(No Model.) 2 Sheets—Sheet 1.

T. LONG.

CASH REGISTER.

No. 492,035. Patented Feb. 21, 1893.

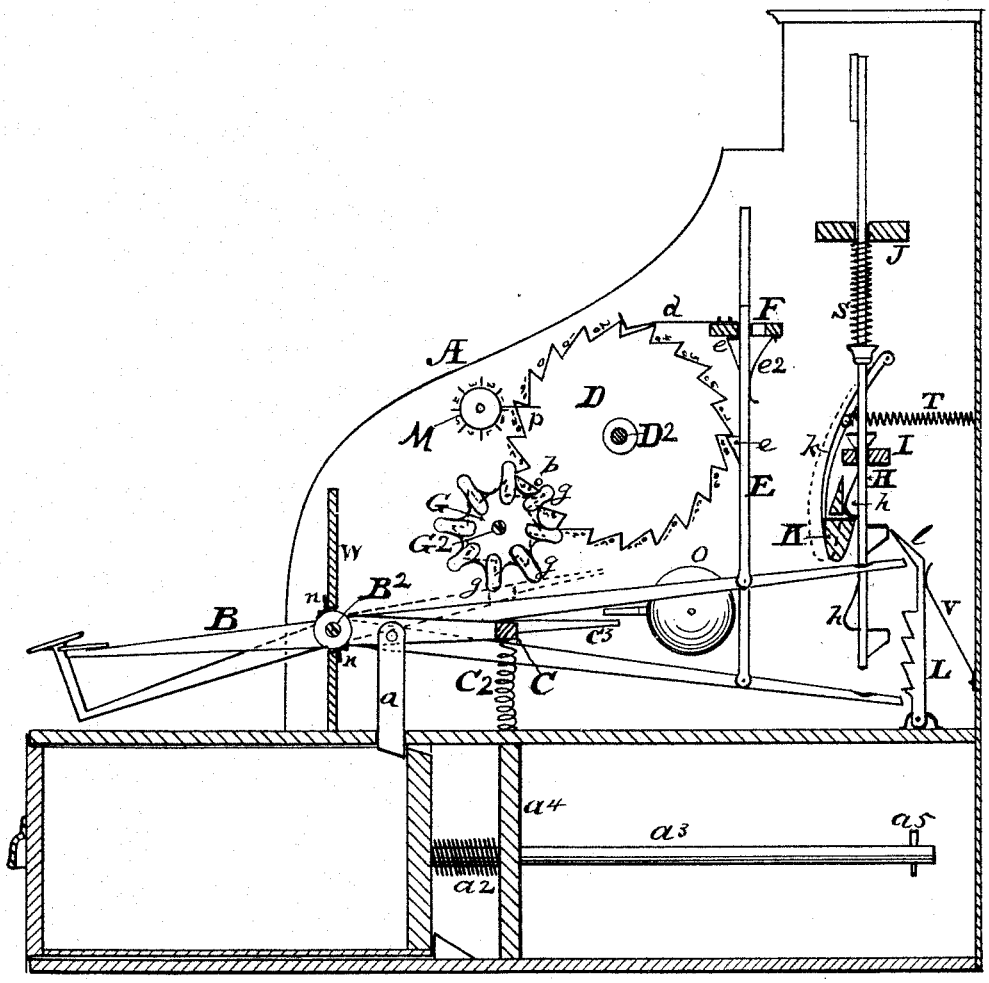

Fig. 1.

Witnesses:

M. M. Barnes.

J. L. Bridw.

Inventor,

Timothy Long,

By Geo. W. Tibbitts Atty.

(No Model.) 2 Sheets—Sheet 2.

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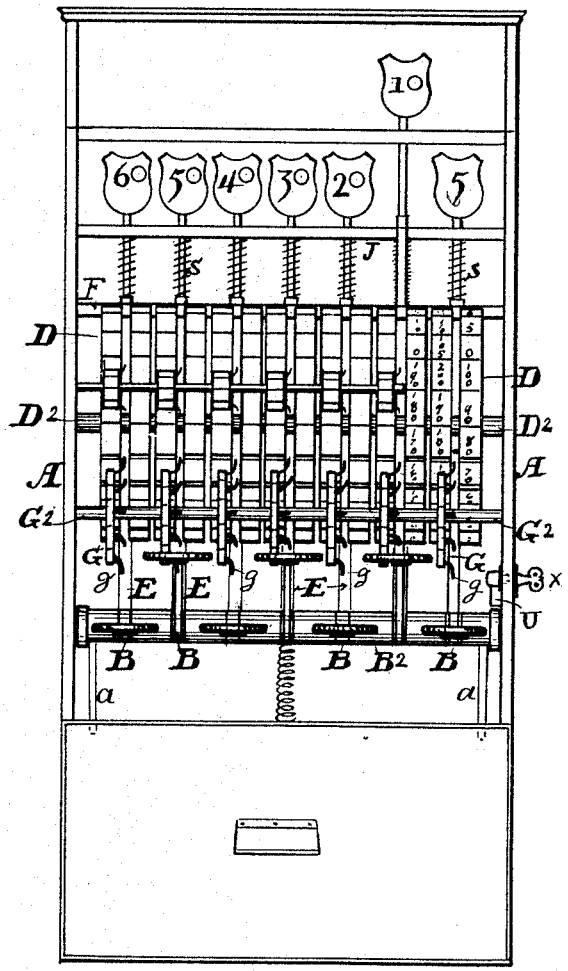

Fig. 2.

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UNITED STATES PATENT OFFICE.

TIMOTHY LONG, OF CLEVELAND, OHIO.

CASH-REGISTER.

SPECIFICATION forming part of Letters Patent No. 492,035, dated February 21, 1893.

Application filed May 16, 1892. Serial No. 433,230. (No model.)

To all whom it may concern:

Be it known that I, TIMOTHY LONG, a citizen of the United States, and a resident of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Cash-Registers, of which the following is a specification.

This invention relates to cash registers and consists in the new constructions and combinations substantially as hereinafter described and pointed out in the claims.

In the accompanying drawings—Figure 1 is a vertical section of my new cash register. Fig. 2 is a front elevation with a portion of the front broken away to show interior mechanism.

A represents the base of the case containing the working parts of the registering mechanism. In the said base is provided a cash drawer held locked by a bar *a* pivotally suspended from a frame actuated by the register operating levers. The bar *a* is lifted by the movement of any one of the said operating levers, which releases the drawer, then the drawer is pushed out by a spring a^2 on a rod a^3, attached to the rear of the drawer and extending through a post or partition a^4 in the base back of the drawer. On the rear end of the rod a^3 is also provided a stop pin a^5, which prevents the drawer being pulled clear out from the base.

B B are thumblevers fulcrumed on a cross-shaft B^2 set a little above the base, and extending out in front for convenience of operation and extending to the back of the case for operating the registering devices.

C is a frame the end bars of which are journaled on the aforesaid cross-shaft B^2, outside of the levers B, and having its cross-bar C lying over the said levers, so that the movements of the levers lift the frame for unlocking and releasing the drawer, which opens every time any one of the levers is operated.

C^2 is a spring connected with the cross-bar of the frame and with the bottom of the case for the purpose of pulling down on the frame and forcing the levers down against the friction of the parts of the mechanism which they are employed to operate.

D D are registering wheels journaled on a cross-shaft D^2, and are arranged in pairs or couples over each of the said levers B. The peripheries of these wheels are made in ratchet or saw teeth form for two purposes, one of which is for having the figures marked on them, as seen in Fig. 2 and the other as a means for rotating said wheels, as seen in Fig. 1.

d is a stop spring for preventing the wheels moving backward.

E E are vertical levers pivotally attached to the levers B B, and stand in rear of each of the No. 1 wheels in the pairs or couples, as seen in Fig. 2. The upper ends of said levers E extend upward through a slot for each, in a cross-bar F which serve as guides in the movements of the said levers. On the side of the levers E next to the wheels is provided a a beveled tooth or lug *e* for engagement with the teeth of said wheels, and e^2 are springs bearing against the rear side of the levers E to insure their engagement.

G G are ratchet wheels journaled on a cross-shaft G^2, in front of the wheels B, one of these ratchet wheels is provided for each No. 2 of the registering wheels B, and are designed for turning a No. 2 wheel, one notch or tooth for each complete revolution of a No. 1 wheel, the ratchet wheel teeth engage with the teeth of the No. 2 registering wheels, and the ratchet wheels also have projecting pins or studs *g*, *g*, which pass in between the wheels 1 and 2, and upon the side of wheel 1 is provided a pin or lug *b* for moving the ratchet wheels G by contact with one of the said studs, once in each revolution of a No. 1 wheel, thus the registration is continued by tens on the first pair of wheels, by twenties on the second pair of wheels, by thirties on next, and so on.

Behind the registry wheels are provided indicators, also actuated by the thumb levers B, and consist of vertical rods H H, movable in bearings in cross-bars I and J, fixed in the case A. The portion below bearing I is made square to prevent turning, that portion above said bearing is made round and is provided with spiral springs *s*, by which the rods are forced and held down. The lower ends of the rods stand upon the rear ends of the levers B, and are lifted by them.

K is a swinging bar suspended by arms *k* at each end, pivotally attached to the sides of the case A, and normally hang in front of the rods H, and as the rods are severally lifted,

an inclined projection *h* on their front side, swings the bar K forward, and when said projections rise higher than the bar, the projection is caught by the bar swinging back under it, and the rod is held up.

T is a spring attached to the arm *h*, and to the back of the case for pulling the bar backward.

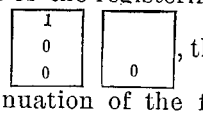
L are levers pivotally attached at their lower ends to the floor of the case, and stand behind each of the rods H and are each provided with slanting points *l*, which bear against the rods, and are forcibly held forward by springs V. The fronts of the levers have inclined notches, against which the ends of levers B push and throw them back as they move up, said notches serve to prevent the levers to be lowered at any point before a full stroke is made and thus prevent tampering with machine.

M are numbering wheels mounted on a cross rod above the ratchet wheels G and are arranged to be turned by the No. 2 wheels D, by a pin or pointer *p* on said wheels, once in each revolution of said wheels for the purpose of indicating the number of times said wheels have been rotated.

n n are guard plates attached to the levers B, on the outside and inside of the front wall W, and are provided for covering the crack through said wall to prevent the insertion of a wire or other instrument and tampering with the registering wheels. Said plate *n* moves slightly with the levers but does not uncover the crack.

O is a gong which is rung by the movements of the levers B through the medium of the bar C, which is provided with an arm C^3, that lifts the lever of the gong and causes the same to strike.

U is a lock button for stopping the working of the mechanism, when desired, and is turned by means of a key *x*, through a key hole in the side of the case, the button being turned down, as seen in Fig. 2 bears upon the arm of the frame C, and prevents it being lifted, and thus the whole mechanism is immovable.

The operations of this device are as follows: Each pair of registering wheels is a separate and independent register of the numbers on the thumb levers. The figures on the teeth of the registering wheels are arranged thus, 

, the No. 2 wheel being a continuation of the first. To ascertain the total at any time throughout the series, the figures may be added up as any column of figures are, the only difference being running from left to right.

Having described my invention, I claim—

1. In a cash register the combination of thumb levers B, fulcrumed in the front wall of case A, frame C pivotally attached to same fulcrum, and lying over said thumb levers, spring C^2 connecting said frame with bottom of the case, latch bars *a* suspended from said frame C, drawer in the case below the thumb levers, rod a^3 attached to rear of the drawer and passing through partition a^4, and provided with push spring a^2 between said partition and drawer, constructed and operating substantially as described.

2. In a cash register the combination of thumb levers B, fulcrumed in the front wall of case A, numbered teeth registering wheels D, loosely mounted to turn on cross-rod D^2, and arranged in pairs over each of said thumb levers, vertical bars E pivotally attached to said thumb levers, sliding in cross-bar F and having beveled lugs, *e*, engaging with No. 1 registry wheels; ratchet wheels G loosely mounted on cross rod G^2, one in front of each No. 2 registry wheel and having their teeth in mesh with teeth of said No. 2 registry wheels, and also provided with arms *g* reaching in between the No. 1 and 2 wheels; pins *b* on the No. 1 wheels for moving said ratchet wheels through the medium of said arms *g* and thereby turning the No. 2 wheel once in each revolution of the No. 1 wheels, substantially as and for the purpose set forth.

TIMOTHY LONG.

Witnesses:
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D. C. GROVER.