

(No Model.)

R. L. MERZ.
LOCK.

No. 549,853.

Patented Nov. 12, 1895.

Fig. 1.



Fig. 2. *Fig. 3.*

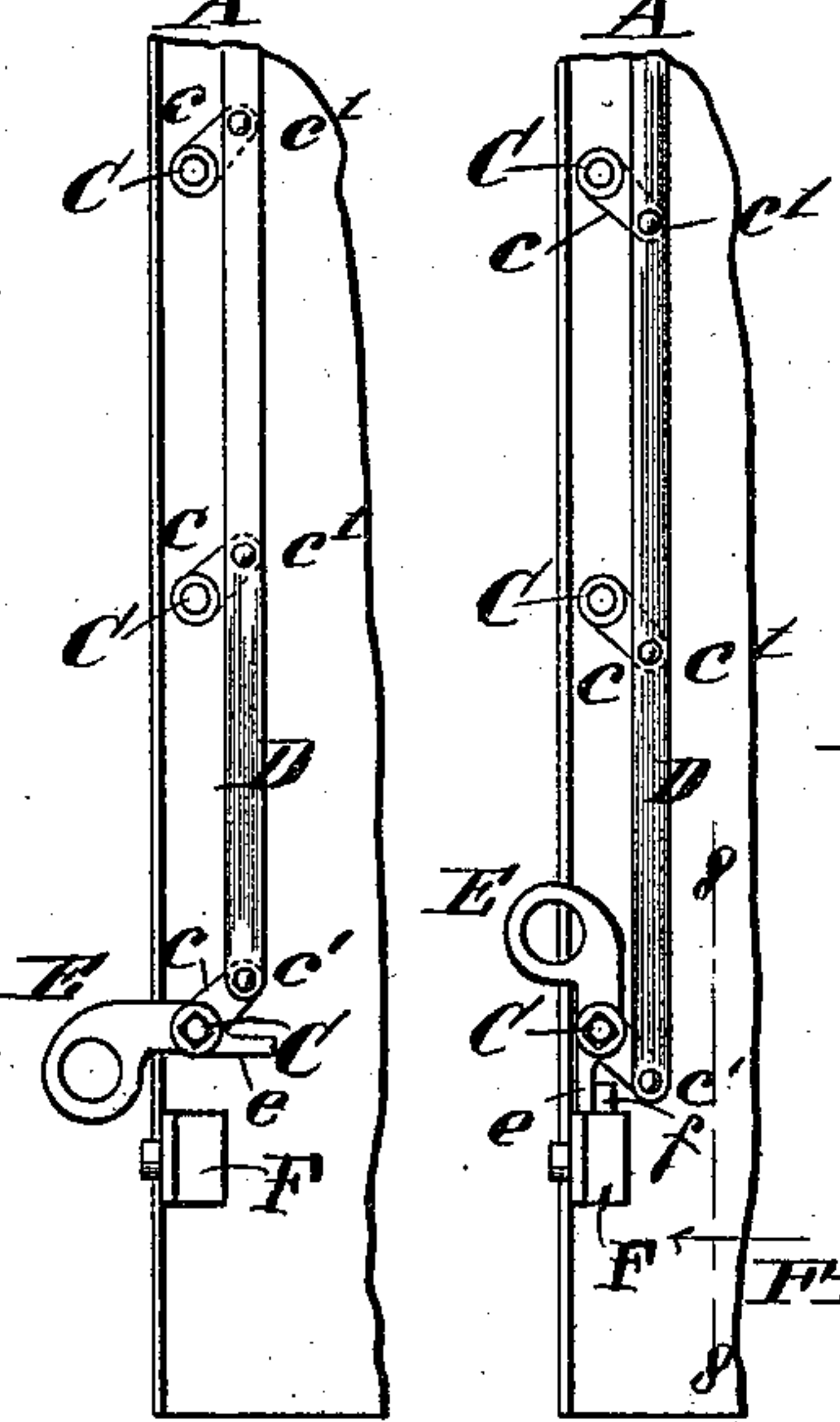


Fig. 6.

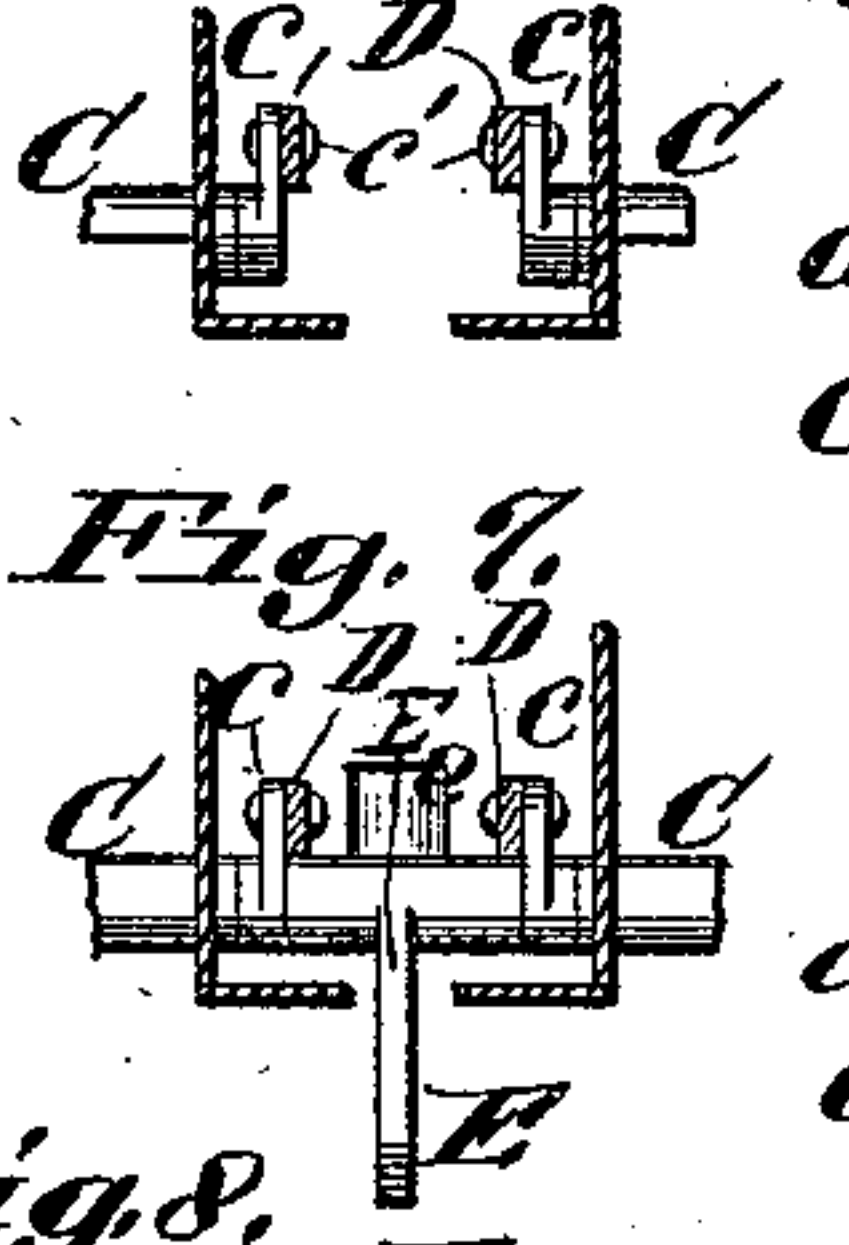


Fig. 4.

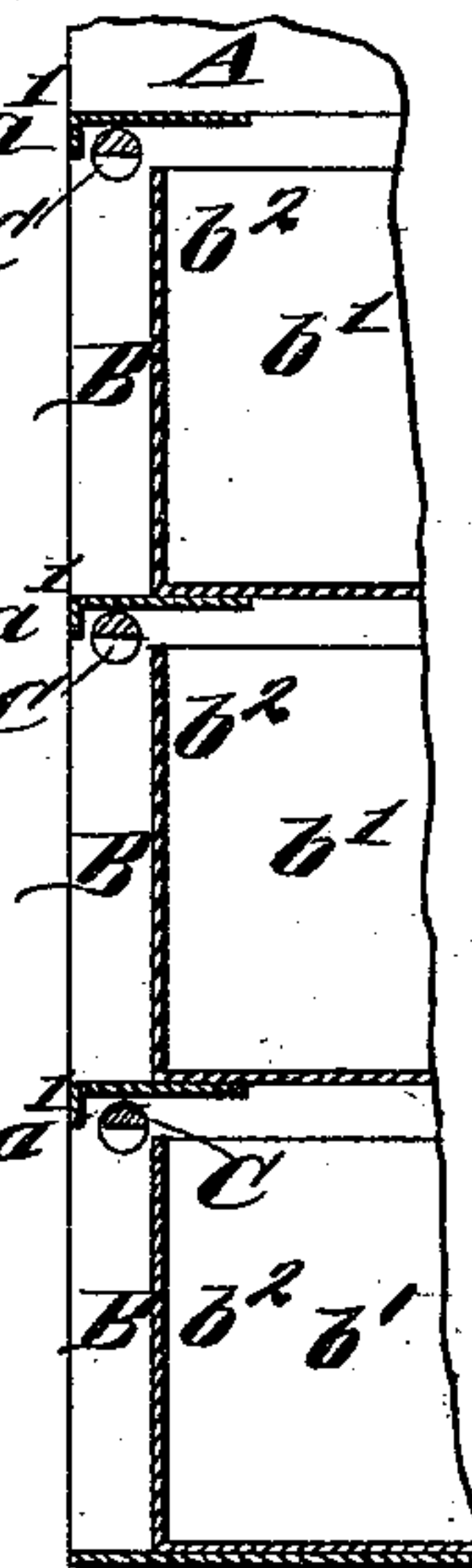


Fig. 5.

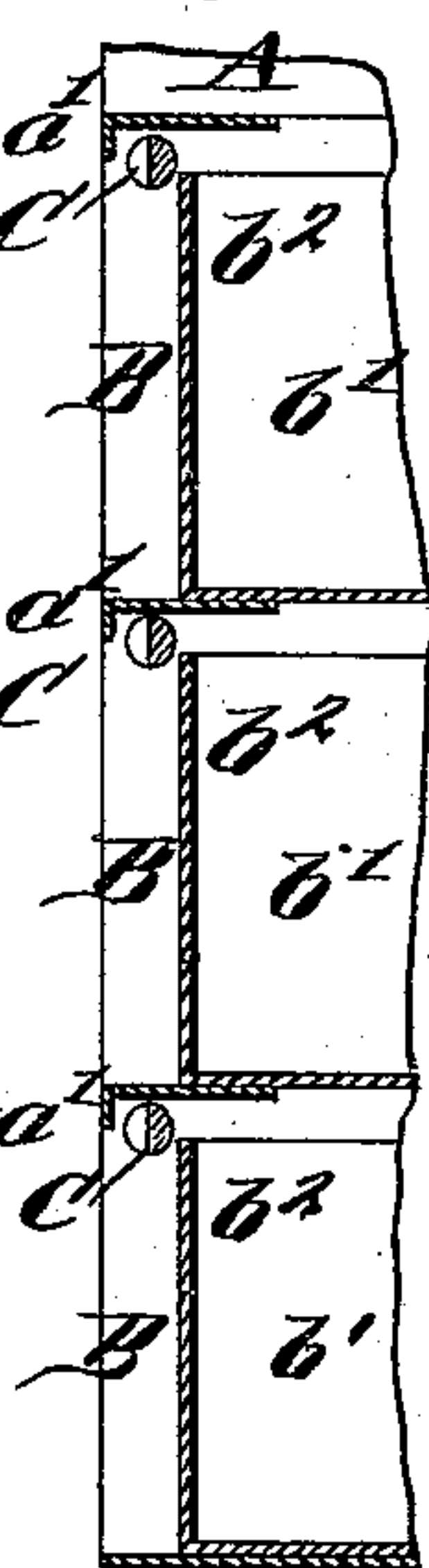


Fig. 7.

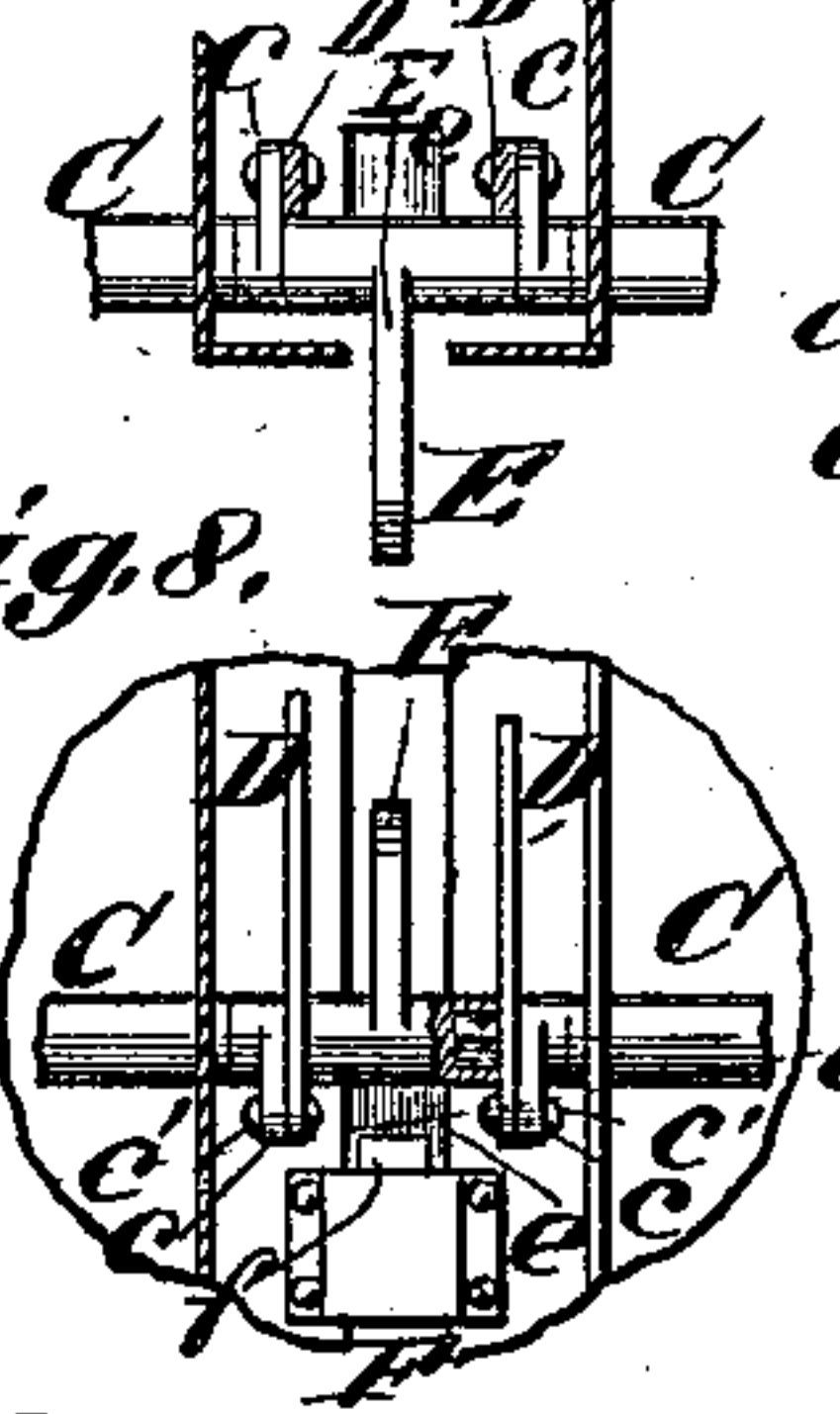


Fig. 8.

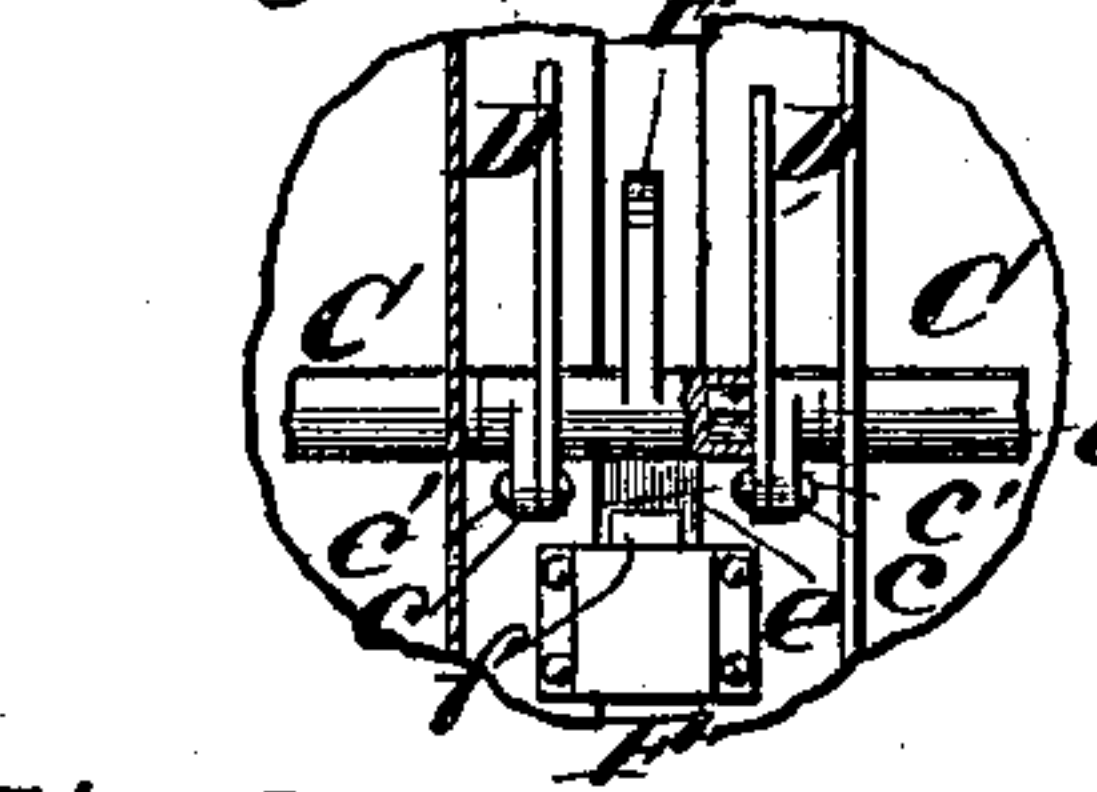
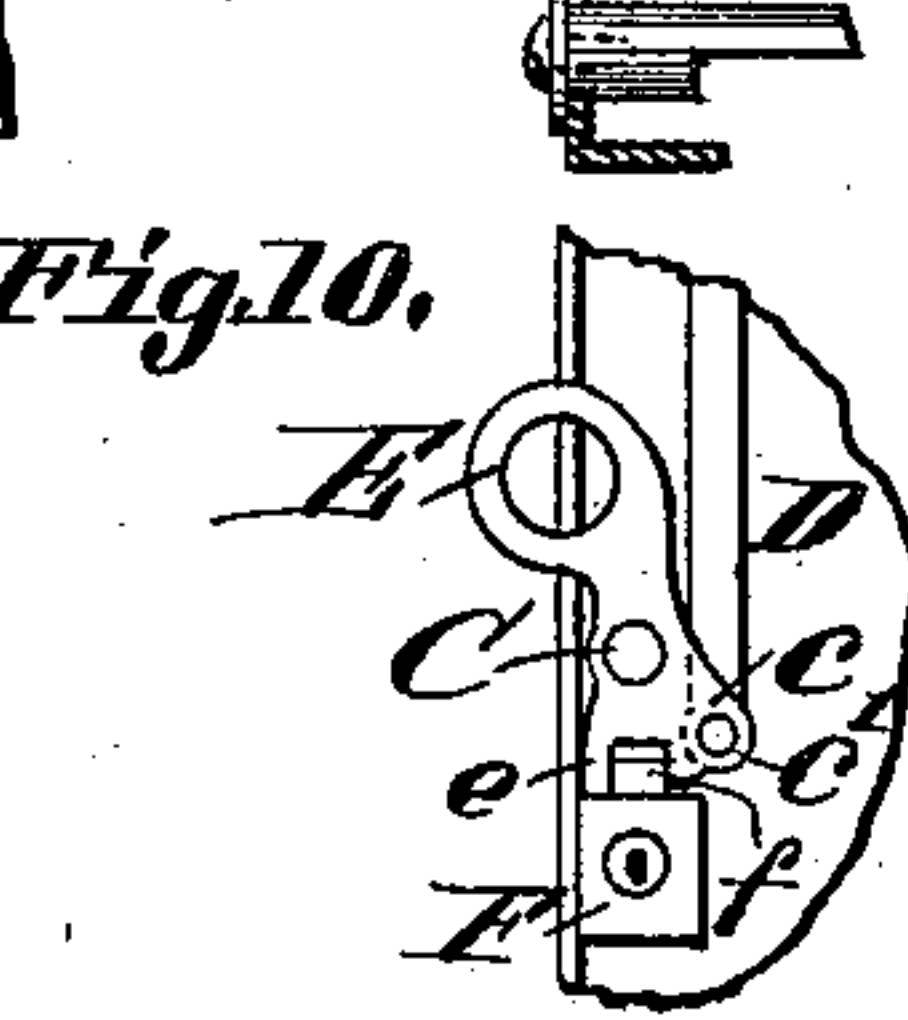


Fig. 9.



Attest: *Fig. 10.*
Charles Pickles
M. A. Gier.

Inventor:
Robert L. Merz
by Rex + Moody
his attys

UNITED STATES PATENT OFFICE.

ROBERT L. MERZ, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE GEO. D. BARNARD & COMPANY, OF ILLINOIS.

LOCK.

SPECIFICATION forming part of Letters Patent No. 549,853, dated November 12, 1895.

Application filed May 3, 1895. Serial No. 547,967. (No model.)

To all whom it may concern:

Be it known that I, ROBERT L. MERZ, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented a new and useful Improvement in Locks, of which the following is a specification.

My improvement relates chiefly to locks for drawers and file-holders, and is especially applicable to cases containing a number of drawers or file-holders.

The chief objects of my improvement are, first, to dispense with the attachment of any part of the lock to the drawers or file-holders; second, to enable the user to tell at a glance when the drawers or file-holders are unfastened; third, to prevent any drawer or file-holder from being left open through forgetfulness when the case is locked, and, fourth, to provide cheap and simple mechanism by means of which all the drawers or file-holders in a case or a connected pair of cases may be simultaneously locked and unlocked. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of a pair of cases of drawers embodying my improvement. Fig. 2 is in part a cross-section along the line 2 2, Fig. 1, and in part a side elevation of a portion of the locking mechanism looking from the line 2 2, Fig. 1, in the direction indicated by the arrow crossing that line, the parts being shown in the position occupied when the drawers are unlocked. Fig. 3 is a similar view showing the positions of the same parts when the drawers are locked. Fig. 4 is a vertical cross-section, in part broken away, along the line 4 4, Fig. 1, showing the drawers unlocked. Fig. 5 is a similar view showing the drawers locked. Fig. 6 is in part a horizontal cross-section along the line 6 6, Fig. 1, and in part a detailed plan view of parts immediately below said section line. Fig. 7 is in part a cross-section along the line 7 7, Fig. 1, and in part a detailed plan view of parts immediately below said section-line in the position occupied when the cases are unlocked. Fig. 8 is a rear elevation of portions of the locking mechanism viewed from the position of line 8 8,

Fig. 3. Fig. 9 is a detailed view representing the outer end of one of the rock-shafts used to lock the drawers on the line 9 9, Fig. 1; and Fig. 10 is a modified form of portions of the locking mechanism. This form is especially useful in connection with a single case of drawers or file-holders.

Similar letters refer to similar parts throughout the several views.

A and A', Fig. 1, are cases divided into compartments for the reception of drawers by vertical partitions *aa*, &c., and horizontal partitions *a' a'*, &c.

B B, &c., Figs. 1, 4, and 5, are drawers of ordinary construction, having knobs *bb*, &c., and arranged in the cases A and A'. They are shown closed in all the views. One or both side pieces *b' b'* of each drawer are preferably as high as the front pieces *b²*.

C C, &c., Figs. 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10, are rock-shafts used to lock the drawers in place. They turn in bearings in the sides of the cases, as shown in Figs. 6, 7, 8, and 9, and where they cross front openings in the compartments are shown half-round. They are preferably round at their ends, where they rest in their bearings, and as the centers of those portions are not the centers of the half-round portions the rock-shafts proper may be said to be pivoted off their centers.

Each shaft C preferably extends clear across the case, and is preferably used in locking all the drawers in the compartments which it traverses, however large the number may be. They are preferably located so as to traverse the fronts of the compartments, as shown. In the constructions illustrated each rock-shaft locks two drawers.

Where cases are arranged in pairs, a pair, and preferably the lower pair, of shafts are preferably connected together, as represented in Figs. 1, 7, and 8. The pair of bars C C thus connected have attached to them a lever E and a lug *e*, Figs. 1, 2, 3, 7, 8, and 10. The inner end of each rock-shaft is shown provided with a crank *c*. The cranks *c* of each case A or A' are connected together by means of a bar D, through which the wrist-pins *c'* of the cranks *c* pass.

Where my improvement is applied to a sin-

gle case of drawers, the lever E and lug e are preferably attached to one end of the lowermost rod, as shown in Fig. 10. They may be made in one piece, if desired, and that piece
5 may be so formed as to answer the purpose of the crank also, as shown in the figure last mentioned.

F, Figs. 1, 2, 3, 8, and 10, is a lock having a bolt f. The lock F may be of any ordinary
10 design or construction, and as no improvement in such locks has been made by me I do not give a detailed description of the one represented. The lock should be so arranged that when the other parts are in the positions
15 shown in Figs. 1, 3, 5, 8, and 10 the bolt f will when shot engage the lug e, and in that way prevent the shafts C from being rocked and the drawers unfastened. The lug e is shown engaged by the bolt f in Figs. 3, 8, and 10.
20 They are shown disengaged in Figs. 2 and 7. In Fig. 2 the lock F is represented with its bolt f retracted.

My improvement operates as follows: When the parts are in the positions in which they
25 are shown in Figs. 1, 3, 5, 8, and 10, the flat sides of the rock-shafts face outward and their lowermost edges extend below the tops of the drawers which they lock, and thus prevent the drawers from being opened while the
30 bolt f by engaging the lug e prevents the positions of the rock-shafts from being changed. When it is desired to unlock the drawers, the bolt f is first withdrawn from engagement with the lug e, and the lever E is then pulled
35 forward and down into the position which it occupies in Figs. 2 and 7. This rocks the lowermost shafts C C of cases A and A', and by means of their cranks and the bars D D elevates the crank-arms of the other shafts,
40 and all the shafts C C are thus turned into the position represented in Fig. 4. They are then out of the path of the drawers, which may be drawn out at will. When it is desired to lock the cases, all the drawers must first be closed.
45 The lever is then pushed back into its original position, the rock-shafts turned into the position shown in Fig. 5, and the bolt f of the lock F shot into engagement with the lug e. If any drawer connected with the case is not
50 entirely closed, the rock-shaft traversing its compartment will in the preferred form of drawer strike the top of either the sides or front of the drawer and prevent the locking of any drawer in the case.

55 As will be obvious, the special forms of mechanism and the special arrangements shown may be varied in many ways without departing from the essence of my invention.

I use the word "connected" in my claims
60 as including indirect as well as direct connections and use the word "drawer" in its generic sense and as including file-holders.

I claim—

1. The combination in a case of two or more
65 rows of compartments, a drawer in each compartment; a shaft for each row of drawers,

which, when turned in one position, projects an edge in front of one edge of the drawers in its row, and when turned into another position, leaves their passage unobstructed; means
70 connecting the shafts together and causing them to turn together; a lever E, rigidly attached to one of said shafts, and turning with it; and a lock, having a bolt which engages said shaft, and prevents it from turning; substantially as described. 75

2. The combination of two cases, each containing two or more rows of drawers; and a horizontal shaft for each row of drawers, turning in bearings, which, when turned into one
80 position, projects one edge in front of the drawers in its row, and when turned into another position, leaves their passage unobstructed; means connecting the shafts of each case together, and forcing them to turn
85 together; means coupling one of said shafts in one case rigidly to a similar shaft in the other case, and forcing them to turn as one; a lever E attached to one of said shafts and turning with it; and a lock, having a bolt
90 which engages said shaft, and prevents it from turning; substantially as described.

3. The combination in a case, of two or more rows of compartments for drawers; a drawer in each compartment; a shaft for each
95 row of drawers, which, when turned into one position, projects one edge in front of one edge of the drawers in its row, and when turned into another position, leaves their passage unobstructed; means connecting the shafts to-
100 gether, and causing them to turn together; a hand lever E rigidly attached to one of said shafts; a lug e, attached to one of said shafts, and turning with it; and a lock, having a bolt f, which engages said lug e, and prevents said
105 shafts from turning; substantially as described.

4. The combination in a case of two or more rows of compartments; a drawer in each compartment; a shaft for each row of draw-
110 ers, which, when turned into one position, projects one edge in front of one edge of the drawers in its row, and when turned into another position, leaves their passage unobstructed; means connecting the shafts together and
115 forcing them to turn together; a hand lever E rigidly attached to one of said shafts; a lug, e, rigidly attached to the same shaft; and a lock, having a bolt f which engages said lug and locks said shafts and said lever; substan-
120 tially as described.

5. The combination of two cases, each containing two or more rows of drawers; and a horizontal shaft for each row of drawers, turning in bearings, and which, when turned
125 into one position, projects one edge in front of one edge of the drawers in its row, and, when turned into another position, leaves their passage unobstructed; means connecting the shafts of each case together, and forcing
130 them to turn together; means coupling one of said shafts rigidly to a similar shaft in

the other case, and forcing them to turn as
one; a lever E arranged between the cases
and attached to one of said shafts; a lug e
attached to one of said shafts between said
5 cases; and a lock having a bolt f which en-
gages said lug, and locks both cases; sub-
stantially as described.

Witness my hand this 29th day of April,
1895.

ROBERT L. MERZ.

Witnesses:

F. M. BRIDGES,
A. PÉTING, Jr.