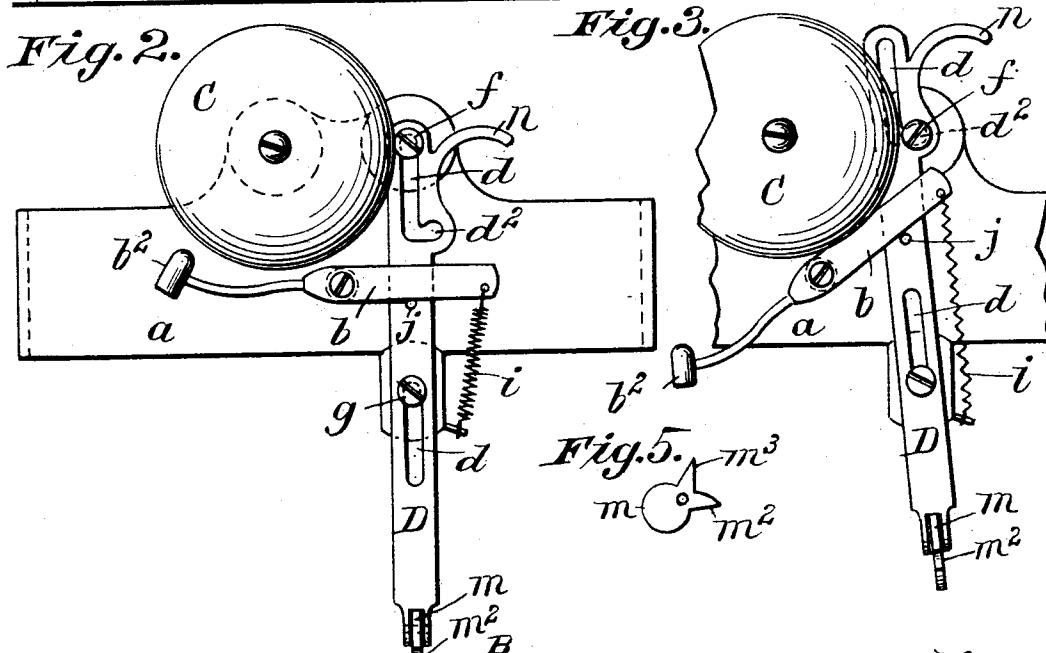
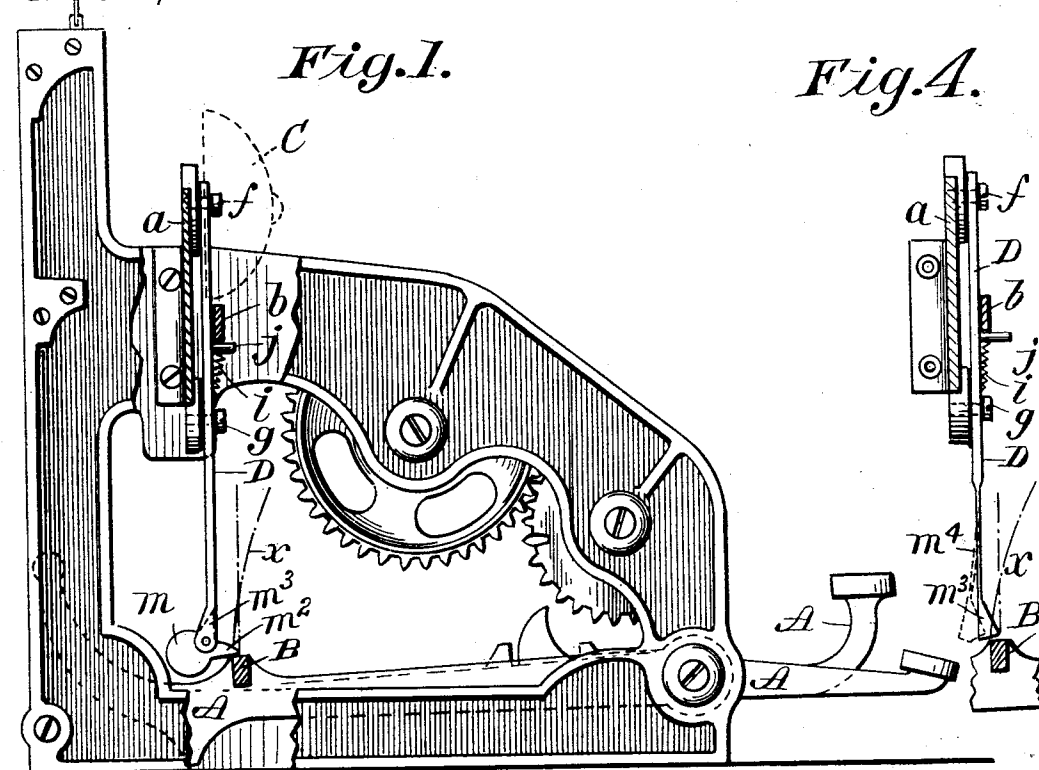


(No Model.)

A. WEBSTER.
CASH REGISTERING MACHINE.

No. 514,173.

Patented Feb. 6, 1894.



Witnesses:

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UNITED STATES PATENT OFFICE.

AMBROSE WEBSTER, OF WALTHAM, ASSIGNOR TO THE BOSTON CASH REGISTER COMPANY, OF NORTHAMPTON, MASSACHUSETTS.

CASH-REGISTERING MACHINE.

SPECIFICATION forming part of Letters Patent No. 514,173, dated February 6, 1894.

Application filed July 13, 1893. Serial No. 480,342. (No model.)

To all whom it may concern:

Be it known that I, AMBROSE WEBSTER, a citizen of the United States, residing at Waltham, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Cash-Registering Machines, of which the following is a specification.

This invention for improvements in cash registering and indicating machines particularly relates to the novel bell ringing devices.

The object is to provide a device for ringing the bell at each operation of the machine which shall be extremely simple, practical, and durable and which, at the pleasure of the owner of the machine, or of any person having access to the internal mechanism thereof, may be locked in a non-operating position. And the invention to these ends consists in the constructions and combinations of parts, all substantially as will hereinafter fully appear and be set forth in the claims.

The improved device is fully illustrated in the accompanying drawings in which—

Figure 1 is a side elevation of so much of a cash registering machine as is necessary to show the application thereupon of the present improvements, portions of the machine and the improved mechanism being shown as broken out and in vertical section for purposes of clearer illustration. Fig. 2 is a front view of the bell ringing mechanism as arranged for operation. Fig. 3 is a front view of the bell ringing mechanism shown as drawn to, and confined in, its non-operating position. Fig. 4 is an edge view of the bell ringing device embodying a slight feature of modification to be hereinafter noted. Fig. 5 is a side view of the dog hereinafter referred to.

In the drawings, A A represent the series of key-levers arranged for swinging movements in parallel vertical planes and B represents the universal, or rocker-bar, the same being a member of a pivoted frame and has its curvilinear reciprocatory movement in consequence of, and in unison with, the movement of any of the key-levers, as usual.

The bell, C, is fixed on the rail, a, at the rear upper part of the machine. The hammer, b², is carried at the end of the hammer-lever, b, which is intermediately pivoted adjacent the bell on the support, a, therefor.

D represents the vertically reciprocatory hammer-operating-bar, the same having the vertical slots, d, d, which have guiding slide engagements with the screws or headed studs, f, g, which project forwardly from the said support. The said bar, D, has the abutment member, or pin, j, projecting from its forward side, over and in contact with which is one arm of the hammer-lever. The spring, i, is applied to said hammer lever to insure the impact of the hammer upon the bell whenever the lever is released therefor in the operation of the mechanism.

The lower end of the hammer-operating-bar has the dog, m, pivoted thereto, with the toe, m², thereof normally overlying the aforementioned universal bar. This dog has a shoulder or stop, m³, whereby the toe is prevented from swinging upwardly although, as plain, the toe may downwardly swing; the weighted rear part of the dog maintains it in its normal position, seen in Fig. 2.

When a key is operated, the universal bar, B, swinging upwardly in the curved course indicated by the arc-line, x, Fig. 1, forces through the dog, the bar, D, upwardly, causing the hammer to be swung away from the bell; before the completion of its upward movement the universal bar passes free from the dog, permitting the hammer-operating-bar to fall back to its original position, and the hammer to be subject to the impulses of its spring to strike; the universal bar on its return movement downwardly passes to its original position below the dog, m, by reason of the toe of the latter swinging downwardly, it automatically resuming its normal position with the toe horizontal after the passage by it of said bar. The upper slot of the hammer-operating-bar has a sidewise continuation, d², and the bar has at its upper end the finger hook, n. Drawing the bar by means of said hook upwardly and then giving the bar a transverse swinging movement on the lower guide stud, g, as a fulcrum, the upper guide stud, f, and said slot continuation, d², assume a locking engagement,—as indicated in Fig. 3,—to hold the hammer away from the bell, and the bar from being subject to any operative effect by the movements of the key-levers and the universal bar.

In Fig. 4 the portion of the bar, D, which

is contacted upon by the universal bar during a portion of its working movement, instead of having the pivoted dog, as aforesaid, has the foot, m^3 , with the squared bottom, and upwardly and rearwardly inclined front, this foot being formed at the lower extremity of the bar which, as indicated at m^4 , is constructed quite thin whereby it may yield transversely as the universal bar passes downwardly by it.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a cash registering machine, in combination, a bell, a swinging hammer lever, and the reciprocating hammer operating bar having its movement alongside the plane of swing of the hammer lever and having a projection, j , for swinging the hammer lever and having an articulated abutment portion at its lower extremity which is unyielding relative to the said bar by forces from below but which yields transversely of the bar by the impingement thereagainst of force from above, the key-levers and the upwardly swinging universal bar which in its upward movement engages, for a time, and then swings clear of said hammer-lever-abutment, and which has its downward movement, without effect, past said abutment, substantially as described.

2. In a cash registering machine, the combination with the bell and pivoted hammer, of the bar, D, provided with the longitudinal

slot having the transverse extension, d^2 , at its one end, the stud over which the slotted bar plays and by which, when the angular slot extension comes opposite thereto, the bar may be, at pleasure, moved and held in a transversely shifted and hammer restraining position, and the key-levers and universal bar, substantially as described.

3. In a cash registering machine, the combination with the bell and pivoted hammer of the bar, D, having the finger hook, n , and the slots, d , d , one of said slots having the transverse extension, d^2 , the studs on which the bar is guided, the key-levers and universal bar, substantially as described.

4. In a cash registering machine, in combination, the rail or support with the bell and the bell-hammer pivotally mounted thereon, and the studs, f and g , the bar, D, having the longitudinal slots, d , d , one thereof having the transverse continuation, d^2 , said bar, D having the finger hook n , and stud, j , and also provided at its lower end with the pivoted dog having the stop m^3 and toe, m^2 , the key-levers and universal bar, all arranged for operation, substantially as and for the purposes set forth.

AMBROSE WEBSTER.

Witnesses:

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