

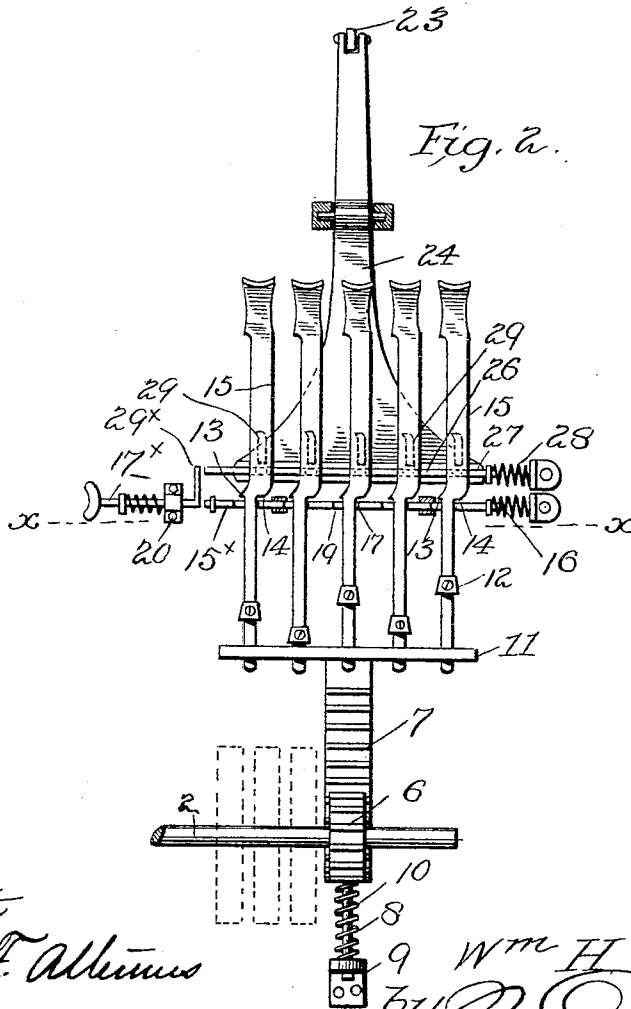
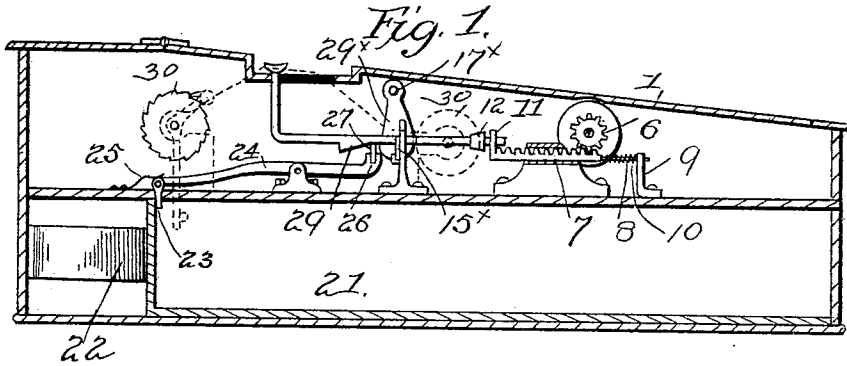
(No Model.)

2 Sheets—Sheet 1.

W. H. THOMPSON.
CASH REGISTER AND DRAWER.

No. 496,585.

Patented May 2, 1893.



Attest
Mae F. Allums
Wm J. Hall.

Inventor
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JH45

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

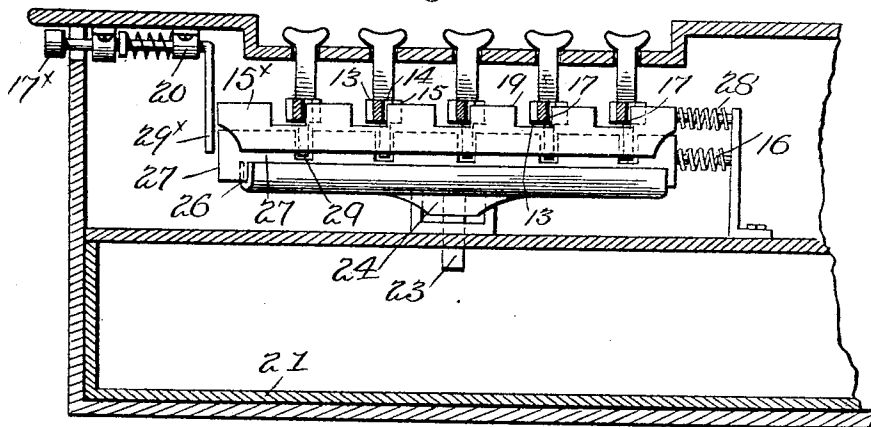
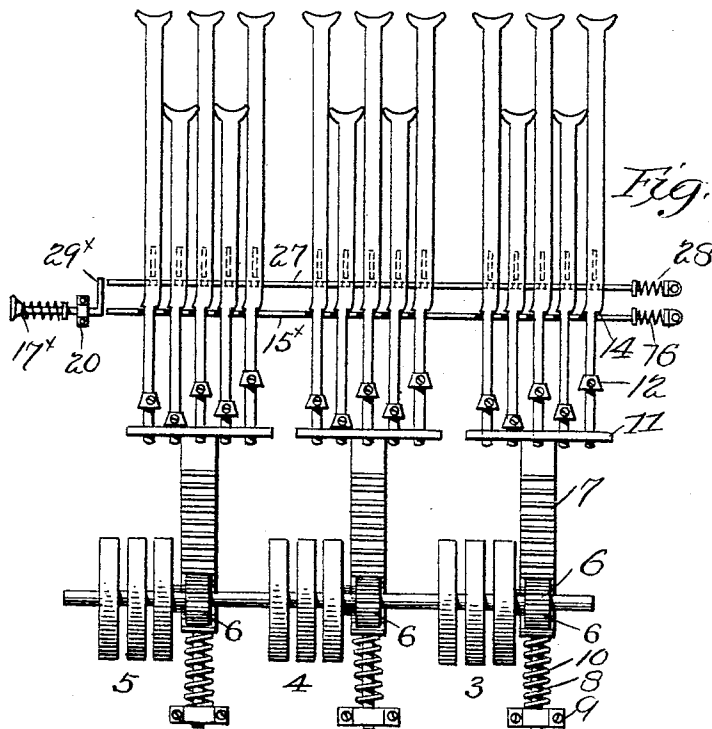


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM HENRY THOMPSON, OF EAST STROUDSBURG, PENNSYLVANIA.

CASH REGISTER AND DRAWER.

SPECIFICATION forming part of Letters Patent No. 496,585, dated May 2, 1893.

Application filed November 10, 1892. Serial No. 451,534. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY THOMPSON, a citizen of the United States of America, residing at East Stroudsburg, in the county of Monroe and State of Pennsylvania, have invented certain new and useful Improvements in Cash-Indicators, of which the following is a specification, reference being had therein to the accompanying drawings.

10 My invention relates to cash indicators and particularly to the combination with a manual recorder of a total adding mechanism contained in the desk like form of the box.

My invention includes a series of key banks, 15 each key of each bank operating a transmitting device common to all the keys of one bank to a different degree; a lock for normally holding the keys against operation by an unauthorized person, said lock being operated at first manually by the cashier to release all the keys and to be operated further 20 by the movement of any one of the indicating keys to lock all of the unoperated keys; and means for operating the drawer from the indicating keys when desired or at the will of the attendant preventing such operation, said means therefore including a movable or shifting connection between the keys and the drawer lock which may be controlled by the 30 cashier to throw the keys into or out of engagement with the said drawer lock.

In the accompanying drawings: Figure 1 is a vertical sectional view through the casing with the interior parts in side elevation. Fig. 35 2 is a plan view of one bank of keys of the total adding mechanism detached, and the connection to the drawer lock. Fig. 3 is a transverse sectional view of the adding mechanism on line $x-x$ of Fig. 2, the parts being 40 shown within the case. Fig. 4 is a plan view of a series of key banks.

The casing 1, may be of any suitable form and is intended to include the mechanism of the manual recorder shown in United States 45 Letters Patent, No. 454,089, dated June 16, 1891, with the exception that the drawer lock there shown is omitted. The total adding mechanism includes a shaft 2 upon which three sets of indicating disks 3, 4, 5, for cents, 50 dimes and dollars are loosely journaled, the right hand disk of each set having a pinion 6, combined therewith and having any suitable

one way clutch (not shown) between itself and the disk, while between the disks may be any well known form of carrying mechanism 55 not shown. The pinion of each set is engaged by a rack bar 7, having an extension 8, passing through a guide bearing 9, and under tension of the spring 10, which returns the rack and indicating key to normal position after 60 each operation. Each rack bar has a cross bar 11, at its end through which extend loosely the ends of the key bars of the particular bank of keys to which the rack belongs and is common to all the keys thereof. Each key 65 has free sliding movement through the cross bar which movement is limited by adjustable stop collars 12, on the stems of the keys by which arrangement the different keys of each bank may be made to operate the rack to different degrees by adjusting the collars at 70 greater distances from the cross bars corresponding to the lower denominations of the keys. Thus for the five cent key the collar would be close to the cross bar while for the 75 four, three, two and one cent keys the collar would be arranged at different and increased distances the collar of the cent key being the greatest distance from the cross bar.

Each key bar as shown in Fig. 2 has two 80 shoulders 13, 14. The edges of the bar from the shoulder 14, extends away from the central line of the key thus forming a raised cam edge 15, while on the opposite edge there is a corresponding depression forming a depressed 85 cam edge extending from the shoulder 13, toward the key center, both edges curving gradually from the shoulders. These shoulders are to be engaged by the notched edge of the locking bar 15^x the notches in which are the same 90 width as the width of the key bars at the shoulders so that when the notches are made to register with the shouldered part of the bars, the said bars are free to be operated and moved through the notches for operating the 95 indicating disks. The locking bar is arranged to slide transversely of the keys and is pushed normally to the left by a spring 16, so that the edges 17, of the notches will come in front of the shoulders 14, and thus hold all the keys 100 against movement, until the cashier pushes upon the spring pin 17^x, and pushes the slide to the right so that all the notches will register accurately with all the shouldered parts of

the key bars and then any key may be moved freely through the notch of the locking bar. This action will bring the raised cam edge 15, to work on the edge 17, of the locking bar and a second movement to the right will be given the locking bar by reason of its riding up the raised cam edge and this additional movement will bring the opposite edges 19, of the notches in front of the shoulders 13, of all the unoperated keys and these will be held locked until the operated key has been fully operated and returned to normal position so that the edge 17, will be freed from the cam edge and under the action of the spring forced back into normal position to lock all the keys as before mentioned. The push pin for operating the lock manually works through a bearing 20 on the casing and projects under the overhanging edge of the desk being concealed thereby from unauthorized persons.

The drawer 21, is under the tension of a spring 22, to force it out when released. The drawer is held by the pawl 23, on the end of the drawer locking lever 24 under tension of a spring 25. The forward end of the lever is turned up and is provided with a channel or way 26, in which slides a notched bar 27, the notches of which are along the upper edge.

On the under side of the key bars are wedge shaped projections 29, adapted to pass through the notches normally and thus avoid contact with the slide bar and consequently avoid operating the drawer locking lever, so long as the slide bar is held normally to the left under the action of the spring 28.

In order that any key may operate the drawer when moved for operating the registering disk it is necessary to move the sliding bar to the right so that the notches will be thrown out of line with the key wedges 29, and the wedge on any key will then engage the upper intact edge of the sliding bar, thus pushing the same downward and with it the forward end of the drawer locking lever, raising the rear edge thereof to release the drawer. This action of moving the sliding bar so that its notches will be thrown out of line with the key wedges is effected by the push pin before mentioned which has an extension 29^x to engage the end of the sliding bar when as in Fig. 2, the push pin is first given a quarter turn by the cashier to make the said extension lie in front of the end of the slide bar. Unless the push pin is given this quarter turn there will be no unlocking of the drawer when a key is operated and consequently this is a safe-guard against the opening of the drawer by an unauthorized person. The spring about the push pin rotates it back to normal position after each operation.

The mechanism of the autographic register is shown in dotted lines 30 of Fig. 1.

I claim—

1. In combination the registering disks, the pinion and rack, in connection therewith, the cross bar on the rack and a series of keys having projections to engage the said cross bar,

said projections being fixed at different distances from the cross bar, substantially as described.

2. In combination, the registering mechanism, the cross bar having connection therewith a series of key slides extending thereto and having independent movement and adjustable projections arranged on the key bars at different distances from the cross bar, substantially as described.

3. In combination, the registering mechanism, a series of keys and a lock for said keys to hold them normally against movement, said lock being arranged to be operated independently of the indicating keys to release the same, and the spring to return said lock to locking position after each operation substantially as described.

4. In combination, the registering mechanism, a series of keys, a lock for holding said keys normally against action, and the push pin for operating the said lock manually, to unlock the keys and the means for returning the lock automatically to locking position substantially as described.

5. In combination, the registering mechanism, a series of keys, a lock and a spring for pressing the same normally to hold the keys against action said lock being arranged to be moved independently of the indicating keys, each of said keys being adapted to give the lock a further movement against the spring pressure for locking the unoperated keys, substantially as described.

6. In combination, the registering mechanism, a series of keys, having shoulders 13, a transverse locking bar having openings through which the keys slide, the edges of said openings being adapted to engage said shoulders when the bar is moved, each of said keys operating to move the locking bar to engage all the unoperated keys, substantially as described.

7. In combination, the registering mechanism, a series of keys, each having a shoulder 13 at one edge of the key and a cam surface extending along the opposite edge of the key, a transverse locking bar having portions to engage the shoulders and to be engaged by the cam edges on the keys, substantially as described.

8. In combination, the registering mechanism, a series of keys each having a shoulder 13, and a cam surface extending along the edge of the key, a transverse locking bar having notches along its upper edge to receive the keys, the edge of the notch on one side being arranged to engage the shoulder while the opposite edge is arranged to be engaged by the cam edge, substantially as described.

9. In combination, the registering mechanism, the keys having shoulders 13, 14, the locking bar adapted to engage said shoulders, means for holding the bar normally out of engagement with the shoulders 13, each key operating to move the locking bar fully when the same is partially moved, to cause said bar

to engage the shoulders 13, of the unoperated keys, the said locking bar being arranged to be moved part of its stroke independently of the indicating keys, substantially as described.

10. In combination, the registering mechanism the keys having two shoulders 13, 14 and the cam edges, the locking bar having notches and the spring for holding the bar normally out of engagement with the shoulders 13, said locking bar being arranged to be partially operated independently of the indicating keys, substantially as described.

11. In combination the registering mechanism, the keys therefor, the drawer, the lock therefor, adapted to be operated by the movement of the indicating key and the shifting bar interposed between the indicating keys and the lock with means for operating the same.

12. In combination, the registering mechanism, the indicating keys therefor, the drawer and its lock, and the shifting means interposed between the lock and the indicating keys and normally out of the line of movement of said keys, to permit the full operation thereof, without unlocking the drawer, said means operating when shifted to cause the indicating keys to actuate the lock, substantially as described.

13. In combination, the registering mechanism, the keys therefor, the drawer and the locking lever for the same, a sliding notched bar with means for operating the same, and the projections adapted to pass through the notches of the bar, substantially as described.

14. In combination the registering mechanism, the keys therefor, the drawer lock normally out of engagement with the keys, the shifting part and the push pin held normally out of line with the said shifting part and adapted to be moved into line therewith, substantially as described.

15. In combination, the registering mechanism, the keys, the lock for holding the keys normally against movement, the drawer, the lock therefor, normally out of engagement with the keys, the shifting part, and the push pin for operating the said shifting part and the key lock, substantially as described.

16. In combination the registering mechanism, the keys, the key lock for holding the same normally against action, the drawer, the drawer lock, the shifting part and the push pin normally out of line with the said shifting part and adapted to be turned into line therewith, substantially as described.

17. In combination, the registering mechanism the indicating keys, the drawer lock to be operated by said keys, said lock including the pivoted locking lever and the shifting part carried by said lever and adapted to place the same in and out of engagement with the indicating keys, substantially as described.

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

WILLIAM HENRY THOMPSON.

Witnesses:

LYDIA EDINGER,
FRANCES THOMPSON.