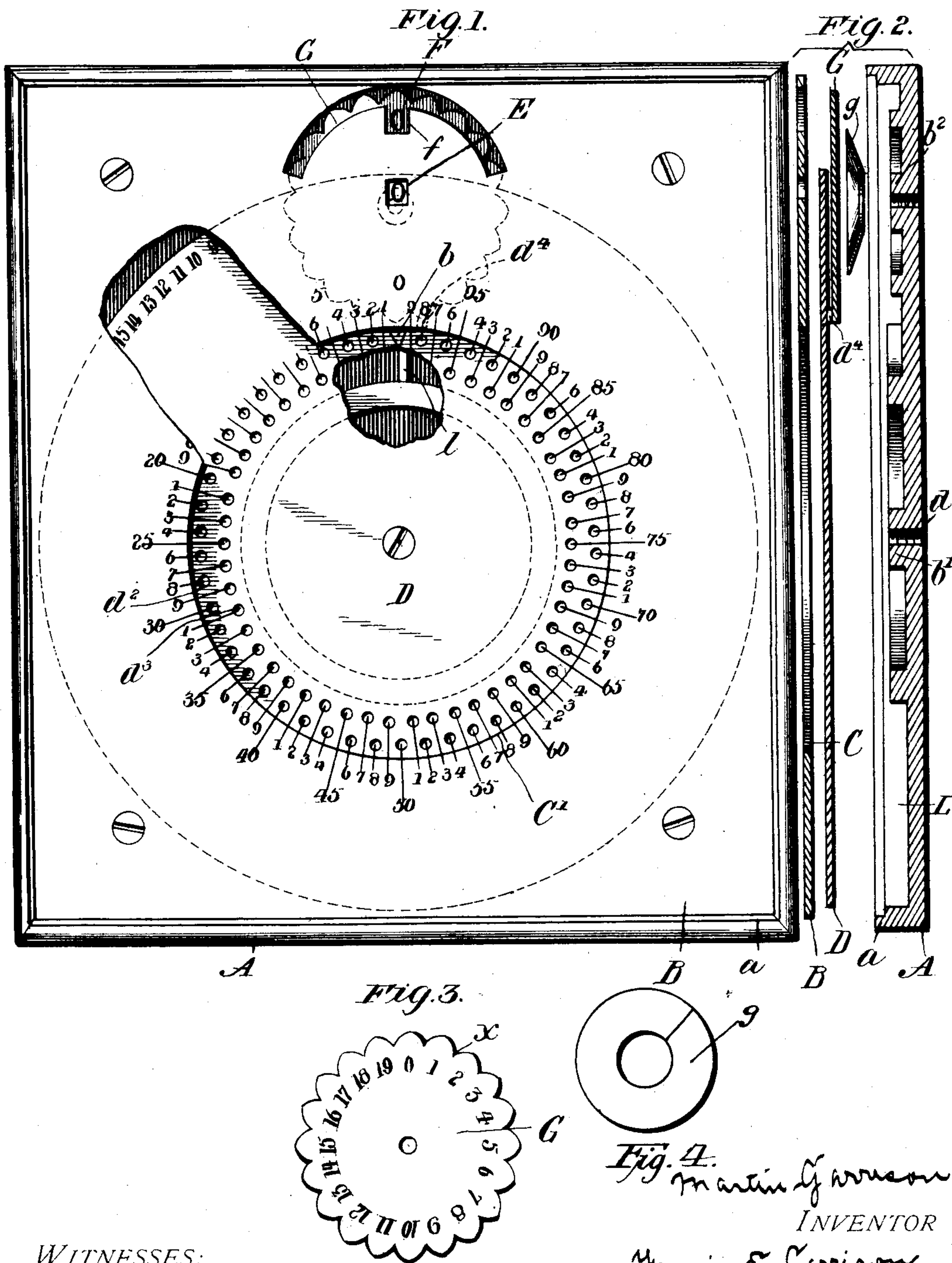


No. 711,392.

Patented Oct. 14, 1902.

M. GARRISON, Dec'd.  
F. E. GARRISON, Administratrix.  
ADDING MACHINE.  
(Application filed Apr. 9, 1901.)

(No Model.)



WITNESSES:  
H. F. Doyle  
J. K. Moore

Fig. 4.  
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INVENTOR  
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Attorney at Law



# UNITED STATES PATENT OFFICE.

FANNIE E. GARRISON, OF NEW YORK, N. Y., ADMINISTRATRIX OF MARTIN GARRISON, DECEASED, ASSIGNOR, BY MESNE ASSIGNMENTS, TO SAM FRANK, OF NEW YORK, N. Y.

## ADDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 711,392, dated October 14, 1902.

Application filed April 9, 1901. Serial No. 55,100. (No model.)

*To all whom it may concern:*

Be it known that MARTIN GARRISON, deceased, late a citizen of the United States, and a resident of New York, in the county of New York and State of New York, did invent certain new and useful Improvements in Adding-Machines; and I, FANNIE E. GARRISON, administratrix of the estate of said MARTIN GARRISON, deceased, do hereby 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.

The invention relates to improvements in calculating or adding machines; and it consists in the novel features of construction hereinafter described, reference being had to the accompanying drawings, which illustrate one form in which it is contemplated embodying the invention, and said invention is fully set forth in the following description and claims.

Referring to the drawings, Figure 1 is a plan view of the device with a portion of the cover and the large calculating-disk broken away. Fig. 2 is a sectional view showing the different parts of the device removed from the base and each other. Fig. 3 is a plan view of the small calculating-disk. Fig. 4 is a detail view of the spring-ring.

The object of the invention is to provide a device to assist the mind in the operation of adding single or double columns of figures and to promote simplicity and accuracy in the performance thereof.

In the drawings, A represents the base, having an upwardly-extending flange or bead *a* around the edge thereof. A cover B, adapted to fit within the flange or bead *a* of this base, is provided with a large central opening C and an index-point *b*, which projects into said opening C. This cover is also provided with two display-openings E and F, one of which, E, is a small square opening adapted to disclose the graduation on the periphery of the calculating-disk D, hereinafter described, and the other is a segmental opening which follows the periphery of a small calculating-disk G and which has an inwardly-extending offset opening *f* for the display of graduations

on the small disk G, which is described hereinafter. On the cover near the inner edge C' of the opening C is a series of graduations ranging from "0" to "99," "0" being placed at the index-point *b*, hereinbefore mentioned. Beneath this cover B and in a suitable recess in the base A is a large calculating-disk D of larger diameter than that of the opening C and having upon its periphery graduations corresponding to those upon the cover near the inner edge C' of the cover B, and therefore ranging from "0" to "99." This large disk D is pivoted to a stud *b'* in the base by means of a screw *d* and is so mounted that the center thereof is equidistant from all points of the edge C' of the cover B. Within the opening C and through the disk D are two rows of perforations *d*<sup>2</sup> and *d*<sup>3</sup>. These rows are concentric with the center and are so arranged that the perforations of one row alternate with the perforations of the other, as is clearly shown in Fig. 1, and are one hundred in number. On the under side of this disk D is a lug *d*<sup>4</sup> for a purpose hereinafter described.

The small disk G, which is pivoted to the stud *b*<sup>2</sup> by means of the screw *b*<sup>3</sup>, is provided with a serrated edge, as shown through the opening F in Fig. 1. It is also provided with a set of graduations from "0" to "19," a serration corresponding with each number on said small disk. The object of this small disk G is to compute the hundreds, and this is made possible by reason of the fact that the lug *d*<sup>4</sup>, before referred to, is placed in such a position on the under side of the disk D that it will engage one of the teeth formed by the serrations on said small disk, and thereby rotate the same upon the completion of a revolution by the disk D. In a suitable recess beneath the small disk G is a conical-shaped ring *g*, which is adapted to form a spring to create a pressure upward against said disk and tend to prevent its rotation. This spring-ring *g* exerts a pressure upward upon the under side of the disk D, and therefore tends to prevent its rotation. By this construction both of the disks are able to be held from accidental movement by a single spring. It is quite obvious that since the



segmental opening F exposes the periphery of the small disk G a pencil or other instrument may be inserted between the serrations, and thus set said disk back to "0," as is shown in Fig. 1.

A circular recess L is provided in the base to permit a pencil being inserted through the perforations in the disk D, before mentioned. A stop l is located in the recess L, which acts as an abutment for the instrument inserted through the perforations.

In operating the device the point of the pencil or other instrument is inserted through the perforation standing opposite to the first number which forms a part of the sum to be obtained. Then the disk D is rotated to the right until the instrument strikes the stop l, when the instrument is removed and placed in the perforation standing opposite to the next number to be added to the first. The disk D is again rotated in the same direction until the stop is reached. This operation is continued until all the numbers to be added have been exhausted. Then their sum will appear through the opening E if it is less than one hundred, and if greater then the tens only will appear in the said opening, the hundreds appearing in the opening f by reason of the fact that, as before described, the lug d<sup>4</sup> engages with the serrations on the edge of the small disk, and thus rotates the same the distance of one number for each revolution of the large disk.

What is claimed, and desired to be secured by Letters Patent, is—

1. In an adding-machine, the combination with a base, of a cover-plate therefor having an open center with radial lines and numerals arranged in succession around the edge of the opening, a revoluble disk having a double row of holes corresponding with the lines and numerals of the cover-plate, a second disk having a corrugated edge with a designating character for each corrugation, a

conical-shaped ring beneath said second disk adapted to press upward underneath the same and force it against said first-mentioned disk and means whereby said second disk is set forward at each revolution of said first disk, substantially as described.

2. In an adding-machine, the combination with a base, of a cover-plate therefor having an open center with radial lines and numerals arranged in succession around the edge of the opening, a revoluble disk having a lug or projection on the under side thereof and a double row of holes corresponding with the lines and numerals of the cover-plates, a second disk having a corrugated edge with a designating character for each corrugation and a conical-shaped ring beneath said second disk adapted to press upward underneath the same and force it against said first-mentioned disk, substantially as described.

3. In an adding-machine, the combination with the base, of a cover-plate therefor having an open center with radial lines and numerals arranged around said central opening, a revolving disk having holes, corresponding with the lines and numerals of the cover, a second disk having a corrugated edge with a designated character for each corrugation, said disk being located beneath the first-named disk, and a spring beneath the said second disk and forcing the same upward against the under side of the first-mentioned disk; whereby a single spring is made to hold both disks from accidental rotation, substantially as described.

In witness whereof I affix my signature in the presence of two witnesses.

FANNIE E. GARRISON,  
*Administratrix of the estate of Martin Garrison, deceased.*

Witnesses:

J. RUBINS,  
NICHOLAS ALEINIKOFF.