G. J. BARRETT.

OPERATING HANDLE FOR ADDING MACHINES.

APPLICATION FILED APR. 1[illegible], 1913.

**1,130,463.** Patented Mar. 2, 1915.

FIG. 1.

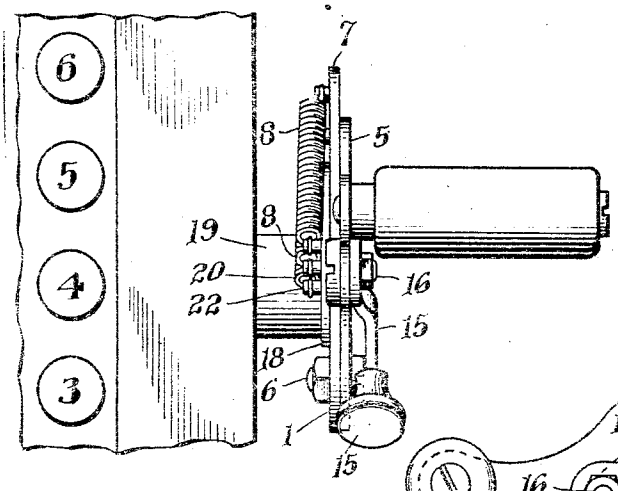



FIG. 4.

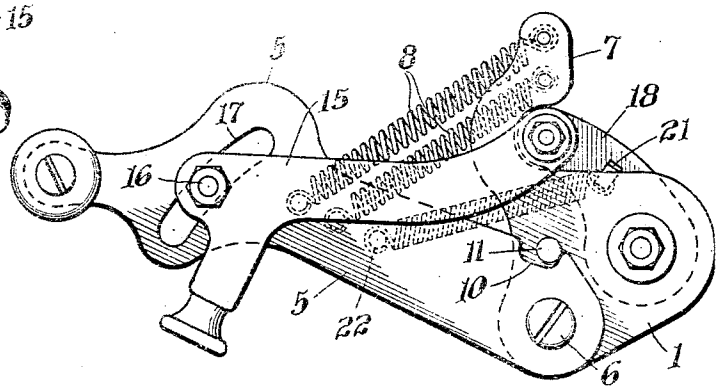



FIG. 2.

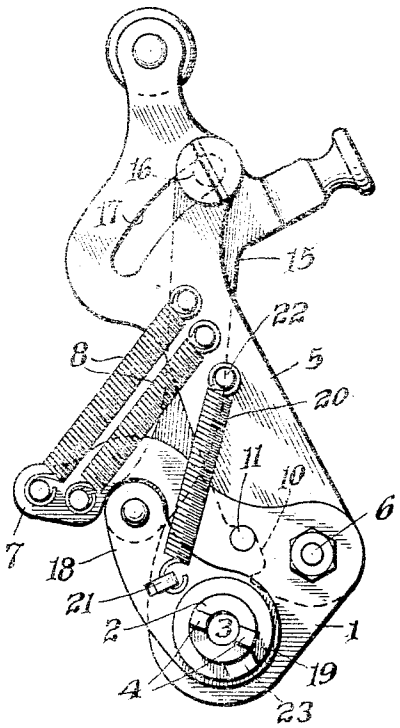
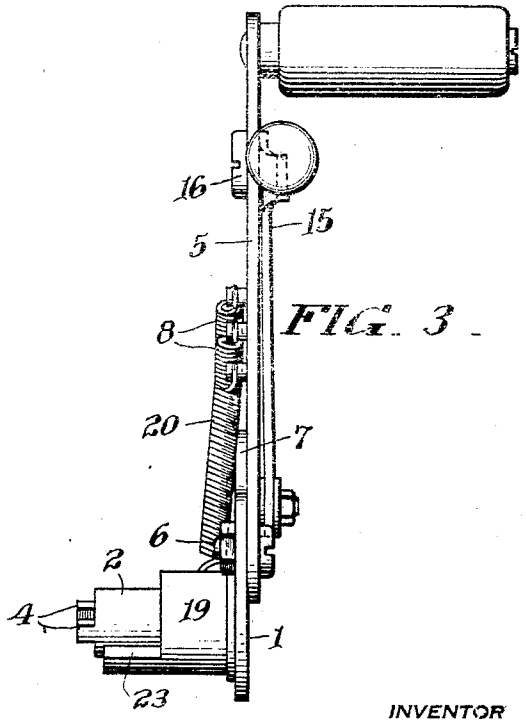



FIG. 3.




WITNESSES

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GLENN J. BARRETT, OF GRAND RAPIDS, MICHIGAN, ASSIGNOR TO BARRETT ADDING MACHINE COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF DELAWARE.

## OPERATING-HANDLE FOR ADDING-MACHINES.

1,130,463. Specification of Letters Patent. Patented Mar. 2, 1915.

Application filed April 19, 1913. Serial No. 762,186.

*To all whom it may concern:*

Be it known that I, GLENN J. BARRETT, a citizen of the United States, residing at Grand Rapids, Michigan, have invented certain new and useful Improvements in Operating-Handles for Adding-Machines, of which the following is a specification.

My invention relates to improvements in operating handles for adding machines and other like computing machines, and it has for one of its objects to provide a construction in which a yielding means is interposed between the finger piece of the handle and the point of connection of the latter to the operative parts of the machine.

A further object of my invention is to provide a construction in which such yielding means will act as a cushion to relieve the operative parts of the machine of the jar and strain which would result if no such means were present.

Other objects and advantages of my invention will be pointed out hereinafter in the specification or will be apparent therefrom.

In order that my invention may be more readily comprehended and understood, reference should be had to the accompanying drawing in which I have illustrated one form of operating handle embodying the same. It should be understood, however, that my invention is not limited to the details of construction shown and that changes therein may be made within the scope of the claims without departing from my said invention.

In the drawing:—Figure 1 is a top plan view of a portion of an adding machine provided with an operating handle embodying my invention; Fig. 2 is an inside elevation of such handle and showing its several parts in the relative positions normally occupied thereby when the handle is not being operated; Fig. 3 is an edge elevation of the handle looking toward the left in Fig. 2; and Fig. 4 is an outside elevation of the handle showing the relative positions of its parts when said handle has been drawn forward to operate the machine and with the finger piece drawn forward to the limit of its movement.

Referring to the drawing,—1 designates a member provided with a hub 2 having an axial socket 3 therein to receive the end of a shaft (not shown). The hub 2 is provided with lugs 4 for engagement with a member (not shown) of the operating mechanism of the machine. For a full description of the said hub, shaft and operating member to which the hub is connected, reference is made to Figs. 21 to 26 inclusive and the description of the same found in United States Letters Patent No. 976,336, issued to me November 22nd, 1910.

The finger piece 5 of the handle is pivoted at 6 to the member 1. Such pivotal point is situated above and forwardly of the axis of the hub 2. The member 1 is extended rearwardly from the hub 2, as shown at 7. Yielding means, consisting preferably of coiled wire springs 8, are interposed between the finger piece 5 and the member 1, the opposite ends of said springs being connected respectively to the projecting end of the member 1 and to the middle portion of the finger piece 5. The number of springs employed is immaterial.

The lower rear edge of the finger piece 5 is provided with a notch 10 in which a stop lug 11 on the member 1 is situated. Rearward movement of the finger piece toward the rear end of the member 1 under the influence of the springs 8 is limited by the engagement of the stop 11 with the upper edge of the notch 10 while movement of the same in the opposite direction to distend the said springs is limited by the engagement of the said lug with the lower edge of the notch 10. It is apparent that the extent of pivotal movement of the finger piece 5 relative to the member 1 depends upon the length of the notch 10.

In operating the machine, such as an adding machine or other like machine, the operator catches hold of the finger piece and draws the handle forward. The springs 8, or other yielding means which may be employed, are or should be strong enough to cause the part 1 to move forward in unison or in synchrony with the finger piece until the operative mechanism of the machine reaches the limit of its forward movement and is halted by means of a stop or otherwise. Further forward movement of the member 1 is not permitted, but additional forward movement of the finger piece 5 is permitted until the lower edge of the notch 10 strikes the lug 11, as shown in Fig. 4. Such additional movement of the finger piece 5 is in opposition to the tension of the

springs 8 and causes the stretching of the same as shown in said Fig. 4. These springs 8 (or their equivalent) constitute cushions to prevent unnecessary shocks and jars to the operating mechanism of the machine, such as would occur were there no cushioning means between the finger piece and the stop which limits the forward movement of the operating mechanism.

It has been found in operation that when the pulling force of the operator is released from the finger piece 5, the member 1 remains stationary during the period of the return movement of said finger piece under the influence of the springs 8 until the upper edge of the notch 8 contacts with the lug 11 but after such contact the several parts of the handle and operative parts of the machine move rearwardly together. The result of this is to cause a slight dwell of the operative parts of the machine at the end of each forward stroke of the handle which is desirable in rapid work because it gives the setting mechanism as well as the other mechanism an opportunity to settle and cease vibrating.

The releasing key 15 is provided with a pin 16 at its upper end which is in slidable engagement with a curved slot 17 in the finger piece 5. The lower end of the key 15 is pivotally connected to a release lever 18 extending rearwardly from a sleeve 19 rotatably mounted upon the hub 2. The said lever 18 and sleeve 19 are held normally in the position shown in the drawing by means of a spring 20 connected to the said lever at 21 and to the finger piece 5 at 22. The sleeve 19 is provided with a projection 23, the purpose, function and operation of which are the same as that of the projection 394′ on the sleeve 394 shown in Patent No. 976,336, aforesaid. Reference may be had to said patent for a full description of the releasing and resetting mechanism.

I claim:—

1. An operating handle for a computing machine comprising a member having connection with the operative mechanism of such machine, a finger piece oscillatably supported on said member, elastic cushioning means interposed between said member and said finger piece, and means for permitting limited movement of said finger piece with respect to said member.

2. An operating handle for a computing machine comprising a member having connection with the operative mechanism of such machine, a finger piece oscillatably supported on said member, a spring-acting means having connection with said finger piece and said member which means, when the finger piece is moved forwardly, causes corresponding movement of said member, and thereafter permits independent forward movement of said finger piece.

3. An operating handle for a computing machine comprising a member having connection with the operative mechanism of such machine, a finger piece oscillatably supported on said member, and cushioning means interposed between said member and said finger piece and having connection with said member and said finger piece.

4. An operating handle for a computing machine comprising a member having connection with the operative mechanism of such machine, a finger piece pivotally connected to the said member, and cushioning means interposed between and having connection with said member and said finger piece to resist forward movement of the said finger piece in relation to the said member.

5. In an operating handle for a computing machine the combination of a member having connection with the operative mechanism of such machine, the said member having rearwardly and forwardly extending portions, a finger piece pivoted to the forwardly extended portion of the said member, and a cushioning spring having connection at one end to the rearwardly extended portion of the said member and at its other end to the said finger piece.

6. In an operating handle for computing machines, the combination of a member having a hub thereon, a finger piece pivotally connected to the said member forwardly of the said hub, cushioning means interposed between the said finger piece and the said member, the said cushioning means having connection with the said finger piece and with a portion of the said member rearward of the said hub.

7. In an operating handle of the character described, the combination of a finger piece having a notch at the lower end of one of its edges, a member to which the said finger piece is pivoted, the said member having a lug situated in the said notch, the length of the latter being greater than the thickness of the said lug, yielding means interposed between the said finger piece and the said member and permitting relative movement between the said finger piece and the said member, the extent of such movement depending upon the length of the said notch.

8. In an operating handle for a computing machine, the combination of a member provided with a hub having connection with the operating mechanism of such machine, a finger piece having pivotal connection with the said member, means for resisting pivotal movement of the said finger piece with relation to the said member, a release key having slidable connection with the said finger piece, a sleeve rotatably supported upon the said hub, and a release lever projecting from the said hub and having connection with the said release key.

9. In an operating handle for a computing

machine, the combination of a member provided with a hub having connection with the operating mechanism of such machine, a finger piece having pivotal connection with the said member, means for resisting pivotal movement of the said finger piece with relation to the said member, a release key having slidable connection with the said finger piece, a sleeve rotatably supported upon the said hub, a release lever projecting from the said sleeve and having connection with the said release key, and a yielding connection between the said release lever and the said finger piece.

10. In an operating handle for computing machines, the combination of a pivotally supported member, a finger-piece pivotally connected to the said member forwardly of the pivotal axis of the latter, cushioning means interposed between the said finger-piece and the said member, the said cushioning means having connection with the said finger-piece and with a portion of the said member rearward of the pivotal axis of the latter.

In testimony that I claim the foregoing as my invention, I have hereunto signed my name this 15th day of April, A. D. 1913.

GLENN J. BARRETT.

In the presence of—
FRANK W. MOSHER,
EDWIN S. HARTER.