

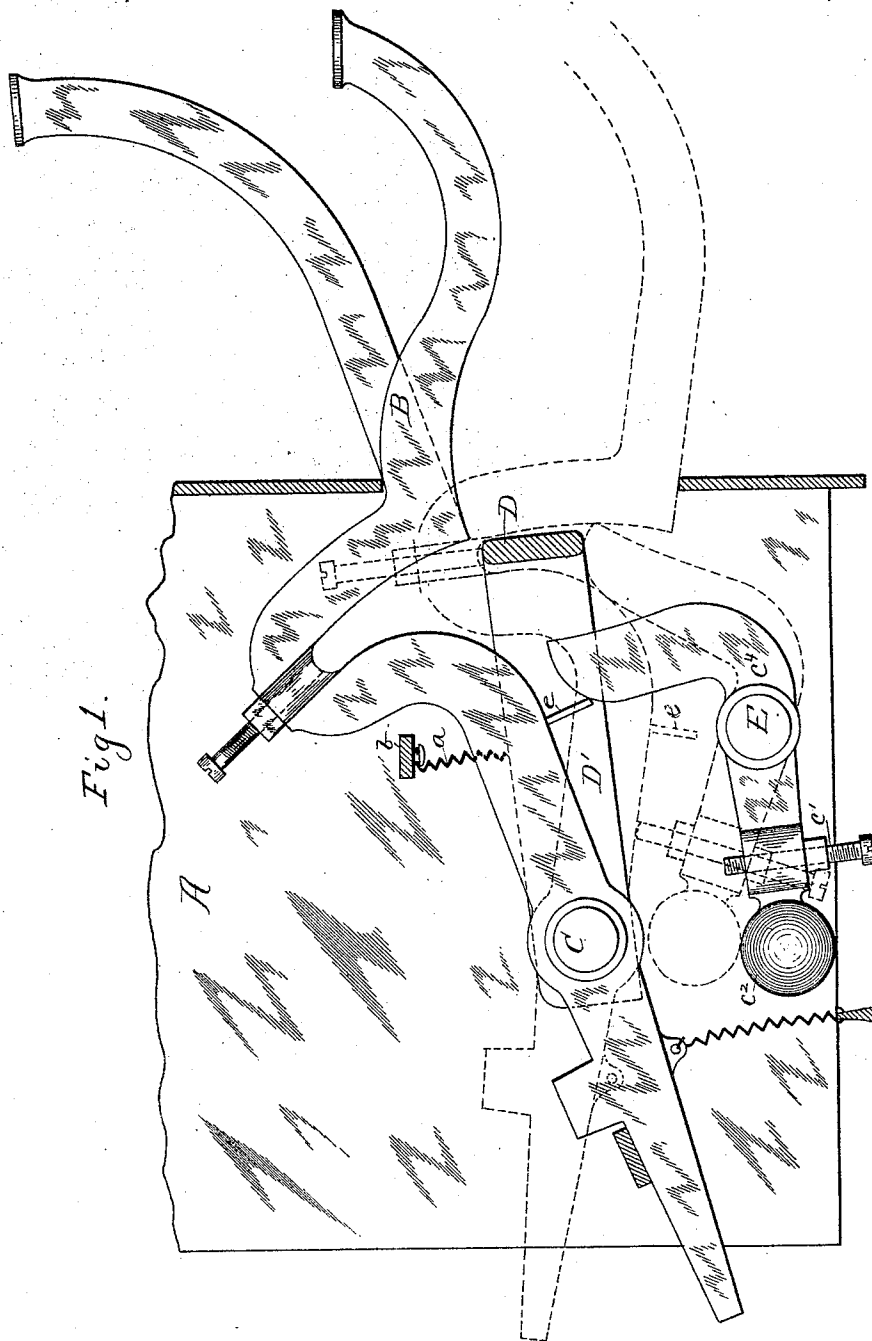
(No Model.)

3 Sheets—Sheet 1.

J. B. AUFULDISH.
CASH REGISTER AND INDICATOR.

No. 529,773.

Patented Nov. 27, 1894.



WITNESSES:

P. J. Himes

H. J. Dunn.

INVENTOR

John B. Aufuldish

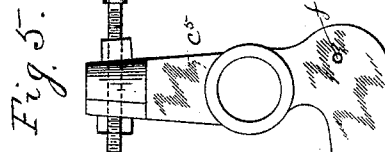
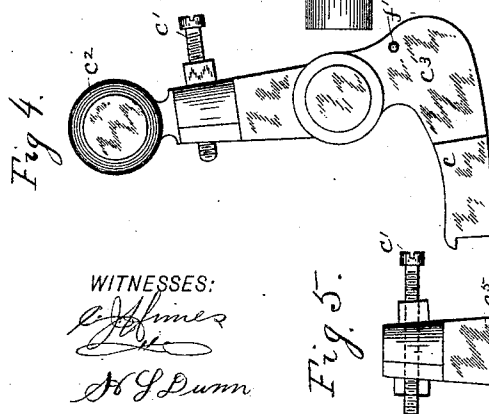
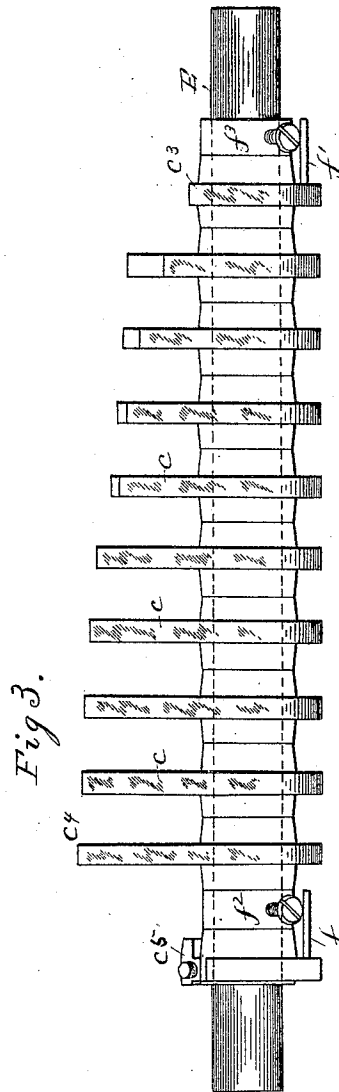
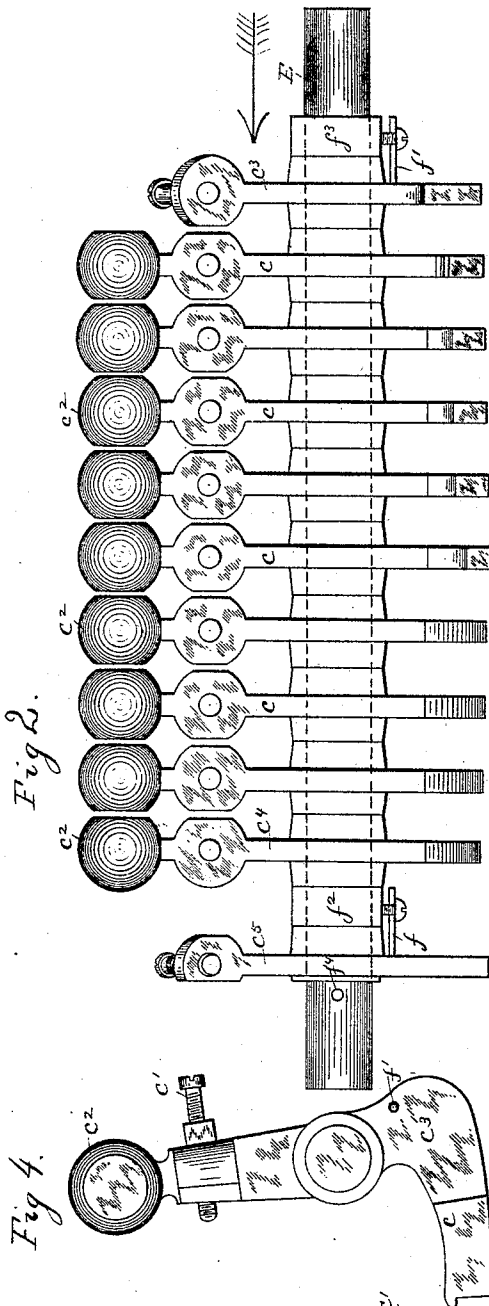
BY

R. J. M. Carty
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WITNESSES:
John B. Aufuldish
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INVENTOR
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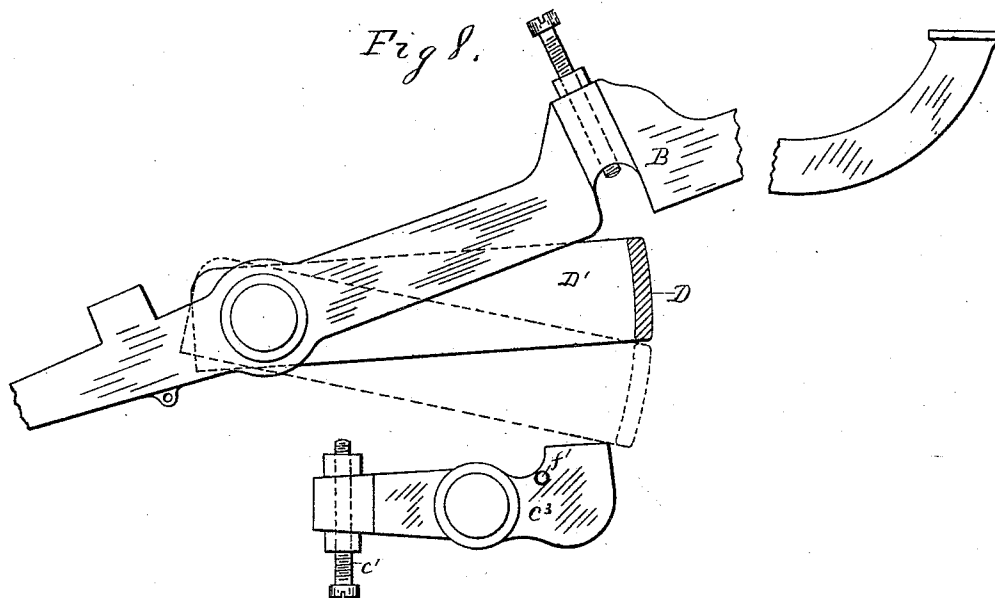
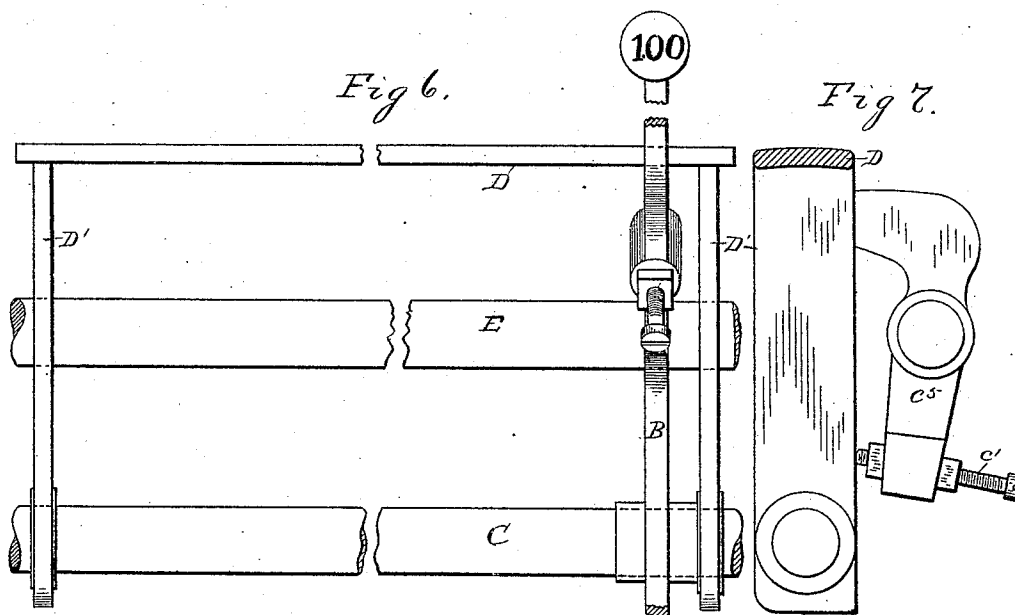
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3 Sheets—Sheet 3.

J. B. AUFULDISH.
CASH REGISTER AND INDICATOR.

No. 529,773.

Patented Nov. 27, 1894.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN B. AUFULDISH, OF DAYTON, OHIO.

CASH REGISTER AND INDICATOR.

SPECIFICATION forming part of Letters Patent No. 529,773, dated November 27, 1894.

Application filed October 23, 1893. Serial No. 488,882. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. AUFULDISH, of Dayton, county of Montgomery, State of Ohio, have invented a new and useful Improvement in Cash Registers and Indicators; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The invention to be herein specified relates to certain improvements in cash registers and indicators.

The improvements are confined specifically to means for stopping the adding bar after it has been moved a sufficient distance to perform its function. This adding bar which is designed to operate certain registering mechanism is, together with other mechanism, shown and described in a pending application for United States Letters Patent, filed January 23, 1893, Serial No. 459,501. Therefore it is not deemed necessary to illustrate or describe any of the mechanism described in said application, save that which is immediately associated with the present improvement.

In the accompanying drawings forming part of this specification, Figure 1 is a side elevation, showing the casing partly in section and the top thereof broken off, the adding bar also appearing in section; Fig. 2, a plan view of the stops removed from the casing; Fig. 3, a longitudinal elevation of the stops, removed from the casing; Fig. 4, an end view looking in the direction of the arrow, Fig. 2, showing the end stop and the next adjacent stop; Fig. 5, a detail, detached side elevation of one of the end stops; Fig. 6, a plan view of the adding bar, and one of the key-levers, removed from the casing; Fig. 7, a sectional view of the adding bar showing one of the arms thereof and a stop which is operated by said arm; Fig. 8, a side elevation of the dollar key-lever, or the one having the least curvature, the adding bar in section, and the stop operated by said adding bar.

The various mechanism is all inclosed within the casing A, of suitable form and material.

B represents the key-levers having features peculiar to those described in the application above referred to, and mounted on a transverse shaft C journaled in the sides of the casing.

D is the adding bar having arms D' loosely mounted on shaft C, having the normal position shown in Fig. 1 through the medium of the spring (a) which is attached thereto, and to the transverse bar b. It will be observed that the adding bar is placed transversely below and on a line with the curved portions of the key-levers, and that upon the depression of any one of said levers said bar will be actuated a degree corresponding to the curvature. It is important that the travel of this bar be accurate, and free from any vibrations after the key-levers have moved it sufficiently. To insure this accuracy, I mount a series of stops (c) provided with set screws c' upon shaft E journaled in the sides of the casing. These stops have an excess of weight at one end c² that keeps the rounded portion of the vertical end of said stops in contact with a pin e projecting downwardly from the under surface of the key-levers. These stops are individually mounted upon the shaft, one below each key-lever, and each stop is subjected to the action of its particular key-lever without having any effect upon the adjacent stops. As before stated the curvatures of the key-levers vary. Those shown in Figs. 1 and 8 illustrate the two extremes, the former being the five cent key, the latter being that by which a dollar registration is made. This being the case, it will be seen that the length of the vertical portion of the stops must necessarily vary in extent. This variation is well illustrated in Fig. 3. In this view the stop c³ is operated by the dollar key, while the stop c⁴ is operated by the five cent key. The stop c⁵ on the extreme left of the shaft is operated in conjunction with the stop c³, directly by one of the arms D' of the adding bar; the object of which stop is to prevent any twisting or sagging of that end of the adding bar, when the dollar key and the stop c³ are operated, which it will be noted are at the other extreme end of the adding bar. The stops c³ and c⁵ are constructed without the balls or weights c², because such weight is unnecessary on these particular stops as there is al-

ready a sufficient excess of weight on one end. In order to maintain these two stops in an operative position with respect to the dollar key-lever and the arm of the adding bar, pins f and f' are projected laterally from the sides of said stops, and contact with the set screws on the collars f^2 and f^3 . These collars serve to keep the assembled stops in position. A pin f^4 projecting from the shaft keeps the stop c^5 in its proper position.

To briefly describe the operation of the stops, Fig. 1 is referred to, where a stop and a key-lever are shown in full and broken lines, the former being the position before a depression, and the latter, after a depression of a key-lever, to the full limit. It will be observed that in this operation the key-lever moves the stop on its pivot until the set screws c' come against the straight surface of the key-lever; at which time the upright portion of said stop is under and in contact with the adding bar. These parts in this position are firmly locked, and any vibration of said bar is impossible.

The stops described in the foregoing specification may be used with any desired number of key-levers, and possibly, their shape may be varied somewhat without departing from my invention.

I claim and desire to secure by Letters Patent—

1. In a cash register, the combination of a series of key-levers provided with graduated curves, a transverse adding bar fulcrumed on the shaft of said key-levers and adapted to be vibrated by the curved portion thereof; a series of individual stops of graduated lengths fulcrumed below said key-levers and adjacent to the curved portion thereof, each of said stops being subjected to movement by its respective key-lever, so that, when said key-

lever is depressed to its lowest limit, one arm of the stop will lock against the key-lever while the other arm of said stop will lock against the adding bar to maintain the same from unnecessary vibrations, as herein set forth.

2. In a cash register, the combination of a series of key-levers having graduated slots therein, and pins projecting from their lower surface, an adding bar fulcrumed on the shaft of the key-levers, and vibrated by said key-levers, a series of individual graduated stops fulcrumed below said key-levers, so that when one of the key-levers is depressed, its respective stop will be vibrated in contact with the under side of the key-lever, and the adding bar, to maintain the latter in a fixed position, and means for adjusting each stop with reference to the contact with its respective key-lever, substantially as described.

3. The combination of a series of key-levers provided with graduated curves, and pins projecting from their lower sides, a transverse adding bar with arms fulcrumed on the shaft of the key-levers, a series of individual stops fulcrumed below said key-levers and adding bar, said stops being graduated in size to correspond with the graduations of the key-levers, and resting normally against said pins, and against the under side of the arms of the adding bar, and means for adjusting said stops with reference to their contact with the key-levers and adding bar, as described.

In testimony whereof I have hereunto set my hand this 20th day of September, 1893.

JOHN B. AUFULDISH.

Witnesses:

R. J. McCARTY,
H. S. DUNN.