

E. OHNSTRAND.
DRAWER LOCKING MECHANISM.
APPLICATION FILED OCT. 28, 1912.

1,157,032.

Patented Oct. 19, 1915.
2 SHEETS—SHEET 1.

Fig. 1.

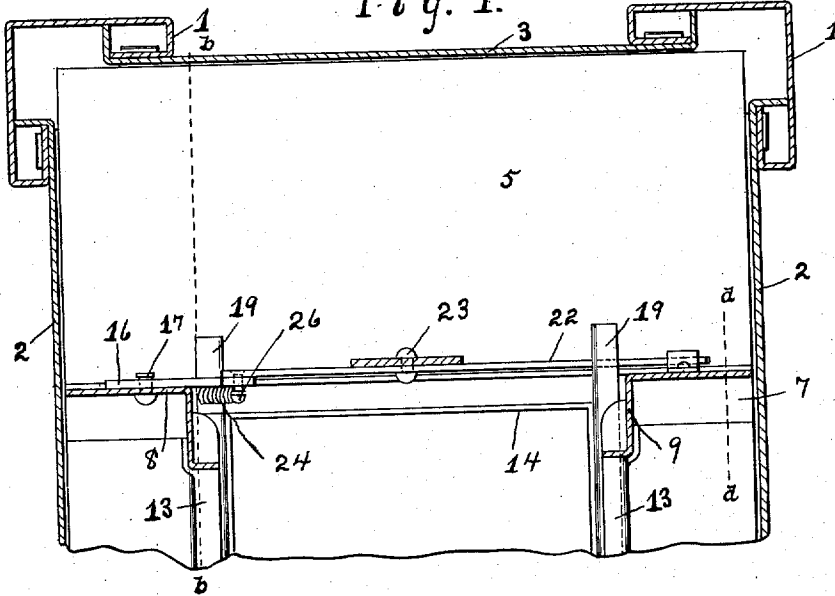
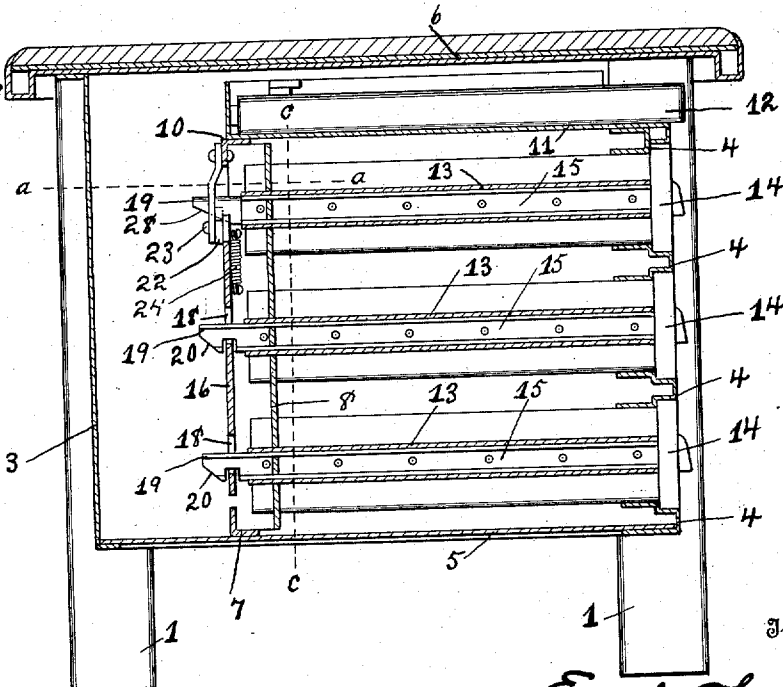


Fig. 2.



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Witnesses

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Fig. 3.

Fig. 4.

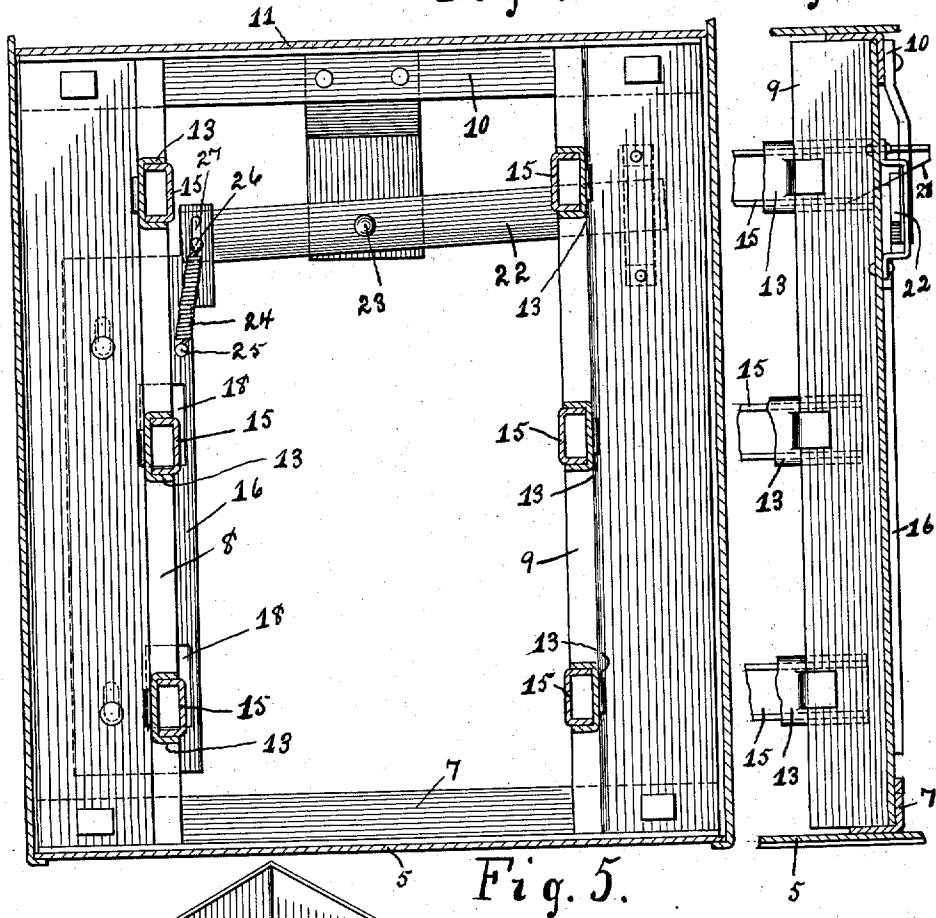


Fig. 5.

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UNITED STATES PATENT OFFICE.

ENOCH OHNSTRAND, OF SYRACUSE, NEW YORK, ASSIGNOR TO U. S. STEEL FURNITURE COMPANY, OF SYRACUSE, NEW YORK, A CORPORATION OF NEW YORK.

DRAWER-LOCKING MECHANISM.

1,157,032.

Specification of Letters Patent.

Patented Oct. 19, 1915.

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To all whom it may concern:

Be it known that I, ENOCH OHNSTRAND, of Syracuse, in the county of Onondaga and State of New York, have invented a new and useful Improvement in Drawer-Locking Mechanisms, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

The present invention relates to furniture and more particularly to that class having a series of drawers in which the locking of one of the series effects the locking of the other, and an object of this invention is to provide an improved construction in which the locking member is positively moved to locking position and moves to unlocking position under the action of gravity, so that a positive locking of the drawers is insured, and, if for any reason the locking bar should break its connection with the other parts, it will automatically move to unlocking position.

To these and other ends the invention consists in certain parts and combinations of parts all of which will be hereinafter described, the novel features being pointed out in the appended claims.

In the drawings: Figure 1 is a horizontal section on a line *a-a* Fig. 2; Fig. 2 is a vertical section on the line *b-b* Fig. 1; Fig. 3 is a vertical section on the line *c-c* Fig. 2; Fig. 4 is a section on the line *d-d* Fig. 1; and Fig. 5 is a perspective view of one of the drawers.

The invention is illustrated in a sheet metal desk embodying two drawer sections connected by a top 6, each section consisting of four legs 1 connected by side panels 2, a rear panel 3, strike bars 4, and a bottom 5.

Arranged within each section of the desk is a drawer suspension comprising preferably a rectangular frame formed, in this instance, of a bottom piece 7 of angle iron supported on the bottom 5, upright pieces 8 and 9, of Z-shape in cross section, and an angle iron 10 connecting the upper ends of the Z-shaped pieces. This frame may be held in an upright position by a flanged plate 11 which is secured to the frame at its rear end and to the uppermost strike bar 4 at its forward end and which serves as a guide for a desk slide 12. Connecting the front legs 1 and the rectangular frame are the stationary drawer guides 13 which are preferably U-shaped in cross section and are arranged in pairs in different horizontal

planes, the members of each pair having their grooved or channeled faces opposed. This desk construction and the drawer suspension do not form the subject matter of the present application.

Operating on the drawer guides 13 are the drawers 14 which preferably have, on opposite side walls thereof, substantially midway between the upper and lower edges of said side walls, guides 15 which may be U-shape in cross section with their grooved or channeled faces turned outwardly and received within the channels or guides 13 of the drawer suspension.

The locking mechanism embodies a locking member 16 which preferably is in the form of a plate or bar guided vertically on the upright member 8 of the drawer suspension, and connected to the latter by means of headed studs 17 which operate in slots 18 formed in said plate. This locking member may cooperate with shoulders on the drawers 14 and to this end is provided with a number of openings 18 being in number one less than the whole number of drawers to be locked. The drawers are provided with notched projections 19 which are preferably rearward extensions of one of the guides 15 of the drawers, the free end of said extension being beveled at 20.

For the purpose of elevating the locking member 16 into the notches 21 of the projections 19, there may be provided a suitable mechanism comprising preferably an operating lever 22 pivoted at 23 and having one end connected to the slide 16 preferably by a resilient means as a coil spring 24 secured at 25 to the slide and at 26 to a pin on the lever 22 operating in a slot 27 in the slide 16. The lever 22 lies substantially horizontally and in rear of the uppermost drawer of the series, its other end being positioned so that it may be engaged by a beveled portion 28 formed by extending rearwardly one of the guides 15 of the uppermost drawer 14. Of course, the invention is not limited to moving the operating lever 22 by the upper drawer 14.

It is apparent that, when the uppermost drawer 14 is moved to closed position, the beveled portion 28 thereon will engage the free end of the lever 22 and, through the spring 24, cause the elevation of the locking member 16. If the lower drawers 14 be closed, the locking member 14 will enter the

notches 21 and hold such drawers against removal until the operating part 22 is released by the upper drawer. If the lower drawers be opened, they may be closed and locked merely by moving them to their closed positions, as the beveled portions 20 will ride in engagement with the bar 16 and cause the latter to lower without movement of the bar 22, owing to the resilient connection 24 between the operating bar and the locking bar.

From the foregoing it will be seen that there has been provided a locking mechanism for furniture drawers in which the locking member moved from locking position under the action of gravity and is pulled positively to locking position, resilient connection being provided, if desirable, to permit the closing of the drawers after the locking bar has been moved to locking position. There has also been provided a locking mechanism which is so located and arranged that it is not liable to get out of order, the parts being simple in operation and inexpensive to manufacture.

What I claim as my invention and desire to secure by Letters Patent is:

1. In combination with a plurality of drawers, drawer locking mechanism comprising a pivoted operating member adapted to be engaged by one of the drawers to be moved to locking position, and a vertically-movable common locking bar for the other drawers, said locking bar moving to locking position when the operating lever is moved by the drawer and being movable relatively to said operating lever to permit the other drawers to close after the first drawer has closed.

2. In combination with a plurality of drawers, drawer locking mechanism comprising a common locking member for the

drawers, a pivoted operating lever resiliently connected to the locking member, and a movable member adapted to cooperate with the operating lever to shift the locking member to locking position.

3. The combination with a plurality of drawers having projections at their rear ends provided with beveled portions and downwardly opening notches, of a vertically movable locking member arranged in rear of the drawers and having portions adapted to enter said notches upon the upward movement of said member, an operating lever pivotally mounted in rear of the drawers and lying transversely of the line of movement of said drawers, one end of said operating member being resiliently connected to the locking member, and a drawer arranged above the first named drawers and provided with an extension at its rear formed with a beveled portion adapted to cooperate with the free end of the operating lever.

4. In combination with a plurality of drawers, drawer locking mechanism comprising a pivoted operating member adapted to be engaged by one of the drawers to be moved to locking position, a common locking bar for the drawers movable upwardly to locking position and having drawer-engaging means rigid therewith, and a spring connecting said lever and the locking bar to cause the locking bar to move to locking position when the operating lever is moved by the drawer and to permit the bar to move relatively to said operating lever to permit the other drawers to close after the first drawer has closed.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."