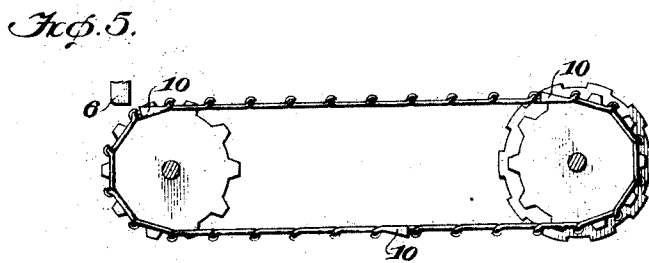
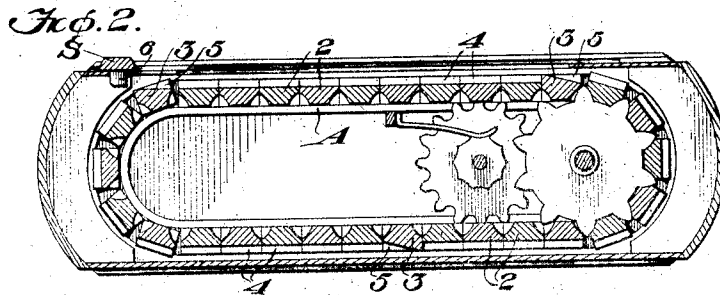
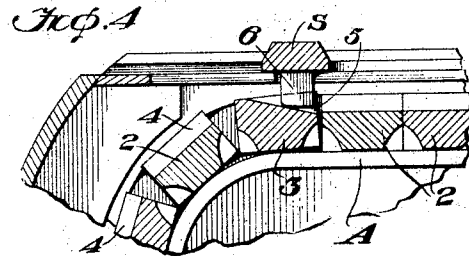
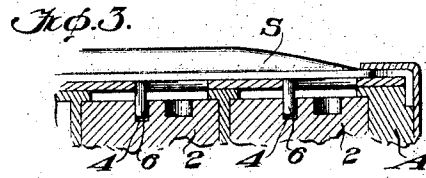
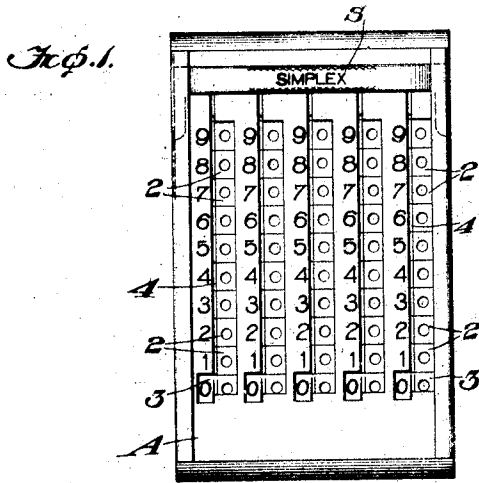


**J. A. CHEAPE.**  
**RESETTING DEVICE FOR ADDING MACHINES.**  
 APPLICATION FILED OCT. 30, 1908.

**983,682.**

Patented Feb. 7, 1911.



Witnesses  
 Lloyd W. Patch  
 Richard B. Owen

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# UNITED STATES PATENT OFFICE.

JOHN ALBERT CHEAPE, OF CHARLOTTESVILLE, VIRGINIA, ASSIGNOR TO THE SIMPLEX ADDER COMPANY, OF CHARLOTTESVILLE, VIRGINIA.

## RESETTING DEVICE FOR ADDING-MACHINES.

983,682.

Specification of Letters Patent.

Patented Feb. 7, 1911.

Application filed October 30, 1908. Serial No. 460,258.

*To all whom it may concern:*

Be it known that I, JOHN ALBERT CHEAPE, a subject of the King of Great Britain, residing at Charlottesville, in the county of Albemarle and State of Virginia, have invented certain new and useful Improvements in Resetting Devices for Adding-Machines, of which the following is a specification.

My invention relates to an improvement in re-setting devices for adding machines, the object being to turn the number carrying members to zero or starting point, and with this object in view, my invention consists in a slide in connection with the number carrying members, said slide having means thereon for engaging these members and restoring them to the starting point by means of moving the slide over the face of the adding machine.

My invention further consists in certain novel features of construction and combinations of parts which will be hereinafter described and pointed out in the claims.

In the accompanying drawings:—Figure 1 is a front view of the adding machine showing the slide in its normal position on the adding machine. Fig. 2 is a transverse section, Fig. 3 is a section taken at right angles through two of the number carrying members showing a projection on the slide in position in the groove of one of the members, and, Fig. 4 is an enlarged detail in section of members 1, 2, and 3, as 3 commences to round a curve, showing a tooth on the slide entering its groove. Fig. 5 is a modification.

A, represents the frame, and 1, 2, and 3 are three of the number carrying members of the adding machine. Members 1 and 2 are a type of the number carrying members bearing numbers from one to nine, they having a transverse groove 4 formed there-through, whereas numeral 3 indicates a type of members carrying zero, the difference being that the groove 5 in these members 3, 3, extends only partly across the members, it being upon an incline stopping at nothing on the surface of the member instead of being of uniform depth throughout the width of the member as with the other numbers from one to nine, and being a trifle deeper at the opposite edge of the member for a purpose which will be mentioned hereinafter.

S, is the slide, it being fitted at its ends

in suitable guide-ways, and in position to span the entire adding machine. This slide is provided with teeth 6, 6, which enter and slide freely through grooves in the number carrying members until they strike members carrying zero, in which the grooves stop so that the teeth upon striking the zero members carry the latter to the zero point at the lower edge of the adding machine, so that nothing but zeros are visible through the slots at that point. Should the figure 1 appear in any of these slots, which happens under certain circumstances, this is corrected by the slide when it is returned to its elevated position where it must be placed before the adding device is used.

The grooves 5 extend partially through the zero members and upon an incline, as previously stated, for the purpose of bringing the bottom of these grooves into alignment with the grooves in the other number carrying members, as these members 3 commence to round the curve at the ends of the adding machine, thus preventing the teeth 6 from striking the edge of said groove upon entering them, which would otherwise cause undue wear at that point, which is avoided by the construction just described. Thus the teeth on the slide pass beyond these inclining grooves after they leave the various members in the desired position, and having moved on out of the path of the teeth of the grooves, the various members are in position to be slid back and forth after being stopped by the teeth on the slide. The opposite edges of the zero members by reason of having no grooves, form abrupt stops against which the teeth strike when the slide is moved against them in the re-setting of the members. In operation, therefore, to re-set the members, the slide is simply moved downward across the face of the adding machine as far as it will go, and then returned to its normal position. The construction of the adding machine is such that the zero carrying member is then located at both the top and bottom of the column, the zero member at the top just commencing to turn as illustrated, so that the teeth on the slide after having passed through the inclining grooves in said zero members, move on slightly beyond them out of the way of the grooves, thus permitting the free movement of the members back and forth.

This same idea might be applied to a form

of machine employing endless chains and number-carrying wheels, as illustrated in Fig. 5, in which the chain has the projections 10, 10, against which the pins on the slide bar engage to re-set the chain, and with it, the number-carrying wheel, if a wheel is used as illustrated. The same principle will apply equally well to the endless chain with the numbers on the chain without the wheel.

It is evident that more or less slight changes might be resorted to in the form and arrangement of the several parts described, without departing from the spirit and scope of my invention and hence I do not wish to limit myself to the exact construction herein set forth, but:—

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A resetting device for adding machines comprising a plurality of movable columns of characters, carrying mechanism, and a movable device which insures the restoration of all columns of characters to starting point in a single complete passage back and forth over the columns of characters, whether or not there has been an operation of all or a portion of the carrying mechanism.

2. In an adding machine, the combination with an endless row of character-carrying members, a predetermined number of which have alined grooves, whereby a straight path is formed thereacross, and provided with obstructions formed at intervals in the path, of a slide slidably connected with the frame of the machine, and having means thereon which clear a path across the face of the members, contiguous thereto, by its passage through the grooves, and engagement with one of the obstructions.

3. In an adding machine, the combination with a plurality of character-carrying members arranged in endless series, a predetermined number of said members having alined grooves whereby a straight path is formed thereacross, and having obstructions formed in the path at intervals, of a slide slidably connected with the machine, and provided with means in position to traverse said path, and to move the entire series with it upon meeting one of the obstructions.

4. In an adding machine, the combination with an outer casing having an opening therein, the slide having a projection which extends through said opening, of a plurality of character-carrying members arranged in an endless series, said members having alined grooves forming a path for the passage of the projection on the slide, and members at intervals presenting obstructions against which the projection on the slide engages, whereby to carry on the entire series of members, and ways in which the members travel and are guided, said ways curved at their opposite extreme ends whereby in rounding the ends the members clear the projection so that the members may move freely and indefinitely when the slide is in-operative.

5. In an adding machine, the combination with a casing having continuous ways therein, of a continuous series of character-carrying members guided and traveling in said ways, every tenth member presenting a zero, and having grooves formed partially across its outer face, the remaining and intermediate members numbered consecutively from one to nine and having alined grooves entirely across their faces, thereby presenting a continuous path between zero members, and a slide having means adapted to traverse the said grooves without moving the members, and when meeting a zero member to force the latter on out of the path, thereby moving the entire series.

6. In an adding machine, the combination with number-carrying members having alined grooves formed transversely thereof, the grooves in certain of said members inclining or tapering, of a slide having teeth thereon which traverse the grooves in either direction, one of the members having the inclining groove always presenting an abutment in the path of the slide in one direction of its movement, whereby when struck by the slide, the entire series of members is moved thereby.

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

JOHN ALBERT CHEAPE.

Witnesses:

HERBERT C. EMERY,  
VERNON E. HODGES.