

(No Model.)

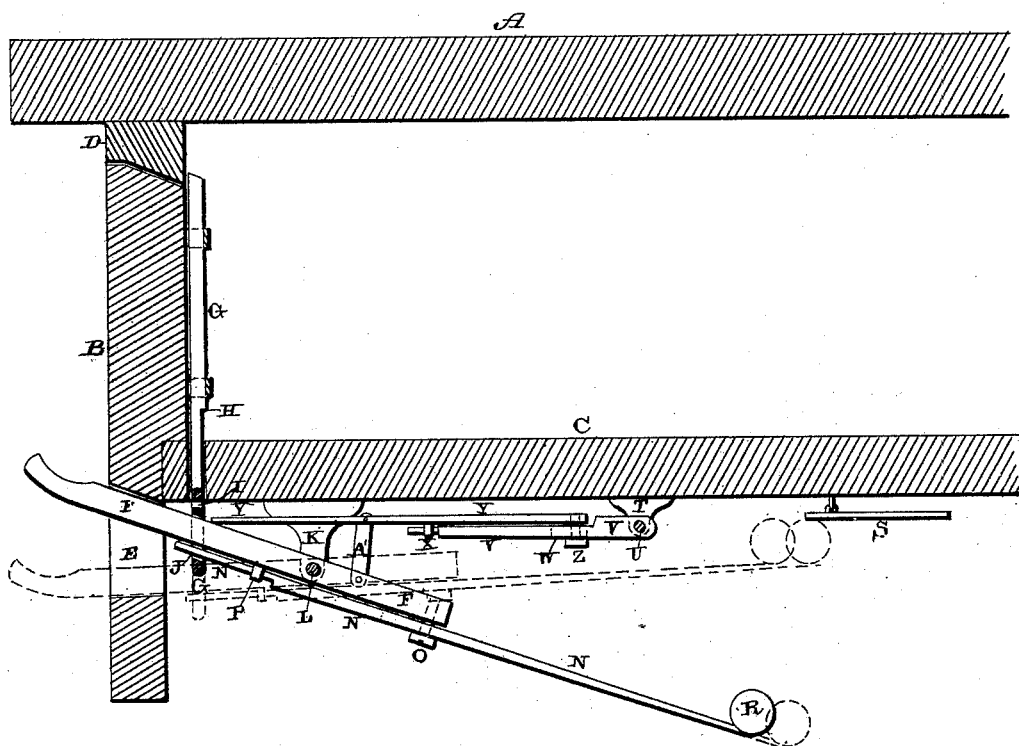
2 Sheets—Sheet 1.

G. J. KELLER.
TILL LOCK.

No. 421,286.

Patented Feb. 11, 1890.

Fig. 1.



Witnesses:
E. J. Ellis
L. J. Magie

Inventor:
Geo. J. Keller,
per
J. A. Lehmann,
att'y.

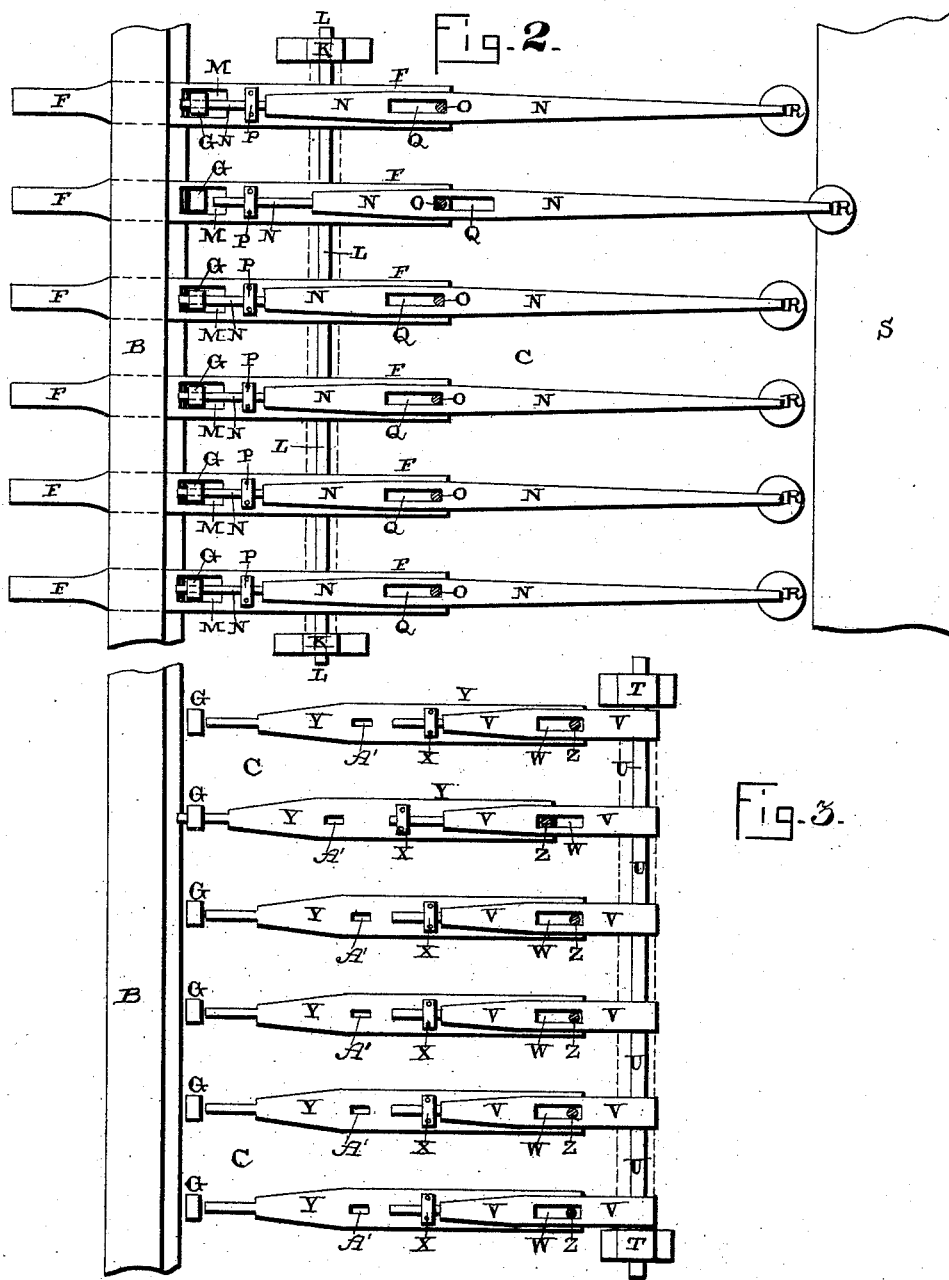
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UNITED STATES PATENT OFFICE.

GEORGE J. KELLER, OF OSCEOLA, NEBRASKA.

TILL-LOCK.

SPECIFICATION forming part of Letters Patent No. 421,286, dated February 11, 1890.

Application filed December 7, 1889. Serial No. 332,882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE J. KELLER, of Osceola, in the county of Polk and State of Nebraska, have invented certain new and useful Improvements in Combination-Locks for Money-Drawers; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in combination-locks for money-drawers; and it consists in the combination, with a money-drawer, of a series of vertically-moving locking-bolts which are placed inside thereof, a corresponding series of pivoted levers for moving the bolts vertically, and a second lever for each locking-bolt to cause the bolts to lock the drawer and sound an alarm when the wrong operating lever or levers are moved, each set of levers for each bolt being adapted to be thrown out or into the combination, as may be desired.

The object of my invention is to provide a combination-lock for money-drawers in which any desired number of operating-levers will be made to operate a corresponding number of bolts for locking the drawer, and any suitable number which are thrown out of the combination will, if moved, operate their corresponding bolts for the purpose of locking the drawer so that it cannot be opened, and sounding an alarm at the same time.

Figure 1 is a vertical section taken through a money-drawer to which my invention is applied. Fig. 2 is an inverted view of the operating-levers. Fig. 3 is a similar view of the locking-bolts.

A represents the counter; B, the front and C the bottom of the drawer. The upper edge of the money-drawer and the corresponding flange D on the under side of the counter will be preferably given the shape here shown, so that a person cannot see through into the drawer nor insert any object with which to feel which one or more of the locking-bolts are in or out of the combination. Through the lower portion of the front of the drawer below the bottom C is made a series of vertical slots E, through which the front ends of

the operating-levers F pass. Placed inside of the drawer and secured in position in any suitable manner are a number of locking-bolts G, which are provided with the shoulders H and the two slots I J through their lower ends. There is one of these bolts G for each one of the operating-levers F. When the bolt G is not locked to the lever F, so as to be operated thereby, the bolt G sinks downward as far as the shoulder H will allow, and then it and its operating-lever F are thrown out of the combination and do not assist in locking the drawer unless some one who does not know the combination attempts to open it.

To the under side of the bottom C are secured the two vertical ears or hangers K, and through these ears or hangers is passed the horizontal bolt L, upon which the levers F are pivoted. The inner end of the lever F projects any suitable distance beyond the pivot L, and is made heavier at its inner end, so that when the lever F is released after having been operated to unlock the drawer this inner weighted end will automatically return the bolt to position shown in Fig. 1. Each one of these operating-levers F has a slot M made through it, and through this slot the lower end of the bolt passes. If the bolt G and the lever F are not locked so as to move together, the bolt G drops downward as far as its shoulder will allow, and then the lever F turns upon its pivot L without positively moving the bolt so as to lock the drawer.

For the purpose of locking the operating-levers F and the vertically-moving bolts G together there is secured to the under side of each lever F a rod N by means of a set-screw O. The outer end of the rod N has its end reduced in size in any suitable manner and is passed through the eye or keeper P, so as to hold the two parts F N in their proper relative position. Through the rod N at that point where the screw O passes through it is made a slot Q, of suitable length, whereby the rod N can be adjusted back and forth upon the lever F at the will of the operator. The outer reduced end of the lever N is made to pass through the slot J in the lower end of the bolt G, for the purpose of locking the lever F and bolt G together when the lever and bolt are to be used in the combination. When the lever and bolt are not to be used in the

combination, the screw O is slightly loosened, and then the rod N is moved endwise until its reduced end no longer catches in the slot J of the bolt G, and then the lever will not positively move the bolt. Upon the inner end of the rod N is secured a ball or knocker R of any kind, and when this rod has been adjusted endwise, so that its end no longer catches in the slot J, the knocker strikes against the metallic plate S or other sounding device attached to the under side of the drawer, for the purpose of giving an alarm and notifying the owner of the drawer that some one is attempting to get into it who does not know the combination of levers necessary for that purpose. When the rod N is moved outward into the position shown in Fig. 1, the knocker R, when raised into the position shown in dotted lines, will not strike the plate S, and hence no alarm will be given when the drawer is opened by one who knows the proper combination of levers; also, secured to the under side of the bottom C of the drawer are the hangers T, and through these hangers is passed the rod U, upon which the levers V are pivoted at their inner ends. In order to keep these levers V and the operating-levers F in their proper positions upon the pivotal rods L and U, suitable blocks or pieces of pipe are placed between the levers, as shown in dotted lines in Figs. 2 and 3. Through the levers V are made the slots W, and the front ends of the levers V are reduced in size, so as to pass readily through the keepers X and to assist in holding the levers V in their proper relation to the locking-rods Y, placed upon their upper sides. Through the slots W pass the set-screws Z, for the purpose of securing the levers V and the endwise-moving rods Y rigidly together. The levers V have nothing more than a slight turning movement upon their pivotal rod U; but the locking-rods Y have both the same movement as their corresponding levers V, and can be adjusted endwise according to whether they are to make connection with the locking-bolts G by means of the slots I or not. When the reduced front ends of the locking-rods Y are not forced into the slots I of the bolts G, the levers V and the rods Y have simply a slight turning movement together by the operating-levers F, to which they are connected by the connecting links or rods A'. If, however, one or more of the operating-levers F are to be thrown out of the combination, their corresponding endwise-moving rods N will be moved endwise, so that their reduced outer ends will not engage with the locking-bolts G, and then the rods N will be in position to strike the plate S and cause an alarm whenever that lever is moved. At the same time that the rods N are thrown out of connection with the locking-bolts G the locking-rods Y are moved forward by loosening the screw Z until their front ends catch in the slots I in their bolts G. The bolts G which are thrown out of the combi-

nation, then being fastened only to the locking-rods Y, drop downward as far as their shoulders will permit and take no part in locking the drawer in the usual manner. Should, however, some one who does not know the combination attempt to get access to the drawer and depress the outer ends of these levers F which have been thrown out of the combination, then these levers, turning upon their pivot L, will raise the locking-rods Y through the connecting-links A', and thus raise the corresponding bolts G, so as to lock the drawer so that it cannot be opened until the proper combination of levers is used. By means of the connecting-links A', when one or more levers F and bolts G are thrown out of the combination, the locking-rods Y and bolts G are given a reverse movement, so that the drawer cannot be opened when the outer ends of the levers which have been thrown out of the combination are depressed. For instance, six operating-levers are here shown, and should the two central levers be thrown out of the combination by moving the rods N inwardly so as to disconnect them from their corresponding bolts G, and the corresponding locking-rods Y are connected to these two bolts, then it will be necessary to operate only the four end levers. If the person who wishes to rob the drawer and who does not know the combination attempts to open it and depresses all of the levers or either one of the two central levers which have been thrown out of the combination, then these levers which have been thrown out will at once raise the bolts G, so that the drawer cannot be opened, and at the same time the knockers R will strike against the plate S, so as to sound an alarm. Having thus described my invention, I claim—

1. The combination, with a drawer, of one or more vertically-moving locking-bolts, one or more pivoted locking-levers, one or more rods connected to these levers and by means of which the operating-levers and bolts are connected together, one or more pivoted locking-levers, the locking-rods connected thereto and adapted to have their ends engage with the bolts G when the bolts and their corresponding operating-levers are thrown out of the combination, and connecting-links for connecting the upper locking-rods to the operating-levers, substantially as shown.

2. The combination, with a money-drawer, of the vertically-moving bolts G, placed inside thereof, the pivoted operating-levers F, and the adjustable locking-rods N, which are adapted to make connection with or be disconnected from the bolts, with the connecting-links, the pivoted levers V, and the endwise-moving locking-rods Y, connected thereto and adapted to make connection with the vertically-moving bolts, substantially as described.

3. The combination, with the drawer, of the

vertically-moving locking-bolts G, provided with the slots I J, the pivoted operating-levers F, the adjustable endwise-moving locking-rods N, connected to the levers and provided with knockers upon their inner ends, the plate S, the pivoted levers V, the locking-rods Y, secured thereto, and the connecting-links A', substantially as set forth.

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

GEORGE J. KELLER.

Witnesses:

Mrs. H. L. BOND,
I. M. KELLER.