No. 751,670. PATENTED FEB. 9, 1904.

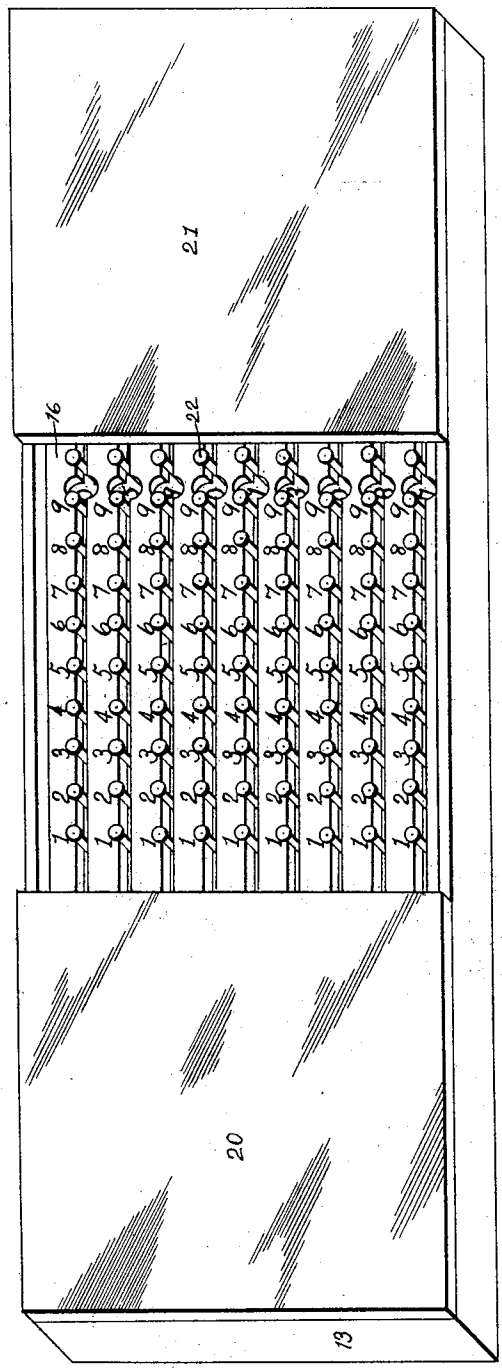
T. E. McCARTY.

CALCULATING MACHINE.

APPLICATION FILED APR. 18, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.



Witnesses.
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No. 751,670. PATENTED FEB. 9, 1904.

T. E. McCARTY.

CALCULATING MACHINE.

APPLICATION FILED APR. 18, 1903.

NO MODEL. 2 SHEETS—SHEET 2.

Fig. 2.

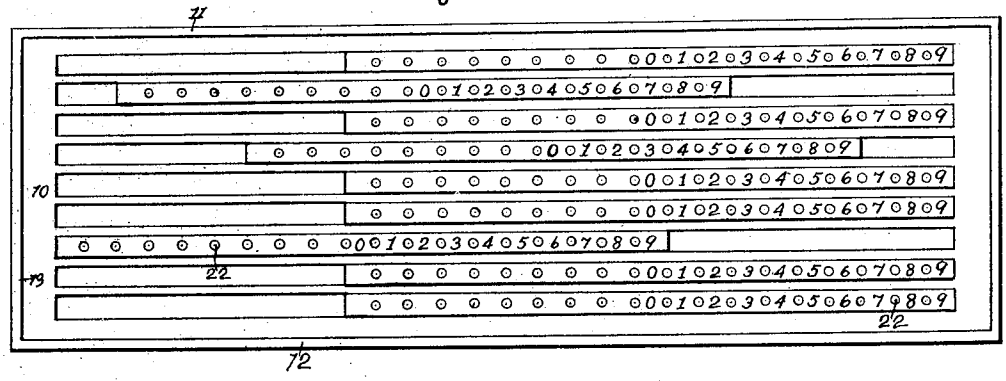


Fig. 3.

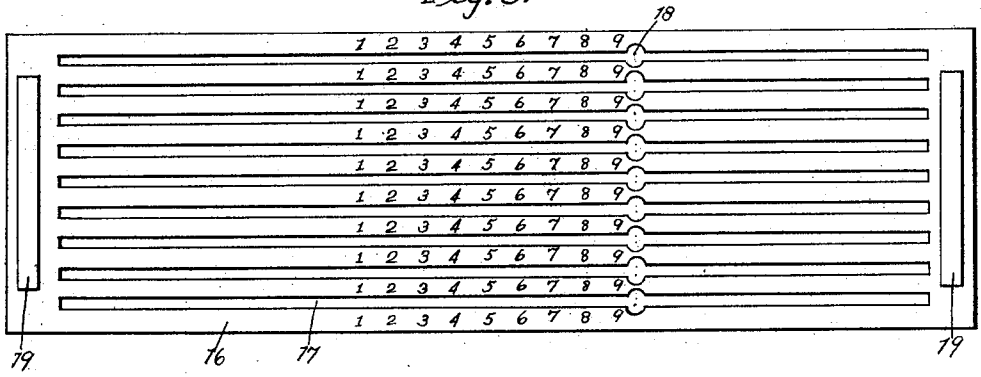
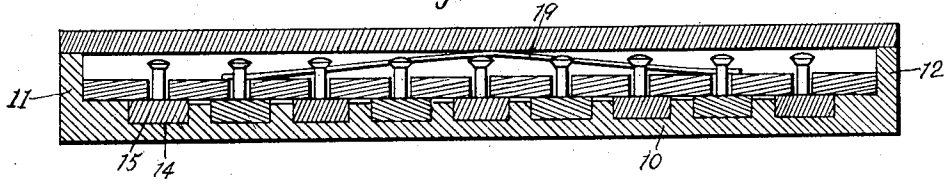


Fig. 4.



Witnesses.

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No. 751,670. Patented February 9, 1904.

UNITED STATES PATENT OFFICE.

THOMAS E. McCARTY, OF PARKERSBURG, IOWA.

CALCULATING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 751,670, dated February 9, 1904.

Application filed April 18, 1903. Serial No. 153,267. (No model.)

To all whom it may concern:

Be it known that I, THOMAS E. McCARTY, a citizen of the United States, residing at Parkersburg, in the county of Butler and State of Iowa, have invented certain new and useful Improvements in Calculating-Machines, of which the following is a specification.

The objects of my invention are to provide a simple and compact calculating-machine, the parts of which will be readily held in position relative to each other, and at the same time the movable parts can be easily adjusted longitudinally of the frame forming the outside portions of my device.

A further object is to provide an adding-machine the lower portion of which can be placed on a page in a book or a sheet of paper upon which the numbers to be added are written, and the operator can easily adjust the whole machine on the sheet so as to keep track of the numbers which he has already added, thus making it an easy matter to keep track of the figures added.

A further object is to provide a device upon the movable parts of which the operator can easily place his fingers, so as to determine the exact number which is to be added, and when these movable parts are slid longitudinally of the frame portion they will when moving to the limit determined by the operator's finger coming in contact with the upper portion of the frame show numbers in a series of vertically-arranged circular openings, so that the operator can easily read the result obtained by the mechanical addition.

A further object is to provide an adding-machine so arranged that the operator can easily look down upon the device after the sum has been added and ascertain what the exact result is.

A further object is to provide springing means whereby the several parts of the device are held in position relative to each other, so that if the operator has added a given sum he can put the calculating-machine in his pocket and the parts will not move of themselves, so that when he takes the machine out of his pocket again the numbers will be in the same position which they were when he was compelled to leave his work, when he put the device into his pocket.

My invention consists in certain details in the construction, arrangement, and combination of the various parts of the device whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claim, and illustrated in the accompanying drawings, in which—

Figure 1 shows in perspective the complete calculating-machine. Fig. 2 shows the lower portion of the calculating-machine with the movable indicators mounted in the slots at the bottom of the device and with the guide portion removed. Fig. 3 represents the guide portion of the device removed from the frame and shows the springs at the end of this guide portion, and Fig. 4 is a cross-sectional view of the complete device.

Referring to the accompanying drawings, I have used the reference-numeral 10 to indicate the bottom portion of the containing-frame for my slide-bars and guide. I have numbered the sides of this frame 11 and 12, respectively. These sides are substantially at right angles to the body portion. I have provided the ends 13 for my device. Extending longitudinally of the bottom 10 are a series of grooves 14, designed to admit the sliding bars 15. On each of these sliding bars and extending throughout their entire length are a series of pins, eighteen in number, and at the right end of each of these sliding bars 15 and outside of the pin which is nearest the right end of each sliding bar I have placed the numeral "9" and immediately inside of said pin the numeral "8," and between each of the succeeding pins on each of said bars I have placed the numerals "7 6 5 4 3 2 1 0" in consecutive order. The sliding bars 15 are of two-thirds of the length of the slots 14, so that they are capable of longitudinal movement in said slots. Mounted immediately above said slides is the guide portion 16, having a series of narrow slots 17, each slot being designed to admit the pins 22, which are in the bar immediately beneath each of said slots when the guide portion 16 is placed in position in the frame. This guide portion is of substantially the same length as

the interior of the frame and is designed to fit in it and be prevented from longitudinal or lateral movement. On the central portion of the guides I have placed a series of numbers from "1" to "9," consecutively, beginning at the left of the central portion and running to the right of the central portion thereof. Immediately at the right of this series of numbers is a series of substantially semicircular openings in the guide portion, so arranged that as the number on the sliding bars is moved to position beneath said opening it can be easily read. These numbers from "1" to "9," consecutively, are arranged in vertical columns on the guide portion, so that the numbers which are all in one column numbers "2," all in another column numbers "3," in another column "4," and so on throughout the entire nine numbers.

The circular openings, which I have designated by the numerals 18, are also arranged in a vertical line, so that the numbers when they are placed in these openings can be read easily from the uppermost downwardly after the number has been added. Mounted on each end of this guiding portion are the springs 19, and these springs are designed to hold the guide portion firmly against the sliding bars, so that these bars will be maintained in position. These springs are designed to engage the under surface of the covers 20 and 21. These covers 20 and 21 are attached to the sides 11 and 12, and the cover 20 is substantially one-third of the length of the entire frame, and the cover 21 is of substantially the same length. These covers are attached near the ends of the frame and leave an open space between them, as shown in Fig. 1, so as to allow the operator to see the numbers which are on the guiding portion easily. These covers also allow the openings 18 to be readily seen, so that that portion of the sliding bars which is directly beneath the openings 18 can be readily seen.

In practical use the operator places his finger upon the pins and moves the bars longitudinally of the box, and as he places his finger upon the number "1" until his finger engages the upper portion of the cover 20 the number "1" will appear in one of the openings 18, and by placing his fingers, for instance, upon the fourth pin of the fourth bar and the fifth pin of the third bar, the seventh pin of the second bar and the eighth pin of the first bar, and numbering these bars from the bottom up, and then moves these slides by means of his fingers until his fingers engage the inner edge of the cover 20, the number "4578" will be registered beneath the circular openings 18 until the next numbers are brought to the openings 18 by moving the bars in the same way as indicated in the first moving operation. A further description of the way this device is used is deemed unnecessary, as the practical operation of my device is substantially the same as that of patent to Locke, December 24, 1901, No. 689,680. The arrangement of my device, however, is substantially different from that, in that I use pins and in that springs are used to maintain the parts of the device in position relative to each other and also that I am able by my particular arrangement to readily ascertain the total number when the calculation has been completed by simply glancing upon the face of the device.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States therefor, is—

In a calculating-machine, a frame, a guide portion having a series of slots extending longitudinally thereof, a series of semicircular openings cut in line with each other cut out of the guide portion and on the side of each of said slots, a series of sliding bars mounted beneath said slots, a series of pins in each of said bars extending through the slot nearest the bar on which the pin is mounted, a series of numerals on each of said bars, a spring extending across each end of the guide portion and engaging it and also engaging the upper portion of said frame, so arranged as to force the guide portion against the sliding bars to normally hold said bars in position relative to the guide portion, for the purposes stated.

THOMAS E. McCARTY.

Witnesses:
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