ANNUITY TABLES

PRESENT VALUES

T. K. STUBBINS, F.S.S.

ANNUITY TABLES,

FOR

BUILDING SOCIETIES AND GENERAL USE:

SHEWING

THE PRESENT VALUE OF £1 PER CALENDAR MONTH,

FOR TWENTY-FIVE YEARS;

THE PRESENT VALUE OF £1 PER QUARTER,

FOR FIFTY YEARS;

AND THE PRESENT VALUE OF £1 PER HALF-YEAR,

FOR FIFTY YEARS;

AT 3, 3½, 4, 4½, 5, 5½, 6, 6½, 7, 7½, AND 8 PER CENT.

BY

T. K. STUBBINS, F.S.S., F.C.A.

(Actuary of the Hull "Perpetual," North Shields "Standard," and other Building Societies.)

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INTRODUCTION.

TABLES for ascertaining the Present Value of Monthly, Quarterly, and Half-yearly Instalments, or the balance due from time to time on advances repayable by such instalments, exist; but none are known to me which are easily applicable to every fractional amount of instalment, and adapted for general use.

In preparing the present Tables, accuracy and facility in use have been my aim, and have received my constant attention. Accuracy is so essential in a work of this nature, that it may be well to state the means I have adopted to secure it, and to explain the limit of exactitude which such means have allowed.

The calculations of the whole of the Tables for Monthly and Quarterly Annuities were made by the aid of ordinary logarithms to seven places of decimals—extending to eight places from numbers 10,000 to 10,800. The Logarithms used were Hutton's (ninth edition), Babbage's, and Sang's. The formula used was one I had frequently tested, and proved to be correct.

Taking a Table for each rate of interest, I computed the whole of the values. I next ascertained the differences between the values, by deducting every value from the one immediately preceding it. The result provided an independent check, by which any error of more than 2 in the fourth decimal place would be detected. The whole of the Monthly and Quarterly Tables were checked in this manner; but as no other Tables existed with which I could compare the values, the whole of them were again calculated independently.

With regard to the limit of exactitude, I found that logarithms to seven places only did not insure absolute and unvarying accuracy in the results in the last place of decimals; but any difference thus arising cannot in any case amount to one in *the last place* of decimals given. The limit of error, therefore, cannot be so much as *a farthing* in the Monthly Tables which are taken to three places, or *one-tenth of a farthing* in the Quarterly Tables, which are taken to four places of decimals.

The Half-yearly Tables have been to a great extent collated with and prepared by the aid of Smart's, Rance's, and Oakes's, Present Values of Yearly Annuities, by halving the yearly rates. As each of these yearly Tables was computed independently, by the aid of logarithms to 10 places, the Half-yearly Tables may be relied on as absolutely exact to the *nearest* fourth place of decimals.

With regard to the printing, I am indebted to the kindness of Messrs. C. & E. Layton, who have taken great pains to enable me to decide as to the best form in which the Tables could be presented. The type adopted was considered the easiest and most suitable for reference.

To avoid printers' errors, the proofs were read over five times—thrice, in the case of the Monthly and Quarterly Tables, with the original calculations, after which stereo plates of the corrected Tables were cast, and proofs from these were subjected to two re-examinations with the original calculations. The copies supplied to the public are from the stereotype impression.

As the result of the care which has thus been taken, I feel satisfied the Tables may be used with confidence in their accuracy.

Present Value and Discount.

If a person be entitled to a certain sum after a given time, and wishes to obtain its equivalent at present, allowing for a specified rate of interest, the sum which he ought to receive is termed its *present value.* The difference between this present value and the amount of the reversionary sum is the *discount.* When the discount is correctly calculated, the discounter, at the expiration of the specified term, should have received back his original outlay together with interest at the rate agreed on; and the borrower should have received *a present sum* which, if invested at once at the agreed rate of interest, would have accumulated in the given time to the sum he has engaged to pay to the discounter.

In ordinary mercantile transactions it is the custom to consider discount as the equivalent of simple interest; but the custom is not *mathematically* correct. Thus, if a banker discounted at 5 per cent. a bill for £525 due in 12 months, he would not calculate what sum now invested would accumulate to £525 in that time, and advance that sum, which, at 5 per cent., would be £500; he would calculate the interest on the bill for £525, viz., £26. 5*s.*, and, deducting this, would pay £498. 15*s.* to the holder of the bill as its present value. But, as £498. 15*s.* invested at once at 5 per cent. for 12 months would not accumulate to £525, the holder of the bill would be a present loser of the difference between £500 and £498. 15*s.*, or £1. 5*s.*—that being in fact *interest on the true discount.* The method, however, is sufficiently accurate for ordinary commercial affairs, where the term of credit is comparatively short; but for debts extending over a period of years, such a method of computation gives a result which is inadmissible—unduly depreciating as it does the actual present value of the sum discounted and thereby returning a higher rate of interest than that supposed to be charged.

In loans granted by a building society, the borrower should receive such a present sum as would amount at the end of the agreed term, if improved at the specified rate of compound interest, to exactly the sum the society would obtain from the periodical payments made by the borrower, also improved at the same rate of compound interest. Thus, the present sum of £100, improved at compound interest at 5 per cent. for 14 years, would amount to £198; and £10. 2*s.* 1*d.* per annum,—the amount the borrower should pay to discharge the loan,—also improved at compound interest at 5 per cent. for 14 years, would amount to £198. The calculations requisite to determine what present sum the borrower should receive, are, however, sufficiently abstruse to render useful present-value tables to ascertain it. Several such tables exist for ascertaining the value of annuities payable *yearly*, but these tables cannot correctly be applied to the instalments of building societies, which are usually paid monthly.

Explanation of the Tables and Examples.

The accompanying Tables are based upon unity and decimals, and in addition to some other advantages, will be found to greatly facilitate calculations in cases where the instalment is or includes the fraction of £1; as 12*s*., or £1. 5*s*. 10*d*. Tables are added, to aid a computer who may not be familiar with the use of decimals. Examples and further explanations are, however, given with the Decimal Table on pp. 68, 69.

It should be noted that the term *annuity* is applied to any periodic payment, whether made monthly, quarterly, or otherwise.

Required, at 5 per cent. per annum, interest payable monthly, the present value of an instalment of £1 per month to be paid for 168 months, or 14 years? Refer to Monthly Table at 5 per cent.; opposite 168 months, or 14 years, will be found the answer, £120·646,—which is the sum a society should at present advance, and a borrower should at present receive, for the instalment of £1 per month, to be paid for 14 years. The amount owing by the borrower, after the payment of 12 instalments, will be the value as shown in the table opposite 156 months, or 13 years, viz., £114·540; and this will likewise be the sum a society may advance, at 5 per cent., to a borrower paying the like instalment per month for 13 years.

To convert the decimals into shillings and pence to the nearest penny, refer to Decimal Table, page 14, and the answers will be £120. 12*s*. 11*d*. and £114. 10*s*. 10*d*. respectively.

Required, at 6 per cent. per annum, interest payable monthly, the present value of an instalment of 12*s*. per month, to be paid for 15 years? Refer to Decimal Table for decimal of 12*s*., which will be found to be ·6; refer to Monthly Annuity Table at 6 per cent. for value of £1 per month, payable for 15 years, which will be found to be 118·503. Then multiply this value by ·6, as in common multiplication, which will give the answer £71·1018, or £71. 2*s*.

Required, at $6\frac{1}{2}$ per cent. per annum, interest payable monthly, the present value of an instalment of £2. 6*s.* 6*d.* per month, to be paid for 14 years? Refer to Decimal Table for decimal of 6*s.* 6*d.*, which will be ·325,—refer to Monthly Annuity Table at $6\frac{1}{2}$ per cent., for value of £1 per month payable for 14 years, which will be found to be 110·120. Multiply this value by 2·325, as in common multiplication, which will give the answer £256·029, or £256. 0*s.* 7*d.*

The value of quarterly or half-yearly instalments may be found in the same manner by referring to the Quarterly and Half-yearly Tables. The values in the Tables are those of annuities paid *at the end* of every month, quarter, or half-year; but the tables can be readily applied to finding the values of annuities payable *at the beginning* of every month, quarter, or half-year. Thus, an annuity of £1 per month for 168 months, the first payment now due, is equivalent to the annuity shown in the tables for 167 months, with the addition of the payment now due. The value of the annuity is therefore obtained by adding to the value of the annuity for one term *less* than the nominal term, the instalment at present due. Thus, the value at 5 per cent. of an annuity of £1 per month, to be paid for 168 months, the first payment now due is £120·149 (value opposite 167 months) *plus* the payment now due, £1,—together £121·149, or £121. 3*s.*

The Tables will also show the instalment required to pay off any principal sum now advanced, at any of the specified rates, by the ordinary rule of proportion. Thus, what monthly instalment will pay off £100 in 14 years, charging 5 per cent? The Monthly Table, at 5 per cent., shows an instalment of £1 per month, to be paid for 14 years, will pay off a sum of £120·646. Therefore the proportion will be

As £120·646 is to £1 so is £100 to instalment required—·829=16*s.* 7*d.*

The whole of the Tables will, I trust, be found useful for many purposes beyond calculations connected with building societies; although the want and importance of correct and easily applicable tables for their use were the chief considerations which led me to compute and publish the Tables.

I am not aware of *any other tables* applicable to quarterly annuities for periods beyond 25 years. A further, and perhaps the greatest general advantage of these Tables, is the fact of their adaptability to answer all the usual questions connected with the present value of *yearly* annuities payable for 100 years, or upwards, at twenty-six several rates of interest per cent., of which *eleven* rates are not to be found in any other published work of annuities known to me. The rule for adapting the present Tables for yearly annuities is to consider *each period*, whether in the Monthly, Quarterly, or Half-yearly Tables, as one year; for which purpose the period column on the right hand of every page of the Tables can conveniently be used. To save computation, the twenty-six rates per cent. to which the Tables are applicable for annuities payable yearly, are specified on page 13, with the Monthly, Quarterly, or Half-yearly Tables which correspond thereto. The rates for yearly annuities were arrived at by dividing the monthly, quarterly, and half-yearly rates in the Tables by 12, 4, and 2 respectively.

Building Societies' Balance-Sheets and Borrowers' Loans.

The following remarks on Building Societies' Balance Sheets and Borrowers' Loans were, in substance, printed with a set of lunar monthly tables, prepared by me in 1875. I reproduce the remarks now, because although many societies correctly show the balances due on their loans, the incorrect method, which I endeavoured to illustrate and explain, is still common; and because the remarks seem not to be out of place in offering the present Tables for the use of these societies. If any consider it to be a matter of no consequence that balance sheets may be in error to the extent of £500, or more, it is useless to urge on such the importance of correct tables. My own experience, however, has almost invariably shown that the directors and managers of societies are very strongly desirous to have the accounts of their societies, year by year, as correct as possible. That an error to the extent named, or even greater, must often exist, is a fact; and I believe it continues to be so chiefly because the directors and managers have not had the error fairly and fully brought under their consideration.

To ascertain the current balance of a loan repayable by monthly or other instalments, it is necessary, in the first instance, to know the exact rate of interest obtained from the loan—having regard to the net amount advanced, the term, and other particulars of the instalments in repayment. I use the word "exact" to distinguish the real from the *nominal* rate, since, as will be seen from the illustrations given, the latter may be very illusory—the monthly repayments providing for a much higher rate of interest than that nominally charged. No calculation based on an assumed yearly reduction of a loan, if in fact the reduction is made monthly, or otherwise than yearly, will give a result which ought to be accepted. The importance of this rule will be seen from the subjoined illustrations of the results which attend the least incorrect of any other mode of calculation,—that of taking the amount paid by the borrower in monthly instalments for twelve months, and assuming that the aggregate amount is paid at, and not until, the end of the twelve months.

In establishing societies with calculations based on that assumption, two distinct methods have been adopted for fixing the amount of the instalment required to repay the loan, with the given interest, and in calculating the interest.

For present purposes, I need only refer to the *less incorrect* plan, which is, to base the monthly repayment on annuity tables calculated for yearly repayments—that is, to divide by 12 the yearly annuity required to repay a given advance in a given time and at a given rate of interest. Thus :—Ordinary annuity tables show that to repay £100 in 14 years, at 7 per cent. per annum, an instalment of £11. 9*s.** must be paid at the end of every year, and it is therefore assumed that the sum of 19*s.* 1*d.* resulting from the division of £11. 9*s.* by 12 will correctly represent the monthly instalment which should be paid. The calculations of interest are thus based on the values of the yearly annuity tables precisely as if instalments were paid yearly.

To illustrate the working of the method, let us assume the case of a loan of £100, repayable in 14 years, at the rate of 7 per cent. by the monthly instalment of 19*s.* 1*d.* The following statement shows the assumed balances resulting from this calculation in comparison with the actual balances at the end of every alternate year. The differences in the intermediate years will be about midway between the differences shown in the alternate years respectively.

* Strictly 11·4345.

STATEMENT OF DIFFERENCES ON LOAN OF £100.

End of Years.	Assumed Balance if Instalments, which are actually paid Monthly, are assumed to be paid in an Aggregate Sum at, and not until, the end of every Year.	Actual Balance.	Difference, being Error in the Assumed Balance.
	£ s. d.	£ s. d.	s. d.
1	95 13 11	95 15 0	1 1
3	85 17 2	86 5 1	7 11
5	74 12 0	75 5 2	13 2
7	61 14 2	62 10 8	16 6
9	46 18 11	47 16 0	17 1
11	30 1 0	30 15 0	14 0
13	10 14 0	11 0 2	6 2

At first sight these differences may seem trifling, but when repeated in the numerous and large transactions which pass through a building society's books, it will be seen that they may attain very serious proportions.

Taking the average difference to be 9*s.* 1*d.* (the mean between 1*s.* 1*d.*, the least, and 17*s.* 1*d.*, the greatest, difference in any year), the error in the balance-sheet of a society having £150,000 outstanding in loans will average £681; the least possible error at the end of any year will amount to £81, and the greatest to the large sum of £1,281.

Societies which assume their values in the way referred to, *under-estimate* the balances owing to them; and hence, in those societies which do not make a special charge for redemption, the borrower may redeem his liability at a sum below that which is actually due; by paying, for instance, at the end of the 9th year, £46. 18*s.* 11*d.* in full discharge of the balance of his debt, instead of £47. 16*s.*, the sum actually due.

Where, however, the borrower continues to pay the supposed monthly instalment of 19*s.* 1*d.* for the full term of the loan, the ultimate result to the society, in the shape of interest received, is the same under either, or any, system of calculation. The differences in all cases between the actual and the assumed balances arise because the interest is not correctly calculated and apportioned over the term of the loan.

In any view of these differences, the balance-sheets of these important institutions cannot be considered satisfactory if the outstanding loans are estimated in the way referred to, or in any other more incorrect way.

To ascertain the actual balance, it is necessary, as before observed, in the first instance to know the exact rate of interest obtained from the loan, which in the case referred to, although nominally 7 per cent. per annum, is really 7·591, or about £7. 11*s.* 10*d.* per cent. This difference of 11*s.* 10*d.* per cent. arises from the fact that each instalment of 19*s.* 1*d.* contains a portion of the principal, which is therefore reduced every month; while in calculating the interest at the nominal rate of 7 per cent., it is assumed that the instalments are not paid, and the principal is not reduced, until the end of every year.

Another result which attends the method is, that it is the occasion of great irregularity in the rates of interest derived by a society under its several terms of repayment. Thus, although the nominal rate is 7 per cent., the actual rate obtained from a loan of £100, repaid in 14 years by a monthly instalment of 19*s.* 1*d.*, is 7·591 per cent. If, however, a loan be granted to be repaid in 5 years, the monthly instalment arrived at on the basis of the yearly annuity tables, to repay the loan at the nominal rate of 7 per cent., yields in reality 8·426, or about £8. 8*s.* 6*d.* per cent.—an increase of the rate on the shorter as compared with the longer loan of over $\frac{3}{4}$ per cent.

	Nominal rate per cent.	Actual rate per cent.
£100 repayable in 5 years—		
Annuity per yearly annuity table = £24. 7*s.* 9*d.*		
Monthly instalment = £2. 0*s.* 8*d.*	7	8·426
(£24. 7*s.* 8*d.* ÷ 12)		
£100 repayable in 14 years—		
Annuity per yearly annuity table = £11. 9*s.* 0*d.*		
Monthly instalment = 19*s.* 1*d.*	7	7·591
(£11. 9*s.* 0*d.* ÷ 12)		
	0	·835
Difference . .	or 16*s.* 9*d.*	per cent.

The excess in the case of the shorter loan is the more inequitable, because the margin of the society's security increases more rapidly in loans for short terms, owing to the larger proportion of principal which is paid off by each monthly instalment. It may further be pointed out that, under the system referred to, a building society which nominally charges 7 per cent. may really charge very little short of 8½ per cent.—a practice which cannot be defended.

No doubt these facts may be known to many managers and others interested in these societies, but a difficulty has hitherto been felt in providing a remedy from the supposed great expense of obtaining reliable tables. The present Tables will, to some extent, meet this difficulty, and, from the extent and number of the rates at which they have been calculated, I believe they will be found to be applicable in any part of the Kingdom.

T. K. STUBBINS.

15, Sergeants' Inn,
Temple,
London, E.C.
March, 1881.

From the TABLES may be ascertained the Present Value of an Annuity of £1 *per annum*, payable at the end of every year, from 1 to 100 years or upwards, as here shown :—

Considering each period in the Table as 1 year, refer to **Monthly Table,** at

3 °/o,	which gives	Present Value of	£1 *per annum* at	$\frac{1}{4}$ °/o	per annum.
$3\frac{1}{2}$	,,	,,	,,	$\frac{7}{24}$	,,
4	,,	,,	,,	$\frac{1}{3}$	,,
$4\frac{1}{2}$	,,	,,	,,	$\frac{3}{8}$	,,
5	,,	,,	,,	$\frac{5}{12}$	,,
$5\frac{1}{2}$	,,	,,	,,	$\frac{11}{24}$	,,
†6	,,	,,	,,	$\frac{1}{2}$	,,
$6\frac{1}{2}$	,,	,,	,,	$\frac{13}{24}$	,,
7	,,	,,	,,	$\frac{7}{12}$	,,
$7\frac{1}{2}$	,,	,,	,,	$\frac{5}{8}$	,,
8	,,	,,	,,	$\frac{2}{3}$	,,

Considering each period in the Table as 1 year, refer to **Quarterly Table,** at

3 °/o,	which gives	Present Value of	£1 *per annum* at	$\frac{3}{4}$ °/o	per annum.
$3\frac{1}{2}$	,,	,,	,,	$\frac{7}{8}$	,,
4	,,	,,	,,	1	,,
$4\frac{1}{2}$	,,	,,	,,	$1\frac{1}{8}$	,,
5	,,	,,	,,	$1\frac{1}{4}$	,,
$5\frac{1}{2}$	,,	,,	,,	$1\frac{3}{8}$	,,
6	,,	,,	,,	$1\frac{1}{2}$	,,
$6\frac{1}{2}$	,,	,,	,,	$1\frac{5}{8}$	,,
7	,,	,,	,,	$1\frac{3}{4}$	,,
$7\frac{1}{2}$	,,	,,	,,	$1\frac{7}{8}$	,,

Considering each period in the Table as 1 year, refer to **Half-yearly Table,** at

4 °/o,	which gives	Present Value of	£1 *per annum* at	2 °/o	per annum.
$4\frac{1}{2}$	,,	,,	,,	$2\frac{1}{4}$	,,
5	,,	,,	,,	$2\frac{1}{2}$	,,
$5\frac{1}{2}$	,,	,,	,,	$2\frac{3}{4}$	,,
6	,,	,,	,,	3	,,
$6\frac{1}{2}$	,,	,,	,,	$3\frac{1}{4}$	,,
†7	,,	,,	,,	$3\frac{1}{2}$	,,
$7\frac{1}{2}$	,,	,,	,,	$3\frac{3}{4}$	,,
8	,,	,,	,,	4	,,

Examples.—The present value of £1 *per annum* for 100 years at $\frac{1}{2}$ °/o per annum will be found on referring to 100th month in Monthly Table at 6 °/o†,—viz., £78·543; at $3\frac{1}{2}$ °/o per annum, on referring to 100th half-year in Half-yearly Table, at 7 °/o†,—viz , £27,6554.

TABLE FOR CONVERTING, AT SIGHT, SHILLINGS AND PENCE INTO DECIMALS OF £1, AND *VICE VERSA*.

s.	*d.*	Decimal.	*s.*	*d.*	Decimal.	*s.*	*d.*	Decimal.	*s.*	*d.*	Decimal.	*s.*	*d.*	Decimal.
0	1	·004	4	1	·204	8	1	·404	12	1	·604	16	1	·804
0	2	·008	4	2	·208	8	2	·408	12	2	·608	16	2	·808
0	3	·012	4	3	·212	8	3	·412	12	3	·612	16	3	·812
0	4	·017	4	4	·217	8	4	·417	12	4	·617	16	4	·817
0	5	·021	4	5	·221	8	5	·421	12	5	·621	16	5	·821
0	6	·025	4	6	·225	8	6	·425	12	6	·625	16	6	·825
0	7	·029	4	7	·229	8	7	·429	12	7	·629	16	7	·829
0	8	·033	4	8	·233	8	8	·433	12	8	·633	16	8	·833
0	9	·037	4	9	·237	8	9	·437	12	9	·637	16	9	·837
0	10	·042	4	10	·242	8	10	·442	12	10	·642	16	10	·842
0	11	·046	4	11	·246	8	11	·446	12	11	·646	16	11	·846
1	0	·050	5	0	·250	9	0	·450	13	0	·650	17	0	·850
1	1	·054	5	1	·254	9	1	·454	13	1	·654	17	1	·854
1	2	·058	5	2	·258	9	2	·458	13	2	·658	17	2	·858
1	3	·062	5	3	·262	9	3	·462	13	3	·662	17	3	·862
1	4	·067	5	4	·267	9	4	·467	13	4	·667	17	4	·867
1	5	·071	5	5	·271	9	5	·471	13	5	·671	17	5	·871
1	6	·075	5	6	·275	9	6	·475	13	6	·675	17	6	·875
1	7	·079	5	7	·279	9	7	·479	13	7	·679	17	7	·879
1	8	·083	5	8	·283	9	8	·483	13	8	·683	17	8	·883
1	9	·087	5	9	·287	9	9	·487	13	9	·687	17	9	·887
1	10	·092	5	10	·292	9	10	·492	13	10	·692	17	10	·892
1	11	·096	5	11	·296	9	11	·496	13	11	·696	17	11	·896
2	0	·100	6	0	·300	10	0	·500	14	0	·700	18	0	·900
2	1	·104	6	1	·304	10	1	*·504	14	1	·704	18	1	·904
2	2	·108	6	2	·308	10	2	·508	14	2	·708	18	2	·908
2	3	·112	6	3	·312	10	3	·512	14	3	·712	18	3	·912
2	4	·117	6	4	·317	10	4	·517	14	4	·717	18	4	·917
2	5	·121	6	5	·321	10	5	·521	14	5	·721	18	5	·921
2	6	·125	6	6	·325	10	6	·525	14	6	·725	18	6	·925
2	7	·129	6	7	·329	10	7	·529	14	7	·729	18	7	·929
2	8	·133	6	8	·333	10	8	·533	14	8	·733	18	8	·933
2	9	·137	6	9	·337	10	9	·537	14	9	·737	18	9	·937
2	10	·142	6	10	·342	10	10	·542	14	10	·742	18	10	·942
2	11	·146	6	11	·346	10	11	·546	14	11	·746	18	11	·946
3	0	·150	7	0	·350	11	0	·550	15	0	·750	19	0	·950
3	1	·154	7	1	·354	11	1	·554	15	1	·754	19	1	·954
3	2	·158	7	2	·358	11	2	·558	15	2	·758	19	2	·958
3	3	·162	7	3	·362	11	3	·562	15	3	·762	19	3	·962
3	4	·167	7	4	·367	11	4	·567	15	4	·767	19	4	·967
3	5	·171	7	5	·371	11	5	·571	15	5	·771	19	5	·971
3	6*	·175	7	6	·375	11	6	·575	15	6	·775	19	6	·975
3	7	·179	7	7	·379	11	7	·579	15	7	·779	19	7	·979
3	8	·183	7	8	·383	11	8	·583	15	8	·783	19	8	·983
3	9	·187	7	9	·387	11	9	·587	15	9	·787	19	9	·987
3	10	·192	7	10	·392	11	10	·592	15	10	·792	19	10	·992
3	11	·196	7	11	·396	11	11	·596	15	11	·796	19	11	·996
4	0	·200	8	0	·400	12	0	·600	16	0	·800	20	0	1·000

Examples.—The Decimal of 3*s.* 6*d.** is ·175, and, *vice versa*, ·504 is 10*s.* 1*d.*

NOTE.—This Table, which is taken to three places only of Decimals, will be found sufficiently exact for most Building Societies' calculations. In multiplying, or dividing, large sums, however, or if absolute exactitude be desired, refer to the larger Decimal Table on pp. 68, 69.

EXTRACT FROM LETTER *from* W. H. TYNDALL, ESQ., *Actuary of the Atlas Assurance Company, &c.*

ANNUITY TABLES FOR BUILDING SOCIETIES & GENERAL USE.

DEAR SIR,

I have examined the Tables of Annuities above mentioned, and believe that the principles upon which they are computed are sound. I have also tested many of the results, and have found them correct.

Building Societies using these Tables as the foundation for estimating the sums to be paid periodically by borrowers, in repayment of the loans made to them, may test thereby the annual balances of amounts due to the societies; and the ready ability afforded by the Tables for so doing, may save societies the cost of actuarial investigations into their accounts.

The Tables for Monthly Annuities are, so far as I am aware, not elsewhere to be found accessible to the public; and those Tables, as well as the Tables for Quarterly and Half-yearly Annuities, form a valuable addition to the class of publications to which they belong; and they will doubtless be found useful for other purposes than for Building Societies.

I am, dear Sir,

Yours truly,

WM. HY. TYNDALL,

Actuary to the Atlas Assurance Company, and to the Inland Revenue Benevolent Fund.

CHEAPSIDE, LONDON,
30th March, 1881.

T. K. STUBBINS, Esq., F.S.S.

PRESENT VALUE OF £1 PER CALENDAR MONTH,

Payable at end of every MONTH.

PERIOD.		AT RATES PER CENT. PER ANNUM,— INTEREST PAYABLE MONTHLY.					PERIOD.
Years.	Months.	3	3½	4	4½	5	Total Number of Months.
	1	·997	·997	·997	·996	·996	1
	2	1·992	1·991	1·990	1·989	1·988	2
	3	2·985	2·983	2·980	2·978	2·975	3
	4	3·975	3·971	3·967	3·963	3·959	4
	5	4·963	4·957	4·950	4·944	4·938	5
	6	5·948	5·939	5·931	5·922	5·913	6
	7	6·930	6·919	6·908	6·896	6·885	7
	8	7·911	7·896	7·881	7·867	7·852	8
	9	8·888	8·870	8·852	8·833	8·815	9
	10	9·864	9·841	9·819	9·797	9·775	10
	11	10·837	10·810	10·783	10·756	10·730	11
1	...	11·807	11·776	11·744	11·713	11·681	12
	1	12·775	12·738	12·702	12·665	12·629	13
	2	13·741	13·699	13·656	13·614	13·572	14
	3	14·704	14·656	14·607	14·559	14·512	15
	4	15·665	15·610	15·556	15·501	15·447	16
	5	16·623	16·562	16·501	16·440	16·379	17
	6	17·579	17·511	17·442	17·374	17·307	18
	7	18·533	18·457	18·381	18·306	18·231	19
	8	19·484	19·400	19·317	19·234	19·151	20
	9	20·433	20·341	20·249	20·158	20·068	21
	10	21·380	21·279	21·179	21·079	20·980	22
	11	22·324	22·214	22·105	21·997	21·889	23
2	...	23·266	23·147	23·028	22·911	22·794	24
	1	24·205	24·077	23·948	23·821	23·695	25

PRESENT VALUE OF £1 PER CALENDAR MONTH,

Payable at end of every MONTH.

PERIOD.		AT RATES PER CENT. PER ANNUM,— INTEREST PAYABLE MONTHLY.						PERIOD.
Years.	Months.	5½	6	6½	7	7½	8	Total Number of Months.
	1	·995	·995	·995	·994	·994	·993	1
	2	1·986	1·985	1·984	1·983	1·981	1·980	2
	3	2·973	2·970	2·968	2·965	2·963	2·960	3
	4	3·955	3·950	3·946	3·942	3·938	3·934	4
	5	4·932	4·926	4·920	4·914	4·908	4·902	5
	6	5·905	5·896	5·888	5·879	5·871	5·862	6
	7	6·873	6·862	6·851	6·839	6·828	6·817	7
	8	7·837	7·823	7·808	7·794	7·780	7·765	8
	9	8·797	8·779	8·761	8·743	8·725	8·707	9
	10	9·752	9·730	9·708	9·686	9·665	9·643	10
	11	10·703	10·677	10·651	10·625	10·598	10·572	11
1	...	11·650	11·619	11·588	11·557	11·526	11·496	12
	1	12·592	12·556	12·520	12·484	12·449	12·413	13
	2	13·530	13·489	13·447	13·406	13·365	13·324	14
	3	14·464	14·417	14·369	14·323	14·276	14·229	15
	4	15·393	15·340	15·287	15·234	15·181	15·128	16
	5	16·319	16·259	16·199	16·140	16·080	16·022	17
	6	17·240	17·173	17·106	17·040	16·974	16·909	18
	7	18·156	18·082	18·009	17·935	17·863	17·790	19
	8	19·069	18·987	18·906	18·826	18·745	18·666	20
	9	19·977	19·888	19·799	19·711	19·623	19·536	21
	10	20·882	20·784	20·687	20·591	20·495	20·400	22
	11	21·782	21·676	21·570	21·465	21·361	21·258	23
2	...	22·678	22·563	22·449	22·335	22·222	22·111	24
	1	23·570	23·446	23·322	23·200	23·078	22·957	25

PRESENT VALUE OF £1 PER CALENDAR MONTH,

Payable at end of every MONTH.

PERIOD.		AT RATES PER CENT. PER ANNUM,— INTEREST PAYABLE MONTHLY.					PERIOD.
Years.	Months.	3	3½	4	4½	5	Total Number of Months.
	2	25·143	25·004	24·865	24·729	24·593	26
	3	26·077	25·928	25·779	25·632	25·487	27
	4	27·010	26·850	26·691	26·533	26·377	28
	5	27·940	27·769	27·599	27·430	27·263	29
	6	28·868	28·685	28·504	28·324	28·146	30
	7	29·793	29·599	29·406	29·214	29·025	31
	8	30·716	30·510	30·305	30·101	29·900	32
	9	31·637	31·418	31·201	30·985	30·772	33
	10	32·556	32·324	32·094	31·866	31·640	34
	11	33·472	33·227	32·984	32·743	32·505	35
3	...	34·386	34·127	33·871	33·617	33·366	36
	1	35·298	35·025	34·755	34·488	34·223	37
	2	36·208	35·920	35·636	35·355	35·077	38
	3	37·115	36·813	36·514	36·219	35·927	39
	4	38·020	37·703	37·390	37·080	36·774	40
	5	38·922	38·591	38·262	37·938	37·617	41
	6	39·823	39·475	39·132	38·792	38·457	42
	7	40·721	40·358	39·998	39·644	39·293	43
	8	41·617	41·237	40·862	40·492	40·126	44
	9	42·511	42·115	41·723	41·337	40·956	45
	10	43·402	42·989	42·581	42·179	41·781	46
	11	44·292	43·861	43·436	43·017	42·604	47
4	...	45·179	44·731	44·289	43·853	43·423	48
	1	46·063	45·598	45·138	44·685	44·239	49
	2	46·946	46·462	45·985	45·515	45·051	50

Present Value of £1 per Calendar MONTH,

Payable at end of every MONTH.

Period.		At rates per cent. per annum,— Interest payable MONTHLY.						Period.
Years.	Months.	5½	6	6½	7	7½	8	Total Number of Months.
	2	24·458	24·324	24·191	24·059	23·929	23·799	26
	3	25·342	25·198	25·055	24·914	24·774	24·635	27
	4	26·222	26·068	25·915	25·764	25·614	25·465	28
	5	27·097	26·933	26·770	26·609	26·448	26·290	29
	6	27·969	27·794	27·620	27·448	27·278	27·109	30
	7	28·837	28·651	28·466	28·283	28·102	27·923	31
	8	29·701	29·503	29·308	29·114	28·921	28·731	32
	9	30·561	30·351	30·144	29·939	29·736	29·534	33
	10	31·417	31·195	30·976	30·760	30·545	30·332	34
	11	32·269	32·035	31·804	31·575	31·349	31·125	35
3	...	33·117	32·871	32·627	32·386	32·148	31·912	36
	1	33·961	33·702	33·446	33·193	32·942	32·694	37
	2	34·802	34·530	34·261	33·994	33·731	33·471	38
	3	35·639	35·353	35·071	34·792	34·515	34·242	39
	4	36·471	36·172	35·876	35·584	35·295	35·009	40
	5	37·300	36·987	36·678	36·372	36·069	35·771	41
	6	38 126	37·798	37·475	37·155	36·839	36·527	42
	7	38·947	38·605	38·267	37·934	37·604	37·279	43
	8	39·765	39·408	39·056	38·708	38·364	38·025	44
	9	40·579	40·207	39·840	39·478	39·120	38·767	45
	10	41·389	41·002	40·620	40·243	39·871	39·503	46
	11	42·196	41·793	41·396	41·004	40·617	40·235	47
4	...	42·999	42·580	42·167	41·760	41·358	40·962	48
	1	43·798	43·363	42·935	42·512	42·095	41·684	49
	2	44·594	44·143	43·698	43·260	42·827	42·401	50

Present Value of £1 per Calendar MONTH,

Payable at end of every MONTH.

Period.		At Rates per cent. per annum,— Interest payable MONTHLY.					Period.
Years.	Months.	3	3½	4	4½	5	Total Number of Months.
	3	47·827	47·324	46·829	46·341	45·860	51
	4	48·705	48·184	47·670	47·164	46·665	52
	5	49·581	49·041	48·508	47·984	47·468	53
	6	50·455	49·895	49·344	48·801	48·267	54
	7	51·326	50·747	50·177	49·615	49·062	55
	8	52·196	51·597	51·007	50·426	49·854	56
	9	53·063	52·444	51·834	51·234	50·643	57
	10	53·928	53·288	52·658	52·039	51·429	58
	11	54·791	54·130	53·480	52·841	52·211	59
5	...	55·652	54·970	54·299	53·639	52·991	60
	1	56·511	55·807	55·115	54·435	53·767	61
	2	57·368	56·642	55·929	55·228	54·539	62
	3	58·222	57·474	56·740	56·018	55·309	63
	4	59·074	58·304	57·548	56·805	56·075	64
	5	59·925	59·132	58·353	57·589	56·839	65
	6	60·773	59·957	59·156	58·370	57·599	66
	7	61·619	60·780	59·956	59·148	58·355	67
	8	62·462	61·600	60·754	59·924	59·109	68
	9	63·304	62·418	61·549	60·696	59·860	69
	10	64·144	63·234	62·341	61·466	60·607	70
	11	64·981	64·047	63·130	62·232	61·351	71
6	...	65·817	64·858	63·917	62·996	62·093	72
	1	66·650	65·666	64·702	63·757	62·831	73
	2	67·482	66·472	65·483	64·515	63·566	74
	3	68·311	67·276	66·262	65·270	64·298	75

Present Value of £1 per Calendar MONTH,

Payable at end of every month.

Period.		At rates per cent. per annum,— Interest payable MONTHLY.						Period.
Years.	Months.	5½	6	6½	7	7½	8	Total Number of Months.
	3	45·386	44·918	44·457	44·003	43·555	43·114	51
	4	46·174	45·690	45·212	44·742	44·279	43·822	52
	5	46·959	46·457	45·964	45·477	44·997	44·525	53
	6	47·740	47·221	46·710	46·207	45·712	45·223	54
	7	48·518	47·981	47·453	46·933	46·421	45·917	55
	8	49·292	48·738	48·192	47·656	47·127	46·607	56
	9	50·062	49·490	48·927	48·373	47·828	47·291	57
	10	50·829	50·239	49·658	49·087	48·525	47·972	58
	11	51·593	50·984	50·385	49·796	49·217	48·647	59
5	...	52·353	51·726	51·109	50·502	49·905	49·318	60
	1	53·109	52·463	51·828	51·203	50·589	49·985	61
	2	53·863	53·197	52·543	51·900	51·269	50·648	62
	3	54·612	53·928	53·255	52·594	51·944	51·306	63
	4	55·359	54·654	53·963	53·283	52·615	51·959	64
	5	56·101	55·377	54·666	53·968	53·282	52·608	65
	6	56·841	56·097	55·367	54·649	53·945	53·253	66
	7	57·577	56·813	56·063	55·327	54·604	53·894	67
	8	58·310	57·525	56·755	56·000	55·258	54·531	68
	9	59·039	58·234	57·444	56·669	55·909	55·163	69
	10	59·765	58·939	58·129	57·335	56·555	55·791	70
	11	60·488	59·641	58·811	57·997	57·198	56·415	71
6	...	61·207	60·339	59·489	58·654	57·836	57·035	72
	1	61·924	61·034	60·163	59·308	58·471	57·650	73
	2	62·637	61·726	60·833	59·959	59·102	58·262	74
	3	63·346	62·414	61·500	60·605	59·728	58·869	75

Present Value of £1 per Calendar MONTH,

Payable at end of every MONTH.

Period.		At rates per cent. per annum,— Interest payable MONTHLY.					Period.
Years.	Months.	3	3½	4	4½	5	Total Number of Months.
	4	69·138	68·077	67·039	66·023	65·027	76
	5	69·963	68·877	67·813	66·772	65·753	77
	6	70·786	69·673	68·584	67·519	66·476	78
	7	71·607	70·468	69·353	68·263	67·196	79
	8	72·426	71·260	70·120	69·004	67·913	80
	9	73·243	72·050	70·883	69·743	68·627	81
	10	74·058	72·837	71·644	70·478	69·338	82
	11	74·870	73·623	72·403	71·211	70·047	83
7	...	75·681	74·406	73·159	71·942	70·752	84
	1	76·490	75·186	73·913	72·669	71·454	85
	2	77·297	75·965	74·664	73·394	72·153	86
	3	78·102	76·741	75·413	74·116	72·850	87
	4	78·904	77·515	76·159	74·835	73·543	88
	5	79·705	78·287	76·902	75·552	74·234	89
	6	80·504	79·056	77·644	76·266	74·922	90
	7	81·300	79·823	78·382	76·977	75·607	91
	8	82·095	80·588	79·119	77·686	76·289	92
	9	82·888	81·351	79·852	78·392	76·968	93
	10	83·679	82·111	80·584	79·095	77·645	94
	11	84·468	82·870	81·313	79·796	78·319	95
8	...	85·254	83·626	82·039	80·494	78·989	96
	1	86·039	84·380	82·763	81·190	79·657	97
	2	86·822	85·131	83·485	81·883	80·323	98
	3	87·603	85·881	84·204	82·573	80·985	99
	4	88·382	86·628	84·921	83·261	81·645	100

Present Value of £1 per Calendar MONTH,

Payable at end of every MONTH.

Period.		At rates per cent. per annum,— Interest payable MONTHLY.						Period.
Years.	Months.	5½	6	6½	7	7½	8	Total Number of Months.
	4	64·053	63·098	62·163	61·248	60·351	59·473	76
	5	64·756	63·779	62·823	61·887	60·970	60·072	77
	6	65·456	64·457	63·479	62·522	61·585	60·668	78
	7	66·153	65·131	64·132	63·154	62·196	61·260	79
	8	66·846	65·802	64·781	63·782	62·804	61·847	80
	9	67·537	66·470	65·427	64·406	63·408	62·431	81
	10	68·224	67·134	66·069	65·027	64·007	63·011	82
	11	68·908	67·795	66·707	65·644	64·604	63·587	83
7	...	69·589	68·453	67·343	66·257	65·196	64·159	84
	1	70·267	69·107	67·974	66·867	65·785	64·728	85
	2	70·942	69·759	68·603	67·474	66·370	65·292	86
	3	71·614	70·407	69·228	68·076	66·952	65·853	87
	4	72·283	71·051	69·849	68·676	67·530	66·411	88
	5	72·948	71·693	70·468	69·272	68·104	66·964	89
	6	73·611	72·331	71·083	69·864	68·675	67·514	90
	7	74·270	72·966	71·694	70·453	69·242	68·060	91
	8	74·927	73·598	72·303	71·039	69·806	68·603	92
	9	75·581	74·227	72·908	71·621	70·366	69·142	93
	10	76·231	74·853	73·510	72·200	70·923	69·678	94
	11	76·879	75·476	74·108	72·775	71·476	70·210	95
8	...	77·524	76·095	74·704	73·347	72·026	70·738	96
	1	78·165	76·712	75·296	73·916	72·572	71·263	97
	2	78·804	77·325	75·885	74·482	73·115	71·784	98
	3	79·440	77·935	76·471	75·044	73·655	72·302	99
	4	80·073	78·543	77·053	75·603	74·191	72·817	100

Present Value of £1 per Calendar MONTH,

Payable at end of every MONTH.

Period.		At rates per cent. per annum,— Interest payable MONTHLY.					Period.
Years.	Months.	3	3½	4	4½	5	Total Number of Months.
	5	89·159	87·373	85·636	83·946	82·302	101
	6	89·935	88·116	86·348	84·629	82·957	102
	7	90·708	88·857	87·058	85·309	83·608	103
	8	91·479	89·596	87·765	85·986	84·257	104
	9	92·249	90·332	88·470	86·661	84·903	105
	10	93·016	91·067	89·173	87·334	85·547	106
	11	93·782	91·799	89·874	88·004	86·188	107
9	...	94·545	92·529	90·572	88·671	86·826	108
	1	95·307	93·257	91·268	89·336	87·462	109
	2	96·067	93·983	91·961	89·999	88·095	110
	3	96·825	94·707	92·652	90·659	88·725	111
	4	97·581	95·429	93·341	91·316	89·353	112
	5	98·335	96·148	94·028	91·972	89·978	113
	6	99·087	96·866	94·712	92·624	90·600	114
	7	99·838	97·581	95·394	93·275	91·220	115
	8	100·586	98·294	96·074	93·922	91·838	116
	9	101·333	99·006	96·751	94·568	92·452	117
	10	102·078	99·715	97·426	95·211	93·065	118
	11	102·821	100·422	98·099	95·851	93·674	119
10	...	103·562	101·127	98·770	96·489	94·281	120
	1	104·301	101·830	99·439	97·125	94·886	121
	2	105·038	102·531	100·105	97·759	95·488	122
	3	105·774	103·230	100·769	98·390	96·088	123
	4	106·508	103·927	101·431	99·018	96·685	124
	5	107·240	104·621	102·091	99·645	97·280	125

Present Value of £1 per Calendar MONTH,

Payable at end of every MONTH.

Period.		At rates per cent. per annum,— Interest payable MONTHLY.						Period.
Years.	Months.	5½	6	6½	7	7½	8	Total Number of Months.
	5	80·703	79·147	77·633	76·159	74·724	73·328	101
	6	81·330	79·748	78·209	76·711	75·254	73·836	102
	7	81·955	80·346	78·782	77·261	75·780	74·340	103
	8	82·576	80·942	79·352	77·807	76·303	74·841	104
	9	83·195	81·534	79·920	78·350	76·823	75·339	105
	10	83·811	82·123	80·484	78·890	77·340	75·833	106
	11	84·424	82·710	81·045	79·426	77·853	76·325	107
9	...	85·034	83·293	81·603	79·960	78·364	76·813	108
	1	85·642	83·874	82·158	80·490	78·871	77·297	109
	2	86·246	84·452	82·710	81·018	79·375	77·779	110
	3	86·848	85·027	83·259	81·542	79·875	78·257	111
	4	87·447	85·599	83·805	82·063	80·373	78·732	112
	5	88·044	86·168	84·348	82·582	80·868	79·204	113
	6	88·638	86·734	84·888	83·097	81·359	79·673	114
	7	89·229	87·298	85·425	83·609	81·848	80·139	115
	8	89·817	87·858	85·960	84·118	82·333	80·601	116
	9	90·403	88·416	86·491	84·625	82·815	81·061	117
	10	90·986	88·971	87·020	85·128	83·295	81·517	118
	11	91·566	89·524	87·545	85·629	83·771	81·971	119
10	...	92·144	90·073	88·068	86·126	84·245	82·422	120
	1	92·719	90·620	88·589	86·621	84·715	82·869	121
	2	93·291	91·164	89·106	87·113	85·183	83·314	122
	3	93·861	91·706	89·621	87·602	85·647	83·755	123
	4	94·428	92·245	90·132	88·088	86·109	84·194	124
	5	94·993	92·781	90·641	88·571	86·568	84·630	125

PRESENT VALUE OF £1 PER CALENDAR MONTH,

Payable at end of every MONTH.

PERIOD.		AT RATES PER CENT. PER ANNUM,— INTEREST PAYABLE MONTHLY.					PERIOD.
Years.	Months.	3	3½	4	4½	5	Total Number of Months.
	6	107·970	105·314	102·748	100·269	97·872	126
	7	108·698	106·005	103·404	100·890	98·462	127
	8	109·424	106·694	104·057	101·510	99·049	128
	9	110·149	107·381	104·708	102·127	99·634	129
	10	110·872	108·065	105·356	102·741	100·216	130
	11	111·593	108·748	106·003	103·354	100·796	131
11	...	112·312	109·429	106·648	103·964	101·374	132
	1	113·029	110·108	107·290	104·572	101·949	133
	2	113·745	110·785	107·930	105·177	102·522	134
	3	114·459	111·460	108·568	105·781	103·092	135
	4	115·171	112·133	109·204	106·382	103·660	136
	5	115·881	112·804	109·838	106·981	104·226	137
	6	116·590	113·473	110·470	107·577	104·789	138
	7	117·297	114·140	111·100	108·171	105·350	139
	8	118·002	114·805	111·727	108·764	105·909	140
	9	118·705	115·468	112·353	109·354	106·466	141
	10	119·406	116·129	112·976	109·941	107·020	142
	11	120·106	116·789	113·597	110·527	107·571	143
12	...	120·804	117·446	114·217	111·110	108·121	144
	1	121·500	118·102	114·834	111·691	108·668	145
	2	122·195	118·755	115·449	112·270	109·213	146
	3	122·888	119·407	116·062	112·847	109·756	147
	4	123·579	120·057	116·673	113·422	110·296	148
	5	124·268	120·705	117·282	113·994	110·834	149
	6	124·956	121·351	117·889	114·565	111·370	150

PRESENT VALUE OF £1 PER CALENDAR MONTH,

Payable at end of every MONTH.

PERIOD.		AT RATES PER CENT. PER ANNUM,— INTEREST PAYABLE MONTHLY.						PERIOD.
Years.	Months.	5½	6	6½	7	7½	8	Total Number of Months.
	6	95·555	93·314	91·148	89·052	87·024	85·063	126
	7	96·114	93·845	91·651	89·530	87·478	85·493	127
	8	96·671	94·373	92·152	90·005	87·928	85·920	128
	9	97·226	94·899	92·650	90·477	88·376	86·344	129
	10	97·777	95·422	93·146	90·946	88·821	86·766	130
	11	98·327	95·942	93·638	91·413	89·263	87·185	131
11	...	98·874	96·460	94·129	91·877	89·702	87·601	132
	1	99·418	96·975	94·616	92·338	90·139	88·014	133
	2	99·960	97·487	95·101	92·797	90·573	88·424	134
	3	100·499	97·997	95·583	93·253	91·004	88·832	135
	4	101·036	98·505	96·063	93·706	91·432	89·237	136
	5	101·570	99·010	96·540	94·157	91·858	89·640	137
	6	102·103	99·512	97·014	94·605	92·281	90·039	138
	7	102·632	100·012	97·486	95·051	92·702	90·436	139
	8	103·159	100·509	97·956	95·494	93·120	90·831	140
	9	103·684	101·004	98·423	95·934	93·535	91·223	141
	10	104·206	101·497	98·887	96·372	93·948	91·612	142
	11	104·726	101·987	99·349	96·807	94·359	91·999	143
12	...	105·244	102·475	99·808	97·240	94·766	92·383	144
	1	105·759	102·960	100·265	97·670	95·171	92·764	145
	2	106·272	103·443	100·720	98·098	95·574	93·143	146
	3	106·783	103·923	101·172	98·523	95·974	93·520	147
	4	107·291	104·401	101·621	98·946	96·372	93·894	148
	5	107·797	104·877	102·068	99·367	96·767	94·266	149
	6	108·301	105·350	102·513	99·784	97·160	94·635	150

Present Value of £1 per Calendar MONTH,

Payable at end of every MONTH.

Period.		At rates per cent. per annum,— Interest payable MONTHLY.					Period.
Years.	Months.	3	3½	4	4½	5	Total Number of Months.
	7	125·641	121·995	118·494	115·133	111·904	151
	8	126·326	122·638	119·097	115·699	112·436	152
	9	127·008	123·278	119·698	116·263	112·965	153
	10	127·689	123·917	120·297	116·825	113·492	154
	11	128·368	124·553	120·894	117·385	114·017	155
13	...	129·045	125·188	121·489	117·943	114·540	156
	1	129·721	125·821	122·083	118·498	115·060	157
	2	130·395	126·452	122·674	119·052	115·579	158
	3	131·067	127·082	123·263	119·603	116·095	159
	4	131·738	127·709	123·850	120·153	116·609	160
	5	132·407	128·335	124·435	120·700	117·121	161
	6	133·074	128·959	125·018	121·245	117·631	162
	7	133·740	129·581	125·600	121·789	118·139	163
	8	134·404	130·201	126·179	122·330	118·644	164
	9	135·066	130·820	126·757	122·869	119·148	165
	10	135·727	131·436	127·332	123·406	119·649	166
	11	136·386	132·051	127·906	123·942	120·149	167
14	...	137·043	132·664	128·478	124·475	120·646	168
	1	137·699	133·275	129·047	125·006	121·141	169
	2	138·353	133·885	129·615	125·535	121·634	170
	3	139·006	134·493	130·181	126·063	122·126	171
	4	139·657	135·099	130·746	126·588	122·615	172
	5	140·306	135·703	131·308	127·111	123·102	173
	6	140·953	136·305	131·868	127·633	123·587	174
	7	141·599	136·906	132·427	128·152	124·070	175

PRESENT VALUE OF £1 PER CALENDAR MONTH,

Payable at end of every MONTH.

PERIOD.		AT RATES PER CENT. PER ANNUM,— INTEREST PAYABLE MONTHLY.						PERIOD.
Years.	Months.	5½	6	6½	7	7½	8	Total Number of Months.
	7	108·802	105·821	102·955	100·200	97·550	95·001	151
	8	109·301	106·289	103·395	100·613	97·938	95·366	152
	9	109·798	106·756	103·833	101·024	98·324	95·727	153
	10	110·292	107·219	104·268	101·432	98·707	96·087	154
	11	110·785	107·681	104·701	101·838	99·087	96·444	155
13	...	111·275	108·140	105·131	102·242	99·466	96·799	156
	1	111·762	108·597	105·560	102·643	99·842	97·151	157
	2	112·248	109·052	105·986	103·042	100·215	97·501	158
	3	112·731	109·505	106·409	103·438	100·587	97·848	159
	4	113·212	109·955	106·831	103·833	100·956	98·194	160
	5	113·691	110·403	107·250	104·225	101·322	98·537	161
	6	114·168	110·849	107·666	104·614	101·687	98·878	162
	7	114·642	111·292	108·081	105·002	102·049	99·216	163
	8	115·115	111·733	108·493	105·387	102·409	99·553	164
	9	115·585	112·173	108·903	105·770	102·767	99·887	165
	10	116·053	112·609	109·311	106·151	103·122	100·219	166
	11	116·519	113·044	109·717	106·530	103·475	100·548	167
14	...	116·983	113·477	110·120	106·906	103·827	100·876	168
	1	117·445	113·907	110·522	107·280	104·175	101·201	169
	2	117·904	114·336	110·921	107·652	104·522	101·524	170
	3	118·362	114·762	111·318	108·022	104·867	101·845	171
	4	118·817	115·186	111·713	108·390	105·209	102·164	172
	5	119·271	115·608	112·106	108·755	105·550	102·481	173
	6	119·722	116·028	112·496	109·119	105·888	102·796	174
	7	120·171	116·446	112·885	109·480	106·224	103·108	175

PRESENT VALUE OF £1 PER CALENDAR MONTH,

Payable at end of every MONTH.

PERIOD.		AT RATES PER CENT. PER ANNUM,— INTEREST PAYABLE MONTHLY.					PERIOD.
Years.	Months.	3	3½	4	4½	5	Total Number of Months.
	8	142·244	137·505	132·984	128·669	124·551	176
	9	142·887	138·102	133·539	129·185	125·030	177
	10	143·528	138·698	134·092	129·699	125·507	178
	11	144·167	139·291	134·643	130·210	125·982	179
15	...	144·805	139·883	135·192	130·720	126·455	180
	1	145·442	140·474	135·740	131·228	126·926	181
	2	146·077	141·062	136·285	131·734	127·396	182
	3	146·710	141·649	136·829	132·238	127·863	183
	4	147·341	142·234	137·371	132·740	128·328	184
	5	147·972	142·818	137·912	133·241	128·791	185
	6	148·600	143·399	138·450	133·739	129·253	186
	7	149·227	143·979	138·987	134·236	129·712	187
	8	149·852	144·558	139·522	134·731	130·170	188
	9	150·476	145·134	140·055	135·223	130·626	189
	10	151·098	145·709	140·586	135·715	131·080	190
	11	151·719	146·283	141·116	136·204	131·532	191
16	...	152·338	146·855	141·644	136·691	131·982	192
	1	152·956	147·425	142·170	137·177	132·430	193
	2	153·572	147·993	142·694	137·661	132·876	194
	3	154·186	148·560	143·217	138·143	133·321	195
	4	154·799	149·125	143·738	138·623	133·763	196
	5	155·411	149·688	144·257	139·101	134·204	197
	6	156·021	150·250	144·774	139·578	134·643	198
	7	156·629	150·810	145·290	140·052	135·080	199
	8	157·236	151·368	145·804	140·525	135·516	200

Present Value of £1 per Calendar MONTH,

Payable at end of every MONTH.

Period.		At rates per cent. per annum,— Interest payable MONTHLY.						Period.
Years.	Months.	5½	6	6½	7	7½	8	Total Number of Months.
	8	120·618	116·861	113·271	109·839	106·558	103·419	176
	9	121·063	117·275	113·656	110·197	106·890	103·727	177
	10	121·506	117·686	114·038	110·552	107·220	104·034	178
	11	121·948	118·096	114·418	110·905	107·548	104·338	179
15	...	122·387	118·503	114·796	111·256	107·873	104·641	180
	1	122·824	118·909	115·173	111·605	108·197	104·941	181
	2	123·259	119·312	115·547	111·952	108·519	105·239	182
	3	123·692	119·714	115·919	112·297	108·839	105·536	183
	4	124·123	120·113	116·289	112·640	109·156	105·830	184
	5	124·552	120·511	116·657	112·981	109·472	106·123	185
	6	124·979	120·906	117·023	113·320	109·786	106·413	186
	7	125·404	121·300	117·387	113·657	110·098	106·702	187
	8	125·828	121·691	117·749	113·992	110·408	106·989	188
	9	126·249	122·081	118·110	114·325	110·716	107·274	189
	10	126·668	122·468	118·468	114·656	111·022	107·557	190
	11	127·086	122·854	118·824	114·985	111·326	107·838	191
16	...	127·502	123·238	119·179	115·312	111·628	108·117	192
	1	127·915	123·620	119·531	115·638	111·929	108·394	193
	2	128·327	124·000	119·882	115·961	112·228	108·670	194
	3	128·737	124·378	120·231	116·283	112·524	108·944	195
	4	129·145	124·754	120·578	116·603	112·819	109·215	196
	5	129·551	125·129	120·923	116·921	113·112	109·486	197
	6	129·956	125·501	121·266	117·237	113·403	109·754	198
	7	130·358	125·872	121·607	117·551	113·693	110·020	199
	8	130·759	126·240	121·946	117·864	113·980	110·285	200

Present Value of £1 per Calendar MONTH,

Payable at end of every MONTH.

Period.		At rates per cent. per annum,— Interest payable MONTHLY.					Period.
Years.	Months.	3	3½	4	4½	5	Total Number of Months.
	9	157·842	151·925	146·316	140·997	135·949	201
	10	158·445	152·481	146·827	141·466	136·381	202
	11	159·048	153·034	147·336	141·934	136·811	203
17	...	159·649	153·586	147·843	142·400	137·239	204
	1	160·248	154·137	148·348	142·864	137·666	205
	2	160·846	154·686	148·852	143·327	138·090	206
	3	161·442	155·233	149·354	143·788	138·513	207
	4	162·037	155·778	149·855	144·247	138·934	208
	5	162·631	156·322	150·354	144·704	139·353	209
	6	163·223	156·865	150·851	145·160	139·771	210
	7	163·813	157·406	151·346	145·614	140·187	211
	8	164·402	157·945	151·840	146·066	140·601	212
	9	164·990	158·483	152·332	146·516	141·014	213
	10	165·576	159·019	152·823	146·965	141·424	214
	11	166·160	159·554	153·312	147·412	141·833	215
18	...	166·743	160·087	153·799	147·858	142·241	216
	1	167·325	160·618	154·285	148·302	142·646	217
	2	167·905	161·148	154·769	148·744	143·050	218
	3	168·484	161·677	155·252	149·185	143·453	219
	4	169·062	162·204	155·733	149·623	143·853	220
	5	169·637	162·729	156·212	150·061	144·252	221
	6	170·212	163·253	156·690	150·496	144·649	222
	7	170·785	163·775	157·166	150·930	145·045	223
	8	171·357	164·296	157·640	151·363	145·439	224
	9	171·927	164·815	158·113	151·794	145·831	225

Present Value of £1 per Calendar MONTH,

Payable at end of every month.

Period. Years.	Period. Months.	At rates per cent. per annum,— Interest payable MONTHLY. 5½	6	6½	7	7½	8	Period. Total Number of Months.
	9	131·158	126·607	122·284	118·174	114·266	110·548	201
	10	131·555	126·973	122·620	118·483	114·550	110·809	202
	11	131·950	127·336	122·954	118·790	114·833	111·069	203
17	...	132·344	127·697	123·286	119·096	115·113	111·327	204
	1	132·735	128·057	123·617	119·399	115·392	111·583	205
	2	133·125	128·415	123·945	119·701	115·669	111·837	206
	3	133·513	128·771	124·272	120·001	115·944	112·090	207
	4	133·899	129·126	124·597	120·299	116·218	112·341	208
	5	134·284	129·478	124·920	120·596	116·490	112·590	209
	6	134·667	129·829	125·242	120·890	116·760	112·838	210
	7	135·048	130·178	125·562	121·184	117·029	113·084	211
	8	135·427	130·526	125·880	121·475	117·296	113·329	212
	9	135·805	130·871	126·197	121·765	117·561	113·572	213
	10	136·180	131·215	126·511	122·053	117·825	113·813	214
	11	136·555	131·557	126·824	122·339	118·086	114·053	215
18	...	136·927	131·898	127·136	122·624	118·347	114·291	216
	1	137·298	132·237	127·445	122·907	118·606	114·527	217
	2	137·667	132·574	127·753	123·188	118·863	114·762	218
	3	138·034	132·909	128·060	123·468	119·118	114·995	219
	4	138·400	133·243	128·364	123·746	119·372	115·227	220
	5	138·764	133·575	128·667	124·023	119·624	115·457	221
	6	139·126	133·906	128·969	124·298	119·875	115·686	222
	7	139·487	134·234	129·269	124·571	120·124	115·913	223
	8	139·846	134·562	129·567	124·843	120·372	116·139	224
	9	140·203	134·887	129·863	125·113	120·618	116·363	225

PRESENT VALUE OF £1 PER CALENDAR MONTH,

Payable at end of every MONTH.

PERIOD.		AT RATES PER CENT. PER ANNUM,— INTEREST PAYABLE MONTHLY.					PERIOD.
Years.	Months.	3	3½	4	4½	5	Total Number of Months.
	10	172·495	165·333	158·585	152·223	146·222	226
	11	173·063	165·849	159·054	152·650	146·611	227
19	...	173·629	166·364	159·523	153·076	146·999	228
	1	174·193	166·877	159·989	153·501	147·385	229
	2	174·756	167·389	160·455	153·923	147·769	230
	3	175·318	167·900	160·918	154·345	148·152	231
	4	175·878	168·408	161·380	154·764	148·533	232
	5	176·437	168·916	161·841	155·182	148·912	233
	6	176·995	169·422	162·300	155·599	149·290	234
	7	177·551	169·926	162·757	156·014	149·667	235
	8	178·106	170·429	163·213	156·427	150·042	236
	9	178·659	170·930	163·668	156·839	150·415	237
	10	179·211	171·430	164·120	157·249	150·786	238
	11	179·762	171·929	164·572	157·658	151·157	239
20	...	180·311	172·426	165·022	158·065	151·525	240
	1	180·859	172·922	165·470	158·471	151·892	241
	2	181·405	173·416	165·917	158·875	152·258	242
	3	181·950	173·909	166·363	159·278	152·622	243
	4	182·494	174·400	166·807	159·679	152·985	244
	5	183·036	174·890	167·249	160·079	153·346	245
	6	183·577	175·378	167·690	160·477	153·705	246
	7	184·117	175·865	168·130	160·874	154·063	247
	8	184·656	176·351	168·568	161·269	154·420	248
	9	185·193	176·835	169·005	161·663	154·775	249
	10	185·728	177·318	169·440	162·055	155·129	250

PRESENT VALUE OF £1 PER CALENDAR MONTH,

Payable at end of every MONTH.

PERIOD.		AT RATES PER CENT. PER ANNUM,— INTEREST PAYABLE MONTHLY.						PERIOD.
Years.	Months.	5½	6	6½	7	7½	8	Total Number of Months.
	10	140·559	135·211	130·158	125·381	120·863	116·586	226
	11	140·913	135·533	130·452	125·648	121·106	116·808	227
19	...	141·266	135·854	130·744	125·914	121·347	117·027	228
	1	141·617	136·173	131·034	126·178	121·588	117·246	229
	2	141·966	136·491	131·322	126·440	121·826	117·463	230
	3	142·314	136·807	131·610	126·701	122·063	117·678	231
	4	142·660	137·121	131·895	126·961	122·299	117·892	232
	5	143·004	137·434	132·179	127·219	122·533	118·105	233
	6	143·347	137·745	132·462	127·475	122·766	118·316	234
	7	143·689	138·055	132·743	127·730	122·997	118·526	235
	8	144·029	138·363	133·022	127·983	123·227	118·734	236
	9	144·367	138·670	133·300	128·235	123·455	118·941	237
	10	144·704	138·975	133·576	128·486	123·682	119·147	238
	11	145·039	139·279	133·851	128·735	123·908	119·351	239
20	...	145·373	139·581	134·125	128·982	124·132	119·554	240
	1	145·705	139·881	134·397	129·229	124·355	119·756	241
	2	146·036	140·180	134·668	129·473	124·576	119·956	242
	3	146·365	140·478	134·937	129·717	124·796	120·155	243
	4	146·692	140·774	135·204	129·959	125·015	120·353	244
	5	147·019	141·069	135·470	130·199	125·232	120·549	245
	6	147·343	141·362	135·735	130·438	125·448	120·744	246
	7	147·666	141·654	135·999	130·676	125·663	120·938	247
	8	147·988	141·944	136·261	130·912	125·876	121·130	248
	9	148·308	142·233	136·521	131·147	126·088	121·322	249
	10	148·627	142·520	136·780	131·381	126·299	121·512	250

PRESENT VALUE OF £1 PER CALENDAR MONTH,

Payable at end of every MONTH.

PERIOD.		AT RATES PER CENT. PER ANNUM,— INTEREST PAYABLE MONTHLY.					PERIOD.
Years.	Months.	3	3½	4	4½	5	Total Number of Months.
	11	186·263	177·799	169·873	162·446	155·481	251
21	...	186·796	178·279	170·306	162·835	155·832	252
	1	187·327	178·758	170·737	163·223	156·181	253
	2	187·858	179·235	171·166	163·610	156·529	254
	3	188·387	179·711	171·594	163·995	156·875	255
	4	188·914	180·186	172·021	164·378	157·220	256
	5	189·441	180·659	172·446	164·761	157·563	257
	6	189·966	181·130	172·870	165·141	157·905	258
	7	190·490	181·601	173·292	165·521	158·246	259
	8	191·012	182·070	173·713	165·898	158·585	260
	9	191·533	182·537	174·133	166·275	158·923	261
	10	192·053	183·004	174·551	166·650	159·260	262
	11	192·572	183·468	174·968	167·024	159·595	263
22	...	193·089	183·932	175·383	167·396	159·928	264
	1	193·605	184·394	175·797	167·767	160·260	265
	2	194·120	184·855	176·210	168·136	160·591	266
	3	194·633	185·314	176·621	168·504	160·921	267
	4	195·145	185·773	177·031	168·871	161·249	268
	5	195·656	186·229	177·439	169·236	161·576	269
	6	196·166	186·685	177·846	169·600	161·901	270
	7	196·674	187·139	178·252	169·963	162·225	271
	8	197·181	187·592	178·657	170·324	162·548	272
	9	197·687	188·044	179·060	170·684	162·869	273
	10	198·191	188·494	179·462	171·043	163·189	274
	11	198·695	188·943	179·862	171·400	163·508	275

PRESENT VALUE OF £1 PER CALENDAR MONTH,

Payable at end of every MONTH.

PERIOD.		AT RATES PER CENT. PER ANNUM,— INTEREST PAYABLE MONTHLY.						PERIOD.
Years.	Months.	5½	6	6½	7	7½	8	Total Number of Months.
	11	148·945	142·806	137·038	131·613	126·508	121·700	251
21	...	149·260	143·091	137·294	131·844	126·716	121·888	252
	1	149·575	143·374	137·549	132·074	126·923	122·074	253
	2	149·888	143·656	137·803	132·302	127·128	122·259	254
	3	150·199	143·936	138·055	132·529	127·332	122·442	255
	4	150·510	144·215	138·306	132·754	127·535	122·625	256
	5	150·818	144·492	138·555	132·979	127·737	122·806	257
	6	151·126	144·769	138·803	133·202	127·937	122·986	258
	7	151·432	145·043	139·050	133·423	128·136	123·165	259
	8	151·736	145·317	139·296	133·644	128·334	123·343	260
	9	152·039	145·589	139·540	133·863	128·531	123·519	261
	10	152·341	145·859	139·783	134·081	128·726	123·695	262
	11	152·642	146·129	140·024	134·297	128 921	123·869	263
22	...	152·941	146·397	140·264	134·513	129·114	124·042	264
	1	153·238	146·664	140·503	134·727	129·306	124·214	265
	2	153·534	146·929	140·741	134·940	129·496	124·385	266
	3	153·829	147·193	140·977	135·151	129·686	124·554	267
	4	154·123	147·456	141·212	135·362	129·874	124·723	268
	5	154·415	147·717	141·446	135·571	130·061	124·890	269
	6	154·706	147·977	141·679	135·779	130·247	125·057	270
	7	154·996	148·236	141·910	135·985	130·432	125·222	271
	8	155·284	148·494	142·140	136·191	130·615	125·386	272
	9	155·571	148·750	142·369	136·395	130·798	125·549	273
	10	155·857	149·005	142·597	136·599	130·979	125·711	274
	11	156·141	149·258	142·823	136·801	131·160	125·872	275

PRESENT VALUE OF £1 PER CALENDAR MONTH,

Payable at end of every MONTH.

PERIOD.		AT RATES PER CENT. PER ANNUM,— INTEREST PAYABLE MONTHLY.					PERIOD.
Years.	Months.	3	3½	4	4½	5	Total Number of Months.
23	...	199·197	189·390	180·261	171·756	163·825	276
	1	199·697	189·837	180·659	172·111	164·141	277
	2	200·197	190·282	181·056	172·464	164·456	278
	3	200·695	190·725	181·451	172·816	164·770	279
	4	201·192	191·168	181·845	173·166	165·082	280
	5	201·688	191·609	182·237	173·516	165·393	281
	6	202·182	192·049	182·628	173·864	165·702	282
	7	202·676	192·487	183·018	174·211	166·011	283
	8	203·168	192·925	183·407	174·556	166·318	284
	9	203·659	193·361	183·794	174·900	166·623	285
	10	204·148	193·795	184·180	175·243	166·928	286
	11	204·637	194·229	184·565	175·584	167·231	287
24	...	205·124	194·661	184·949	175·925	167·533	288
	1	205·610	195·092	185·331	176·264	167·834	289
	2	206·095	195·522	185·712	176·601	168·133	290
	3	206·578	195·950	186·091	176·938	168·431	291
	4	207·061	196·378	186·470	177·273	168·728	292
	5	207·542	196·804	186·847	177·607	169·024	293
	6	208·022	197·228	187·223	177·940	169·319	294
	7	208·500	197·652	187·598	178·271	169·612	295
	8	208·978	198·074	187·971	178·602	169·904	296
	9	209·454	198·495	188·343	178·931	170·195	297
	10	209·930	198·915	188·714	179·258	170·484	298
	11	210·404	199·334	189·084	179·585	170·773	299
25	...	210·876	199·751	189·452	179·910	171·060	300

Present Value of £1 per Calendar MONTH,

Payable at end of every MONTH.

Period.		At rates per cent. per annum,— Interest payable MONTHLY.						Period.
Years.	Months.	$5\frac{1}{2}$	6	$6\frac{1}{2}$	7	$7\frac{1}{2}$	8	Total Number of Months.
23	...	156·424	149·511	143·048	137·001	131·339	126·031	276
	1	156·706	149·762	143·272	137·201	131·517	126·190	277
	2	156·986	150·012	143·495	137·400	131·694	126·348	278
	3	157·266	150·261	143·716	137·597	131·869	126·505	279
	4	157·544	150·508	143·937	137·793	132·044	126·660	280
	5	157·820	150·754	144·156	137·988	132·218	126·815	281
	6	158·096	150·999	144·374	138·182	132·390	126·968	282
	7	158·370	151·243	144·591	138·375	132·562	127·121	283
	8	158·643	151·486	144·806	138·567	132·732	127·272	284
	9	158·914	151·727	145·021	138·757	132·902	127·423	285
	10	159·185	151·967	145·234	138·947	133·070	127·572	286
	11	159·454	152·206	145·446	139·135	133·237	127·721	287
24	...	159·722	152·444	145·657	139·322	133·403	127·868	288
	1	159·988	152·681	145·867	139·509	133·569	128·015	289
	2	160·254	152·916	146·076	139·694	133·733	128·161	290
	3	160·518	153·150	146·284	139·878	133·896	128·305	291
	4	160·781	153·383	146·490	140·061	134·058	128·449	292
	5	161·043	153·615	146·696	140·243	134·219	128·592	293
	6	161·304	153·846	146·900	140·423	134·379	128·733	294
	7	161·563	154·076	147·103	140·603	134·539	128·874	295
	8	161·822	154·304	147·305	140·782	134·697	129·014	296
	9	162·079	154·532	147·506	140·960	134·854	129·153	297
	10	162·335	154·758	147·706	141·136	135·010	129·291	298
	11	162·590	154·983	147·905	141·312	135·165	129·428	299
25	...	162·843	155·207	148·103	141·487	135·320	129·565	300

THE

PRESENT VALUE OF £1 PER QUARTER,

PAYABLE AT THE END OF EVERY QUARTER,

FOR FIFTY YEARS.

PRESENT VALUE OF £1 PER QUARTER,

Payable at end of every QUARTER.

PERIOD.		AT RATES PER CENT. PER ANNUM,— INTEREST PAYABLE QUARTERLY.					PERIOD.
Years.	Quarters of Years.	3	3½	4	4½	5	Total Number of Quarters.
	1	·9925	·9913	·9901	·9889	·9877	1
	2	1·9777	1·9741	1·9704	1·9668	1·9631	2
	3	2·9555	2·9482	2·9410	2·9338	2·9265	3
1	...	3·9261	3·9140	3·9019	3·8900	3·8781	4
	1	4·8894	4·8714	4·8534	4·8356	4·8179	5
	2	5·8456	5·8205	5·7954	5·7707	5·7460	6
	3	6·7946	6·7613	6·7282	6·6954	6·6627	7
2	...	7·7366	7·6940	7·6517	7·6097	7·5681	8
	1	8·6715	8·6186	8·5660	8·5140	8·4624	9
	2	9·5995	9·5351	9·4713	9·4081	9·3455	10
	3	10·5206	10·4437	10·3676	10·2923	10·2178	11
3	...	11·4349	11·3445	11·2551	11·1667	11·0793	12
	1	12·3423	12·2374	12·1337	12·0314	11·9302	13
	2	13·2430	13·1226	13·0037	12·8864	12·7706	14
	3	14·1369	14·0001	13·8650	13·7319	13·6005	15
4	...	15·0243	14·8700	14·7179	14·5680	14·4203	16
	1	15·9050	15·7323	15·5622	15·3948	15·2299	17
	2	16·7791	16·5872	16·3982	16·2124	16·0296	18
	3	17·6468	17·4346	17·2260	17·0209	16·8193	19
5	...	18·5080	18·2747	18·0455	17·8204	17·5993	20
	1	19·3627	19·1075	18·8569	18·6111	18·3697	21
	2	20·2112	19·9331	19·6603	19·3929	19·1306	22
	3	21·0532	20·7515	20·4558	20·1660	19·8820	23
6	...	21·8891	21·5629	21·2434	20·9306	20·6242	24
	1	22·7187	22·3671	22·0231	21·6866	21·3573	25

Present Value of £1 per QUARTER,

Payable at end of every QUARTER.

Period.		At rates per cent. per annum,— Interest payable QUARTERLY.						Period.
Years.	Quarters of Years.	5½	6	6½	7	7½	8	Total Number of Quarters.
	1	·9864	·9853	·9840	·9828	·9816	·9804	1
	2	1·9595	1·9559	1·9523	1·9487	1·9451	1·9415	2
	3	2·9194	2·9123	2·9051	2·8980	2·8909	2·8839	3
1	...	3·8662	3·8544	3·8427	3·8310	3·8193	3·8077	4
	1	4·8002	4·7827	4·7652	4·7479	4·7306	4·7134	5
	2	5·7215	5·6973	5·6730	5·6490	5·6251	5·6014	6
	3	6·6304	6·5983	6·5663	6·5347	6·5032	6·4720	7
2	...	7·5269	7·4860	7·4454	7·4051	7·3651	7·3255	8
	1	8·4112	8·3606	8·3103	8·2605	8·2111	8·1622	9
	2	9·2836	9·2222	9·1614	9·1013	9·0416	8·9826	10
	3	10·1441	10·0712	9·9990	9·9275	9·8568	9·7868	11
3	...	10·9929	10·9076	10·8231	10·7396	10·6570	10·5753	12
	1	11·8303	11·7316	11·6340	11·5377	11·4424	11·3484	13
	2	12·6563	12·5434	12·4320	12·3220	12·2134	12·1062	14
	3	13·4710	13·3433	13·2172	13·0929	12·9702	12·8493	15
4	...	14·2748	14·1313	13·9899	13·8505	13·7131	13·5777	16
	1	15·0676	14·9077	14·7502	14·5951	14·4423	14·2919	17
	2	15·8496	15·6726	15·4984	15·3269	15·1581	14·9920	18
	3	16·6211	16·4262	16·2346	16·0461	15·8607	15·6785	19
5	...	17·3821	17·1687	16·9590	16·7529	16·5504	16·3514	20
	1	18·1328	17·9002	17·6718	17·4476	17·2274	17·0112	21
	2	18·8733	18·6209	18·3732	18·1303	17·8919	17·6580	22
	3	19·6037	19·3309	19·0635	18·8013	18·5442	18·2922	23
6	...	20·3243	20·0305	19·7426	19·4607	19·1845	18·9139	24
	1	21·0350	20·7197	20·4110	20·1088	19·8130	19·5234	25

PRESENT VALUE OF £1 PER QUARTER,

Payable at end of every QUARTER.

PERIOD.		AT RATES PER CENT. PER ANNUM,— INTEREST PAYABLE QUARTERLY.					PERIOD.
Years.	Quarters of Years.	3	3½	4	4½	5	Total Number of Quarters.
	2	23·5421	23·1645	22·7952	22·4342	22·0813	26
	3	24·3594	23·9548	23·5596	23·1735	22·7963	27
7	...	25·1707	24·7384	24·3164	23·9046	23·5025	28
	1	25·9758	25·5151	25·0657	24·6275	24·2000	29
	2	26·7750	26·2852	25·8077	25·3424	24·8889	30
	3	27·5683	27·0485	26·5423	26·0494	25·5693	31
8	...	28·3556	27·8052	27·2696	26·7484	26·2413	32
	1	29·1370	28·5553	27·9896	27·4397	26·9050	33
	2	29·9127	29·2990	28·7026	28·1234	27·5605	34
	3	30·6826	30·0361	29·4085	28·7994	28·2079	35
9	...	31·4467	30·7669	30·1075	29·4678	28·8473	36
	1	32·2052	31·4914	30·7995	30·1289	29·4788	37
	2	32·9580	32·2095	31·4846	30·7826	30·1025	38
	3	33·7052	32·9215	32·1630	31·4290	30·7185	39
10	...	34·4469	33·6272	32·8347	32·0682	31·3269	40
	1	35·1830	34·3269	33·4996	32·7004	31·9278	41
	2	35·9136	35·0205	34·1581	33·3255	32·5213	42
	3	36·6388	35·7080	34·8100	33·9436	33·1075	43
11	...	37·3587	36·3896	35·4554	34·5548	33·6864	44
	1	38·0731	37·0653	36·0945	35·1593	34·2582	45
	2	38·7822	37·7351	36·7272	35·7570	34·8229	46
	3	39·4861	38·3991	37·3537	36·3481	35·3806	47
12	...	40·1847	39·0573	37·9739	36·9326	35·9315	48
	1	40·8781	39·7099	38·5880	37·5106	36·4755	49
	2	41·5664	40·3568	39·1961	38·0822	37·0129	50

Present Value of £1 per QUARTER,

Payable at end of every QUARTER.

Period.		At rates per cent. per annum,— Interest payable QUARTERLY.						Period.
Years.	Quarters of Years.	5½	6	6½	7	7½	8	Total Number of Quarters.
	2	21·7362	21·3987	21·0686	20·7458	20·4299	20·1210	26
	3	22·4278	22·0677	21·7157	21·3718	21·0355	20·7069	27
7	...	23·1100	22·7268	22·3525	21·9870	21·6299	21·2813	28
	1	23·7830	23·3761	22·9791	22·5916	22·2134	21·8444	29
	2	24·4469	24·0159	23·5957	23·1859	22·7862	22·3964	30
	3	25·1017	24·6462	24·2024	23·7699	23·3484	22·9377	31
8	...	25·7477	25·2672	24·7994	24·3439	23·9003	23·4683	32
	1	26·3849	25·8790	25·3868	24·9080	24·4420	23·9886	33
	2	27·0134	26·4818	25·9649	25·4624	24·9737	24·4986	34
	3	27·6335	27·0756	26·5337	26·0073	25·4957	24·9986	35
9	...	28·2451	27·6607	27·0935	26·5428	26·0080	25·4888	36
	1	28·8484	28·2372	27·6442	27·0691	26·5110	25·9694	37
	2	29·4436	28·8051	28·1862	27·5863	27·0046	26·4406	38
	3	30·0307	29·3646	28·7195	28·0947	27·4892	26·9026	39
10	...	30·6098	29·9159	29·2443	28·5943	27·9648	27·3555	40
	1	31·1811	30·4590	29·7607	29·0853	28·4318	27·7995	41
	2	31·7446	30·9941	30·2688	29·5678	28·8901	28·2348	42
	3	32·3004	31·5213	30·7688	30·0421	29·3399	28·6616	43
11	...	32·8488	32·0407	31·2609	30·5082	29·7815	29·0800	44
	1	33·3897	32·5524	31·7450	30·9663	30·2150	29·4902	45
	2	33·9232	33·0565	32·2214	31·4165	30·6405	29·8923	46
	3	34·4495	33·5532	32·6902	31·8590	31·0582	30·2866	47
12	...	34·9687	34·0426	33·1515	32·2938	31·4681	30·6731	48
	1	35·4809	34·5247	33·6054	32·7212	31·8706	31·0521	49
	2	35·9861	34·9997	34·0520	33·1413	32·2656	31·4236	50

PRESENT VALUE OF £1 PER QUARTER,

Payable at end of every QUARTER.

PERIOD.		AT RATES PER CENT. PER ANNUM,— INTEREST PAYABLE QUARTERLY.					PERIOD.
Years.	Quarters of Years.	3	3½	4	4½	5	Total Number of Quarters.
	3	42·2495	40·9980	39·7981	38·6474	37·5436	51
13	...	42·9275	41·6337	40·3942	39·2063	38·0677	52
	1	43·6005	42·2639	40·9843	39·7591	38·5854	53
	2	44·2685	42·8887	41·5686	40·3056	39·0967	54
	3	44·9315	43·5080	42·1472	40·8461	39·6017	55
14	...	45·5896	44·1219	42·7200	41·3806	40·1004	56
	1	46·2428	44·7305	43·2871	41·9091	40·5930	57
	2	46·8911	45·3338	43·8486	42·4317	41·0795	58
	3	47·5346	45·9319	44·4046	42·9486	41·5600	59
15	...	48·1733	46·5248	44·9550	43·4596	42·0346	60
	1	48·8072	47·1126	45·5000	43·9650	42·5033	61
	2	49·4365	47·6953	46·0396	44·4648	42·9662	62
	3	50·0610	48·2729	46·5739	44·9590	43·4234	63
16	...	50·6809	48·8455	47·1028	45·4477	43·8750	64
	1	51·2962	49·4131	47·6266	45·9310	44·3210	65
	2	51·9069	49·9758	48·1451	46·4089	44·7615	66
	3	52·5130	50·5337	48·6585	46·8815	45·1965	67
17	...	53·1147	51·0867	49·1669	47·3488	45·6262	68
	1	53·7118	51·6348	49·6702	47·8109	46·0505	69
	2	54·3045	52·1783	50·1685	48·2679	46·4697	70
	3	54·8928	52·7170	50·6619	48·7198	46·8836	71
18	...	55·4768	53·2511	51·1504	49·1667	47·2925	72
	1	56·0563	53·7805	51·6340	49·6086	47·6963	73
	2	56·6316	54·3053	52·1129	50·0456	48·0951	74
	3	57·2026	54·8256	52·5870	50·4778	48·4890	75

Present Value of £1 per QUARTER,

Payable at end of every QUARTER.

Period.		At Rates per Cent. per Annum,— Interest payable QUARTERLY.						Period.
Years.	Quarters of Years.	5½	6	6½	7	7½	8	Total Number of Quarters.
	3	36·4844	35·4677	34·4916	33·5541	32·6533	31·7878	51
13	...	36·9760	35·9288	34·9240	33·9598	33·0339	32·1449	52
	1	37·4609	36·3830	35·3496	34·3585	33·4075	32·4950	53
	2	37·9392	36·8306	35·7684	34·7504	33·7743	32·8383	54
	3	38·4111	37·2715	36·1804	35·1355	34·1343	33·1748	55
14	...	38·8765	37·7059	36·5859	35·5140	34·4876	33·5047	56
	1	39·3357	38·1339	36·9849	35·8860	34·8345	33·8281	57
	2	39·7886	38·5556	37·3775	36·2516	35·1749	34·1452	58
	3	40·2353	38·9710	37·7639	36·6109	35·5091	34·4561	59
15	...	40·6760	39·3803	38·1440	36·9640	35·8372	34·7609	60
	1	41·1108	39·7835	38·5181	37·3111	36·1592	35·0597	61
	2	41·5396	40·1808	38·8862	37·6522	36·4753	35·3526	62
	3	41·9626	40·5723	39·2484	37·9874	36·7856	35·6398	63
16	...	42·3799	40·9579	39·6049	38·3169	37·0901	35·9214	64
	1	42·7915	41·3378	39·9556	38·6406	37·3891	36·1975	65
	2	43·1975	41·7121	40·3007	38·9589	37·6825	36·4681	66
	3	43·5981	42·0809	40·6403	39·2716	37·9706	36·7334	67
17	...	43·9932	42·4443	40·9745	39·5790	38·2533	36·9936	68
	1	44·3829	42·8022	41·3033	39·8811	38·5309	37·2486	69
	2	44·7673	43·1549	41·6268	40·1779	38·8033	37·4986	70
	3	45·1466	43·5024	41·9452	40·4697	39·0707	37·7437	71
18	...	45·5207	43·8447	42·2585	40·7565	39·3332	37·9841	72
	1	45·8897	44·1820	42·5668	41·0383	39·5909	38·2197	73
	2	46·2537	44·5142	42·8702	41·3153	39·8438	38·4507	74
	3	46·6128	44·8416	43·1687	41·5875	40·0921	38·6771	75

Present Value of £1 per QUARTER,

Payable at end of every QUARTER.

Period.		At rates per cent. per annum,— Interest payable QUARTERLY.					Period.
Years.	Quarters of Years.	3	3½	4	4½	5	Total Number of Quarters.
19	...	57·7693	55·3414	53·0565	50·9050	48·8780	76
	1	58·3318	55·8526	53·5212	51·3276	49·2622	77
	2	58·8901	56·3595	53·9814	51·7455	49·6417	78
	3	59·4443	56·8620	54·4371	52·1587	50·0165	79
20	...	59·9943	57·3601	54·8882	52·5673	50·3866	80
	1	60·5403	57·8538	55·3348	52·9714	50·7523	81
	2	61·0822	58·3433	55·7770	53·3709	51·1133	82
	3	61·6200	58·8286	56·2149	53·7661	51·4700	83
21	...	62·1539	59·3096	56·6484	54·1568	51·8222	84
	1	62·6837	59·7865	57·0776	54·5432	52·1701	85
	2	63·2097	60·2592	57·5026	54·9253	52·5136	86
	3	63·7317	60·7279	57·9234	55·3031	52·8530	87
22	...	64·2498	61·1924	58·3400	55·6768	53·1881	88
	1	64·7641	61·6530	58·7524	56·0462	53·5191	89
	2	65·2745	62·1095	59·1608	56·4116	53·8461	90
	3	65·7811	62·5621	59·5652	56·7729	54·1689	91
23	...	66·2840	63·0108	59·9655	57·1302	54·4878	92
	1	66·7832	63·4555	60·3619	57·4835	54·8028	93
	2	67·2786	63·8964	60·7544	57·8329	55·1139	94
	3	67·7703	64·3335	61·1429	58·1784	55·4211	95
24	...	68·2583	64·7668	61·5277	58·5200	55·7246	96
	1	68·7428	65·1963	61·9086	58·8579	56·0243	97
	2	69·2236	65·6221	62·2857	59·1920	56·3202	98
	3	69·7008	66·0442	62·6591	59·5223	56·6126	99
25	...	70·1745	66·4627	63·0288	59·8490	56·9013	100

Present Value of £1 per QUARTER,

Payable at end of every QUARTER.

Period.		At rates per cent. per annum,— Interest payable QUARTERLY.						Period.
Years.	Quarters of Years.	5½	6	6½	7	7½	8	Total Number of Quarters.
19	...	46·9670	45·1642	43·4624	41·8551	40·3358	38·8991	76
	1	47·3164	45·4819	43·7515	42·1180	40·5750	39·1168	77
	2	47·6610	45·7950	44·0359	42·3764	40·8098	39·3302	78
	3	48·0010	46·1035	44·3158	42·6304	41·0403	39·5394	79
20	...	48·3364	46·4073	44·5911	42·8800	41·2666	39·7445	80
	1	48·6672	46·7068	44·8621	43·1253	41·4887	39·9456	81
	2	48·9936	47·0017	45·1288	43·3664	41·7067	40·1427	82
	3	49·3155	47·2923	45·3912	43·6033	41·9207	40·3360	83
21	...	49·6330	47·5787	45·6494	43·8362	42·1307	40·5255	84
	1	49·9463	47·8608	45·9035	44·0651	42·3369	40·7113	85
	2	50·2553	48·1387	46·1535	44·2900	42·5393	40·8934	86
	3	50·5601	48·4125	46·3995	44·5110	42·7379	41·0720	87
22	...	50·8607	48·6823	46·6415	44·7283	42·9329	41·2470	88
	1	51·1573	48·9480	46·8798	44·9418	43·1244	41·4187	89
	2	51·4499	49·2099	47·1141	45·1517	43·3123	41·5869	90
	3	51·7385	49·4679	47·3448	45·3579	43·4967	41·7519	91
23	...	52·0232	49·7220	47·5718	45·5606	43·6777	41·9136	92
	1	52·3040	49·9724	47·7951	45·7598	43·8554	42·0722	93
	2	52·5810	50·2192	48·0148	45·9556	44·0299	42·2276	94
	3	52·8542	50·4622	48·2311	46·1480	44·2011	42·3800	95
24	...	53·1238	50·7017	48·4439	46·3371	44·3692	42·5294	96
	1	53·3897	50·9376	48·6533	46·5229	44·5342	42·6759	97
	2	53·6520	51·1701	48·8593	46·7056	44·6961	42·8195	98
	3	53·9107	51·3991	49·0620	46·8851	44·8551	42·9603	99
25	...	54·1659	51·6247	49·2615	47·0615	45·0111	43·0983	100

Present Value of £1 per QUARTER,

Payable at end of every QUARTER.

Period.		At rates per cent. per annum,— Interest payable QUARTERLY.					Period.
Years.	Quarters of Years.	3	3½	4	4½	5	Total Number of Quarters.
	1	70·6447	66·8775	63·3949	60·1721	57·1865	101
	2	71·1114	67·2887	63·7573	60·4916	57·4680	102
	3	71·5745	67·6964	64·1161	60·8075	57·7463	103
26	...	72·0343	68·1005	64·4714	61·1199	58·0211	104
	1	72·4906	68·5011	64·8232	61·4288	58·2924	105
	2	72·9435	68·8983	65·1715	61·7343	58·5604	106
	3	73·3932	69·2920	65·5163	62·0364	58·8251	107
27	...	73·8393	69·6822	65·8578	62·3351	59·0865	108
	1	74·2822	70·0691	66·1958	62·6305	59·3447	109
	2	74·7217	70·4527	66·5305	62·9227	59·5997	110
	3	75·1581	70·8329	66·8619	63·2115	59·8515	111
28	...	75·5911	71·2098	67·1900	63·4972	60·1003	112
	1	76·0210	71·5834	67·5148	63·7797	60·3460	113
	2	76·4476	71·9539	67·8365	64·0590	60·5886	114
	3	76·8711	72·3210	68·1549	64·3352	60·8283	115
29	...	77·2914	72·6851	68·4702	64·6084	61·0649	116
	1	77·7086	73·0459	68·7824	64·8785	61·2987	117
	2	78·1227	73·4036	69·0915	65·1456	61·5296	118
	3	78·5336	73·7582	69·3975	65·4097	61·7576	119
30	...	78·9416	74·1098	69·7005	65·6709	61·9828	120
	1	79·3465	74·4583	70·0005	65·9293	62·2053	121
	2	79·7484	74·8037	70·2975	66·1847	62·4250	122
	3	80·1473	75·1462	70·5916	66·4373	62·6419	123
31	...	80·5432	75·4857	70·8828	66·6870	62·8562	124
	1	80·9362	75·8223	71·1710	66·9340	63·0679	125

Present Value of £1 per QUARTER,

Payable at end of every QUARTER.

Period.		At rates per cent. per annum,— Interest payable QUARTERLY.						Period.
Years.	Quarters of Years.	5½	6	6½	7	7½	8	Total Number of Quarters.
	1	54·4177	51·8470	49·4579	47·2349	45·1643	43·2337	101
	2	54·6660	52·0660	49·6510	47·4053	45·3147	43·3663	102
	3	54·9110	52·2818	49·8411	47·5728	45·4622	43·4964	103
26	...	55·1526	52·4944	50·0282	47·7374	45·6071	43·6239	104
	1	55·3910	52·7038	50·2122	47·8992	45·7493	43·7490	105
	2	55·6262	52·9102	50·3933	48·0581	45·8889	43·8715	106
	3	55·8581	53·1135	50·5715	48·2144	46·0259	43·9917	107
27	...	56·0869	53·3138	50·7469	48·3680	46·1604	44·1095	108
	1	56·3126	53·5111	50·9195	48·5189	46·2924	44·2250	109
	2	56·5353	53·7055	51·0893	48·6672	46·4220	44·3382	110
	3	56·7549	53·8971	51·2563	48·8130	46·5492	44·4493	111
28	...	56·9715	54·0858	51·4207	48·9562	46 6741	44·5581	112
	1	57·1852	54·2717	51·5825	49·0970	46·7966	44·6648	113
	2	57·3960	54·4549	51·7417	49·2354	46·9169	44·7694	114
	3	57·6040	54·6354	51·8984	49·3714	47·0350	44·8720	115
29	...	57·8091	54·8132	52·0525	49·5051	47·1509	44·9725	116
	1	58·0114	54·9883	52·2042	49·6364	47·2647	45·0711	117
	2	58·2110	55·1609	52·3535	49·7655	47·3764	45·1677	118
	3	58·4079	55·3310	52·5003	49·8924	47·4860	45·2625	119
30	...	58·6022	55·4985	52·6449	50·0171	47·5937	45·3554	120
	1	58·7937	55·6635	52·7871	50·1397	47·6993	45·4465	121
	2	58·9827	55·8261	52·9270	50·2601	47·8030	45·5357	122
	3	59·1692	55·9863	53·0647	50·3785	47·9048	45·6233	123
31	...	59·3530	56·1442	53·2002	50·4949	48·0047	45·7091	124
	1	59·5344	56·2997	53·3335	50·6092	48·1028	45·7932	125

Present Value of £1 per QUARTER,

Payable at end of every QUARTER.

Period.		At rates per cent. per annum,— Interest payable QUARTERLY.					Period.
Years.	Quarters of Years.	3	3½	4	4½	5	Total Number of Quarters.
	2	81·3262	76·1559	71·4565	67·1783	63·2769	126
	3	81·7134	76·4866	71·7391	67·4198	63·4834	127
32	...	82·0976	76·8145	72·0189	67·6586	63·6873	128
	1	82·4790	77·1395	72·2959	67·8948	63·8887	129
	2	82·8576	77·4617	72·5702	68·1284	64·0876	130
	3	83·2334	77·7812	72·8418	68·3593	64·2840	131
33	...	83·6063	78·0978	73·1107	68·5877	64·4781	132
	1	83·9765	78·4117	73·3769	68·8136	64·6697	133
	2	84·3439	78·7229	73·6405	69·0369	64·8590	134
	3	84·7086	79·0313	73·9015	69·2577	65·0459	135
34	...	85·0706	79·3372	74·1599	69·4761	65·2305	136
	1	85·4298	79·6403	74·4158	69·6921	65·4128	137
	2	85·7864	79·9408	74·6691	69·9057	65·5929	138
	3	86·1404	80·2387	74·9199	70·1168	65·7708	139
35	...	86·4917	80·5341	75·1682	70·3257	65·9465	140
	1	86·8404	80·8268	75·4141	70·5322	66·1200	141
	2	87·1865	81·1171	75·6575	70·7364	66·2913	142
	3	87·5300	81·4048	75·8985	70·9384	66·4606	143
36	...	87·8710	81·6900	76·1371	71·1381	66·6277	144
	1	88·2094	81·9727	76·3734	71·3355	66·7928	145
	2	88·5453	82·2530	76·6073	71·5308	66·9559	146
	3	88·8787	82·5308	76·8389	71·7239	67·1169	147
37	...	89·2097	82·8063	77·0682	71·9149	67·2759	148
	1	89·5381	83·0793	77·2953	72·1037	67·4330	149
	2	89·8641	83·3500	77·5201	72·2904	67·5882	150

Present Value of £1 per QUARTER,

Payable at end of every QUARTER.

Period.		At rates per cent. per annum,— Interest payable QUARTERLY.						Period.
Years.	Quarters of Years.	5½	6	6½	7	7½	8	Total Number of Quarters.
	2	59·7134	56·4529	53·4647	50·7216	48·1990	45·8757	126
	3	59·8899	56·6038	53·5938	50·8320	48·2935	45·9566	127
32	...	60·0640	56·7525	53·7209	50·9406	48·3863	46·0359	128
	1	60·2358	56·8991	53·8459	51·0472	48·4773	46·1136	129
	2	60·4052	57·0434	53·9689	51·1521	48·5667	46·1898	130
	3	60·5723	57·1856	54·0899	51·2551	48·6544	46·2645	131
33	...	60·7372	57·3257	54·2090	51·3564	48·7405	46·3378	132
	1	60·8998	57·4638	54·3262	51·4559	48·8251	46·4096	133
	2	61·0603	57·5998	54·4416	51·5537	48·9081	46·4800	134
	3	61·2185	57·7338	54·5550	51·6498	48·9895	46·5490	135
34	...	61·3746	57·8658	54·6667	51·7443	49·0694	46·6166	136
	1	61·5286	57·9959	54·7766	51·8372	49·1479	46·6830	137
	2	61·6805	58·1240	54·8847	51·9284	49·2250	46·7480	138
	3	61·8303	58·2502	54·9911	52·0181	49·3006	46·8118	139
35	...	61·9781	58·3746	55·0958	52·1062	49·3748	46·8743	140
	1	62·1239	58·4972	55·1988	52·1929	49·4476	46·9356	141
	2	62·2677	58·6179	55·3002	52·2780	49·5192	46·9957	142
	3	62·4096	58·7369	55·3999	52·3617	49·5894	47·0546	143
36	...	62·5495	58·8540	55·4981	52·4439	49·6583	47·1123	144
	1	62·6876	58·9695	55·5947	52·5247	49·7259	47·1690	145
	2	62·8238	59·0833	55·6897	52·6041	49·7923	47·2245	146
	3	62·9581	59·1953	55·7832	52·6822	49·8575	47·2789	147
37	...	63·0906	59·3057	55·8753	52·7589	49·9214	47·3323	148
	1	63·2213	59·4145	55·9658	52·8343	49·9842	47·3846	149
	2	63·3502	59·5217	56·0549	52·9084	50·0459	47·4358	150

PRESENT VALUE OF £1 PER QUARTER,

Payable at end of every QUARTER.

PERIOD.		AT RATES PER CENT. PER ANNUM,— INTEREST PAYABLE QUARTERLY.					PERIOD.
Years.	Quarters of Years.	3	3½	4	4½	5	Total Number of Quarters.
	3	90·1877	83·6184	77·7427	72·4751	67·7414	151
38	...	90·5089	83·8844	77·9630	72·6577	67·8928	152
	1	90·8277	84·1481	78·1812	72·8383	68·0422	153
	2	91·1441	84·4095	78·3972	73·0168	68·1899	154
	3	91·4582	84·6687	78·6111	73·1934	68·3357	155
39	...	91·7699	84·9256	78·8229	73·3680	68·4797	156
	1	92·0793	85·1802	79·0326	73·5407	68·6219	157
	2	92·3864	85·4327	79·2402	73·7114	68·7624	158
	3	92·6912	85·6830	79·4457	73·8803	68·9011	159
40	...	92·9938	85·9311	79·6492	74·0472	69·0381	160
	1	93·2941	86·1770	79·8507	74·2123	69·1735	161
	2	93·5921	86·4208	80·0502	74·3756	69·3071	162
	3	93·8880	86·6625	80·2477	74·5371	69·4391	163
41	...	94·1816	86·9022	80·4433	74·6967	69·5695	164
	1	94·4731	87·1397	80·6369	74·8546	69·6983	165
	2	94·7623	87·3751	80·8287	75·0108	69·8255	166
	3	95·0495	87·6086	81·0185	75·1651	69·9511	167
42	...	95·3345	87·8400	81·2064	75·3178	70·0751	168
	1	95·6173	88·0694	81·3925	75·4688	70·1977	169
	2	95·8981	88·2968	81·5767	75·6181	70·3187	170
	3	96·1768	88·5222	81·7591	75·7657	70·4382	171
43	...	96·4534	88·7457	81·9397	75·9117	70·5562	172
	1	96·7279	88·9672	82·1185	76·0561	70·6728	173
	2	97·0004	89·1868	82·2956	76·1989	70·7880	174
	3	97·2709	89·4045	82·4709	76·3400	70·9017	175

PRESENT VALUE OF £1 PER QUARTER,

Payable at end of every QUARTER.

PERIOD.		AT RATES PER CENT. PER ANNUM,— INTEREST PAYABLE QUARTERLY.						PERIOD.
Years.	Quarters of Years.	5½	6	6½	7	7½	8	Total Number of Quarters.
	3	63·4774	59·6273	56·1426	52·9813	50·1064	47·4861	151
38	...	63·6029	59·7313	56·2289	53·0528	50·1658	47·5354	152
	1	63·7266	59·8338	56·3138	53·1232	50·2241	47·5837	153
	2	63·8487	59·9348	56·3973	53·1923	50·2813	47·6311	154
	3	63·9691	60·0343	56·4796	53·2603	50·3375	47·6776	155
39	...	64·0879	60·1323	56·5604	53·3270	50·3926	47·7231	156
	1	64·2051	60·2289	56·6400	53·3927	50·4467	47·7677	157
	2	64·3207	60·3240	56·7184	53·4572	50·4999	47·8115	158
	3	64·4347	60·4177	56·7954	53·5206	50·5520	47·8544	159
40	...	64·5472	60·5101	56·8713	53·5829	50·6032	47·8965	160
	1	64·6582	60·6011	56·9459	53·6441	50·6534	47·9377	161
	2	64·7676	60·6907	57·0194	53·7043	50·7028	47·9782	162
	3	64·8756	60·7790	57·0916	53·7634	50·7512	48·0178	163
41	...	64·9821	60·8660	57·1627	53·8215	50·7987	48·0567	164
	1	65·0871	60·9518	57·2327	53·8787	50·8454	48·0948	165
	2	65·1907	61·0362	57·3015	53·9348	50·8911	48·1322	166
	3	65·2930	61·1194	57·3693	53·9900	50·9361	48·1688	167
42	...	65·3938	61·2014	57·4360	54·0442	50·9802	48·2047	168
	1	65·4933	61·2822	57·5016	54·0975	51·0235	48·2399	169
	2	65·5914	61·3617	57·5661	54·1499	51·0660	48·2744	170
	3	65·6882	61·4401	57·6296	54·2014	51·1078	48·3082	171
43	...	65·7837	61·5174	57·6921	54·2519	51·1487	48·3414	172
	1	65·8778	61·5935	57·7536	54·3017	51·1889	48·3739	173
	2	65·9707	61·6685	57·8142	54·3505	51·2284	48·4058	174
	3	66·0624	61·7423	57·8737	54·3986	51·2671	48·4371	175

Present Value of £1 per QUARTER,

Payable at end of every QUARTER.

Period.		At rates per cent. per annum,— Interest payable QUARTERLY.					Period.
Years.	Quarters of Years.	3	3½	4	4½	5	Total Number of Quarters.
44	...	97·5394	89·6204	82·6444	76·4796	71·0140	176
	1	97·8058	89·8343	82·8163	76·6177	71·1250	177
	2	98·0703	90·0464	82·9864	76·7542	71·2345	178
	3	98·3328	90·2567	83·1549	76·8892	71·3428	179
45	...	98·5933	90·4651	83·3216	77·0227	71·4496	180
	1	98·8519	90·6717	83·4868	77·1547	71·5552	181
	2	99·1086	90·8765	83·6503	77·2852	71·6595	182
	3	99·3634	91·0796	83·8121	77·4143	71·7624	183
46	...	99·6163	91·2809	83·9724	77·5420	71·8641	184
	1	99·8672	91·4804	84·1311	77·6682	71·9646	185
	2	100·1164	91·6782	84·2882	77·7930	72·0638	186
	3	100·3636	91·8743	84·4438	77·9165	72·1617	187
47	...	100·6091	92·0687	84·5978	78·0385	72·2585	188
	1	100·8527	92·2615	84·7503	78·1593	72·3541	189
	2	101·0945	92·4525	84·9013	78·2786	72·4485	190
	3	101·3345	92·6419	85·0508	78·3967	72·5417	191
48	...	101·5727	92·8296	85·1988	78·5134	72·6338	192
	1	101·8091	93·0157	85·3453	78·6288	72·7247	193
	2	102·0438	93·2002	85·4904	78·7430	72·8145	194
	3	102·2767	93·3831	85·6341	78·8558	72·9033	195
49	...	102·5079	93·5644	85·7763	78·9674	72·9909	196
	1	102·7374	93·7442	85·9172	79·0778	73·0774	197
	2	102·9651	93·9224	86·0566	79·1870	73·1629	198
	3	103·1912	94·0990	86·1947	79·2948	73·2473	199
50	...	103·4156	94·2741	86·3313	79·4016	73·3306	200

Present Value of £1 per QUARTER,

Payable at end of every QUARTER.

Period.		At rates per cent. per annum,— Interest payable QUARTERLY.						Period.
Years.	Quarters of Years.	5½	6	6½	7	7½	8	Total Number of Quarters.
44	...	66·1528	61·8151	57·9323	54·4458	51·3052	48·4677	176
	1	66·2420	61·8868	57·9900	54·4921	51·3425	48·4978	177
	2	66·3299	61·9574	58·0467	54·5377	51·3791	48·5272	178
	3	66·4167	62·0270	58·1026	54·5825	51·4151	48·5561	179
45	...	66·5023	62·0956	58·1575	54·6266	51·4504	48·5844	180
	1	66·5867	62·1631	58·2116	54·6699	51·4851	48·6122	181
	2	66·6700	62·2297	58·2648	54·7124	51·5191	48·6394	182
	3	66·7522	62·2953	58·3171	54·7542	51·5525	48·6661	183
46	...	66·8332	62·3599	58·3686	54·7953	51·5852	48·6922	184
	1	66·9131	62·4235	58·4193	54·8357	51·6174	48·7179	185
	2	66·9920	62·4862	58·4692	54·8753	51·6490	48·7430	186
	3	67·0698	62·5480	58·5183	54·9143	51·6800	48·7676	187
47	...	67·1465	62·6089	58·5666	54·9527	51·7104	48·7918	188
	1	67·2222	62·6688	58·6141	54·9903	51·7403	48·8155	189
	2	67·2969	62·7279	58·6608	55·0274	51·7696	48·8387	190
	3	67·3706	62·7861	58·7069	55·0637	51·7984	48·8615	191
48	...	67·4432	62·8435	58·7521	55·0995	51·8266	48·8838	192
	1	67·5149	62·9000	58·7967	55·1346	51·8544	48·9057	193
	2	67·5856	62·9556	58·8405	55·1692	51·8816	48·9272	194
	3	67·6553	63·0105	58·8837	55·2031	51·9083	48·9482	195
49	...	67·7241	63·0645	58·9261	55·2365	51·9345	48·9688	196
	1	67·7920	63·1178	58·9679	55·2693	51·9603	48·9890	197
	2	67·8589	63·1702	59·0090	55·3015	51·9855	49·0089	198
	3	67·9249	63·2219	59·0494	55·3332	52·0104	49·0283	199
50	...	67·9901	63·2728	59·0892	55·3643	52·0347	49·0473	200

THE

PRESENT VALUE OF £1 PER HALF-YEAR,

PAYABLE AT THE END OF EVERY HALF-YEAR,

FOR FIFTY YEARS.

Present Value of £1 per HALF-YEAR,

Payable at end of every HALF-YEAR.

Period.		At Rates per Cent. per Annum,— Interest payable HALF-YEARLY.					Period.
Years.	Half-Years.	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	Total Number of Half-Years.
	1	·9852	·9828	·9804	·9780	·9756	1
1	...	1·9559	1·9487	1·9416	1·9345	1·9274	2
	1	2·9122	2·8980	2·8839	2·8699	2·8560	3
2	...	3·8544	3·8309	3·8077	3·7847	3·7620	4
	1	4·7826	4·7479	4·7135	4·6795	4·6458	5
3	...	5·6972	5·6490	5·6014	5·5545	5·5081	6
	1	6·5982	6·5346	6·4720	6·4102	6·3494	7
4	...	7·4859	7·4051	7·3255	7·2472	7·1701	8
	1	8·3605	8·2605	8·1622	8·0657	7·9709	9
5	...	9·2222	9·1012	8·9826	8·8662	8·7521	10
	1	10·0711	9·9275	9·7868	9·6491	9·5142	11
6	...	10·9075	10·7395	10·5753	10·4148	10·2578	12
	1	11·7315	11·5376	11·3484	11·1636	10·9832	13
7	...	12·5434	12·3220	12·1062	11·8959	11·6909	14
	1	13·3432	13·0929	12·8493	12·6122	12·3814	15
8	...	14·1313	13·8505	13·5777	13·3126	13·0550	16
	1	14·9076	14·5951	14·2919	13·9977	13·7122	17
9	...	15·6726	15·3269	14·9920	14·6677	14·3534	18
	1	16·4262	16·0461	15·6785	15·3229	14·9789	19
10	...	17·1686	16·7529	16·3514	15·9637	15·5892	20
	1	17·9001	17·4475	17·0112	16·5904	16·1845	21
11	...	18·6208	18·1303	17·6580	17·2034	16·7654	22
	1	19·3309	18·8012	18·2922	17·8028	17·3321	23
12	...	20·0304	19·4607	18·9139	18·3890	17·8850	24
	1	20·7196	20·1088	19·5235	18·9624	18·4244	25

PRESENT VALUE OF £1 PER HALF-YEAR,

Payable at end of every HALF-YEAR.

PERIOD.		AT RATES PER CENT. PER ANNUM,— INTEREST PAYABLE HALF-YEARLY.						PERIOD.
Years.	Half-Years.	5½	6	6½	7	7½	8	Total Number of Half-Years.
	1	·9732	·9709	·9685	·9662	·9639	·9615	1
1	...	1·9204	1·9135	1·9066	1·8997	1·8929	1·8861	2
	1	2·8423	2·8286	2·8151	2·8016	2·7883	2·7751	3
2	...	3·7394	3·7171	3·6950	3·6731	3·6514	3·6299	4
	1	4·6126	4·5797	4·5472	4·5151	4·4833	4·4518	5
3	...	5·4624	5·4172	5·3726	5·3286	5·2851	5·2421	6
	1	6·2894	6·2303	6·1720	6·1145	6·0579	6·0021	7
4	...	7·0943	7·0197	6·9462	6·8740	6·8028	6·7327	8
	1	7·8777	7·7861	7·6961	7·6077	7·5208	7·4353	9
5	...	8·6401	8·5302	8·4224	8·3166	8·2128	8·1109	10
	1	9·3821	9·2526	9·1258	9·0016	8·8798	8·7605	11
6	...	10·1042	9·9540	9·8071	9·6633	9·5227	9·3851	12
	1	10·8070	10·6350	10·4669	10·3027	10·1424	9·9856	13
7	...	11·4910	11·2961	11·1060	10·9205	10·7396	10·5631	14
	1	12·1567	11·9379	11·7249	11·5174	11·3153	11·1184	15
8	...	12·8046	12·5611	12·3244	12·0941	11·8702	11·6523	16
	1	13·4351	13·1661	12·9049	12·6513	12·4050	12·1657	17
9	...	14·0488	13·7535	13·4673	13·1897	12·9205	12·6593	18
	1	14·6460	14·3238	14·0119	13·7098	13·4173	13·1339	19
10	...	15·2273	14·8775	14·5393	14·2124	13·8962	13·5903	20
	1	15·7929	15·4150	15·0502	14·6980	14·3578	14·0292	21
11	...	16·3435	15·9369	15·5450	15·1671	14·8027	14·4511	22
	1	16·8793	16·4436	16·0242	15·6204	15·2315	14·8568	23
12	...	17·4008	16·9355	16·4883	16·0584	15·6448	15·2470	24
	1	17·9083	17·4131	16·9379	16·4815	16·0432	15·6221	25

Present Value of £1 per HALF-YEAR,

Payable at end of every HALF-YEAR.

Period.		At rates per cent. per annum,— Interest payable HALF-YEARLY.					Period.
Years.	Half-Years.	3	3½	4	4½	5	Total Number of Half-Years.
13	...	21·3986	20·7457	20·1210	19·5231	18·9506	26
	1	22·0676	21·3717	20·7069	20·0715	19·4640	27
14	...	22·7267	21·9870	21·2813	20·6078	19·9649	28
	1	23·3761	22·5916	21·8444	21·1323	20·4535	29
15	...	24·0158	23·1858	22·3965	21·6453	20·9303	30
	1	24·6461	23·7699	22·9377	22·1470	21·3954	31
16	...	25·2671	24·3439	23·4683	22·6377	21·8492	32
	1	25·8790	24·9080	23·9886	23·1175	22·2919	33
17	...	26·4817	25·4624	24·4986	23·5868	22·7238	34
	1	27·0756	26·0073	24·9986	24·0458	23·1452	35
18	...	27·6607	26·5428	25·4888	24·4947	23·5563	36
	1	28·2371	27·0690	25·9695	24·9337	23·9573	37
19	...	28·8051	27·5863	26·4406	25·3630	24·3486	38
	1	29·3646	28·0946	26·9026	25·7829	24·7303	39
20	...	29·9158	28·5942	27·3555	26·1935	25·1028	40
	1	30·4590	29·0852	27·7995	26·5951	25·4661	41
21	...	30·9940	29·5678	28·2348	26·9879	25·8206	42
	1	31·5212	30·0421	28·6616	27·3720	26·1664	43
22	...	32·0406	30·5082	29·0800	27·7477	26·5038	44
	1	32·5523	30·9663	29·4902	28·1151	26·8330	45
23	...	33·0565	31·4165	29·8923	28·4744	27·1542	46
	1	33·5532	31·8589	30·2866	28·8259	27·4675	47
24	...	34·0426	32·2938	30·6731	29·1695	27·7732	48
	1	34·5247	32·7212	31·0521	29·5057	28·0714	49
25	...	34·9997	33·1412	31·4236	29·8344	28·3623	50

PRESENT VALUE OF £1 PER HALF-YEAR,

Payable at end of every HALF-YEAR.

PERIOD.		AT RATES PER CENT. PER ANNUM,— INTEREST PAYABLE HALF-YEARLY.						PERIOD.
Years.	Half-Years.	5½	6	6½	7	7½	8	Total Number of Half-Years.
13	...	18·4023	17·8768	17·3732	16·8904	16·4272	15·9828	26
	1	18·8830	18·3270	17·7949	17·2854	16·7973	16·3296	27
14	...	19·3508	18·7641	18·2033	17·6670	17·1540	16·6631	28
	1	19·8062	19·1885	18·5988	18·0358	17·4978	16·9837	29
15	...	20·2493	19·6004	18·9819	18·3920	17·8292	17·2920	30
	1	20·6806	20·0004	19·3529	18·7363	18·1487	17·5885	31
16	...	21·1003	20·3888	19·7123	19·0689	18·4565	17·8736	32
	1	21·5088	20·7658	20·0603	19·3902	18·7533	18·1476	33
17	...	21·9064	21·1318	20·3974	19·7007	19·0393	18·4112	34
	1	22·2933	21·4872	20·7239	20·0007	19·3150	18·6646	35
18	...	22·6699	21·8323	21·0401	20·2905	19·5807	18·9083	36
	1	23·0364	22·1672	21·3463	20·5705	19·8369	19·1426	37
19	...	23·3931	22·4925	21·6429	20·8411	20·0837	19·3679	38
	1	23·7402	22·8082	21·9302	21·1025	20·3217	19·5845	39
20	...	24·0781	23·1148	22·2084	21·3551	20·5510	19·7928	40
	1	24·4069	23·4124	22·4779	21·5991	20·7720	19·9931	41
21	...	24·7269	23·7014	22·7389	21·8349	20·9851	20·1856	42
	1	25·0384	23·9819	22·9917	22·0627	21·1905	20·3708	43
22	...	25·3415	24·2543	23·2365	22·2828	21·3884	20·5488	44
	1	25·6365	24·5187	23·4736	22·4955	21·5792	20·7200	45
23	...	25·9236	24·7755	23·7032	22·7009	21·7631	20·8847	46
	1	26·2030	25·0247	23·9256	22·8994	21·9403	21·0429	47
24	...	26·4749	25·2667	24·1411	23·0912	22·1111	21·1951	48
	1	26·7396	25·5017	24·3497	23·2766	22·2758	21·3415	49
25	...	26·9972	25·7298	24·5518	23·4556	22·4345	21·4822	50

PRESENT VALUE OF £1 PER HALF-YEAR,

Payable at end of every HALF-YEAR.

PERIOD.		AT RATES PER CENT. PER ANNUM,— INTEREST PAYABLE HALF-YEARLY.					PERIOD.
Years.	Half-Years.	3	3½	4	4½	5	Total Number of Half-Years.
	1	35·4677	33·5540	31·7878	30·1559	28·6462	51
26	...	35·9287	33·9597	32·1449	30·4703	28·9231	52
	1	36·3830	34·3584	32·4950	30·7778	29·1932	53
27	...	36·8305	34·7503	32·8383	31·0785	29·4568	54
	1	37·2715	35·1354	33·1748	31·3727	29·7140	55
28	...	37·7059	35·5140	33·5047	31·6603	29·9649	56
	1	38·1339	35·8859	33·8281	31·9416	30·2096	57
29	...	38·5555	36·2515	34·1452	32·2167	30·4484	58
	1	38·9710	36·6109	34·4561	32·4858	30·6814	59
30	...	39·3803	36·9640	34·7609	32·7490	30·9087	60
	1	39·7835	37·3110	35·0597	33·0063	31·1304	61
31	...	40·1808	37·6521	35·3526	33·2580	31·3467	62
	1	40·5722	37·9874	35·6398	33·5042	31·5578	63
32	...	40·9579	38·3168	35·9214	33·7449	31·7637	64
	1	41·3378	38·6406	36·1975	33·9803	31·9646	65
33	...	41·7121	38·9588	36·4681	34·2106	32·1606	66
	1	42·0809	39·2716	36·7334	34·4358	32·3518	67
34	...	42·4442	39·5789	36·9936	34·6560	32·5383	68
	1	42·8022	39·8810	37·2486	34·8714	32·7203	69
35	...	43·1549	40·1779	37·4986	35·0821	32·8979	70
	1	43·5023	40·4697	37·7437	35·2881	33·0711	71
36	...	43·8447	40·7564	37·9841	35·4896	33·2401	72
	1	44·1819	41·0383	38·2197	35·6866	33·4050	73
37	...	44·5142	41·3153	38·4507	35·8794	33·5658	74
	1	44·8416	41·5875	38·6771	36·0678	33·7227	75

Present Value of £1 per HALF-YEAR,

Payable at end of every HALF-YEAR.

Period.		At rates per cent. per annum,— Interest payable HALF-YEARLY.						Period.
Years.	Half-Years.	5½	6	6½	7	7½	8	Total Number of Half-Years.
	1	27·2479	25·9512	24·7475	23·6286	22·5875	21·6175	51
26	...	27·4918	26·1662	24·9370	23·7958	22·7349	21·7476	52
	1	27·7293	26·3750	25·1206	23·9573	22·8770	21·8727	53
27	...	27·9604	26·5777	25·2984	24·1133	23·0140	21·9930	54
	1	28·1853	26·7744	25·4706	24·2641	23·1460	22·1086	55
28	...	28·4042	26·9655	25·6374	24·4097	23·2733	22·2198	56
	1	28·6172	27·1509	25·7989	24·5504	23·3959	22·3267	57
29	...	28·8245	27·3310	25·9554	24·6864	23·5141	22·4296	58
	1	29·0263	27·5058	26·1069	24·8178	23·6281	22·5284	59
30	...	29·2227	27·6756	26·2537	24·9447	23·7379	22·6235	60
	1	29·4138	27·8404	26·3958	25·0674	23·8438	22·7149	61
31	...	29·5998	28·0003	26·5335	25·1859	23·9458	22·8028	62
	1	29·7808	28·1557	26·6668	25·3004	24·0442	22·8873	63
32	...	29·9570	28·3065	26·7959	25·4110	24·1389	22·9685	64
	1	30·1285	28·4529	26·9210	25·5178	24·2303	23·0467	65
33	...	30·2953	28·5950	27·0421	25·6211	24·3184	23·1218	66
	1	30·4578	28·7330	27·1594	25·7209	24·4032	23·1940	67
34	...	30·6158	28·8670	27·2731	25·8173	24·4851	23·2635	68
	1	30·7697	28·9971	27·3831	25·9104	24·5639	23·3303	69
35	...	30·9194	29·1234	27·4897	26·0004	24·6399	23·3945	70
	1	31·0651	29·2460	27·5929	26·0873	24·7132	23·4563	71
36	...	31·2069	29·3651	27·6929	26·1713	24·7838	23·5156	72
	1	31·3449	29·4807	27·7897	26·2525	24·8518	23·5727	73
37	...	31·4792	29·5929	27·8835	26·3309	24·9174	23·6276	74
	1	31·6100	29·7018	27·9744	26·4067	24·9807	23·6804	75

Present Value of £1 per HALF-YEAR,

Payable at end of every HALF-YEAR.

Period.		At rates per cent. per annum,— Interest payable HALF-YEARLY.					Period.
Years.	Half-Years.	3	3½	4	4½	5	Total Number of Half-Years.
38	...	45·1641	41·8550	38·8991	36·2522	33·8758	76
	1	45·4819	42·1180	39·1168	36·4324	34·0252	77
39	...	45·7950	42·3764	39·3302	36·6087	34·1709	78
	1	46·1034	42·6303	39·5394	36·7812	34·3131	79
40	...	46·4073	42·8799	39·7445	36·9498	34·4518	80
	1	46·7067	43·1252	39·9456	37·1147	34·5871	81
41	...	47·0017	43·3663	40·1427	37·2760	34·7192	82
	1	47·2923	43·6033	40·3360	37·4337	34·8480	83
42	...	47·5786	43·8361	40·5255	37·5880	34·9736	84
	1	47·8607	44·0650	40·7113	37·7389	35·0962	85
43	...	48·1386	44·2899	40·8934	37·8864	35·2158	86
	1	48·4125	44·5110	41·0720	38·0307	35·3325	87
44	...	48·6822	44·7282	41·2470	38·1719	35·4463	88
	1	48·9480	44·9418	41·4187	38·3099	35·5574	89
45	...	49·2099	45·1516	41·5869	38·4449	35·6658	90
	1	49·4678	45·3578	41·7519	38·5769	35·7715	91
46	...	49·7220	45·5605	41·9136	38·7060	35·8746	92
	1	49·9724	45·7597	42·0722	38·8323	35·9752	93
47	...	50·2191	45·9555	42·2276	38·9558	36·0734	94
	1	50·4622	46·1479	42·3800	39·0766	36·1692	95
48	...	50·7017	46·3370	42·5294	39·1947	36·2626	96
	1	50·9376	46·5229	42·6759	39·3102	36·3538	97
49	...	51·1701	46·7055	42·8195	39·4232	36·4427	98
	1	51·3991	46·8850	42·9603	39·5337	36·5295	99
50	...	51·6247	47·0615	43·0984	39·6417	36·6141	100

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38	...	31·7372	29·8076	28·0623	26·4799	25·0416	23·7312	76
	1	31·8610	29·9103	28·1475	26·5506	25·1003	23·7800	77
39	...	31·9815	30·0100	28·2301	26·6190	25·1569	23·8269	78
	1	32·0988	30·1068	28·3100	26·6850	25·2115	23·8720	79
40	...	32·2129	30·2008	28·3874	26·7488	25·2641	23·9154	80
	1	32·3240	30·2920	28·4624	26·8104	25·3148	23·9571	81
41	...	32·4321	30·3806	28·5350	26·8700	25·3637	23·9972	82
	1	32·5374	30·4666	28·6053	26·9275	25·4108	24·0358	83
42	...	32·6398	30·5501	28·6734	26·9831	25·4562	24·0729	84
	1	32·7394	30·6312	28·7394	27·0368	25·4999	24·1085	85
43	...	32·8364	30·7099	28·8033	27·0887	25·5421	24·1428	86
	1	32·9308	30·7863	28·8652	27·1388	25·5827	24·1758	87
44	...	33·0227	30·8605	28·9251	27·1873	25·6219	24·2075	88
	1	33·1121	30·9325	28·9831	27·2341	25·6597	24·2380	89
45	...	33·1992	31·0024	29·0394	27·2793	25·6961	24·2673	90
	1	33·2838	31·0703	29·0938	27·3230	25·7312	24·2955	91
46	...	33·3663	31·1362	29·1466	27·3652	25·7650	24·3226	92
	1	33·4465	31·2002	29·1976	27·4060	25·7976	24·3486	93
47	...	33·5246	31·2623	29·2471	27·4454	25·8290	24·3737	94
	1	33·6006	31·3227	29·2950	27·4835	25·8592	24·3978	95
48	...	33·6745	31·3812	29·3414	27·5203	25·8884	24·4209	96
	1	33·7465	31·4381	29·3864	27·5558	25·9166	24·4432	97
49	...	33·8165	31·4933	29·4299	27·5902	25·9437	24·4646	98
	1	33·8847	31·5469	29·4720	27·6234	25·9698	24·4852	99
50	...	33·9510	31·5989	29·5129	27·6554	25·9950	24·5050	100

TABLE SHOWING EXACT DECIMALS

s.	d.		s.	d.		s.	d.		s.	d.		s.	d.	
0	1	·00416̇	2	1	·10416̇	4	1	·20416̇	6	1	·30416̇	8	1	·40416̇
0	2	·00833̇	2	2	·10833̇	4	2	·20833̇	6	2	·30833̇	8	2	·40833̇
0	3	·0125	2	3	·1125	4	3	·2125	6	3	·3125	8	3	·4125
0	4	·01666̇	2	4	·11666̇	4	4	·21666̇	6	4	·31666̇	8	4	·41666̇
0	5	·02083̇	2	5	·12083̇	4	5	·22083̇	6	5	·32083̇	8	5	·42083̇
0	6	·025	2	6	·125	4	6	·225	6	6	·325	8	6	·425
0	7	·02916̇	2	7	·12916̇	4	7	·22916̇	6	7	·32916̇	8	7	·42916̇
0	8	·03333̇	2	8	·13333̇	4	8	·23333̇	6	8	·33333̇	8	8	·43333̇
0	9	·0375	2	9	·1375	4	9	·2375	6	9	·3375	8	9	·4375
0	10	·04166̇	2	10	·14166̇	4	10	·24166̇	6	10	·34166̇	8	10	·44166̇
0	11	·04583̇	2	11	·14583̇	4	11	·24583̇	6	11	·34583̇	8	11	·44583̇
1	0	·05	3	0	·15	5	0	·25	7	0	·35	9	0	·45
1	1	·05416̇	3	1	·15416̇	5	1	·25416̇	7	1	·35416̇	9	1	·45416̇
1	2	·05833̇	3	2	·15833̇	5	2	·25833̇	7	2	·35833̇	9	2	·45833̇
1	3	·0625	3	3	·1625	5	3	·2625	7	3	·3625	9	3	·4625
1	4	·06666̇	3	4	·16666̇	5	4	·26666̇	7	4	·36666̇	9	4	·46666̇
1	5	·07083̇	3	5	·17083̇	5	5	·27083̇	7	5	·37083̇	9	5	·47083̇
1	6	·075	3	6	·175	5	6	·275	7	6	·375	9	6	·475
1	7	·07916̇	3	7	·17916̇	5	7	·27916̇	7	7	·37916̇	9	7	·47916̇
1	8	·08333̇	3	8	·18333̇	5	8	·28333̇	7	8	·38333̇	9	8	·48333̇
1	9	·0875	3	9	·1875	5	9	·2875	7	9	·3875	9	9	·4875
1	10	·09166̇	3	10	·19166̇	5	10	·29166̇	7	10	·39166̇	9	10	·49166̇
1	11	·09583̇	3	11	·19583̇	5	11	·29583̇	7	11	·39583̇	9	11	·49583̇
2	0	·1	4	0	·2	6	0	·3	8	0	·4	10	0	·5

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10	2	·50833̇	12	2	·60833̇	14	2	·70833̇	16	2	·80833̇	18	2	·90833̇
10	3	·5125	12	3	·6125	14	3	·7125	16	3	·8125	18	3	·9125
10	4	·51666̇	12	4	·61666̇	14	4	·71666̇	16	4	·81666̇	18	4	·91666̇
10	5	·52083̇	12	5	·62083̇	14	5	·72083̇	16	5	·82083̇	18	5	·92083̇
10	6	·525	12	6	·625	14	6	·725	16	6	·825	18	6	·925
10	7	·52916̇	12	7	·62916̇	14	7	·72916̇	16	7	·82916̇	18	7	·92916̇
10	8	·53333̇	12	8	·63333̇	14	8	·73333̇	16	8	·83333̇	18	8	·93333̇
10	9	·5375	12	9	·6375	14	9	·7375	16	9	·8375	18	9	·9375
10	10	·54166̇	12	10	·64166̇	14	10	·74166̇	16	10	·84166̇	18	10	·94166̇
10	11	·54583̇	12	11	·64583̇	14	11	·74583̇	16	11	·84583̇	18	11	·94583̇
11	0	·55	13	0	·65	15	0	·75	17	0	·85	19	0	·95
11	1	·55416̇	13	1	65416̇	15	1	·75416̇	17	1	·85416̇	19	1	·95416̇
11	2	·55833̇	13	2	·65833̇	15	2	·75833̇	17	2	·85833̇	19	2	·95833̇
11	3	·5625	13	3	·6625	15	3	·7625	17	3	·8625	19	3	·9625
11	4	·56666̇	13	4	·66666̇	15	4	·76666̇	17	4	·86666̇	19	4	·96666̇
11	5	·57083̇	13	5	·67083̇	15	5	·77083̇	17	5	·87083̇	19	5	·97083̇
11	6	·575	13	6	·675	15	6	·775	17	6	·875	19	6	·975
11	7	·57916̇	13	7	·67916̇	15	7	·77916̇	17	7	·87916̇	19	7	·97916̇
11	8	·58333̇	13	8	·68333̇	15	8	·78333̇	17	8	·88333̇	19	8	·98333̇
11	9	·5875	13	9	·6875	15	9	·7875	17	9	·8875	19	9	·9875
11	10	·59166̇	13	10	·69166̇	15	10	·79166̇	17	10	·89166̇	19	10	·99166̇
11	11	·59583̇	13	11	·69583̇	15	11	·79583̇	17	11	·89583̇	19	11	·99583̇
12	0	·6	14	0	·7	16	0	·8	18	0	·9			

[EXAMPLES (*see next page*).

Examples.

The decimal of 3*s.* 6*d.* is ·175; 8*s.* 1*d.* is $\cdot 4041\dot{6}$; 15*s.* 8*d.* is $\cdot 7833\dot{3}$; and, *vice versa*, ·675 is 13*s.* 6*d.*; ·75 is 15*s.*; and $\cdot 5041\dot{6}$ is 10*s.* 1*d.* If the exact decimal value required is not in the Table, take that nearest to it, which will give the result to the nearest half-penny.

Explanations and Rules.

A dot placed over the last figure in the decimals signifies the last figure is a repeater; that is, repeated *ad infinitum.*

For nearly every purpose it is considered sufficient to take decimal places as far as is shown in the Table; and if the repeater be over 5, to increase the last figure by 1. Thus, 8*s.* 1*d.* is $\cdot 4041\dot{6}$, which is considered as ·40417; 15*s.* 8*d.*, which is $\cdot 7833\dot{3}$, remains unaltered, the 3 repeater, as under 5, being rejected.

Repeaters in the Decimal Table of a pound, being always $\dot{3}$ or $\dot{6}$, can be reduced to absolute exactitude by taking them as vulgar fractions of $\frac{1}{3}$ for $\dot{3}$, and $\frac{2}{3}$ for $\dot{6}$ respectively. Thus, the exact value of $\cdot 4041\dot{6}$ (8*s.* 1*d.*) is $\cdot 4041\frac{2}{3}$, and $\cdot 7833\dot{3}$ (15*s.* 8*d.*) is $\cdot 78\frac{1}{3}$. In illustration of the working, multiply 131·07 by $\cdot 4041\frac{2}{3}$,—

$$
\begin{array}{rr}
 & 131\cdot07 \\
 & \cdot4041\frac{2}{3} \\
\hline
 & 13107 \\
 & 52428 \\
 & 52428 \\
\frac{2}{3} \text{ of } 131\cdot07 = & 8738 \\
\hline
 & £52\cdot974125 \\
\hline
\end{array}
$$

The result obtained by multiplying by the decimal shown in the Table—viz., $\cdot 4041\dot{6}(7)$, would be 52·9745619, leaving a difference in the answers of ·0004369, or less than half a farthing.

The convertion of the repeater into a vulgar fraction may be desirable, however, when very large values have to be operated on.

As the Annuity Tables have been mainly calculated for the use of Building Society managers, who sometimes complain of having forgotten decimal arithmetic, the following simple rule for multiplication of decimals may not be out of place. Multiply precisely the same as in ordinary arithmetic, pointing off from the answer as many places as there are decimal figures in the sum multiplied and in the multiplier.

EXAMPLE.—Multiply 234·43 by 2·845

```
   234·43
    2·845
   ------
   117215
   93772
  187544
  46886
 --------
 666·95335
```

Pointing off 5 decimal places, the number of decimal figures in the sum multiplied and in the multiplier, the answer will be £666, and decimal ·95335, which, on referring to the Decimal Table, will be found to be 19*s*. 1*d*. nearly.

The following is a very simple rule for converting decimals into shillings and pence—or, *vice versa*, by reversing the operation—without the aid of a decimal table :—Double the first figure in the decimal, and consider the product shillings; for 5, in the second place, add a shilling, and read the remainder of the second figure with the third figure as farthings. If the second figure be below 5, it will be necessary to read the whole of it with the third figure as farthings.

Thus, ·312=6*s*. 3*d*., doubling the first figure in the decimals gives 6*s*.; reading the second and third figures as farthings gives 12 farthings=3*d*.=total 6*s*. 3*d*.—·4830=9*s*. 8*d*., doubling the first figure in the decimals, and adding 1*s*. for 5 in the second place, gives 9*s*.; reading the remainder of the second figure and the third figure as farthings gives 33 farthings=8*d*.=total 9*s*. 8*d*. Any decimals after the third place are rejected. The result is not exact, but the greatest possible error will not exceed a halfpenny. The rule, so far as it refers to the farthings, is based on the assumption that ·004 is 1*d*., while strictly $\cdot 0041\dot{6}$=1*d*. Hence the slight discrepancy. The calculation, with a little practise, will be found to be very easily made mentally, and will be sufficiently correct to answer most purposes.

14

April, 1881.

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