1·665	1·655	1·645
9	1·597	1·593	1·588	1·583	1·577	1·571	1·564	1·557	1·549	1·540
90	1·477	1·473	1·468	1·464	1·459	1·454	1·448	1·442	1·435	1·427
1	1·345	1·341	1·338	1·334	1·330	1·325	1·320	1·315	1·309	1·303
2	1·182	1·179	1·176	1·173	1·170	1·166	1·163	1·158	1·154	1·149
3	1·005	1·002	1·000	·998	·995	·992	·989	·986	·983	·979
4	·819	·818	·816	·814	·812	·810	·808	·806	·803	·800
95	·640	·639	·638	·637	·636	·634	·633	·631	·629	·627

—(*continued.*)

WIVES.											AGE OF HUSBANDS.
66	**67**	**68**	**69**	**70**	**71**	**72**	**73**	**74**	**75**	**76**	
											46
											7
											8
											9
											50
											1
											2
											3
											4
											55
4·978											6
4·921	4·807										7
4·858	4·748	4·630									8
4·789	4·682	4·568	4·446								9
4·715	4·612	4·501	4·383	4·266							60
4·636	4·537	4·430	4·316	4·203	4·085						1
4·554	4·458	4·356	4·246	4·137	4·022	3·903					2
4·468	4·376	4·278	4·171	4·066	3·956	3·841	3·722				3
4·378	4·290	4·196	4·094	3·993	3·887	3·776	3·661	3·545			4
4·284	4·200	4·110	4·012	3·916	3·814	3·707	3·597	3·485	3·363		65
4·185	4·106	4·020	3·927	3·834	3·737	3·634	3·528	3·421	3·303	3·186	6
4·082	4·007	3·925	3·836	3·748	3·655	3·557	3·456	3·352	3·240	3·127	7
3·975	3·904	3·826	3·742	3·658	3·570	3·476	3·380	3·281	3·172	3·064	8
3·863	3·797	3·723	3·643	3·564	3·480	3·391	3·300	3·205	3·102	2·998	9
3·749	3·685	3·617	3·541	3·466	3·387	3·303	3·216	3·126	3·028	2·929	70
3·631	3·571	3·506	3·436	3·365	3·290	3·211	3·128	3·044	2·950	2·856	1
3·509	3·454	3·393	3·326	3·261	3·190	3·115	3·037	2·957	2·869	2·780	2
3·383	3·334	3·277	3·215	3·152	3·087	3·017	2·943	2·868	2·784	2·700	3
3·259	3·209	3·159	3·101	3·043	2·980	2·916	2·847	2·776	2·697	2·618	4
3·133	3·089	3·037	2·986	2·932	2·874	2·811	2·749	2·683	2·609	2·534	75
3·007	2·966	2·921	2·866	2·820	2·767	2·710	2·647	2·588	2·518	2·449	6
2·882	2·844	2·802	2·755	2·704	2·659	2·606	2·550	2·490	2·428	2·363	7
2·758	2·724	2·684	2·641	2·598	2·552	2·503	2·451	2·398	2·333	2·276	8
2·635	2·603	2·563	2·528	2·488	2·446	2·400	2·352	2·303	2·246	2·184	9
2·514	2·485	2·452	2·415	2·379	2·340	2·298	2·253	2·208	2·155	2·103	80
2·395	2·369	2·339	2·305	2·271	2·235	2·196	2·155	2·113	2·065	2·014	1
2·279	2·254	2·227	2·196	2·165	2·132	2·096	2·059	2·020	1·975	1·930	2
2·165	2·142	2·117	2·089	2·061	2·030	1·998	1·963	1·928	1·886	1·845	3
2·053	2·033	2·010	1·984	1·958	1·931	1·901	1·869	1·837	1·798	1·760	4
1·944	1·926	1·905	1·881	1·858	1·833	1·805	1·776	1·747	1·712	1·677	85
1·838	1·822	1·803	1·781	1·760	1·737	1·713	1·686	1·659	1·627	1·595	6
1·736	1·721	1·706	1·685	1·666	1·645	1·623	1·599	1·574	1·545	1·516	7
1·634	1·621	1·606	1·588	1·571	1·553	1·532	1·511	1·489	1·463	1·437	8
1·530	1·519	1·505	1·490	1·475	1·458	1·440	1·421	1·401	1·378	1·355	9
1·419	1·409	1·397	1·384	1·370	1·356	1·340	1·324	1·307	1·286	1·266	90
1·296	1·288	1·278	1·266	1·255	1·243	1·230	1·215	1·201	1·183	1·166	1
1·143	1·136	1·129	1·119	1·110	1·100	1·089	1·078	1·066	1·051	1·037	2
·974	·969	·963	·956	·949	·941	·933	·923	·914	·903	·892	3
·797	·793	·789	·783	·780	·772	·766	·759	·753	·744	·736	4
·625	·622	·619	·615	·611	·607	·603	·598	·593	·587	·581	95

Table Seventh.

Age of Husbands.	AGE OF						
	77	78	79	80	81	82	83
67	3·008						
8	2·950	2·829					
9	2·888	2·773	2·653				
70	2·824	2·713	2·598	2·483			
1	2·756	2·649	2·540	2·429	2·308		
2	2·684	2·583	2·478	2·372	2·256	2·146	
3	2·610	2·514	2·413	2·312	2·205	2·095	1·988
4	2·533	2·442	2·346	2·250	2·144	2·042	1·940
75	2·454	2·368	2·277	2·186	2·084	1·988	1·889
6	2·373	2·292	2·207	2·120	2·023	1·931	1·837
7	2·292	2·215	2·135	2·053	1·961	1·874	1·784
8	2·210	2·138	2·063	1·986	1·898	1·815	1·730
9	2·128	2·061	1·990	1·917	1·835	1·756	1·675
80	2·038	1·982	1·916	1·848	1·767	1·696	1·619
1	1·963	1·894	1·842	1·779	1·705	1·635	1·563
2	1·881	1·826	1·753	1·709	1·641	1·574	1·506
3	1·799	1·749	1·695	1·640	1·575	1·514	1·449
4	1·718	1·672	1·622	1·571	1·510	1·452	1·398
85	1·638	1·595	1·549	1·502	1·446	1·392	1·334
6	1·560	1·520	1·478	1·434	1·382	1·331	1·278
7	1·484	1·448	1·409	1·369	1·320	1·273	1·223
8	1·407	1·375	1·339	1·302	1·257	1·214	1·168
9	1·328	1·299	1·267	1·234	1·193	1·153	1·111
90	1·243	1·217	1·188	1·159	1·123	1·087	1·048
1	1·146	1·124	1·100	1·074	1·042	1·011	·977
2	1·021	1·003	·983	·962	·935	·909	·880
3	·879	·865	·849	·833	·811	·790	·766
4	·726	·715	·703	·691	·675	·659	·640
95	·575	·566	·558	·549	·537	·526	·511

—(*continued.*)

WIVES.							Age of Husbands.
84	85	86	87	88	89	90	
							67
							8
							9
							70
							1
							2
							3
1·842							4
1·796	1·718						75
1·748	1·673	1·605					6
1·698	1·627	1·562	1·503				7
1·648	1·580	1·518	1·462	1·407			8
1·597	1·533	1·473	1·420	1·369	1·298		9
1·545	1·484	1·428	1·377	1·329	1·262	1·196	80
1·492	1·434	1·381	1·334	1·288	1·225	1·163	1
1·439	1·385	1·334	1·289	1·247	1·187	1·130	2
1·386	1·334	1·287	1·245	1·205	1·149	1·095	3
1·332	1·283	1·239	1·199	1·163	1·110	1·060	4
1·278	1·233	1·191	1·154	1·120	1·070	1·024	85
1·225	1·183	1·143	1·109	1·077	1·031	·988	6
1·174	1·134	1·097	1·065	1·036	·993	·954	7
1·121	1·084	1·050	1·021	·994	·954	·918	8
1·068	1·033	1·001	·974	·951	·914	·883	9
1·009	·977	·948	·923	·902	·870	·841	90
·941	·913	·887	·865	·847	·818	·796	1
·849	·825	·803	·784	·768	·744	·726	2
·741	·721	·702	·687	·676	·653	·640	3
·620	·605	·590	·577	·569	·555	·539	4
·496	·486	·474	·464	·456	·448	·442	95

Table Eighth.

The Present Value of a Widow's Pension of 2000 ***Rupees; each Pension being payable half yearly, and ceasing on the day of Death or Re-Marriage.***

(Deduced from Tables XX. and XXIX. of First Report.)

Age.	Value of Pension of One Rupee.	Value of Pensions of 2000 Rupees.	Age.	Value of Pension of One Rupee.	Value of Pensions of 2000 Rupees.
15 to 16	7·472	14944	58 to 59	8·201	16402
16 ... 17	7·318	14636	59 ... 60	8·065	16130
17 ... 18	7·268	14536	60 ... 61	7·913	15826
18 ... 19	7·353	14706	61 ... 62	7·745	15490
19 ... 20	7·524	15048	62 ... 63	7·565	15130
20 ... 21	7·698	15396	63 ... 64	7·378	14756
21 ... 22	7·871	15742	64 ... 65	7·187	14374
22 ... 23	8·040	16080	65 ... 66	6·994	13988
23 ... 24	8 200	16400	66 ... 67	6·798	13596
24 ... 25	8·342	16684	67 ... 68	6·599	13198
25 ... 26	8·460	16920	68 ... 69	6·398	12796
26 ... 27	8·559	17118	69 ... 70	6·259	12518
27 ... 28	8·644	17288	70 ... 71	6·054	12108
28 ... 29	8·722	17444	71 ... 72	5·783	11566
29 ... 30	8·803	17606	72 ... 73	5·577	11154
30 ... 31	8·896	17792	73 ... 74	5·371	10742
31 ... 32	8·994	17988	74 ... 75	5·166	10332
32 ... 33	9·094	18188	75 ... 76	4·963	9926
33 ... 34	9·192	18384	76 ... 77	4·761	9522
34 ... 35	9·282	18564	77 ... 78	4·563	9126
35 ... 36	9·360	18720	78 ... 79	4·369	8738
36 ... 37	9·424	18848	79 ... 80	4·179	8358
37 ... 38	9·471	18942	80 ... 81	3·994	7988
38 ... 39	9·501	19002	81 ... 82	3·815	7630
39 ... 40	9·511	19022	82 ... 83	3·640	7280
40 ... 41	9·497	18994	83 ... 84	3·470	6940
41 ... 42	9·463	18926	84 ... 85	3·305	6610
42 ... 43	9·414	18828	85 ... 86	3·146	6292
43 ... 44	9·353	18706	86 ... 87	2·992	5984
44 ... 45	9·280	18560	87 ... 88	2·844	5688
45 ... 46	9·196	18392	88 ... 89	2·704	5408
46 ... 47	9·057	18114	89 ... 90	2·571	5142
47 ... 48	9·016	18032	90 ... 91	2·445	4890
48 ... 49	8·926	17852	91 ... 92	2·326	4652
49 ... 50	8·847	17694	92 ... 93	2·210	4420
50 ... 51	8·783	17566	93 ... 94	2·096	4192
51 ... 52	8·726	17452	94 ... 95	1·980	3960
52 ... 53	8·671	17342	95 ... 96	1·854	3708
53 ... 54	8·608	17216	96 ... 97	1·705	3410
54 ... 55	8·541	17082	97 ... 98	1·510	3020
55 ... 56	8·475	16950	98 ... 99	1·225	2450
56 ... 57	8·402	16804	99 ...100	·850	1700
57 ... 58	8·313	16626			

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