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J. W. HIGGINS.
DESK.

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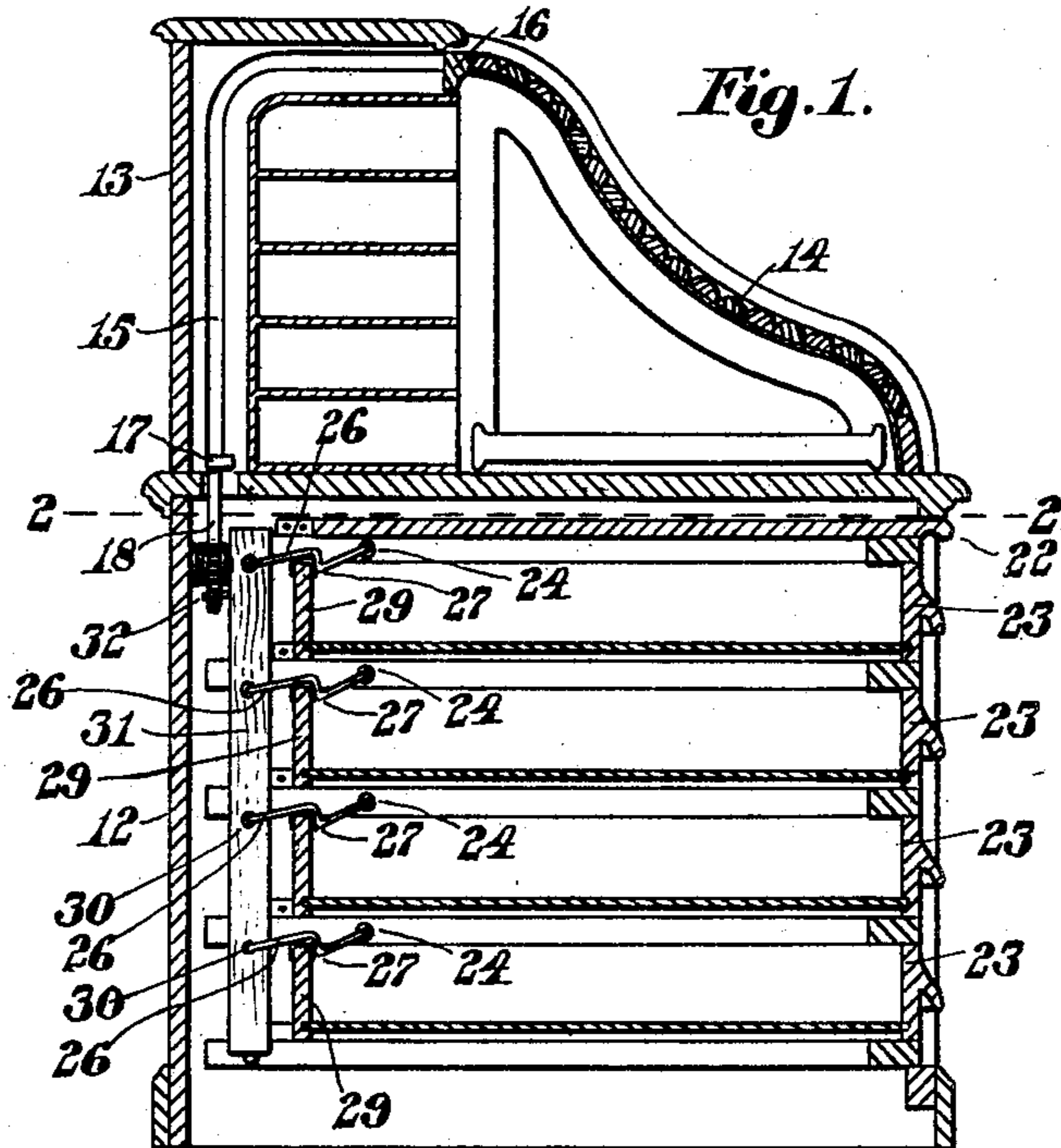


Fig. 1.

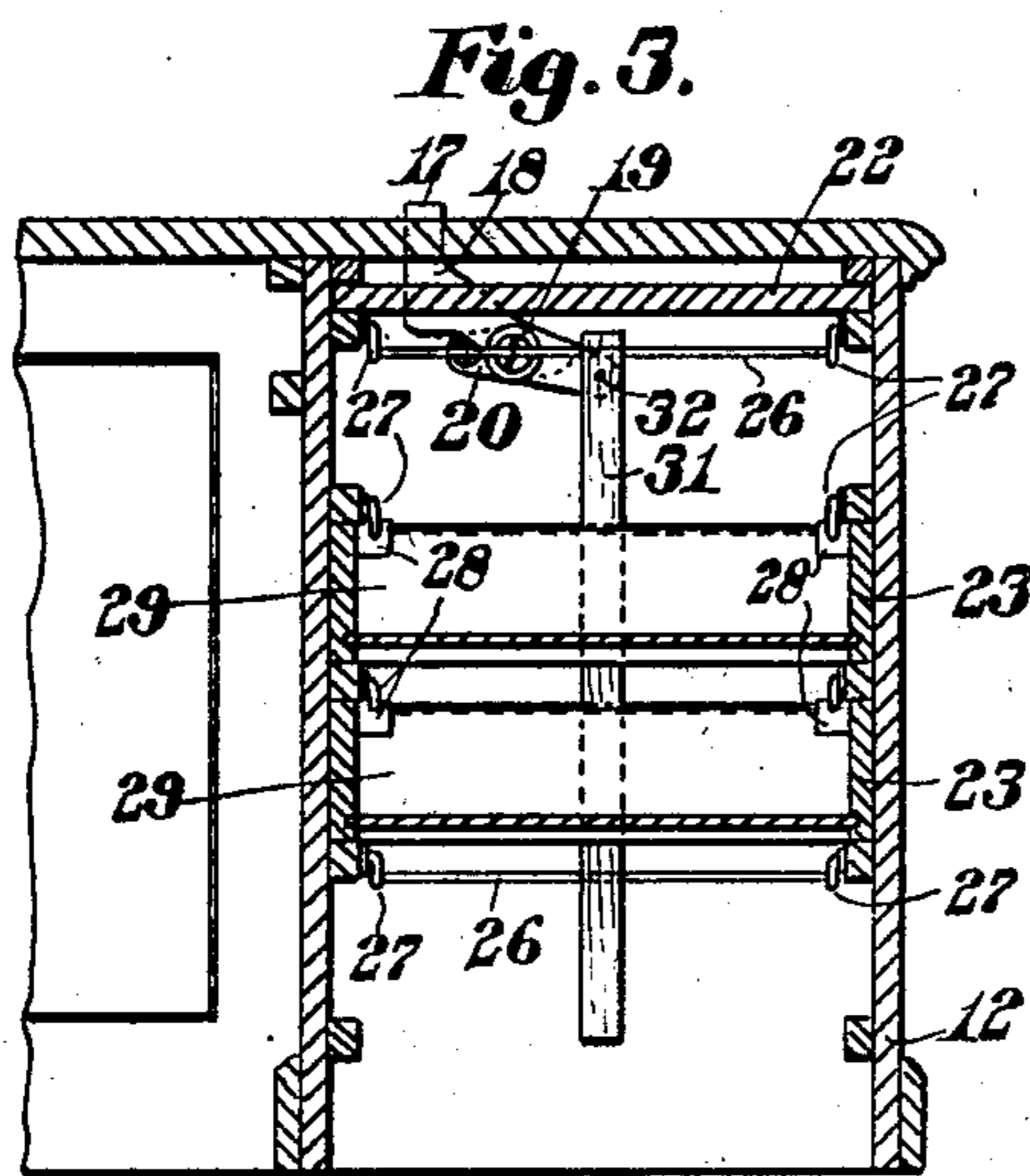


Fig. 3.

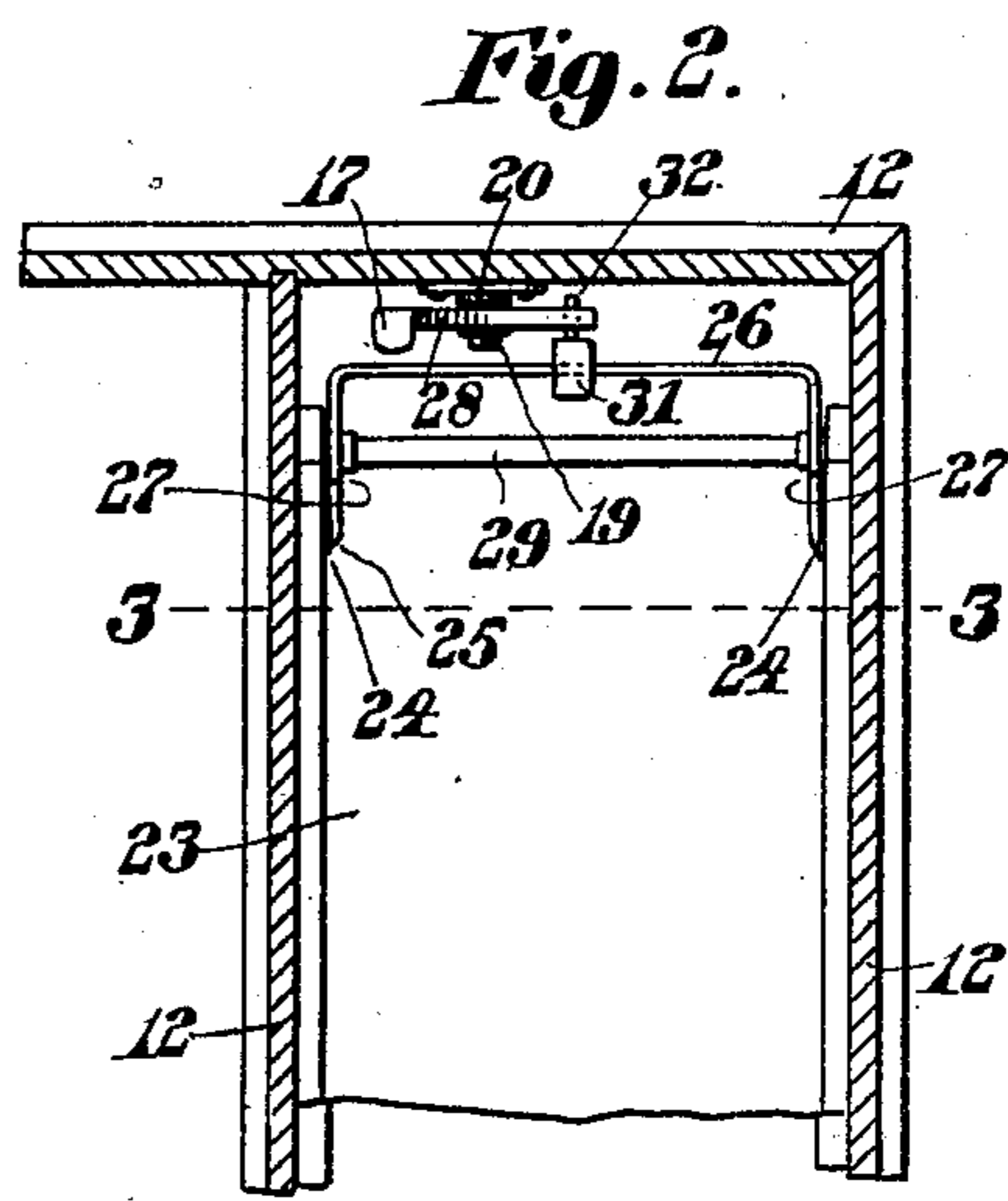
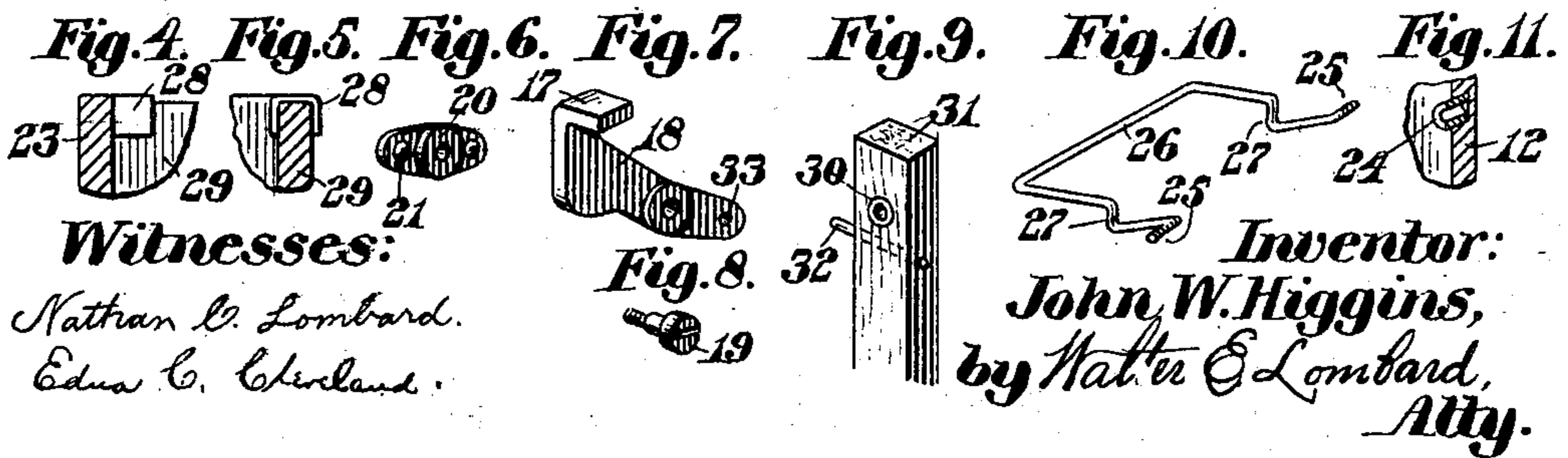


Fig. 2.



Witnesses:

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Fig. 8.

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UNITED STATES PATENT OFFICE.

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DESK.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN W. HIGGINS, a citizen of the United States of America, and a resident of Somerville, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Desks, of which the following is a specification.

This invention relates to drawer-locking mechanisms for desks, the main object of which is to provide a more effective locking mechanism in which all strain due to an attempt to open a drawer when locked will come directly upon its own engaging member and not be transmitted to the locking devices for the other drawers or the intermediate mechanism connecting them.

It consists in certain novel features of construction and arrangement of parts which will be readily understood by reference to the description of the drawings and to the claims hereinafter given.

Of the drawings: Figure 1 represents a vertical section through a roll top desk showing the invention applied thereto. Fig. 2 represents a partial horizontal section on line 2—2 on Fig. 1 with the slide removed. Fig. 3 represents a vertical section through the lower portion of one side of the desk, the cutting plane being on line 3—3, on Fig. 2, the slide and two of the drawers being shown in section while the other pair of drawers are removed. Figs. 4 and 5 represent sectional details showing the metal reinforcement on the back of each drawer to engage the locking members. Fig. 6 represents a perspective view of the support for the pivoted staff-operating member. Fig. 7 represents a perspective view of the pivoted member operated by a movable part of the desk to raise the staff or weighted member. Fig. 8 represents a perspective view of the fulcrum stud for said pivoted member. Fig. 9 represents a perspective view of the upper end of the staff or weighted member. Fig. 10 represents a perspective view of the U-shaped shouldered drawer-locking device, and Fig. 11 represents a detail in perspective showing in section the socket for receiving the pivotal extensions of said U-shaped shouldered locking member.

Similar characters designate like parts throughout the several figures of the drawings.

In the drawings, 12 represents the body of a roll top desk the upper portion 13 of which is provided with the usual roll top 14. This

roll top 14 is adapted to move, when opening the desk, in the guideway 15 so that when the desk has been opened the end piece 16 of said roll top 14 will come in contact with the head 17 of the pivoted member 18 and cause this member 18 to be moved about the fulcrum stud 19, threaded to a suitable socket 20 secured by screws or other means to the frame 12 at the rear of the desk.

The body 12 of the desk is provided with the usual slide 22 and a plurality of drawers 23. Above each of the drawers 23 and in front of the rear ends thereof when in closed position the main body 12 is provided with sockets 24 into which extend the pivotal extensions 25 of a U-shaped member 26, the parallel sides of which are bent downwardly as at 27 to form engaging shoulders. These shoulders 27 engage with the reinforcing metal contact plates 28 secured to the back end 29 of each of the drawers 23, each shoulder 27 engaging a back end 29 of a drawer near either side wall thereof.

The U-shaped member 26 is loosely mounted in a metal sleeve or eye 30 in a staff or member 31 which is of sufficient weight to normally retain all of the U-shaped members 26 in such position that the shoulders 27 will engage the back ends 29 of the drawers 23 and lock them in closed position. The staff or weight 31 is provided with a projecting member 32 which extends through an opening 33 in the pivoted member 18, thereby causing by the weight of the staff 31 the retention of the head 17 of said pivoted member 18 in its elevated position, as shown in Fig. 1.

It is obvious that when the roll top 14 is moved to the rear to open the top of the desk, the part 16 thereof will contact with the head 17 of the pivoted member 18 and cause it to be moved about the fulcrum stud 19, thereby raising the staff or member 31 and thus lifting all of the shoulders 27 above the top of the back ends 29 of the drawers 23 so that either one or all of these may be readily opened at will.

It is obvious that from a construction such as is shown and described, all the strain in any attempt to open the drawers when the roll top 14 has not been moved to the rear will come directly upon the pivots 25 and any effort to open the drawers will more firmly lock them in position without causing any strain to be brought to bear upon the staff or member 31 as is the usual practice.

As there is no strain brought to bear upon this staff or weight 31 this may be of cheap material without any particular strength, the only requirement being that there shall
 5 be sufficient weight therein to normally retain the pivoted U-shaped members 26 in the position shown in Fig. 1 with the shoulders 27 in engagement with the back ends 29 of the drawers 23. It is obvious that a further ad-
 10 vantage resides in a construction of this kind, inasmuch as there is a locking device for each end of the back 29 of the drawers 23 so that if any accident occurred to one the locking would still be effected by the other. The
 15 pivots 25 are provided with metal sockets 24 in the side walls of the frame of the desk, thereby preventing the sockets therefor from wearing large as would be the case if the pivots simply extended into holes bored in the
 20 side walls of the desk frame. It is obvious, however, that for a cheaper construction this socket may be dispensed with without affecting the operation of the invention. In like manner, the back wall 29 of the drawers 23
 25 are each provided with wearing contact plates 28 which engage with the shoulders 27. These may likewise be dispensed with if desired and the shoulders 27 contact directly with the wooden back wall of the
 30 drawer.

While the staff or weight 31 is provided with metal sleeves 30 which receive the U-shaped member 26, thus preventing the hole from wearing too large, it is obvious that
 35 when hard wood is used this sleeve may be dispensed with. Moreover, while the pivoted member 18 and its connection with the desk frame and the staff are shown of a particular construction in the drawings, these
 40 details may be varied at will without affecting the principles of the invention, provided there is a pivoted member which is adapted to be operated by means of the movable part of the desk to raise the staff and simultane-
 45 ously move all of the shoulders 27 out of the path of the back wall 29 of the drawers 23 so that they may be opened as desired.

The many advantages of a construction such as is herein described it is believed will
 50 be perfectly apparent without further description.

Having thus described my invention, I claim:

1. In a drawer-locking mechanism for
 55 desks, the combination of a vertically movable staff; a pivoted member operable by a movable part of the desk to move said staff; a drawer; and another member pivoted to the frame of the desk provided with a
 60 drawer-locking shoulder and adapted to be moved about its pivot by the upward movement of said staff to disengage said shoulder and unlock said drawer.

2. In a drawer-locking mechanism for
 65 desks, the combination of a vertically mov-

able staff; a pivoted member operable by a movable part of the desk to move said staff; a drawer; a U-shaped locking device provided near either end with a shoulder adapted to
 70 engage the back of said drawer and pivoted to the desk frame on either side of said drawer; and means connected to said staff for imparting a movement to said locking device whenever said staff is vertically moved.

3. In a drawer-locking mechanism for
 75 desks, the combination of a vertically movable staff; a pivoted member operable by a movable part of the desk to move said staff; a drawer; a U-shaped locking device provided near either end with a shoulder adapted to
 80 engage the back of said drawer and pivoted to the desk frame on either side of said drawer and in front of the back of said drawer when in closed position; and means connected to said staff for imparting a move-
 85 ment to said locking device whenever said staff is vertically moved.

4. In a drawer-locking mechanism for
 90 desks, the combination with a drawer; of a member pivoted to the desk frame and provided with a drawer-engaging shoulder; a weight adapted normally to retain said shoulder in locking position; and means operable by a movable part of the desk for moving
 95 said weight to disengage said shoulder.

5. In a drawer-locking mechanism for
 100 desks, the combination with a drawer; of a member pivoted to the desk frame in front of the back of the drawer and provided with a drawer-engaging shoulder; a weight adapted normally to retain said shoulder in locking
 105 position; and means operable by a movable part of the desk for moving said weight to disengage said shoulder.

6. In a drawer-locking mechanism for
 105 desks, the combination with a drawer; of a U-shaped member pivoted to the desk frame on either side of said drawer and in front of the back end thereof provided with a drawer-engaging shoulder; a weight adapted nor-
 110 mally to retain said shoulder in locking position; and means operable upon said weight by a movable part of the desk for disengaging said shoulder.

7. In a drawer-locking mechanism for
 115 desks, the combination with a drawer; of a U-shaped member pivoted to the desk frame on either side of said drawer and in front of the back end thereof provided with a drawer-engaging shoulder; a weight having an eye
 120 through which said U-shaped member extends adapted normally to retain said shoulder in locking position; and means operable upon said weight by a movable part of the desk for disengaging said shoulder.
 125

8. In a drawer-locking mechanism for
 130 desks, the combination with a drawer; of a member pivoted to the desk frame and provided with a drawer-engaging shoulder; a weight having an eye extending therethrough

through which said member extends adapted normally to retain said shoulder in locking position; and means operable upon said weight by a movable part of the desk for dis-
5 engaging said shoulder.

9. In a drawer-locking mechanism for desks, the combination of a vertically movable staff; a pivoted member operable by a movable part of the desk to move said staff; a drawer; another member pivoted to the
10 frame of the desk provided with a drawer-locking shoulder and adapted to be moved about its pivot by the upward movement of said staff to disengage said shoulder and unlock said drawer; and a contact plate upon
15 said drawer with which said shoulder engages.

10. In a drawer-locking mechanism for desks, the combination of a vertically movable staff; a pivoted member operable by a
20 movable part of the desk to move said staff; a drawer; a U-shaped locking device provided near either end with a shoulder adapted to

engage the back of said drawer and having a pivotal extension at either end; and a metal socket in the desk frame for the reception of
25 each pivotal extension.

11. In a drawer-locking mechanism for desks, the combination of a vertically movable staff; a metal sleeve extending through said staff; a pivoted member operable by a
30 movable part of the desk to move said staff; a drawer; and a U-shaped locking device extending through said sleeve and provided near either end with a shoulder adapted to
35 engage the back of said drawer, said device being pivoted to the desk frame on either side of said drawer.

Signed by me at Boston, Mass., this 2d day of January, 1908.

JOHN W. HIGGINS.

Witnesses:

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EDNA C. CLEVELAND.