

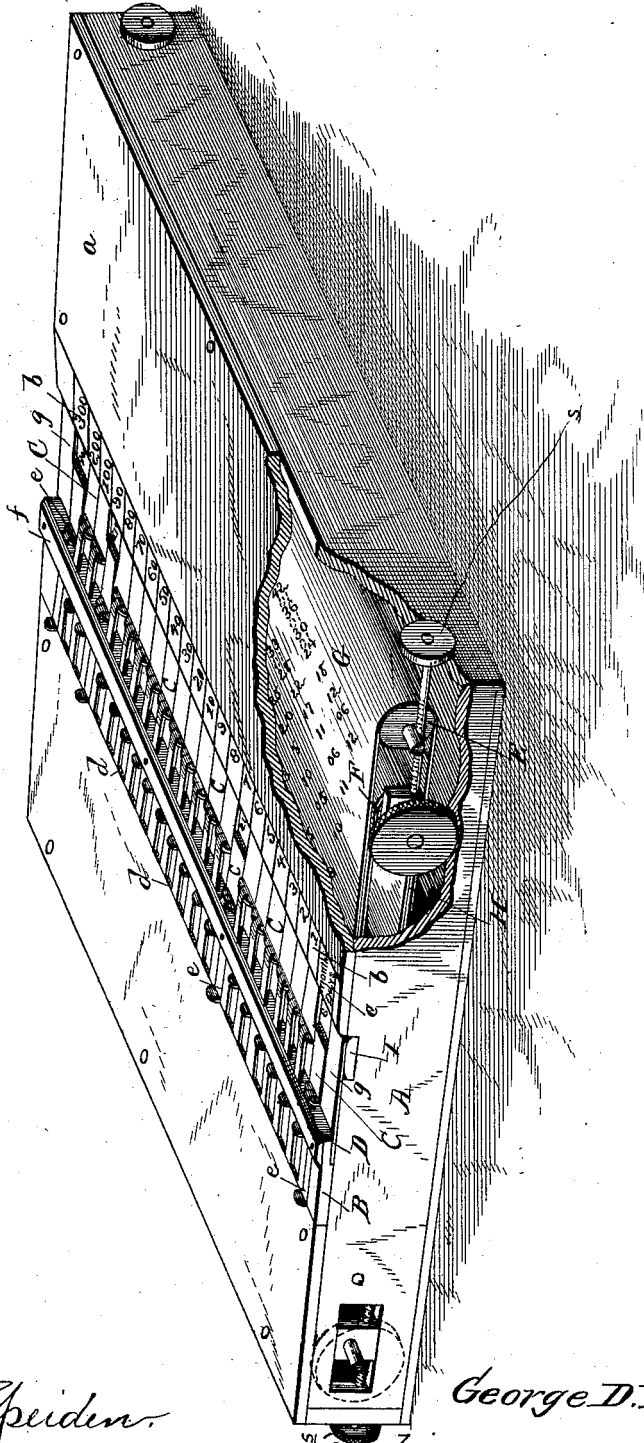
(No Model.)

G. D. HICKS.

INTEREST CALCULATING DEVICE.

No. 379,536.

Patented Mar. 13, 1888.



Witnesses

Albert Speiden.
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UNITED STATES PATENT OFFICE.

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INTEREST-CALCULATING DEVICE.

SPECIFICATION forming part of Letters Patent No. 379,536, dated March 13, 1888.

Application filed September 30, 1887. Serial No. 251,118. (No model.)

To all whom it may concern:

Be it known that I, GEORGE D. HICKS, a citizen of the United States, residing at Sioux City, in the county of Woodbury and State of Iowa, have invented certain new and useful Improvements in Interest-Calculating Devices; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making a part of this specification, and to the letters and figures of reference marked thereon.

This invention relates to certain new and useful improvements in interest-calculators, and has for its object to simplify and cheapen the construction and render more efficient in operation and accurate in calculation this class of devices.

To the above ends and to such others as the invention may pertain the same consists in the peculiar combinations and the novel construction, arrangement, and adaptation of parts, all as more fully hereinafter described, and then particularly defined by the claims.

In the accompanying drawing, which, together with the letters of reference marked thereon, forms a part of this specification, my invention is shown in perspective with parts broken away to more clearly illustrate the interior mechanism.

Referring by letter to the said drawing, A designates a hollow rectangular case or box, the top of which is made removable and is constructed as follows: The part *a*, which extends nearly but not quite half across the box, is provided upon its inner top edge with a series or plurality of divisions, as *b*, shown in the drawing as marked with numbers running only as high as three hundred, (300;) but in practice the number may be increased to suit the purpose for which the calculator is to be used. At the foot of the bottom numbered division is another division, *c*, subdivided as shown, namely: On the upper division is placed the word "Months" and on the lower the word "Days," for the purpose hereinafter described. The part B of the cover or top of the box is provided upon its face with a plurality of transverse parallel grooves, *d*, in which work the shanks or stems *e* of the slides C, a strip or cleat, *f*, being secured across the inner

top edge of the part B to prevent displacement of said shanks.

To the under side of the part B, in a recess therein, so as to be flush with the under face thereof, is a metal strip, D, which serves as a support and guide for the slides. At its ends this strip is extended, as shown at *g*, to cover and prevent rising of the edges of the belt, soon to be described. These slides C are offset vertically from their shanks, so as to bring them upon a lower plane, as shown. The shanks are each provided with a suitable thumb-piece, by which they can be manipulated when desired, each independent of the other. When the slides are all drawn to the left, a slit or opening is left between the adjacent edges of the parts *a* and B, or rather between the part *a* and the strip D. In the drawing only portions of this opening are seen, as most of the slides are shown as extended to the right. The slit, if open its full length, would show a column of figures (on the belts, soon to be described) comprising the interest for the respective amounts along the left side of the slit for the number of months and days seen at the foot of the slit. When the slides are in place, the slit is entirely closed, with the exception of the two spaces opposite the words "Months" and "Days," which are always open.

Suitably journaled in the ends of the box are the rollers E F, in pairs, only one of each pair, however, being shown in the drawing, and around each pair of rollers passes an endless belt, G H, of paper, cloth, or other suitable material, upon which are arranged the interest-calculations for the twelve months and for the thirty-one days. The belts pass one over the other, and when they are made of a non-transparent material the upper one should be perforated to allow the figures on the under one to be readily seen; but I prefer to use oiled silk or some analogous material, through which the figures on the under belt may be readily seen. The horizontal rows of figures on the two belts are arranged upon different planes, so as to be both visible, one below the other. The top belt I term the "month-belt" and the lower belt the "day-belt."

The day-belt may sometimes be provided with three extra columns for thirty-three, sixty-

three, and ninety-three days, (convenient discount days,) and at the foot of each column is noted the number of days for which the calculations in that column are made. The month-sheet or belt is arranged precisely the same, except, of course, that the calculations are for months and there are only twelve columns. This month-sheet, having but about one-third only of the distance to travel that the day-sheet has, may, instead of being an endless belt, be arranged to wind around its rollers at either end instead of revolving over them.

The belts or sheets are moved by means of suitable cranks or thumb-nuts on the spindles of their rollers, and to regulate the tension of the belts and to keep them at all times taut I provide suitable adjusting-screws, *s*, as shown.

In order to elevate the sheets at the opening, so as to bring the figures in plain sight, and avoid the necessity of peering down into the hole between the two slides, I place directly beneath the opening a strip, *I*, as shown.

The operation is as follows: Suppose we wish to find the interest on three hundred and ninety-seven dollars for six months. Turn the day-belt till the blank space is opposite the word "Days" on the cover; then turn the month-belt till "6" appears opposite the word "Months" on the cover, (all the slides being to the right;) then move to the left the slides opposite "300," "90," and "7," and add together the amounts shown on the belt, and we have eleven dollars and ninety-one cents, the interest on three hundred and ninety-seven dollars for six months. If we desire to know the interest on the same amount for six months and twenty-two days, we leave the slides and the month-belt as before and turn the day-belt till "22" appears opposite "Days" and then add the amounts shown on the two belts.

The device is simple, inexpensive, not liable to get out of order, and by its use the interest can be quickly and accurately ascertained.

45 What I claim as new is—

1. The combination, with the case having a vertical opening and the sheets provided with figures denoting interest-calculations and passing horizontally one over the other in parallel planes, of transverse slides controlling said opening, as set forth. 50

2. The combination, with the case having a central vertical opening and the transversely-moving sheets bearing figures indicating interest-calculations and passing horizontally one over the other in parallel planes, of independently-movable transverse slides controlling said opening, as set forth. 55

3. The combination, with a case having a central vertical opening and the belts bearing figures indicating interest-calculations and passing horizontally one over the other in parallel planes, of an elevating-strip arranged beneath said belts at said opening, as and for the purpose specified. 60 65

4. The combination, with the case having a vertical opening and a plurality of numbered divisions upon one side of said opening, of a plurality of transverse slides arranged one opposite each division and adapted to close or disclose a portion of said opening and the two belts each bearing interest-calculations and passing horizontally one over the other in parallel planes, as set forth. 70

5. The combination, with a case having an opening in its cover, numbered divisions upon one side of said opening and beneath the cover, and transversely-moving sheets bearing figures indicating interest-calculations, of the part B, provided upon its face with transverse parallel grooves and cleat *f*, and the slides having shanks working in said grooves beneath said cleat, substantially as described. 75 80

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses. 85

GEO. D. HICKS.

Witnesses:

ALONZO L. D. ORSAY,
W. L. FROST.