(No Model.) 2 Sheets—Sheet 1.

P. NEARY.

ADDING MACHINE.

No. 276,866. Patented May 1, 1883.

Fig. 1.

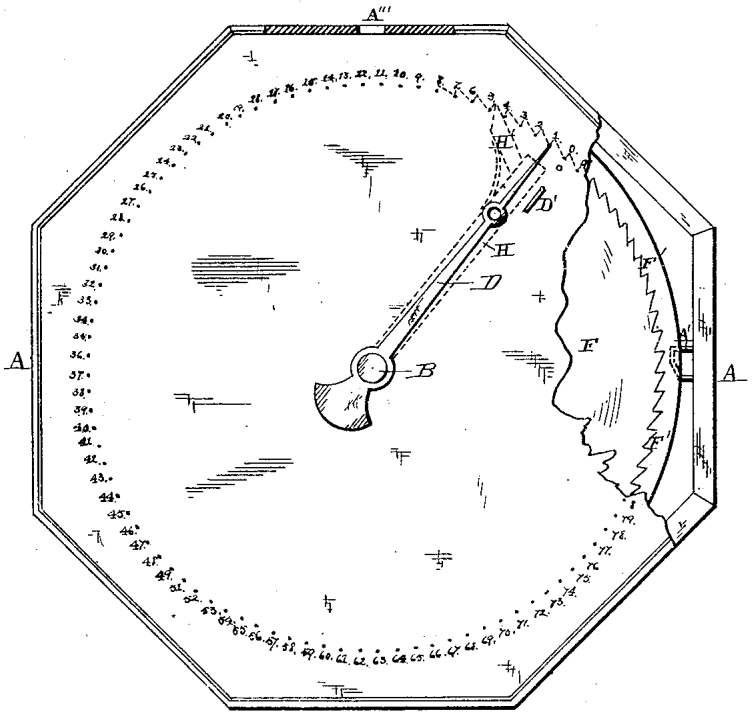


Fig. 2.

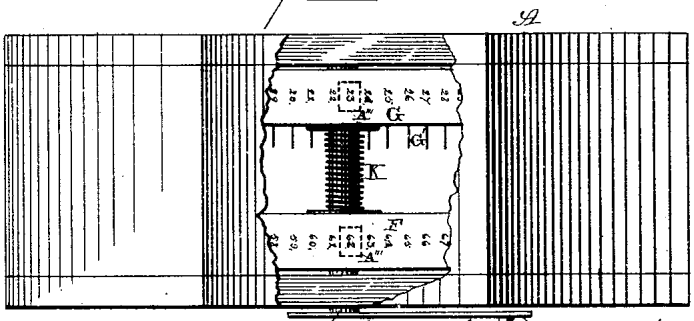


Fig. 3.

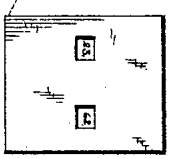


Fig. 4.

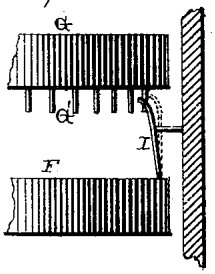
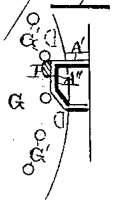


Fig. 5.



Witnesses.
Louis L. Gardner
E. D. York.

Inventor
P. Neary
per
F. A. Lehmann, atty.

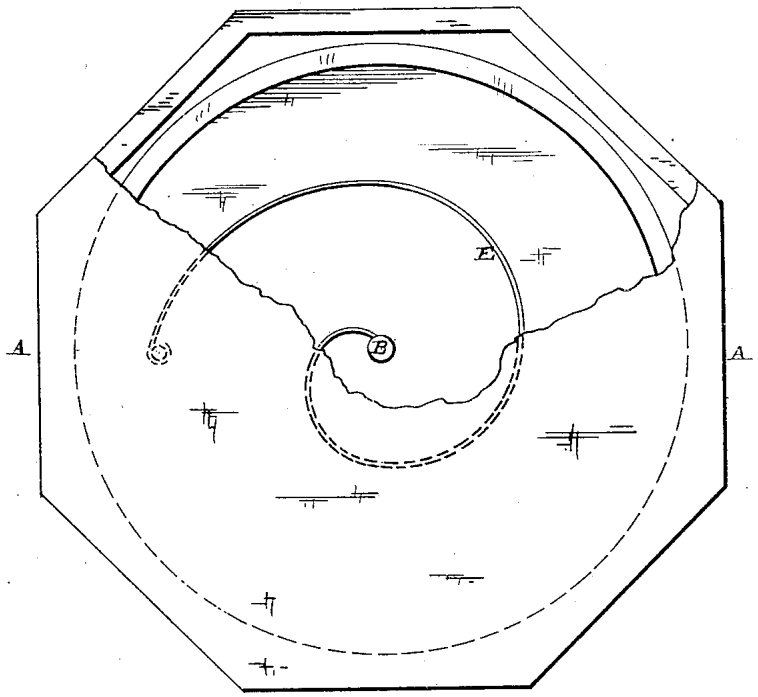
(No Model.) 2 Sheets—Sheet 2.

P. NEARY.

ADDING MACHINE.

No. 276,866. Patented May 1, 1883.

Fig. 6.



Witnesses.
Louis F. Gardner
E. D. York,

Inventor.
P. Neary
per
F. A. Lehmann
Atty.

UNITED STATES PATENT OFFICE.

PHILIP NEARY, OF DRYDEN, NEW YORK.

ADDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 276,866, dated May 1, 1883.

Application filed January 15, 1883. (No model.)

To all whom it may concern:

Be it known that I, PHILIP NEARY, of Dryden, in the county of Tompkins and State of New York, have invented certain new and useful Improvements in Adding-Machines; and I 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in adding-machines; and it consists in combining with two centesimally peripherally numbered revolving disks, one of which scores units and tens and the other hundreds and thousands, suitable operating mechanism, whereby sums may be mechanically added, as will be more fully described hereinafter.

In the accompanying drawings, Figure 1 is a side elevation, partly in section. Fig. 2 is a top plan view, partly in section. Figs, 3, 4, and 5 are details.

A represents a case, which is here shown as being octagonal in form, but which may be of any preferred shape, and through the center of which extends and is journaled the shaft B. On the face of the case A, in a circle drawn from the shaft-center, are inscribed a series of figures, from 0 to 99, inclusive, consecutively, as shown, and rigidly secured to the front end of the shaft B is a hand or pointer, D, which is kept in its initial position at 0 against the stop D′ by the coiled spring E, secured to the shaft B at one end, the other end being secured to the inside of the back of the case, as shown at Fig. 6.

Loosely mounted upon the shaft B are the circular disks F G, which are peripherally centesimally numbered. The disk F, which registers units and tens, is provided with a flange, F′, on the inside of which flange are cut ratchet-teeth, which register with and correspond in number to the numbers on the periphery of the disks. Into these ratchet-teeth catches the pivoted spring-pawl H′, which is secured to the arm H, secured to the shaft B in a line with the pointer D. When the pointer is turned to the right the disk F remains stationary; but when the pointer is turned to the left the pawl H′ engages with one of the ratchet-teeth and revolves the disk with the shaft. The disk G is loosely mounted upon the shaft B at a suitable distance from the disk F, and, like it, is peripherally centesimally numbered. Projecting from its inner face are a hundred tappet-pins, G′, which register with the numbers inscribed upon the periphery. The disk F is provided with a spring tappet-rod, I, which projects from its outer face, and is bent at about right angles at its outer end, being so situated as to be normally out of contact with the tappet-pins on the disk G.

Secured to one side of the case A, at a suitable point on the interior thereof, is an abutment, A′, which corresponds in length to the space between the tappet-pins G′, its function being to depress the spring tappet-rod I on the disk F when the latter is rotated sufficiently far, and cause it to engage with one of the tappet-pins, and thus move the disk G one number, this being accomplished by having its bearing-surface A″ correspond in length to the distance between the tappet-pins, as before stated.

In order to prevent rotation of the disks by frictional contact with the shaft B, I provide the latter with the coiled extensile spring K, the ends of which bear against the disks and serve to prevent backward rotation. The upper side of the case is provided with two apertures, A‴, through which show the numbers on the peripheries of the disks.

The operation of my invention is as follows: The normal position of the machine is when the pointer is at 0 and the ciphers on the disks register with the apertures in the case. In adding a number of figures—as, for example, 20, 17, and 13—the pointer will be turned from 0 on the dial to the left until it reaches 20, and then released, and the spring E allowed to carry it back to 0, then to the left again to 17, and so on for the next number, and owing to to the pawl and ratchet-teeth previously described the disk F will be revolved from point to point, and the sum "50" will appear through the units and tens aperture. When the sum of the figures added equals or exceeds 100, the disk G will be also moved one point, or as many times as there are hundreds in the sum, and the amount will be read through both apertures, as will be very readily understood.

I do not desire to limit myself to the precise construction herein shown and described,

as it is obvious that many changes and modifications may be made in it without departing from the spirit of my invention. For instance, the number of disks G might be increased, each additional disk increasing the capacity of the machine one hundredfold.

This machine is adapted for use when adding two columns at the same time.

Having thus described my invention, I claim—

1. In combination with the case A, having suitable apertures and a centesimally-numbered face, the shaft B, journaled in said case, pointer D, and pawl H′, with the centesimally peripherally numbered disk F, provided with ratchet-teeth and the tappet-rod I, centesimally peripherally numbered disk G, having the tappet-pins G′, the said disks being loosely mounted on the shaft B, and the abutments A′ secured in the case, substantially as shown.

2. In combination with the case A, having suitable apertures and a centesimally-numbered face, the shaft B, journaled in said case, having the spring E, pointer D, stop D′, and pawl H′, with the centesimally peripherally numbered disk F, provided with ratchet-teeth, and the tappet-rod I, centesimally peripherally numbered disk G, having the tappet-pins G′, the said disks being loosely mounted on the shaft B, and the abutment A′ secured in the case, substantially as shown and described.

3. In combination with the case A, having the abutment A′, the centesimally-numbered face, and the apertures A″, the shaft B, journaled in said case, having the spring E, pointer D, stop D′, and pawl H′, with the centesimally peripherally numbered disk F, provided with ratchet-teeth, and the spring tappet-rod I, centesimally peripherally numbered disk G, having the tappet-pins G′, the said disk being loosely mounted on the shaft B, and the spring K, adapted to bear against the disks and prevent undue rotation, all combined and arranged to operate substantially as set forth.

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

PHILIP NEARY.

Witnesses:
D. E. BOWN,
F. S. DUTCHER.