a further loss in interest earnings inevitably ensues. In contrast to this, the genius of the instalment method is, that interest is being fully earned every day without exception.

Illustration of Each Method.

Let it be assumed that a municipality proposes to issue bonds for some important permanent work for say \$1,000,000, the loan to be repaid in 20 years and to carry interest at the rate of 5%, and the question arises as to which method is most economical and desirable.

Under the Sinking Fund Method the annual levy for interest would be \$50,000, and for sinking fund (assuming 3% as the sinking fund rate) \$37,215.71, a total annual levy of \$87,215.71.

Under the Annuity Instalment Method the annual levy for repayment of principal and interest would be only \$80,242.59, or \$6,973.12 per annum less.

The present value of this annual saving for the life-time of the loan is \$86,900.42, and this amount represents the actual saving to the municipality in issuing Annuity Instalment bonds instead of Sinking Fund Bonds.

Under the Serial Instalment Method, according to the illustration assumed, the annual levy would vary from \$78,750 to \$81,500 per annum, and the saving, therefore, would be practically the same as in the Annuity Instalment case.

The tables at the foot of this page, No. 1 illustrating the Annuity Instalment, and No. 2 illustrating the Serial Instalment

Annuity Instalment, Table No. 1.

Table illustrating the repayment of a loan of \$1,000,000, with interest at 5% per annum, in 20 years, according to Annuity Instalment Method.

Method of repayment, set forth in detail year by year, the gradual and systematic liquidation of the loan we have been considering.

It will be observed that the aggregate moneys which the tax payers would be called upon to pay, during the twenty years, to discharge the \$1,000,000 debt, according to the three methods would be as follows:—

(1) According to Sinking Fund Method \$1,744,314.20

(2) According to Annuity Instalment Method. 1,604,851.80

(3) According to Serial Instalment Method. 1,606,250.00

Effect on Debt.

By the Annuity or Serial Instalment Method the amount of the debt repaid each year is a definite quantity, and the bonds corresponding thereto are redeemed and cancelled. As a result, the net indebtedness of the municipality at any given time can be determined with accuracy. By the Sinking Fund Method the entire debt and the bonds representing it remain outstanding until the end of the period, and, through the Sinking Fund, the debt is then paid off. The yearly reduction of a debt of any enterprise unquestionably tends to create a much more favorable impression of its financial position than a stationary liability of many years' standing, although there is an increasing asset (the Sinking Fund) to offset it.

/ Both Instalment Methods, which provide for the repayment of the debt gradually from year to year as the annual taxes are re-

Serial Instalment, Table No. 2.

Table illustrating the repayment of a loan of \$1,000,000, with interest at 5% per annum, in 20 years, according to Serial Instalment Method.

Balance of Prin- cipal at end of year	
\$1,000,000	
969,000	
937.000	
904,000	
870,000	
834,000	
796,000	
756,000	
714,000	
670,000	
624,000	
575,000	
523,000	
468,000	
410,000	
349,000	
285,000	
218,000	
148,000	
75,000	
Debt paid off	