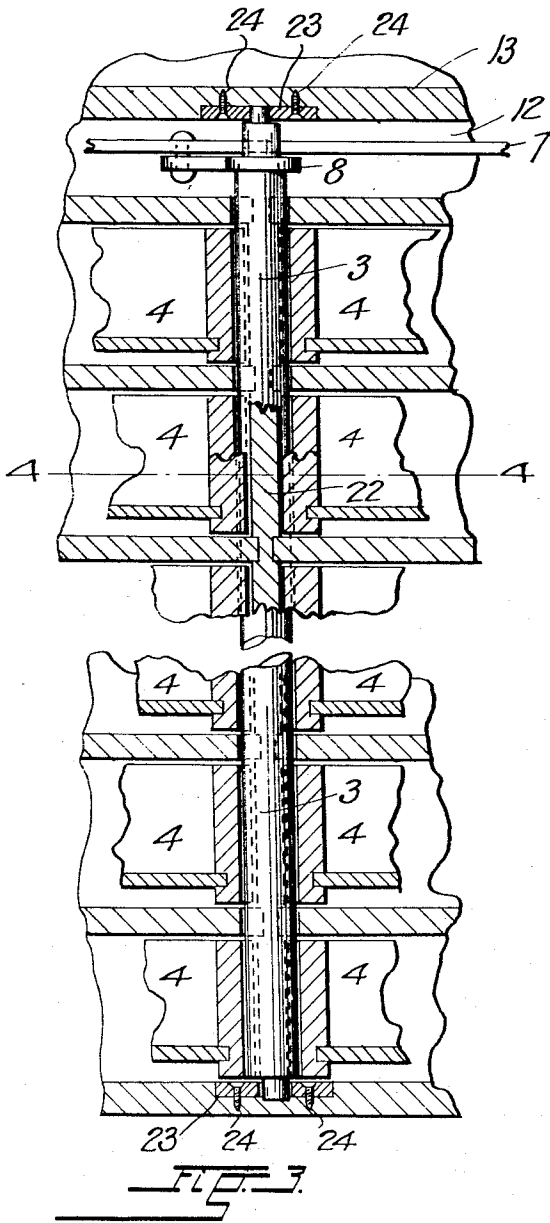
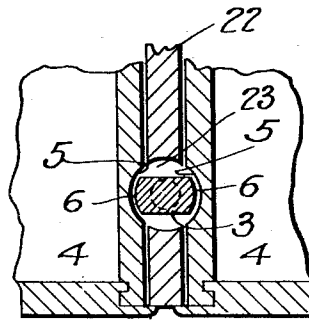
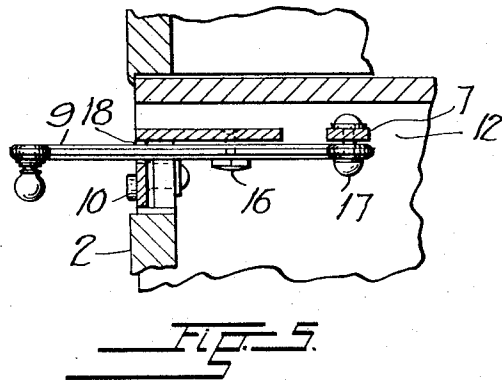




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 3 SHEETS—SHEET 2.

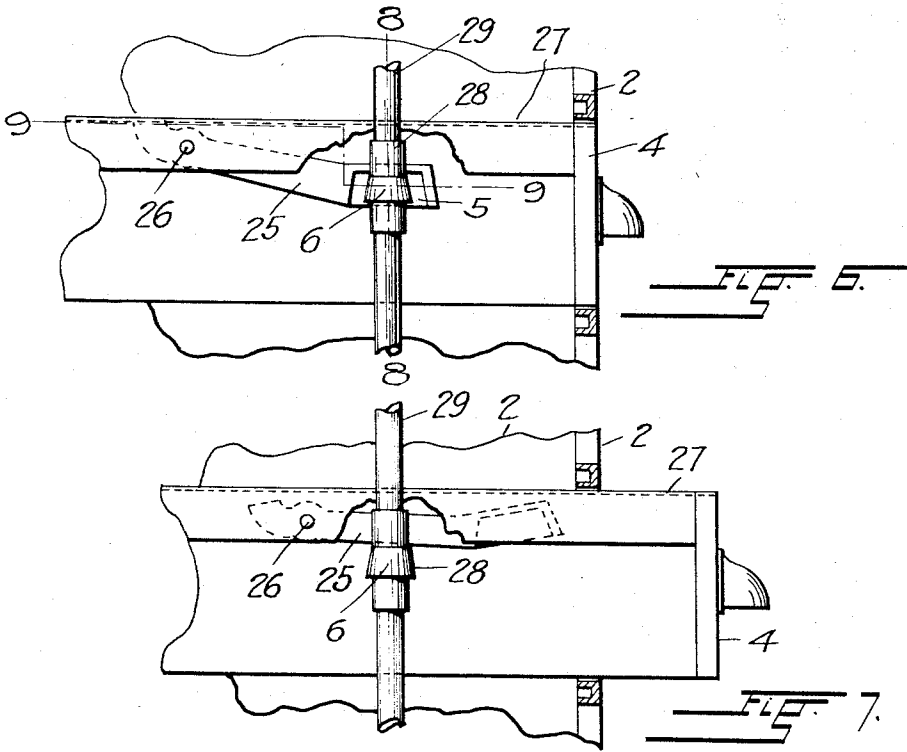
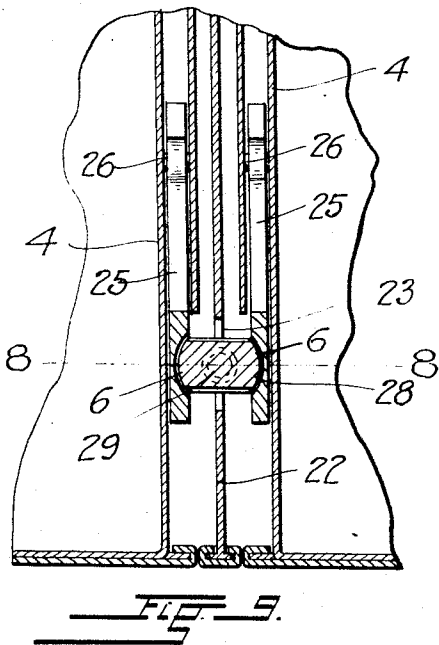
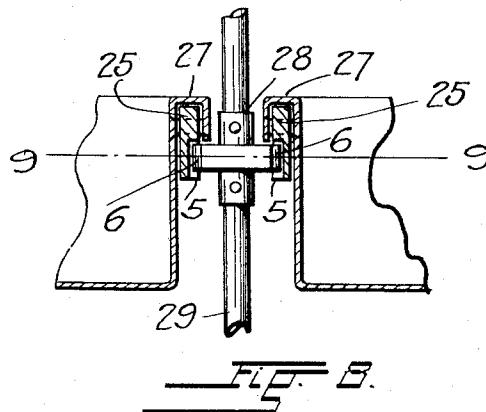


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1,315,709.

Patented Sept. 9, 1919.  
3 SHEETS—SHEET 3.



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# UNITED STATES PATENT OFFICE.

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## APPARATUS FOR LOCKING DRAWERS.

1,315,709.

Specification of Letters Patent.

Patented Sept. 9, 1919.

Application filed August 14, 1918. Serial No. 249,795.

*To all whom it may concern:*

Be it known that I, CHARLES L. COOMBS, a citizen of the United States, residing at Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Apparatus for Locking Drawers, of which the following is a specification.

This invention relates to improvements in locking devices for drawers and other sliding receptacles of bureaus, chests, filing cases, desks and other similar articles of furniture, and its primary object is to provide a simple mechanism which by actuation of a single operating element secures a number of drawers or series of drawers contained in a piece of furniture, simultaneously in their closed position.

Another object of the invention is to provide in connection with the securing mechanism, a key-controlled lock which prevents its being operated by unauthorized persons.

The above and other objects all of which will fully appear in the course of the following description I attain by the mechanism and combinations of devices shown in their preferred form in the accompanying drawings in which like reference characters designate corresponding parts throughout the several views and in which—

Figure 1 represents a front view of a portion of a filing cabinet to which my improved locking apparatus is applied,

Fig. 2, a fragmentary section taken along the line 2—2, Fig. 1, showing the operating and locking elements of the apparatus on a larger scale,

Fig. 3, an enlarged fragmentary section taken along any one of the lines 3—3, Fig. 1,

Fig. 4, a transverse section on the line 4—4, Fig. 3,

Fig. 5, an enlarged section taken on the line 5—5, Fig. 2,

Fig. 6, a sectional elevation of a modification of my invention,

Fig. 7, a similar view showing the drawer to which the modified locking device is applied, in a partially open position,

Fig. 8, a section on the line 8—8, Figs. 6 and 9 and

Fig. 9 a horizontal section taken along the line 9—9, Figs. 6 and 8.

Referring to the drawings by numerical reference characters, 2 designates a filing

cabinet fitted with several series of vertically arranged drawers for various purposes.

The series of drawers in the figure are arbitrarily arranged to illustrate the adaptability of my invention to cabinets, chests, 60 desks and bureaus of various constructions and designs, and it should be understood that by changing the relative positions of its coöperative members and making minor changes in their form and construction, my improved apparatus may be used to lock any one or more series of drawers contained in an article of furniture, irrespective of their form, size or relative arrangement.

My apparatus comprises one or more rotary lock-bolts 3 which are disposed between the series of drawers 4 to secure them simultaneously in their closed position.

The bolts are to this end oblong in cross-section and the drawers of the series have in their sides vertically alined recesses 5 to receive the longitudinal edges 6 of the bolts when they are turned at right angles to their normal inoperative position.

The several bolts are simultaneously turned to the positions in which they secure or release the drawers of the series between which they are disposed, by the sliding movement of a bar 7 with which they are connected through the intermediary of crank-arms 8 at one of their ends.

An operating lever 9 is connected with the sliding bar to effect its movement, and a lock 10 of suitable construction is provided to secure the lever in its adjusted positions.

In the construction shown in the drawings the sliding bar is disposed in a recess 12 of the partition 13 between upper and lower sections 14 and 15 of the filing cabinet and the operating lever which is fulcrumed as at 16 and pivotally connected with the bar as at 17, extends through a transverse passage 18 which connects the recess 12 with the front edge of the partition.

The lever projecting beyond the front of the cabinet is readily accessible for manipulation and it has two laterally extending wings 19 provided with openings 20 to receive the bolt 21 of the key-controlled lock 10 which is fastened in a recess of the before-mentioned partition of the cabinet.

It will be understood that this lock may

be of any suitable construction and operated either by the use of a special key or by rotation of a graduated disk.

The locking bolts 3 are placed vertically between each two series of drawers of the cabinet to rotate about their longitudinal axis. The partitions 22 which separate the series of drawers are to this end provided with vertical channels 23 in which the bolts extend.

The bolts which as stated before, are oblong in cross-section are curved at their longitudinal edges 6 to fit within the recesses 5 of the drawers, as clearly shown in Fig. 4.

They are preferably made by flattening opposite sides of a round rod and their thickness does not exceed that of the partition in which they are placed so that when turned to an inoperative position they release both series of drawers and permit of their unrestricted sliding motion.

The bolts are rotatably supported at their ends in bearings fastened to the horizontal parts of the cabinet between which they are disposed and they carry adjacent one of their ends the laterally extending crank arms 8 by which they are connected with the sliding bar 7.

The bearings which support the bolts are preferably composed of apertured plates 23 which are fastened in mortises of the respective parts of the cabinet by beveled headed screws 24, and the ends of the bolts are reduced in diameter to fit within the apertures of the plates.

In the operation of my invention the locking bolts are normally in a position in which their longitudinal edges are withdrawn in the channels of the partitions between the series of drawers, thereby permitting the unrestricted movement of the drawers in either direction.

When it is desired to secure the drawers in the closed position, the bolts are turned simultaneously through an angle of 90 degrees by the sliding movement of the bar 7 imparted thereto through the instrumentality of the operating lever 9.

This movement of the bolts causes their rounded edges to enter the similarly formed recesses in the sides of the drawers and thereby prevent the drawers from being opened.

The lever 9 is locked in either of its two adjusted positions by causing the bolt 21 of the lock 10 to enter the opening 20 of the wing with which it registers.

In the modified construction shown in Figs. 6 to 9, the locking device has been shown as applied to drawers of metal filing cases.

The modification has for its principal object the provision of locking means which permit of automatically securing one or

more of the drawers of a cabinet or desk, left in an open position after the other drawers have been locked, by their subsequent movement to the closed position.

With this end in view, I form the concave recesses 5 which coöperate with the edges 6 of the locking bolts to secure the drawers in the closed position, in the ends of bars 25 which are pivoted for up and down movement on the sides of the drawers as at 26, and which are held in their normal position by the engagement of their opposite ends with outwardly projecting flanges 27 on the drawers. The construction of the locking bars has been modified by forming their rounded edges 6 which enter the recesses 5, on collars 28 which are fastened around a rotary rod 29.

Under ordinary conditions the operation of the modified locking device is the same as that of the first described mechanism, it being apparent that the rounded edges on the collars 28 by entering the correspondingly formed recesses in the ends of the pivoted bars 25, lock the respective drawers against movement in either direction.

If one or more of a series of drawers to which the modified locking mechanism is applied, are left in an open position after the other drawers have been closed and locked, their subsequent inward movement will cause the projecting portions of the collars 28 to engage the slanting lower edges of the respective pivoted bars with the result that the bars are lifted as shown in Fig. 7 of the drawings and ride upon the projections of the collars until the latter come in register with the recesses in the forward ends of the bars which in consequence drop to their normal position.

Having thus described my improved locking mechanism in two of its most practical forms at present known to me, I desire it understood that other modifications in the construction and arrangement of its coöperative parts may be resorted to within the spirit of my invention as set forth in the following claims:—

1. In locking apparatus of the character described, the combination with a plurality of drawers having recesses in their opposite sides, channeled partitions between the drawers, and a recessed piece connecting the partitions, of rotary locking-bolts disposed in the channels of the partitions and adapted to enter the recesses of the drawers, and mechanism for the simultaneous rotation of the bolts, inside a recess of the connecting-piece, and including an operating-member accessible from without the same.

2. In locking apparatus of the character described, the combination with a plurality of drawers having recesses in their opposite sides, channeled partitions between the drawers, and a recessed piece connecting

the partitions, of rotary locking bolts disposed in the channels of the partitions and adapted to enter the recesses of the drawers, a sliding bar within a recess of the connecting piece, having crank-connections with the bolts, and an operating lever connected with the sliding bar and extending through an opening of the connecting piece for its manipulation from a point outside the same.

3. In locking apparatus of the character described, the combination with two drawers having arcuate recesses in their opposite sides, of a rotary locking bolt including a part of oblong section having rounded edges adapted to simultaneously enter the recesses of the drawers.

4. In locking apparatus of the character described, the combination with two series of vertically arranged drawers having alined recesses in their opposite sides, of a rotary locking bolt of oblong section disposed between the two series of drawers and having longitudinal edges adapted to simultaneously enter the alined recesses of the same.

5. In locking apparatus of the character described, the combination with a sliding drawer, of a bar pivoted upon a side thereof and having a recess, and a rotary locking-bolt having a part of oblong section adapted to lift the bar by closing movement of the drawer, and to enter the recess thereof when the drawer is in its closed position.

6. In locking apparatus of the character described, the combination with a sliding drawer having a projecting flange, of a recessed bar pivoted upon a side thereof and

held in a determinate position by engagement with said flange, and a rotary locking bolt having a part of oblong section adapted to lift the bar by closing movement of the drawer and to enter the recess thereof when the drawer is in its closed position.

7. In combination, two sliding drawers having opposed recesses in opposite sides, and a rotary bolt between the drawers, having a relatively fixed locking-part which in one position of the bolt occupies both recesses and which in another position of the bolt, is outside the same.

8. In combination, two sliding drawers having opposed recesses in opposite sides, a partition between the drawers having an opening alined with the recesses, and a rotary bolt having a relatively fixed locking part which in one position of the bolt is inside the opening of the partition and outside the recesses and which in another position of the bolt extends partially inside the recesses.

9. In combination, two sliding drawers having in opposite sides opposed recesses of segmental section, and a rotary bolt between the drawers including a locking part provided with concentric rounded edges which fit within the recesses, said locking part extending within the two recesses in one position of the bolt, and outside the two recesses in another position of the same.

In testimony whereof I have affixed my signature.

CHARLES L. COOMBS.