

(No Model.)

P. G. TRONÉ.
ADDING MACHINE.

No. 422,853.

Patented Mar. 4, 1890.

Fig. 1.

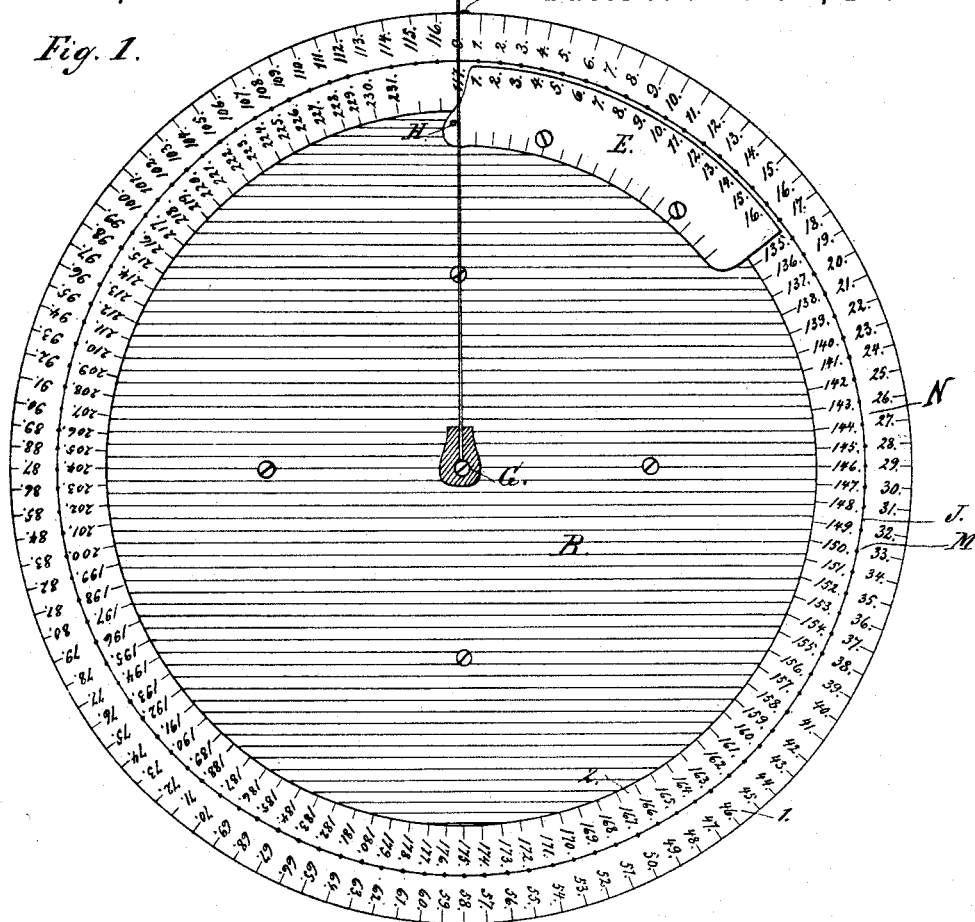


Fig. 2.

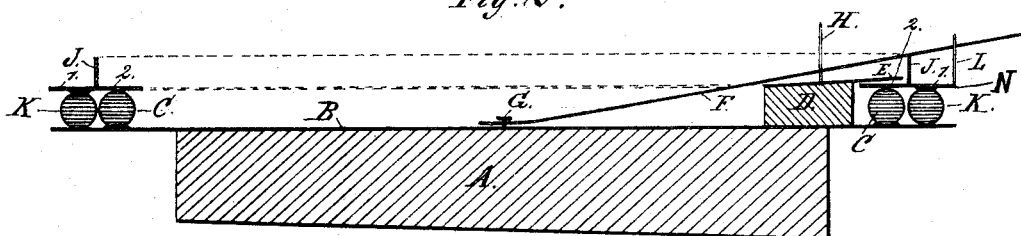
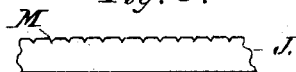


Fig. 3.



WITNESSES:

Edmund Kelly.
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INVENTOR

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UNITED STATES PATENT OFFICE.

PIERRE G. TRONÉ, OF NEW ORLEANS, LOUISIANA.

ADDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 422,853, dated March 4, 1890.

Application filed October 12, 1889. Serial No. 326,806. (No model.)

To all whom it may concern:

Be it known that I, PIERRE G. TRONÉ, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in an Adding-Machine; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to improvements in adding or calculating machines; and it consists in the construction, novel combination, and adaptation of parts hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan view of my improved numeral-adding machine. Fig. 2 is a diametrical sectional view of the same, and Fig. 3 is a detail view of the vertical notched strip dividing the movable disk.

Referring to the said drawings by letter, A indicates the base-block of my improved machine, which is preferably formed of wood and of a circular contour in form. Upon the face of this base-block A, I attach a circular metallic plate B, the circumference of the latter being preferably greater than that of the base-block A. Upon this plate B, at a point above the periphery of the base-block, I place a segment of curved block D, the upper face of which is provided with a plate E, having numerical figures arranged upon its face, of which any number may be employed, although I prefer to use those ranging from 1 to 16.

C indicates a cylindrical circular track or guide, which is secured to the plate B in any suitable manner, and which extends entirely around the latter at a short distance from the periphery thereof. This track C furnishes a bearing or track for the revoluble rim, presently to be described.

N indicates a circular metallic rim, the width of which is sufficient to allow of the placing thereon of two sets of figures side by side, presently to be described. This rim N, which revolves upon the track C of the plate B, is provided at a point outside the circumference of the said track C with a similarly-constructed track K, which is secured to said rim N, as shown, and which bears and rides upon the surface of the base-plate B, thus

providing an even easy movement of the said revoluble rim. This rim N is also provided midway of its width with a vertical circular partition-wall J, which separates the columns of figures thereon. This partition-wall J is notched at equidistant points, (indicated by M,) as better shown in Fig. 3, to form seats for the indicating hand or pointer F.

1 indicates the outer division of the revoluble rim, upon the face of which I place numerical figures ranging from 0 to 116, this number being preferable for a machine of the size described, although when the machine is of a sufficient size it may have one column of figures of greater length, and, if desirable, the second column, ranging from 117 to 231, which is indicated by 2, may be dispensed with. The construction illustrated, however, is preferable, as I am thus enabled to place a large number of figures upon a rim of small diameter.

F indicates the pointer or hand for placing the numbers. This hand F is pivoted to the base-plate, as indicated at G, and is free to revolve from left to right from a vertical position, its movement in the other direction being limited by the stop or stay pin H, the function of which will be described.

L indicates a stop extending up from the revoluble rim N.

The mode of operation is as follows: Commencing at the bottom or top of a single column of figures, I take each figure in its order and add each column separately. Thus, should 8 be the first figure at the bottom of a column of figures, the hand F is moved from 0 on the outer plate to figure 8 on plate E, and rests in a notch M on the strip J, the plates 1 and 2 being moved to the left until the hand F reaches the stay-piece H. Should the next figure in the column to be added be 9, the hand F is moved nine notches or openings on the strip J to the right, hand F resting on the figure 9 on the plate E, and the hand, the strip J, and the plate N are moved to the left until the hand strikes the stop-piece H, and the figure shown on the outer partition or division 1 will be 17, each succeeding figure in the column being added in a similar manner and the outer plate or division 1 giving the result up to 116 in a single column of figures. Should there be a larger sum-total in one col-

umn of figures than 116, then the inner partition or division 2 shows the result. Should the first column of figures added show 116, simply mark down the figure 6 and carry 5 eleven to the next column by removing hand F eleven notches or openings to the right on strip J, and when the hand F is resting in the eleventh opening turn the plates or divisions 1 and 2 to the left, by means of fingers 10 placed on the strip J, until the hand F reaches the stay-piece H. Then commence adding each figure in the second column of figures by a simple movement of the hand F to the right a certain number of notches or openings on 15 strip J, to correspond with each number in the column, and the sum-total shown on the plates 1 and 2 under the hand F will be the exact amount of each column, and where several columns are added, and the proper number 20 carried forward before commencing adding each column, the result will be found correct and the largest sums added together correctly in a mechanical manner.

What I claim, and desire to secure by Letters Patent, is—

1. In an adding device, the combination, with a base-block having a circular base-plate secured to the upper side thereof, and a

pointer or hand pivoted at the center of said base-plate, of the segmental block arranged 30 upon the base-plate and having numerical figures upon its face, the revoluble rim, also provided with numerical figures upon its face, and having a vertically-extending wall provided with notches in its upper edge to seat 35 the hand or pointer, and the pin forming a stop for the said hand or pointer, all adapted to operate substantially as specified.

2. The combination, with a stationary base-plate having a set of numerical figures arranged upon its face thereof, and provided 40 with a pointer or hand pivoted at its center of said plate, of the revoluble rim having a set of numerical figures upon its face and provided with a vertical notched wall to seat 45 the pivoted pointer, and the pin or post arranged upon said stationary plate and adapted to form a stop or stay for the pivoted hand, substantially as specified.

In testimony whereof I affix my signature in 50 presence of two witnesses.

PIERRE G. TRONÉ.

Witnesses:

HOLMUTH HOLTZ,
PERCY D. PARKS.