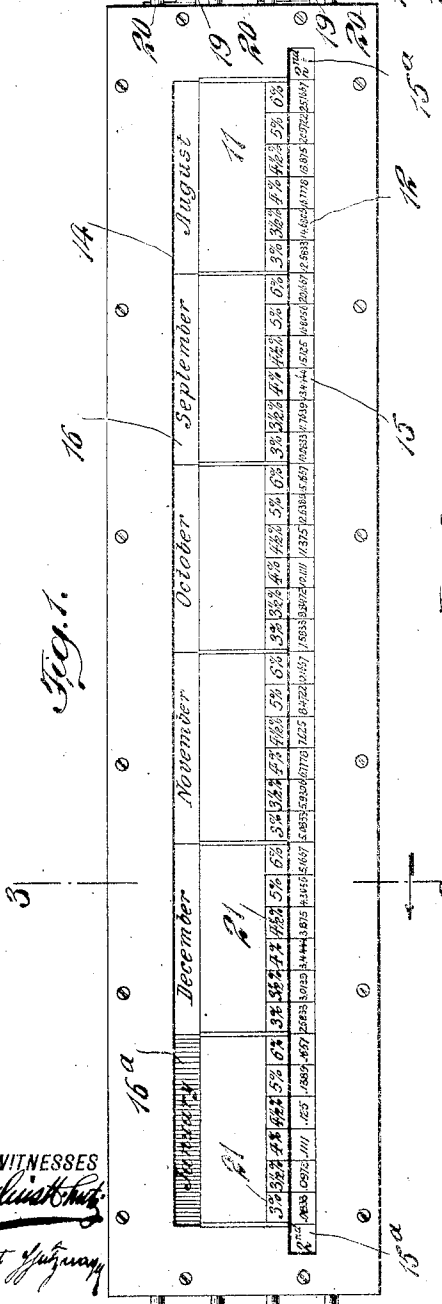
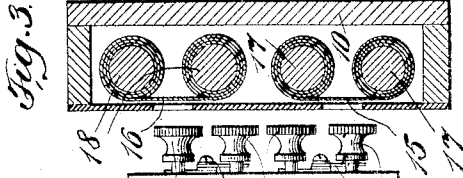


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CALCULATING DEVICE.

APPLICATION FILED JAN. 27, 1909. RENEWED OCT. 16, 1909.

942,579.

Patented Dec. 7, 1909.



WITNESSES
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Fig. 2.

December	November	October	September	August
January	December	November	October	September
February	January	December	November	October
March	February	January	December	November
April	March	February	January	December
May	April	March	February	January
June	May	April	March	February
July	June	May	April	March
August	July	June	May	April
September	August	July	June	May
October	September	August	July	June
November	October	September	August	July
December	November	October	September	August

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CALCULATING DEVICE.

942,579.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES H. MILLER, of New Rochelle, county of Westchester, and State of New York, have invented certain new and useful Improvements in Calculating Devices, of which the following is a full, clear, and exact specification, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a calculating device and particularly to a device for calculating interest as, for example, the accrued interest on a certain sum for a given time.

In banking operations it is frequently necessary to calculate the accrued interest on bonds and the like for certain periods of time and this work furnishes a notable example of the uses to which my invention may be advantageously put, although the use of the invention is in no wise limited to that particular work.

My invention involves various other features of importance and all of them will be fully set forth hereinafter and particularly pointed out in the claims.

Reference is now had to the accompanying drawings which illustrate, as an example, the preferred manner of practically embodying my invention.

Figure 1 is a face view of the device; Fig. 2 is a view of the month scale or table, and Fig. 3 is an enlarged section on the lines 3-3 of Fig. 1.

The body of the device comprises a suitable casing 10 the front or upper face of which is formed with two parallel slots 12 and 14, through the former of which table 15 is visible and through the latter of which is exposed the month table 16. These tables are prepared on a sheet of paper, linen or other fabric, and are wound over rollers 17 and 18 respectively. Said rollers are provided at one end of the casing 10 with spring friction devices 19 which prevent idle motion. The rollers are also provided with knurled wheels 20 which facilitate manually rotating the rollers in one direction or the other to expose through the slots 12 and 14 any desired portions of the tables 15 and 16.

The month table 16 has at its left hand end an index column 16^a on which is written, according to the embodiment of the invention shown in the drawings the twelve consecutive months of the year. The remainder of the surface of the month table is occupied by a number of lines 16^b of

months. These lines of months are respectively related to the months of the index column 16^a and are consecutively precedent to such latter months. For example, the top month of the index column in Fig. 2 is "January" and the five months of the top row 16^b which correspond to the "January" month of the index column are "December", "November", "October", "September" and "August", which months it will be observed are the five months preceding the month of January. The second month of the index column 16^a is "February" and the months of the row 16^b related to the second month of the index column are the five months immediately preceding February.

The interest table 15 is provided with 31 rows of amounts of interest calculated at a given rate on a given principal over the periods of time corresponding to the months of the month table. These 31 rows of interest figures represent 31 days and at the end of each row are figures 15^a which designate the particular day to which the row relates.

On the face 11 of the case 10, between the slots 12 and 14, are indicated certain rates of interest which are the same for each of the six vertical columns of months on the month table as here shown, the rates of interest range from 3% to 6% including 3½% and 4½%. Obviously, however, the rates of interest may be changed, as may be the principal and the time without departing from the principle of my invention.

The particular example of the invention given in the drawings is especially designed to compute interest accruing in six months or less on thousand dollar bonds—the usual denomination of municipal and industrial securities. Assuming now that on the second day of January interest had been accruing since September on a thousand dollar bond and the amount of that interest was to be calculated, the month table should be turned to expose the month of January and the interest table turned to expose the row of figures on the interest table indexed "2nd", the operator then has only to refer to the part of the interest table under the month "September" to determine the rate of interest, whereupon the figure on the interest table under such interest rate will give the accrued interest from September to the 2nd day of January. In the practical use of the invention the instrument will be kept adjusted so that the current month in the

index column 16^a of the month table will be exposed and each day the interest table should be adjusted to expose the day of the month through the slot 15. The accountant

5 has then only to turn to the device whereupon a mere glance will indicate the interest accrued to date from any period covered by months of the months table.

10 Obviously, the scope of the device may be widely extended beyond that illustrated in the drawings. The example given in the drawings has been made, in the interest of clearness, as simple as possible. But in practice the capacity of the calculating device may be multiplied to any desired extent as well as may be modified the mechanical device for mounting and exposing or indicating particular parts of the month and interest tables.

20 Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States, is:

1. A calculating device having a table with the index column of months and rows of months respectively related to the months of the index column, such rows being consecutively precedent to the months of the index column to which they relate, an interest table calculated to amounts of interest on a given principal at a given rate for periods corresponding to the months of the first named table, and arranged to be read in connection with the months thereof and means for indicating certain parts of such

tables, whereby the accrued interest on said principal from any of the precedent months of the first named table to the date may be exhibited at will. 35

2. A calculating device having a casing with openings in the face thereof, pairs of rollers mounted in the casing and adapted to be manually operated, a month table mounted on one of such pairs of rollers and visible in part through one of the openings in the face of the casing, such table having the index column of months and rows of months respectively related to the months of the index column, such rows being consecutively precedent to the months of the index column to which they relate, and an interest table wound over the second pair of rollers and visible in part through the second opening in the casing, the interest table having amounts of interest on a given rate for periods corresponding to the months of the first named table and arranged to be read in connection therewith, whereby the accrued interest on said principal from any of the precedent months of the first named table to date may be exhibited at will. 40 45 50 55 60

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES H. MILLER.

Witnesses:

ISAAC B. OWENS,
B. BIGGE.