

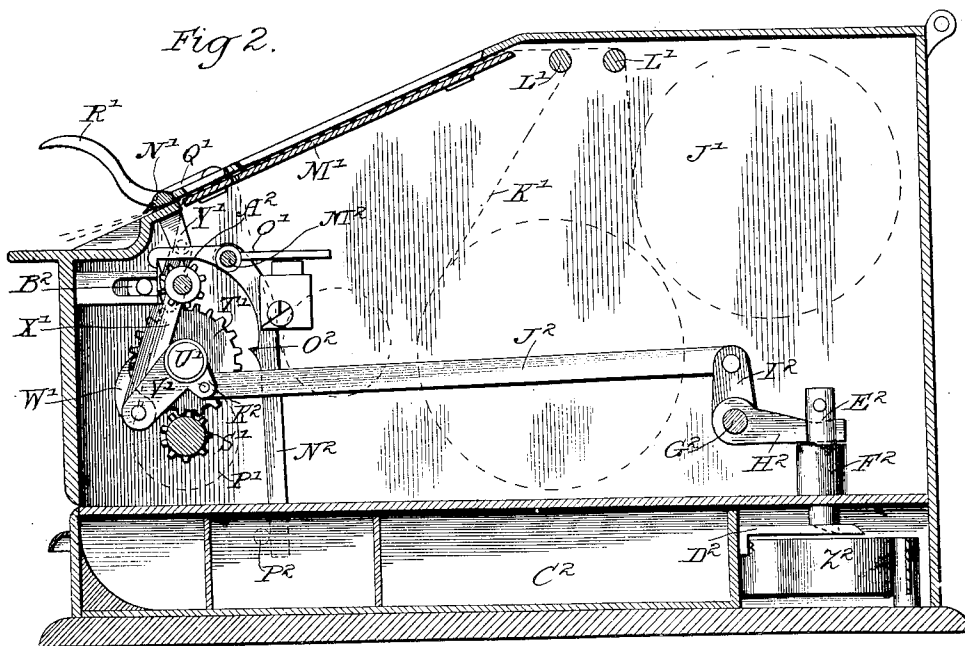
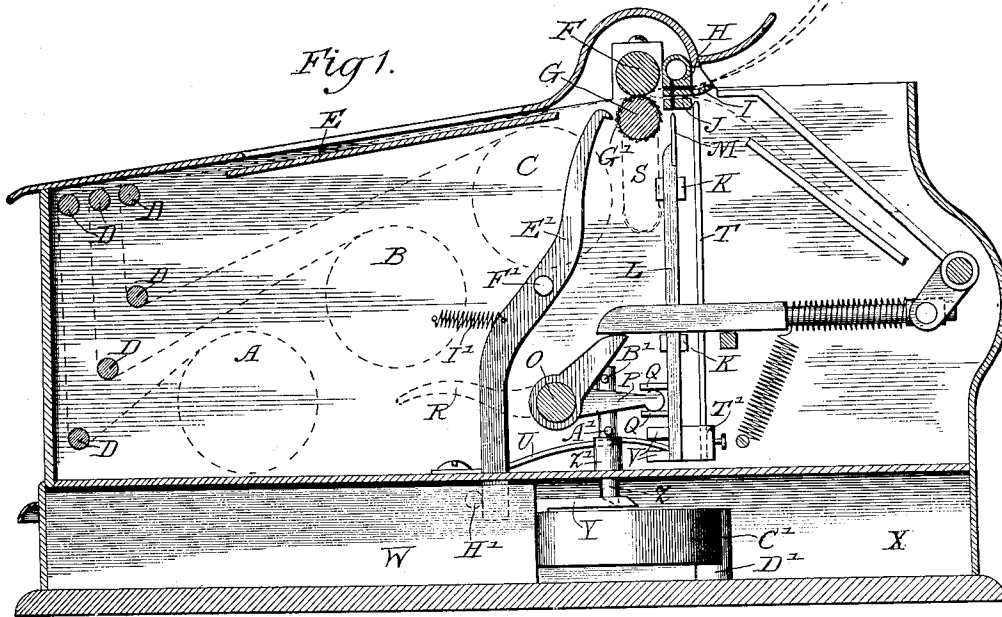
(No Model.)

J. PFEIFER.

COMBINED AUTOGRAPHIC REGISTER AND CASH DRAWER.

No. 498,485.

Patented May 30, 1893.



Witnesses:
Wm. F. Fleming
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UNITED STATES PATENT OFFICE.

JOHN PFEIFER, OF DAYTON, OHIO, ASSIGNOR TO THE NATIONAL CASH REGISTER COMPANY, OF SAME PLACE.

COMBINED AUTOGRAPHIC REGISTER AND CASH-DRAWER.

SPECIFICATION forming part of Letters Patent No. 498,485, dated May 30, 1893.

Application filed April 16, 1892. Serial No. 429,454. (No model.)

To all whom it may concern:

Be it known that I, JOHN PFEIFER, a citizen of the United States, residing at Dayton, in the county of Montgomery, in the State of Ohio, have invented certain new and useful Improvements in a Combined Autographic Register and Cash-Drawer, of which the following is a description, reference being had to the accompanying drawings, forming part of this specification.

My present invention relates to an improvement upon machines such as those shown in my pending application, Serial No. 426,261, filed March 24, 1892, and consists in the application of an automatic locking device to such machines, by which the machine becomes automatically locked when the cash drawer is released and opened, and remains locked until the drawer is closed again.

In the accompanying drawings Figure 1 represents a vertical longitudinal section of a familiar form of autographic register having a cash drawer and the locking device combined with it. Fig. 2 is a similar view of another form of machine having a cash drawer and a second form of automatic lock combined with it.

In the machine shown in Fig. 1 there are employed two check-strips carried in rolls A B suitably supported in the casing of the machine, and one record-strip carried in a roll C, all as indicated in dotted lines. The three strips are led from these rolls to the left over guide-rollers D, thence to the right over a writing-tablet E, beneath an opening in the top or lid of the casing, where the usual manifold material (not shown) is interposed between the strips and held in any suitable manner. From the tablet E the strips are led between two feed rollers F G, and thence the two check-strips are led between two cross-pieces H I and out of the machine, and the record-strip between the cross-piece I and a lower cross-piece J and back into the machine.

Mounted at its edges in guide-lugs K upon the sides of the casing is a knife-carrying frame or plate L, having a knife-blade at its upper edge. The cross-pieces H I J are provided with slots N co-incident with this knife,

through which the latter can pass and sever the strips when the plate L is lifted.

Mounted in the lower middle part of the machine is a rock-shaft O having an arm P fast upon it, which arm projects between lugs Q upon the front face of the knife-carrying plate L.

Upon the left-hand end of the shaft O, outside the casing, is a handle or lever R (shown in dotted lines) by which the shaft may be rocked. When the handle R is depressed the arm P will lift the blade L and cause the knife M to sever the strips between the cross-pieces H I J. A flat spring U secured at one end to the bottom of the casing and having its free end confined between lugs V upon the front face of the blade L assists the gravity of the blade in restoring the parts to normal position when the handle is released. The lower feed-roller G has fast upon its spindle outside the casing a crank S by which the rollers may be turned to feed forward the strips.

The operation of this much of the machine consists of writing the desired memoranda on the outer check-strip, over the tablet E, then turning the crank S to feed forward the strips, and then depressing the handle R to cut off the slips. The record-slip which is cut from the record-strip is filed upon pins T carried by a cross-piece T' secured upon the rear face of the knife-carrying plate L near its lower edge. The middle cross-piece I, which projects to the right or rear of the cross pieces H and J above and below it, is provided with holes coincident with the pins T, through which the pins pass when the handle R is depressed and the plate L lifted to sever the strips. This will file the record-slips upon the upper ends of the pins T. For the purpose of forcing the slips farther downward upon the pins there is provided a filing mechanism which is illustrated in the drawings, but which need not be here described in detail for the reason that it forms no part of my present invention and has been fully described in my pending application before referred to.

The money drawer W is located in the forward portion of the drawer compartment X.

It has projecting from its rear end a locking plate Y which co-operates with the lower end of a vertically sliding bolt Z which has its play in a tubular guide Z' secured upon the bottom of the casing. A pin A' passed through this bolt and projecting from its side rests upon the upper end of the guide Z' and supports the bolt. A second pin B' passes transversely through the bolt near its upper end projects therefrom over the arm P heretofore described. When the handle R is depressed the arm P will engage this pin and lift the bolt Z and disengage its lower end from the notch or recess in the locking plate Y and thereby release the drawer, whereupon the drawer will be thrown open by a curved spring C' carried by a post D' on the bottom of the drawer compartment and bearing against the rear end of the drawer. When the drawer is pushed in again the rear beveled end of the locking plate Y will ride under and lift the bolt Z and the latter will re-engage the recess in the plate and lock the drawer.

The means for automatically locking the machine when the cash drawer is released and thrown open in the manner described consists of a lever E' pivoted at F' to the side of the casing and having a hooked upper end which co-operates with a ratchet G' fast upon the spindle of the lower feed-roller G just inside the casing. The lower end of the lever E' extends through a slot in the bottom of the casing and projects into the drawer compartment by the side of the drawer. A stud H' projects from the side of the drawer in position to engage the lower end of the lever E'. A spring I', secured at one end to the sides of the casing and at its other to the lever E' below the pivotal point F' of the latter, tends to pull the lower end of the lever forward and throw its upper hooked end into engagement with the ratchet G' on the roller G. When the drawer W is in its closed position the stud H' engages the lower end of the lever E' and holds it in the position shown in the drawings, with its upper hooked end out of engagement with the ratchet G'. The rollers G F can then be turned forward by means of the crank S to feed forward the paper strips and the machine is free to be operated; but when it has been operated and the money drawer released and thrown open, in the manner before described, the stud H' is carried away from the lower end of the lever E' and the spring I' immediately pulls the lower end of the lever E' forward and throws its upper hooked end into engagement with the ratchet G', thereby locking the roller G from any forward movement, and it will remain locked, so that the paper strips cannot be advanced until the drawer is pushed in again and the stud H' moves the lever E' back to the position shown in the drawings. In this manner the machine is automatically locked at the end of each operation and remains locked until the money drawer is closed.

In Fig. 2 I have shown another form of ma-

chine, and a different arrangement and application of the automatic lock. In this machine the two check-strips J' K' are lead from their respective rolls over guide-rollers L', thence over the tablet plate M' beneath an opening in the lid of the machine, thence beneath the knife-bar N' and out of the machine. The record-strip O' is led from its roll up through a slot in the tablet plate M', thence forward over the front end of said plate, thence downward and wound upon a storage reel P'. The knife-bar N' is carried by side arms Q' which are pivoted at their rear ends to the edges of the lid of the casing, so that said bar is free to be swung upward by means of a handle R'. The storage-reel P' has fastened upon its spindle a pinion S' which meshes with a gear-wheel T' loosely mounted on a stud U' projecting inward from the side wall of the casing. Also loosely mounted on the stud U' beside the gear-wheel T' is an arm V' which carries a pawl W' spring-pressed into engagement with the teeth of the gear T'. A link X' is pivoted at its lower end to the forward end of the arm V' and at its upper end to the lower end of an arm Y' depending from the knife-bar N'. The result of this arrangement is that whenever the knife-bar is thrown upward by means of the handle R' the pawl W' will turn the gear T' and the latter will turn the storage-reel P', and wind upon it a portion of the record strip Q'. The gear T' also meshes with a pinion fast upon the spindle of a feed-roller A² which bears against a second feed-roller B². Whenever the handle R' and knife-bar N' are lifted these feed-rollers will be revolved and draw forward the portion of the record strip which is to be taken up by the storage-reel.

The operation of this much of the machine consists in writing the memoranda upon the upper check strip lying upon the tablet-plate M', then throwing up the knife-bar N' to enable the operator to catch hold of the forward ends of the check strips which lie immediately beneath such bar. This throwing up of the bar will cause the record-strip to be drawn forward and wound upon the storage reel. The operator then pulls forward the two check-strips until the memoranda written upon them has been drawn in front of the knife-bar N', and then depresses the handle R' and tears off the ends of the strips against said bar. It will thus be seen that the record strip is necessarily advanced and wound upon the storage reel at each operation of the machine because the operator is obliged to throw up the knife bar in order to catch hold of the ends of the check strips.

The money-drawer C² is fitted into a drawer compartment in the lower part of the machine and has secured to its rear end a locking-plate D² which co-operates with a bolt E² vertically movable in a tubular guide F². A rock-shaft G² journaled at its ends in the side walls of the casing has fast upon it near its middle a

rearwardly extending arm H^2 which passes through a slot in the drawer bolt F^2 . Also fast upon the rock shaft G^2 , near its left-hand end, is an upwardly extending arm I^2 which has pivoted to its upper end the rear end of a link J^2 , whose forward end is pivoted to an arm K^2 integral with the arm V' heretofore described, the two arms forming a bell crank having the stud U' for its fulcrum. It will be seen from this construction that whenever the handle R' and knife-bar N' are thrown upward the link J^2 will be drawn forward and the shaft G^2 rocked and the bolt E^2 lifted by the arm H^2 , to release the drawer, whereupon the latter will be thrown open by a spring L^2 .

Loosely hung at its upper end upon the shaft M^2 is an arm N^2 extending down into the drawer compartment beside the drawer. This arm has upon its forward side a locking-tooth O^2 adapted to engage the teeth of the gear T' when the arm is permitted to swing forward. A stud P^2 upon the side of the drawer engages the lower end of the arm N^2 when the drawer is closed and holds the arm in the position shown in the drawings; but when the drawer is released and thrown open, in the manner above described, this stud is withdrawn from engagement with the arm and the latter swings forward and its locking-tooth O^2 enters the space between two of the teeth of the gear, thereby locking it and the storage-reel and feed-rollers from movement. It holds them thus locked until the drawer is pushed in again, whereupon the stud P^2 will carry the arm N^2 back to the position shown in the drawings and unlock the parts.

The broader scope of my invention is not restricted to the particular arrangement and application of the automatic lock which I have shown and described. For instance, instead of applying the lock to the feeding mechanism of the register, as shown and described, it might be applied to any other moving part thereof, such as the shaft O , or parts operated thereby in Fig. 1.

So far as I am aware I am the first in the art to combine an automatic lock of any kind with an autographic register and cash drawer, for this purpose, and I desire to secure such combination broadly as my invention, regardless of the particular construction or application of the lock to the register.

Having thus fully described my invention, I claim—

1. In an autographic register employing one or more check strips and a record strip, the combination of feeding mechanism for advancing the strips, a movable knife for severing the check strips, a cash drawer, a lock therefor at each operation of the knife, and a locking device interposed between the drawer and the feeding mechanism and co-operating therewith to automatically lock said mechanism when the drawer is opened and unlock it when the drawer is closed, substantially as described.

2. In an autographic register employing one or more check strips and a record strip, the combination of feeding mechanism for advancing the strips, a knife for severing the check strips, a cash drawer, a lock therefor means intermediate said lock and the knife-operating mechanism for releasing the drawer at each operation of the knife, a spring for throwing the drawer open when released, and a locking device interposed between the drawer and feeding mechanism and moving automatically into position to lock said mechanism when the drawer is opened, and thrown out of such position by the closing of the drawer, substantially as described.

3. In an autographic register employing one or more check strips and a record strip the combination of feeding mechanism for advancing the strips, in the same direction over a writing tablet a reciprocating knife for severing all of the strips, a filing pin moving with the knife to file the record slips, a money drawer, a lock therefor means intermediate said lock and the knife-operating mechanism for releasing the drawer at each operation of the knife and filing pin, a spring for throwing the drawer open, and a locking device interposed between the drawer and feeding mechanism and operating to lock the latter when the drawer is opened and unlock it when the drawer is closed, whereby operation of the feeding mechanism while the drawer remains open is prevented.

4. In an autographic register employing one or more check strips and a record strip in the same direction over a writing tablet and having manifolding material interposed between them, a single pair of feed rollers for advancing all of the strips, a movable knife for severing all of the strips, a cash drawer, a lock therefor means intermediate said lock and the knife-operating mechanism for releasing the drawer at each operation of the knife to sever the strips, a spring for throwing the drawer open when released, and a locking device interposed between the drawer and feed rollers for locking the latter when the drawer is opened and unlocking them when the drawer is closed, substantially as described.

5. In an autographic register employing one or more check-strips and a record-strip in the same direction over a writing tablet and having manifolding material interposed between them, the combination of feeding mechanism for advancing the record-strip, a cash drawer, and a locking lever interposed between said drawer and the feeding mechanism and co-operating therewith to automatically lock said mechanism when the drawer is opened and unlock it when the drawer is closed, substantially as described.

6. In an autographic register employing one or more check-strips and a record-strip, the combination of feeding mechanism for advancing the strips, a cash drawer, a lock therefor released at each operation of the machine, and a locking lever interposed between the

drawer and the feeding mechanism and co-operating therewith to automatically lock said mechanism when the drawer is opened and unlock it when the drawer is closed, substantially as described.

7. In an autographic register employing one or more check-strips and a record-strip, the combination of feeding mechanism for advancing the strips, a cash drawer, a lock therefor released at each operation of the machine, a spring for throwing the drawer open when released, and a locking lever interposed between the drawer and the feeding mechanism and co-operating therewith to automatically lock said mechanism when the drawer is opened and unlock it when the drawer is closed, substantially as described.

8. In an autographic register such as described, the combination of the feed roller G

provided with the ratchet G', the money drawer W, the lever E' co-operating with the drawer at its lower end and with the ratchet G' at its upper end, and the spring I' connected with the lever E', substantially as and for the purpose described.

9. In an autographic register such as described, the combination of the feed roller G having the ratchet G', the cash drawer W, spring C', locking bolt Z, means for lifting the same to release the drawer, and the lever E' co-operating with the drawer and ratchet G' in the manner and for the purpose described.

JOHN PFEIFER.

Witnesses:

THOMAS CORWIN,
PEARL N. SIGLER.

Correction in Letters Patent No. 498,485.

It is hereby certified that in Letters Patent No. 498,485, granted May 30, 1893, upon the application of John Pfeifer, of Dayton, Ohio, for an improvement in "Combined Autographic Register and Cash Drawer," an error appears in the printed specification requiring the following correction, viz.: In line 61, page 3, after the word "therefor," the following clause should be inserted: *means intermediate said lock and the knife-operating mechanism for releasing the drawer*; and that the Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 6th day of June, A. D. 1893.

[SEAL.]

JNO. M. REYNOLDS,

Assistant Secretary of the Interior.

Countersigned:

S. T. FISHER,

Acting Commissioner of Patents.

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