W. W. WATSON & J. G. CARLSON.

LOCK FOR DRAWERS IN SERIES.

APPLICATION FILED DEC. 16, 1912.

1,193,955.

Patented Aug. 8, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

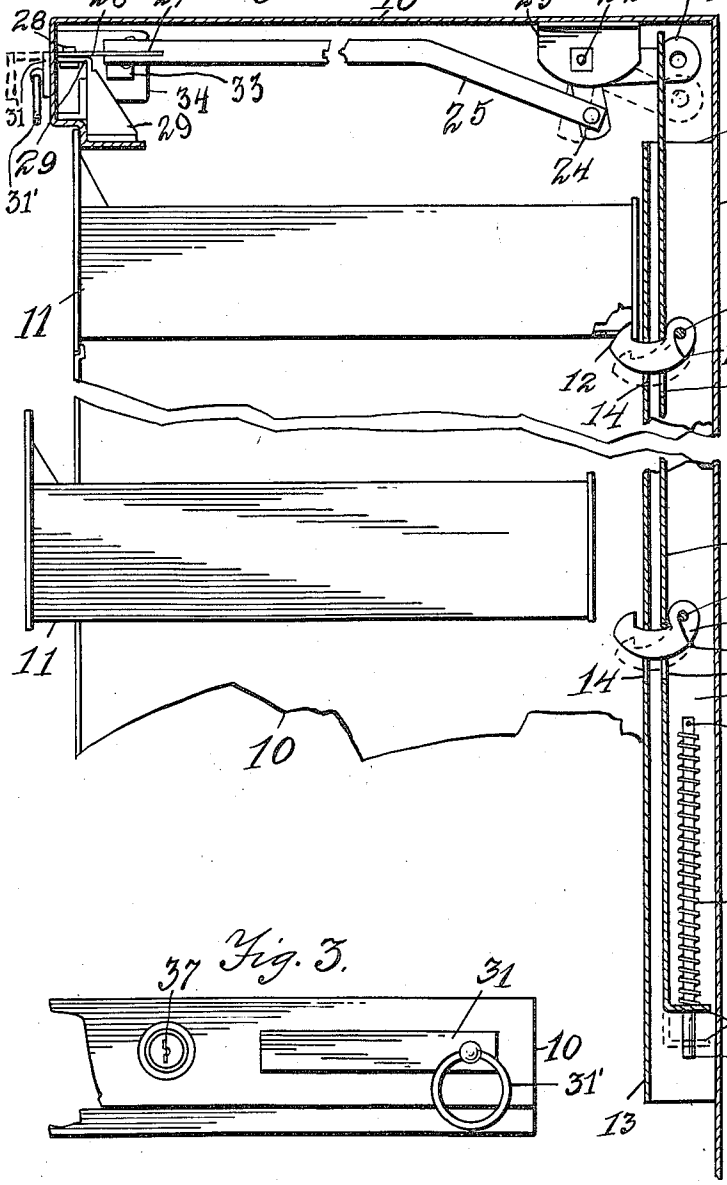

Fig. 2.

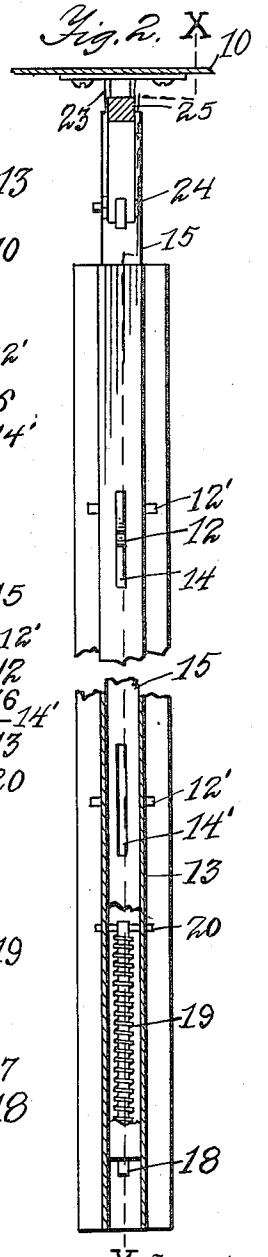

Fig. 3.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 4.

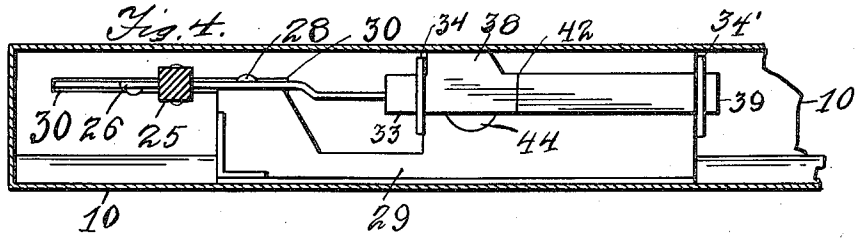


Fig. 5.

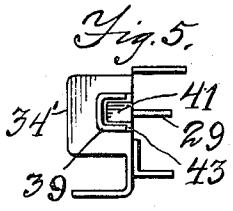


Fig. 6.

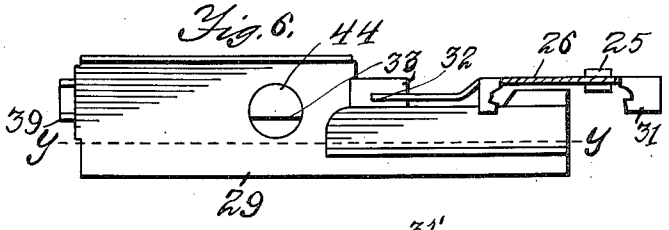


Fig. 7.

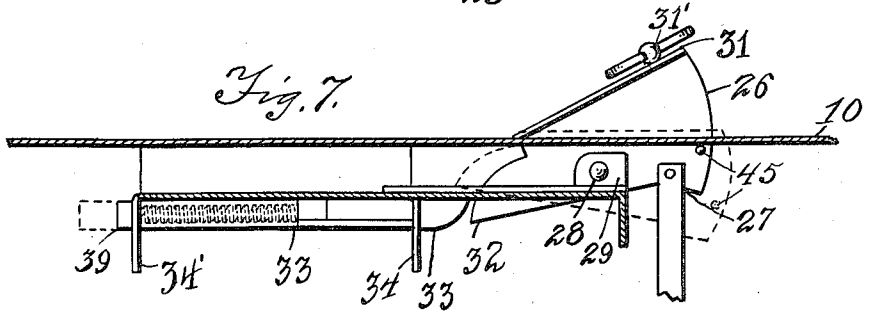
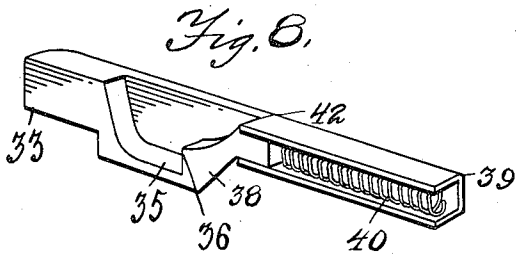
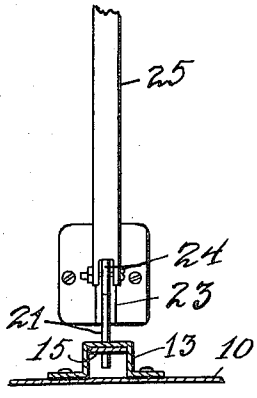


Fig. 8.





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UNITED STATES PATENT OFFICE.

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LOCK FOR DRAWERS IN SERIES.

1,193,955. Specification of Letters Patent. Patented Aug. 8, 1916.

Application filed December 16, 1912. Serial No. 736,965.

To all whom it may concern:

Be it known that we, WILLIAM W. WATSON and JOHN G. CARLSON, citizens of the United States, residing at the city of Jamestown, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Locks for Drawers in Series, of which the following, taken in connection with the accompanying drawings, is a specification.

The invention relates to locking devices for a plurality of drawers in cabinets, filing cases and similar constructions, and the object of the improvement is to provide a simple and effective means for simultaneously locking a series of drawers, and the invention consists in the construction and combination of the parts as shown in this specification and the accompanying drawings and pointed out in the claims.

Figure 1 is a vertical sectional view of the upper portion of a sheet metal filing case at line X X in Fig. 2, showing the drawers and the multiple lock therefor, one of the drawers being locked and the other unlocked. Fig. 2 is a detail front elevation of the rear portion of the locking mechanism. Fig. 3 is an elevation of the lock as it appears on the front of the case. Fig. 4 is a rear elevation of the front spring catch for the lock. Fig. 5 is an end view of the spring latch and supporting plate. Fig. 6 is a front elevation of the lock catch without the front plate of the case. Fig. 7 is a sectional view at line Y Y in Fig. 6, showing the parts of the lock in the unlocked position. Fig. 8 is a detail perspective view of the spring catch.

Like numerals of reference refer to corresponding parts in the several views.

The numeral 10 designates the case and the numeral 11 the drawers slidably mounted in the case for withdrawing the same.

The locking mechanism preferably extends from the front of the case 10 to the rear side over the drawers 11 and has a vertical line of spring catches 12 which engage the rear ends of the drawers 11 preferably on their under sides. The spring catches 12 are pivotally mounted in a channel strip 13 on suitable crosswise pins and extend through slots 14 in the front of the channel strip. Each catch has a spring 16 which normally presses it upward. A bar 15 is slidably mounted within the channel strip 13 and has the slots 14′ corresponding in position with the slots 14 so that each of the catches 12 works through a slot 14 and a slot 14′. The pins for the catches 12 are preferably slightly above the upper ends of the slots 14′, and as the bar 15 moves downward it carries the catches 12 therewith and out of engagement with the drawers.

The lower end 17 of the bar 15 is turned at right angles and a pin 18 extends therethrough and is attached to the channel strip 13 at its upper end by a pin 20. The pin 18 has a coil spring 19 thereon which presses against the turned end 17, thus normally pressing downward upon the bar 15 to aid in overcoming the springs 16 which have to be strong to hold the drawers 11.

The upper end of the bar 15 hooks upon and is moved by one arm of a bell crank 21 by means of a suitable slot in bar 15. Bell crank 21 is pivotally attached at 22 within a bracket 23. The other arm 24 of the bell crank is pivotally attached to a rod 25 which extends toward the front of the case 10 and pivotally receives a plate 26 within its slotted end 27, a suitable pin being provided through the plate 26 and the rod 25 to pivotally hold the two parts together.

The plate 26 is pivotally attached at 28 to a bracket piece 29 secured on the inner side of the casing 10. The plate 26 extends through a narrow slot 30 in the front of the casing 10 and has the front plate 31 which lies flat against the front of the casing 10 when in the locked position but which extends out in a diagonal position, as shown in Fig. 7, when in the unlocked position. A knob or ring pull 31′ is attached to plate 31 to operate the parts manually and insure the withdrawal of the catches 12 from engagement with the drawers 11, the knob or ring 31 forming a convenient means for pressing the locking mechanism in the locked position and showing plainly when in the unlocked position.

The slotted end 27 of rod 25 and the pin therefor in the plate 26 is near one end of said plate 26 and to one side of the pivotal attachment 28. The opposite end 32 of plate 26 is shaped in the form of a tongue to engage the end of the spring catch 33. The spring catch 33 is slidably mounted within the projecting flanges 34 on the plate 29 which is attached to the inner side of the casing 10 so that said spring catch 33 is

adjacent to the tongue 32 whereby said tongue 32 may be caught and engaged by the spring catch 33 by simply pressing inward upon the front 31 of plate 26, pressing it from the unlocked position shown in Fig. 7 into the locked position shown in dotted line in Fig. 7 and in solid line in Figs. 1 and 3.

The spring catch 33 is provided with a notched opening 35 and shoulder 36 which is engaged by means of a suitable key lock 37 so that when the entire series of drawers is locked the spring catch 33 may be released by means of the lock 37 which moves the bolt of the catch 33 endwise, thereby releasing tongue 32 and plate 26 and permitting the normal pressure of spring 19 to press downward on strip 35 through the link and bell crank connection thereto thereby pressing downward on the catches 12 and releasing the drawers 11.

The spring latch 33 is preferably made with a solid end 38 and a sheet metal channel shaped end 39 to receive the spring 40 therewithin, the two parts 38 and 39 being brazed together at 42. This arrangement allows the channel shaped end 39 to receive therewithin the tongue 41 on the sheet metal supporting bracket 29. The sheet metal flange 34′ is turned on the bracket plate 29 and a U-shaped opening 44 is provided in the flange 34′ which construction provides the tongue 41 within the U-shaped end 39. The spring 40 is compressed sufficiently to permit the insertion of the end 39 through the opening 43 and the release of the spring permits it to press against the tongue 41 so that as latch 33 is pressed toward flange 34′ it compresses the spring 40, which immediately returns it to normal position when said pressure is released. A round opening 44 is provided in plate 42 for the end of the lock 37 so that it engages the shoulder 36 in the opening 35 in latch 33 to operate the same.

It is apparent that the plate 26 and the mechanism attached thereto may be manually withdrawn by means of the knob or ring 31′ when said plate 26 is released by the turning of the lock 37 which withdraws spring catch 33 from the point 32 of the plate 26. The downward pressure of the spring 19 permits the use of a lighter bar 15 for the catches 12 in withdrawing said catches from engagement with the drawers 11. It is also apparent that the ring or knob 31′ may be used for the entire manual withdrawal of the plate 26 and the operation of the connecting mechanism in case spring 19 should break down or not be used. It is preferred, however, to use spring 19 for overcoming the springs 16 on the catches 12 which springs 16 force said catches 12 into holding engagement with the drawers 11.

The plate 26 may be pressed inward when in the extending position in order to lock the drawers without the use of the lock 37, the end 32 pressing back on the spring bolt 33 and engaging the same when the plate 31 is pressed against the front 10 of the case. It is also obvious that any of the drawers 11 may be left in the unlocked position by being withdrawn beyond the catches 12 when the locking mechanism is moved into the locking position by pressing in upon plate 31 and that the springs 16 will permit the catches 12 snapping into the locking position by the inward pressure on the drawer 11.

The plate 26 has a stop 45 which engages against the inner side of the case 10 adjacent the slot 30 to prevent the pivotal turning of the plate 26 beyond a certain distance, which distance is measured to insure the action of the parts, yet permits the parts to be returned to the locking position as quickly as possible.

We claim as new—

1. In a device of the class described, the combination of the case, a bell crank pivotally supported within said case, a vertical bar supported on one arm of said bell crank, a channel strip to receive said vertical bar, drawers in said case, spring catches on said channel strip extending through said vertical bar to release said catches from said drawers, a plate pivotally attached to the front plate of said case, link connection between said plate and the other arm of said bell crank, means on said mechanism for withdrawing said pivotally mounted plate and said spring catches, a spring catch to engage one end of said pivotally mounted plate, and a lock for operating said spring catch.

2. In a device of the class described, the combination of the case, drawers in said case, a bell crank pivotally supported within said case, a channel strip in said case, spring catches in said channel strip, a vertical bar supported on one arm of said bell crank to be raised and lowered thereby to move said spring catches out of holding engagement with said drawers, a spring attached to said channel strip and pressing downward on said vertical bar, a plate pivotally attached to the front plate of said case, link connection between said pivotally attached plate and the other arm of said bell crank, a spring catch to engage one end of said pivotally mounted plate, and a lock for said spring catch.

3. In a device of the class described, the combination of the case, drawers in said case, a bell crank pivotally supported within said case over said drawers, a bar vertically supported on one arm of said bell crank adjacent to said drawers to move up and down with said arm, a channel strip to

receive said bar, spring catches on said channel strip to spring onto said drawers in holding engagement when said bar is in the raised position and releasing said drawers when in the lowered position, a plate pivotally attached to the inner side of the front plate of said case, one end of said pivotally attached plate extending through a slot in said front plate, a pull on the exposed end of said pivotally attached plate, link connection between said plate and the other arm of said bell crank, a spring catch to engage the other end of said pivotally mounted plate, and a lock for said spring catch, substantially as and for the purpose specified.

4. In a device of the class described, the combination of the case, drawers in said case movable in and out thereof, a bell crank pivotally supported within said case over said drawers, a channel strip attached within said case beneath one arm of said bell crank and having spaced vertical slots therein, a bar vertically supported on said arm of said bell crank and extending down said channel strip and having spaced slots coinciding with said spaced slots in said channel strip, spaced catches pivotally mounted on crosswise pins in said channel strip and extending out through said slots in said bar and channel strip to engage said drawers, an upwardly actuating spring for each catch on said channel strip, a downwardly actuating spring on said bar to aid in releasing said catches, and means extending from the other arm of said bell crank to the front of said case for operating said spring catches into and out of engagement with said drawers, substantially as and for the purposes specified.

In testimony whereof we have affixed our signatures in the presence of two witnesses.

WILLIAM W. WATSON.
JOHN G. CARLSON.

Witnesses:
H. A. SANDBERG,
M. D. MILLER.