

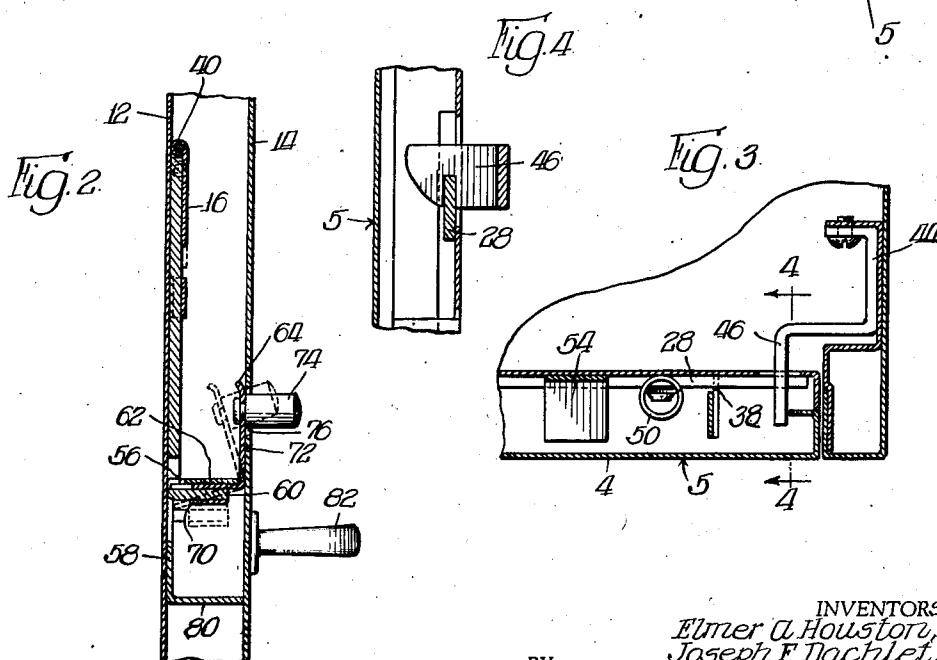
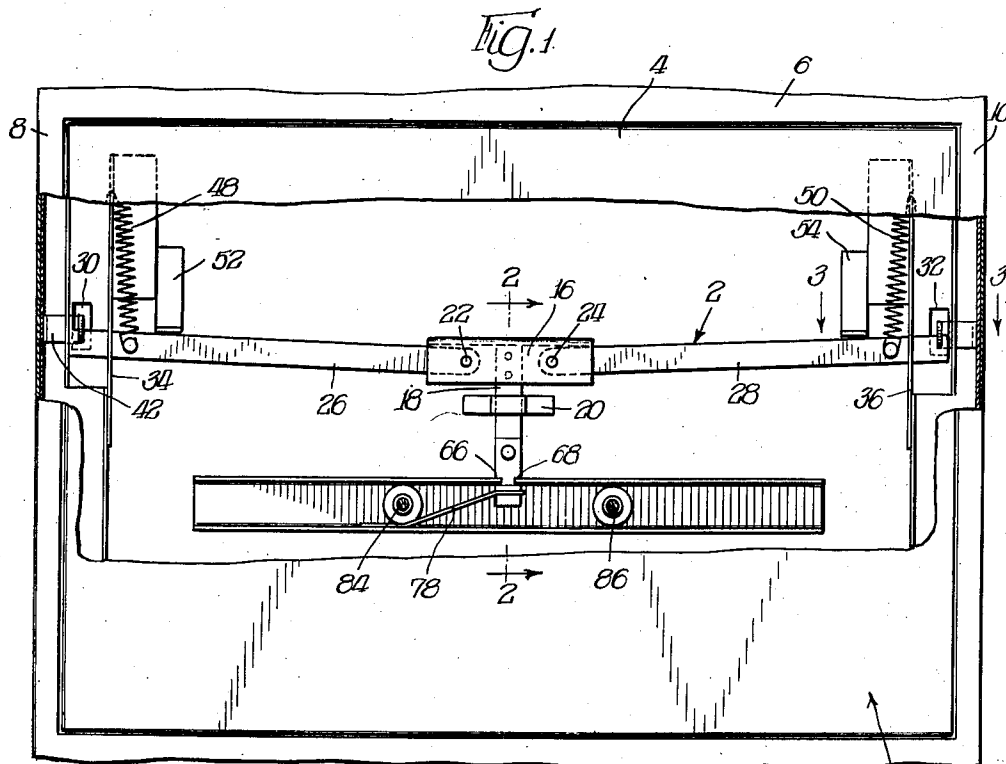
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LATCHING MECHANISM FOR CABINET DRAWERS AND THE LIKE

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LATCHING MECHANISM FOR CABINET
DRAWERS AND THE LIKE

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The present invention relates to filing devices, and more in particular to novel latch mechanism for drawers thereof.

Among the objects of the present invention is to provide a novel latch mechanism for holding a file support of a filing device in closed position.

At the present time drawers of filing devices of the type herein contemplated have been latched in closed position in said device by way of a single latch disposed adjacent the top of the front thereof and operated for engagement with the said filing device. However, this form of latch mechanism is subject to a number of criticisms from the structure standpoint, the principal one being that the drawer is unevenly latched, permitting movement of the drawer in its closed position about said latch means, both vertically and transversely, so that the drawer in effect is loosely latched in said closed position.

The present invention therefore contemplates a novel latch mechanism which provides adequate latching means for holding the drawer in firm and solid relation in the filing device, the said latching means being so disposed as to effectively latch the said drawer and to prevent play both vertically and laterally.

More particularly, the present invention includes novel mechanism comprising duplicate latching elements both operated by a common means to unlatched position, but independently associated with one another whereby each is operated to latched position independent of the other and in accordance with the requirements for its particular latching means associated with the filing device or cabinet.

The invention in one of its embodiments involves the use of an operating head which, through suitable means, transfers its operating movements to independent latch levers movably mounted with respect to said head, said transfer of operating movements being for the unlatching of the individual latch levers with respect to their latching means.

Other objects, features, capabilities and advantages are comprehended by the invention, as will later appear and as are inherently possessed thereby.

Referring to the drawing:

Figure 1 is a fragmentary view in elevation of a filing device, the same having parts cut away to disclose novel mechanism in accordance with the present invention embodied therein;

Figure 2 is a fragmentary sectional view taken

in the plane represented by line 2—2 of Figure 1 of the drawing;

Figure 3 is a fragmentary view in section taken in the plane represented by line 3—3 of Figure 1 of the drawing; and

Figure 4 is a fragmentary view in section taken in the plane represented by line 4—4 of Figure 3 of the drawing.

Referring now more in detail to the drawing, latch mechanism made in accordance with the present invention and generally referred to as 2 is disclosed in operative position within the front panel 4 of a drawer 5 operatively mounted within the cabinet 6 provided with side walls 8 and 10.

The front panel 4 in the embodiment disclosed is of metal construction and comprises an inner face plate 12 and an outer face plate 14 suitably secured together and between which is disposed the latch mechanism 2 for holding the drawer in closed position. This latch mechanism comprises an operating head 16 substantially centrally disposed in respect to the longitudinal axis of the drawer and to which is secured an operating arm 18 slidably mounted in association with face plate 12 by means of a bracket 20. Pivotally secured to the operating head 16 as at 22 and 24 are two latch levers 26 and 28 extending laterally from the cross head 16 and in opposed relation to one another, the said levers terminating respectively adjacent apertures 30 and 32 formed in the face plate 12 adjacent the side marginal edges thereof. Adjacent the outer ends of levers 26 and 28 are brackets 34 and 36 provided with slots, such as 38, which serve as guide means for the outer ends of the said levers.

The cross head 16, as clearly shown in Figure 2 of the drawing, is provided with the inner rolled marginal edge 40 which provides abutment means engageable with the said levers 26 and 28 in spaced relation to their pivot points 22 and 24 whereby movement of the said levers is effected by downward movement of the cross head 16. The levers 26 and 28 are adapted to engage latch elements 42 and 44, respectively, which are secured to the side walls 8 and 10 and have a part, such as 46, adapted to project forwardly and through apertures 30 and 32 when the front panel is in its closed position for engagement with the said levers whereby the drawer is held in its closed position. The latch levers 26 and 28 are normally urged into latching position with respect to latch elements 42 and 44 by means of springs 48 and 50 connected at

their ends to levers 26 and 28 and to the brackets 34 and 36, the movement of said levers under the influence of coil springs 48 and 50 being limited by way of brackets 52 and 54 connected to the face plate 12 and having legs projecting into the path of movement of said levers.

From the above disclosure, it will be readily apparent that the latch levers 26 and 28 are simultaneously moved through cross head 16 for unlatching the same from their engagement with latch elements 42 and 44 of the filing device. The independent pivotal connection of the levers 26 and 28 permits independent movement of each of the latch levers to accommodate variations in the positioning of latch elements 42 and 44, thereby at all times effectively providing latching engagement between the levers and their respective latch elements.

The operating bar 18 extends downwardly through an opening 56 in a channel 58 and is provided with the laterally disposed end part 60 underlying the leg 62 of said channel. The member 18 is operated through the button release 64 comprising an angle member mounted through means of opposed slots 66 and 68 in leg 62 adjacent its marginal edge. The button release member 64 comprises leg 70 disposed between the end 60 of member 18 and leg 62 of channel 58 and a leg 72 normally disposed adjacent the face plate 14 which is provided with a push button 74 protruding through an opening 76 in said face plate 14. The end 60 of member 18 is normally urged into its engaging relation with leg 70 by way of a spring 78 engaging the said end 60 and being connected to the lower leg 80 of channel member 58, as clearly shown in Figure 1 of the drawing. As will be clearly appreciated from the disclosure, movement of push button 74 and release member 64 to dotted line position as shown in Figure 2 of the drawing causes end 60 to move downwardly, thereby moving member 18 downwardly with respect to its bracket 20. This in turn moves the cross head 16 downwardly which, through shoulder or abutment 40, engages levers 26 and 28 to overcome the tension of springs 48 and 50 to unlatch the outer end of said levers with respect to their respective latch elements 42 and 40.

In order to facilitate the unlatching of levers 26 and 28 simultaneously with an outward movement of the drawer, handle 82 is provided adjacent push button 74 and is connected as at 84 and 86 to the front panel 4.

While we have herein described and upon the drawing shown an illustrative embodiment of the invention, it is to be understood that the invention is not limited thereto but may comprehend other constructions, arrangements of parts, details and features without departing from the spirit of the invention.

We claim:

1. In a filing device, the combination of side walls provided with latch means, a file support operably mounted in said device between said sides and having a front, latch means mounted on said front releasably engageable with the latch means of said side walls, said last-named latch means comprising an operating head, latch levers pivotally connected to said head and being engageable with the said latch means of said side walls, said latch levers having abutting relation with said head in spaced relation to said pivotal connections whereby operative movements of said head are transferred thereto, means for releasably holding said latch levers in

abutting relation with said head, and operating means for said head.

2. In a filing device, the combination of side walls provided with latch means, a file support operably mounted in said device between said sides and having a front, latch means mounted on said front comprising an operating head movably mounted with respect to said front, laterally extending latch levers independently pivoted to said head and being engageable with the said latch means of said side walls, abutment means on said head for transferring operating movements from said head to said levers, means for normally maintaining said levers in operative engagement with said abutment means, and means for operating said head.

3. In a filing device, the combination of side walls provided with latch means, a file support operably mounted in said device between said sides and having a front, latch means for said support comprising an operating head, oppositely disposed latch levers pivoted to said head and independently of one another movable into latching engagement with the latch means of said side walls, said operating head and latch levers having cooperative abutting relation for transferring operating movements from said head to said levers, means for releasably holding said latch levers in abutting relation with said head, and means for operating said operating head.

4. In a filing device, the combination of side walls provided with latch means, a file support operably mounted in said device between said sides and having a front, latch means for said support comprising an operating head, oppositely extending latch levers pivoted to said head and being movable independently of one another into locking engagement with the latch means of said side walls, said operating head and latch levers having operative abutting relation for transferring operating movements from said head to said levers, means for positioning said latch levers with respect to said latch means, means for limiting the pivotal movement of said levers with respect to said operating head, and means for operating said operating head.

5. In a file support, the combination of a front panel, said panel having spaced apertures disposed adjacent opposed marginal edges thereof, latch mechanism mounted on said panel and comprising an operating head, oppositely disposed latch levers pivotally mounted on said head and extending laterally to adjacent said apertures, abutment means on said head for transferring operating movements to said levers, means for holding said levers in operative association with said abutment means, and means for operating said head.

6. In a file support, the combination of a front panel, said panel having spaced apertures disposed adjacent opposed marginal edges thereof, latch mechanism mounted on said panel and comprising an operating head, oppositely disposed latch levers pivotally mounted on said head and extending laterally to adjacent said apertures, abutment means on said head for transferring operating movements to said levers, resilient means for holding said levers in operative association with said abutment means, and means for operating said head.

7. In a file support, the combination of a front panel, said panel having spaced apertures disposed adjacent opposed marginal edges thereof, latch mechanism mounted on said panel and comprising an operating head, oppositely dis-

posed latch levers pivotally mounted on said head and extending laterally to adjacent said apertures, abutment means on said head for transferring operating movements to said levers, resilient means adjacent the ends of said levers for urging the same into operative association with said abutment means, and means for operating said head.

8. In a file support, the combination of a front panel latch mechanism mounted on said panel and comprising an operating head, oppositely disposed latch levers pivotally mounted on said head and extending laterally to adjacent the marginal edges of said panel, abutment means on said head for transferring operating movements to said levers, means for holding said levers in operative association with said abutment means, and means operable exteriorly of said panel for operating said head.

9. In a file support, the combination of a front panel latch mechanism mounted on said panel and comprising an operating head, oppositely disposed latch levers pivotally mounted on said head and extending laterally to adjacent the marginal edges of said panel, abutment means on said head for transferring operating movements to said levers, resilient means for holding said levers in operative association with said abutment means, and means operable exteriorly of said panel for operating said head.

10. In a file support, the combination of a front panel latch mechanism mounted on said panel and comprising an operating head, oppositely disposed latch levers pivotally mounted on said head and extending laterally to adjacent the marginal edges of said panel, abutment means on said head for transferring operating movements to said levers, resilient means adjacent the ends of said levers for urging the same into operative association with said abutment means, and means operable exteriorly of said panel for operating said head.

11. In a filing device, the combination of side walls provided with latch elements, a file support operably mounted in said device between said side walls, said file support having a front panel, said front panel having spaced apertures disposed adjacent opposed marginal edges thereof and adapted when said support is in its closed position to receive said latch elements, latch mechanism mounted on said panel and comprising a transversely disposed latch bar having its ends disposed adjacent said apertures, means

yieldably holding said bar in latching position with respect to said latch elements, and means operable exteriorly of said panel for operating said bar as a unit and in opposed relation to said yieldable means for releasing the same from engagement with said latch elements.

12. In a filing device, the combination of side walls provided with latch elements, a file support operably mounted in said device between said side walls, said file support having a front panel, said panel having spaced apertures disposed adjacent opposed marginal edges thereof and adapted when said support is in its closed position to receive said latch elements, latch mechanism mounted on said panel and comprising a linearly movable operating head, oppositely disposed latch levers pivotally connected to said head and extending laterally thereof, said latch mechanism being slidably operable substantially parallel to the plane of said panel, said levers having their ends disposed adjacent said apertures, means on said head having cooperative relation with said levers for transferring operative movements of said head to said levers, means for yieldably holding said levers in latching position with respect to said latch elements, and means operable exteriorly of said panel for operating said head.

13. In a filing device, the combination of side walls provided with latch elements, a file support operably mounted in said device between said side walls, said file support having a front panel comprising spaced face plates, one of said plates having spaced apertures disposed adjacent opposed marginal edges thereof and adapted when said support is in its closed position to receive said latch elements, latch mechanism disposed between said plates and comprising an operating head, oppositely disposed latch levers pivotally connected to said head and extending laterally thereof, said levers having their ends disposed adjacent said apertures, abutment means engageable with said levers whereby operative movements of said head are transferred to said levers, means for yieldably holding said levers in engagement with said abutment means whereby the ends thereof are in latching position with respect to said latch elements, and means operable exteriorly of said panel for operating said head.

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