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LOANS MANUAL

A COMPILATION OF TABLES AND RULES FOR
THE USE OF LOCAL AUTHORITIES

ALSO

GOVERNMENT LOANS TO LOCAL AUTHORITIES,

REPAYABLE BY EQUAL ANNUAL INSTALMENTS
OF PRINCIPAL

*With Revised Tables showing the Loan Charge and Addition
to the Rates in each Year for Various Terms, at
the Rates of Interest recently fixed by Her
Majesty's Treasury, August, 1897*

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P R E F A C E.

THE object of this Manual is to bring together in a concise and portable shape such portions of the voluminous tables relating to annuities, &c., as apply to the contracting or discharging of loans by Local Authorities.

In but few cases are loans made repayable in less than ten years, or in more than fifty years; and as the periods of repayment are mostly always multiples of five years, it has been thought sufficient to give tables for such periods only, and for the rates of interest which are usually charged.

Special tables are given for loans from Government under the Housing of the Working Classes Act, 1885, and the Public Health Act.

The table for ascertaining at any time, present or future, the amount of principal outstanding of a loan repayable by terminable annuity has not appeared in any previous work.

Dublin, 1890.

INTRODUCTION.

LOANS contracted by Local Authorities are usually advanced to them on the condition of being repaid within a fixed term of years by one of the three following methods :—

1. By repayment in each year of an equal *instalment* of the principal, together with interest on the balance of principal outstanding at the time of such repayment.
2. By *equal* annual payments, or *annuities*, consisting of repayment of a portion of the principal, and interest on the balance of principal outstanding at the time.
3. By setting apart annually a sum to be invested and form a *sinking-fund*, so that at the end of the term the amount in the sinking-fund shall be equal to the amount of the loan.

Such loans may for convenience be termed :—

- (1) “ Instalment loans.”
- (2) “ Annuity loans.”
- (3) “ Sinking-fund loans.”

I. INSTALMENT LOANS.

Owing to the reduction of the principal by an equal fractional part repaid in each year, the interest payable on the outstanding balance becomes less year by year, and therefore the combined annual payment, by the borrower to the lender, is a maximum in the first year and decreases in each succeeding year.

Table IA shows how much has to be paid in each year for an *instalment* loan of £100 for the various terms of years, and the different rates of interest most generally in use.

A simple sum in proportion will at once give the corresponding payments for loans of any amount.

Table IB shows the charges in each year for a Government instalment loan of £1,000 under the Public Health Act for the terms of

years usually allowed for the various purposes of the Act, and at the rates of interest as at present fixed by the Treasury for each of such terms of years.

This table may be usefully referred to by a Local Authority about to apply for a Government loan, when considering the term of years that should be asked for, as the table gives the payments side by side, so that the annual charges under different terms can be compared at a glance; thus, on comparing a loan for 35 years at $3\frac{1}{2}$ per cent. with the same for 40 years at $3\frac{3}{4}$ per cent., it will be seen that the *first* payment will be more by £1 1s. 5d. for each £1,000 of the loan—in the 18th year the payments for each will be equal—and for the rest of the terms the payments will be higher under the 40 years' term, and continue for five years longer, than under the 35 years' term.

This table also affords means of ascertaining the addition to the rates, on which the loan is secured, which will be entailed *by each* £1,000 of a loan (if there be no other funds with which to meet the charges) in the first or any subsequent year. To do this the number in the column headed "Rate factor," opposite to the number of years, should be divided by the net annual value of the premises assessable within the district in respect of which the money is borrowed, and the quotient will be the addition to the rates in pence per £.

In estimating the net annual value of the district, due allowance must be made for any properties entitled to differential rating. The net annual value is, in fact, two hundred and forty times the produce of a rate of one penny in the £.

Table Ic shows the charges in each year for Government loans of £1,000 under the Housing of the Working Classes Act, 1885, at the rates fixed by the Treasury for such loans for terms of 20, 30, 40, and 50 years.

The facilities given by this Act were originally limited to 31st December, 1888, but have been extended by the Public Works Loans Act, 1888, to 31st December, 1891, and probably will be then still further extended.

II. ANNUITY LOANS.

A portion of the principal of an annuity loan is repayable each year. Such portion is of a varying amount, but it is such that, together with the interest on the outstanding balance, it constitutes a payment *equal* in amount *each* year, and which forms the annuity.