

A. J. CONEN.
 ADDING MACHINE.
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1,061,901.

Patented May 13, 1913.

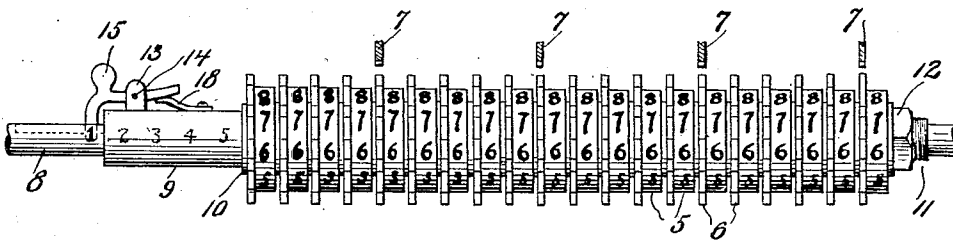


Fig. 1.

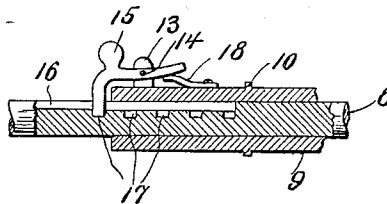


Fig. 2.

WITNESSES:

J. M. Miller
G. L. Heidman

INVENTOR

Alexander J. Conen

BY

Max A. Schmidt
 ATTORNEY

UNITED STATES PATENT OFFICE.

ALEXANDER J. CONEN, OF LOUISVILLE, KENTUCKY.

ADDING-MACHINE.

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To all whom it may concern:

Be it known that I, ALEXANDER J. CONEN, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Adding-Machines, of which the following is a specification.

This invention has for its object to provide in an adding machine a novel and improved arrangement of accumulating wheels by means of which a number of independent transactions may be separately accumulated and all retained in the machine at the same time. The advantage of this feature is that the sales of different departments of a business can be put into the machine in any random order, and yet, by throwing in the predetermined set of accumulators for any particular department, each set of accumulators will show the total sales for its particular department. This is only one example showing the advantages of a plurality of sets of accumulators; in actual use there are many other operations where this would be a decided advantage.

In order that the invention may be better understood, reference is had to the accompanying drawing forming a part of this specification, in which drawing—

Figure 1 is a plan view showing the application of the invention. Fig. 2 is a sectional detail showing the shifter locking device.

The invention is applicable to the well-known Burroughs adding machine, in which there is a series of pinions to each of which is secured an accumulator wheel, the pinions being actuated by racks.

The invention is also readily applicable to other types of adding machines.

In the drawing, the accumulator wheels are indicated at 5, and their pinions at 6. These wheels are arranged in groups, each group containing several wheels which are of the same order. Thus one group is a units group, the next group a tens group, the next a hundreds group, and so on. Four groups are shown, with five wheels in each group. Thus, the machine is adapted for registering five different transactions from 0 to 10,000. Of course, the number of wheels and groups may be increased to increase the capacity of the machine. One actuating rack 7 is provided for each group of pinions, and the groups are adapted to be shifted so as to bring corresponding pinions of the several

groups opposite the racks. It is to be understood that the individual wheels in any group, with the companion pinions, are at all times independent of each other, but each wheel and pinion in a group has a related wheel and pinion in every other group, whereby a plurality of independent accumulators is had, which, at the will of the operator, may be successively brought into operative relation with the same set of actuating racks 7.

The following means are provided for supporting the wheels 5 and their pinions 6: On a stationary shaft 8 is slidably mounted a sleeve 9 on which the wheels and pinions are strung side by side, the same being free to rotate on the sleeve independent of each other. The sleeve is held against rotation by means to be presently described. Near one end of the sleeve, the latter has an abutment in the shape of an annular flange or collar 10, and the other end of the sleeve has a reduced portion 11 on which is screwed a nut 12. The wheels and pinions are located between the abutment and the nut and are held thereby against endwise separation or longitudinal movement on the sleeve. The first-mentioned end of the sleeve has a lug 13 to which is pivoted, as indicated at 14, a detent 15 adapted to extend into a longitudinal groove 16 in the shaft and seat in a selected one of a number of recesses 17 in the floor of said groove. The detent is pressed into holding position by a spring 18 engaging its tail.

The recesses 17 determine the position of the respective accumulator pinions 6 relative to the actuating racks 7, and the groove 16 prevents rotation of the sleeve 9 on the shaft 8. The number of recesses corresponds to the number of pinions in the respective groups. As there are five pinions in each group, five recesses are provided.

When the detent 15 is in the first recess 17 to the left, the first pinion 6 to the right in each group is brought opposite its actuating rack 7. Upon shifting the sleeve 9 to the left until the detent drops into the second recess, the second set of pinions is positioned opposite the actuating racks, and so on throughout the entire series. The recesses are numbered, the numbers being displayed on the shaft 8, so that the operator can quickly and without error, bring any desired set of pinions into operative position relative to the racks.

The sleeve 9 being locked by the detent in the position shown in Fig. 1, any number of items may now be put in the machine to be accumulated on the wheels now actuated by the racks 7, just as they would be in any ordinary machine having only a single set of wheels. If it is desired to accumulate the total of a series of items in a separate transaction on another set of wheels, the detent 15 is lifted and the sleeve 9 is shifted to bring the desired set of pinions into position to be engaged by the racks 7, at which time the detent will drop into the recess corresponding to the selected set of wheels and thus again lock the sleeve to the shaft 8. When the detent is lifted to its fullest extent its point still remains in the groove 16, thus preventing rotation of the sleeve on the shaft.

The means for operating the racks 7, the printing mechanism, and other well known features of the machine have not been shown as they form no part of the present invention, and various changes and modifications in the structural details herein described may be made without departure from the spirit and scope of the invention.

I claim:

1. In an adding machine, a plurality of sets of accumulator wheels arranged side by side in groups of different orders, an actuator for each group of wheels, a stationary shaft, a sleeve slidable on the shaft, on

which sleeve the wheels are mounted, said sleeve being adjustable to locate any set of the wheels in operative relation with the actuators, and means for locking the sleeve and holding the same against rotation.

2. In an adding machine, a plurality of sets of accumulator wheels arranged side by side in groups of different orders, an actuator for each group of wheels, a stationary shaft having a longitudinal groove and recesses, a sleeve slidable on the shaft, on which sleeve the wheels are mounted, and a detent carried by the sleeve and extending into the groove and engageable with selected ones of the recesses.

3. In an adding machine, a plurality of sets of accumulator wheels arranged side by side in groups of different orders, an actuator for each group of wheels, a stationary shaft having a longitudinal groove and recesses, a sleeve slidable on the shaft, on which sleeve the wheels are mounted, said sleeve having abutments between which the wheels are located, and a detent carried by the sleeve and extending into the groove and engageable with selected ones of the recesses.

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

ALEXANDER J. CONEN.

Witnesses:

MARY R. SCHUMAN,
LILLIE SCHUMAN.