(No Model.)

J. V. CHARPANTIER.

CALCULATOR.

No. 344,624. Patented June 29, 1886.

Fig. 1.

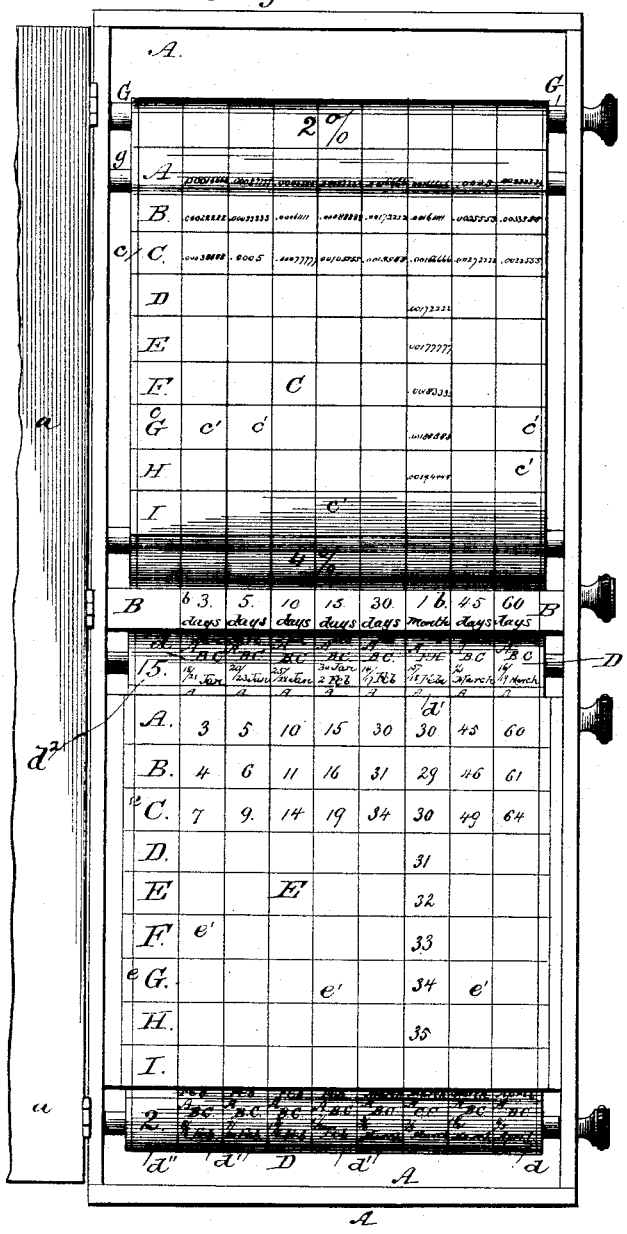
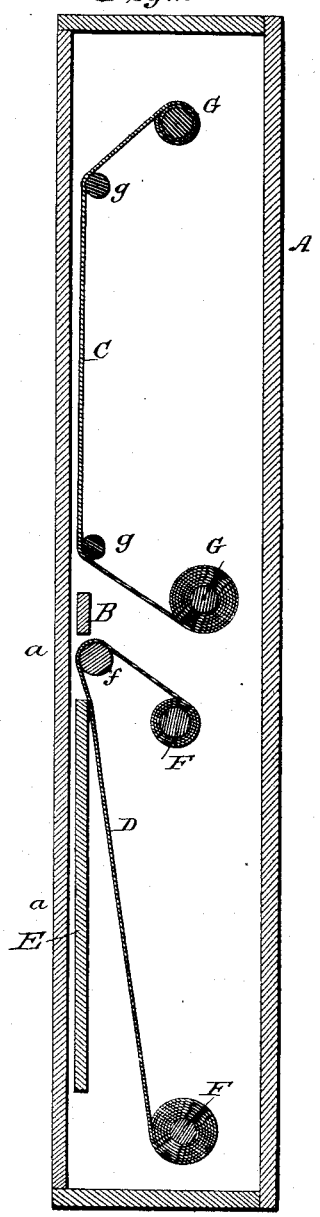


Fig. 2.



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CALCULATOR.

SPECIFICATION forming part of Letters Patent No. 344,624, dated June 29, 1886.

Application filed January 27, 1886. Serial No. 189,995. (No model.)

To all whom it may concern:

Be it known that I, JULES V. CHARPANTIER, of New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and useful Improvement in Calculators, of which the following is a description.

Figure 1 is a face view of my apparatus, the lid being open; and Fig. 2 is a longitudinal section thereof, the lid being closed.

The present invention relates particularly to that class of calculators represented by the apparatus shown in my Patent No. 322,161, upon which it is an improvement.

The present invention seeks to provide an apparatus to facilitate the determination of the amount of interest, number of days of interest and discount, as well as the date of maturity of commercial paper.

The apparatus comprises a box or support, A, an indicator, B, an interest-table, C, a maturity-table, D, and a period-table, E, such terms being employed for convenience of description. It is usual to provide the box A with a lid, *a*, hinged at one edge, and by closing which the apparatus may be protected from dust, &c., when not being used. In this box I secure the indicator B, formed in the present instance of a transverse strip divided into a series of spaces, *b*, marked to indicate those periods most commonly used in commercial paper—such, for instance, as shown.

The maturity-table D is formed of a sheet, usually of paper, wound at its ends on rolls F and carried intermediate such rolls over a guide, *f*, by which its registered or exposed portion is brought close to the indicator B. This sheet D is divided transversely into a number of sections, *d*, corresponding to the months of the year, and each of said sections is in turn divided into sections or spaces d', corresponding to and registered with the spaces *b* of the indicator B. The month-sections are also provided with a longitudinal series of spaces, d^2, containing the numerals of the days in the given month. In the spaces d', opposite such days of the month, are marked the days of maturity and grace of a paper bearing date with such date of month and of a duration equal to the period marked in the registered space of the indicator B. In the spaces d' are also marked reference-letters A B C, &c., for the purpose presently described.

Above the indicator-section B, I arrange the interest-table C, formed usually of a sheet of paper wound at its ends on rollers G and passed intermediate said rollers over guides *g*. This interest-table is formed of a series of tables, one for each of the usual rates of interest, each of which is provided with a longitudinal row of spaces, *c*, marked with reference-letters A B C, &c. I also divide these tables into spaces c', registering with the spaces *b* of indicator B, in which spaces opposite A are marked the amount of interest on one dollar for the period marked in the registered space *b*, while the marks in spaces opposite B and C indicate the amount of discount, with and without grace, on one dollar for such period, while the spaces D E F G, &c., may indicate the amount of discount, with or without grace, under certain circumstances.

In the spaces d^2, whenever necessary, there are five letters, A B C, &c., the last two to represent days of discount when the intervening February has twenty-nine days.

Below the indicator B, I arrange the period-table E, having a row of spaces, *e*, containing reference-letters A B, &c., and also spaces e' registering with the spaces *b*, and marked with the number of days of interest or of discount, with or without grace, for the periods named in the registering-spaces *b*.

In the maturity-section the letter A always applies to interest—thus, on a note at three days, fifteen days, forty-five days, &c., the number of days of interest is invariable. In the spaces d^2 of the maturity-section registering with the spaces *b* of indicator B, wherein days are enumerated, there are only three letters, A B C, &c., because in papers at stated numbers of days the dates of maturity may vary; but the number of days for interest or discount is fixed. In the columns where months are mentioned, not only do the days of maturity change, but also the number of days of discount. Thus, in a note drawn at any date in January for one month, the interest is invariable, represented by letter A; but the discount on such a note from the 1st of January to the 1st of February equals thirty-two days without grace, and thirty-five days with grace, as shown by the period-table under the proper letter, as indicated in the space of the maturity-section, as before described. Thus it will be seen an

accountant can at a glance determine the day of maturity and grace of a paper, and by simple multiplication can determine the amount of interest or discount. The rollers F F and G G are extended through the casing and suitably adapted to form handles by which such rollers may be turned to conveniently adjust the interest and maturity tables at will.

It will be understood that a note for one month, bearing any date from the 1st to the 28th of January, would have thirty-two or thirty-five discount days. If dated on the 29th it would have thirty-one or thirty-four discount days. If dated the 30th it would have thirty or thirty-three, and if dated the 31st it would have but twenty-nine or thirty-two discount days.

Having thus described my invention, what I claim as new is—

1. An apparatus for facilitating calculation, comprising a case or support, an indicator-section, and interest, maturity, and period sections, such sections being divided into spaces and held to the support with the spaces of one registering with those of the others, and inscribed substantially as set forth.

2. In an apparatus for facilitating calculation, the combination of a case or support, a fixed indicator-section, a fixed period-table, the interest and maturity tables, and supports therefor, substantially as described, whereby said interest and maturity tables may be moved or adjusted with reference to the fixed indicator-section and period-table, substantially as set forth.

3. In combination, with a case or support, A, an indicator-section, a period-table, E, arranged below and separated from the indicator-section, the maturity-table extended under the period-table, and supports and guides for the maturity-table, whereby a portion thereof is guided and exposed between the separated edges of the indicator-section and period-table, substantially as set forth.

4. The herein-described apparatus for facilitating calculation, consisting of the case having rolls F F G G and guides *f* and *g g*, the interest-section C, passed over guides *g* and wound on rolls G G, the indicator-section B, secured close below the lower guide, *g*, the period-table fixed below and separated from the indicator-section, and the maturity-section passed over guide *f* and exposed between the adjacent edges of the period-table and indicator-section and wound at its ends on the rolls F F, substantially as set forth.

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Witnesses:

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