Dec. 5, 1950 J. R. JONES 2,532,623

FILING CABINET DRAWER

Filed July 16, 1948 2 Sheets-Sheet 1

Fig. 1.

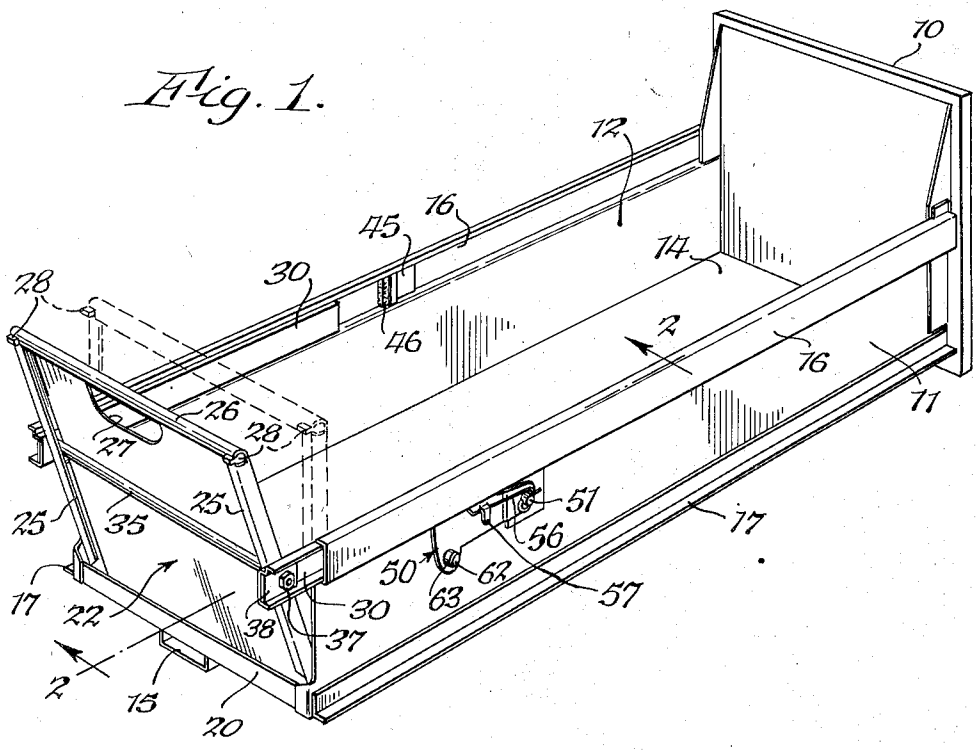
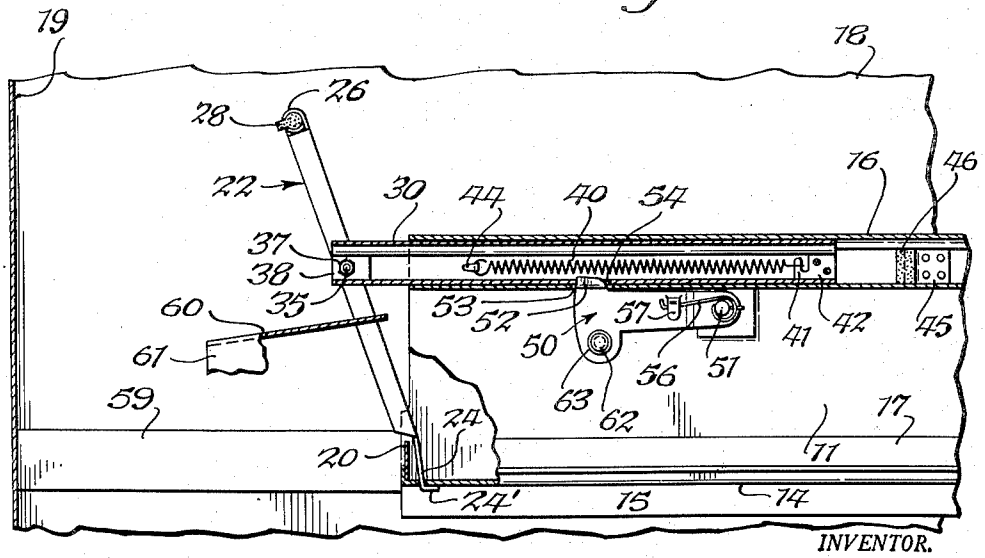


Fig. 2.



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Fig. 3.

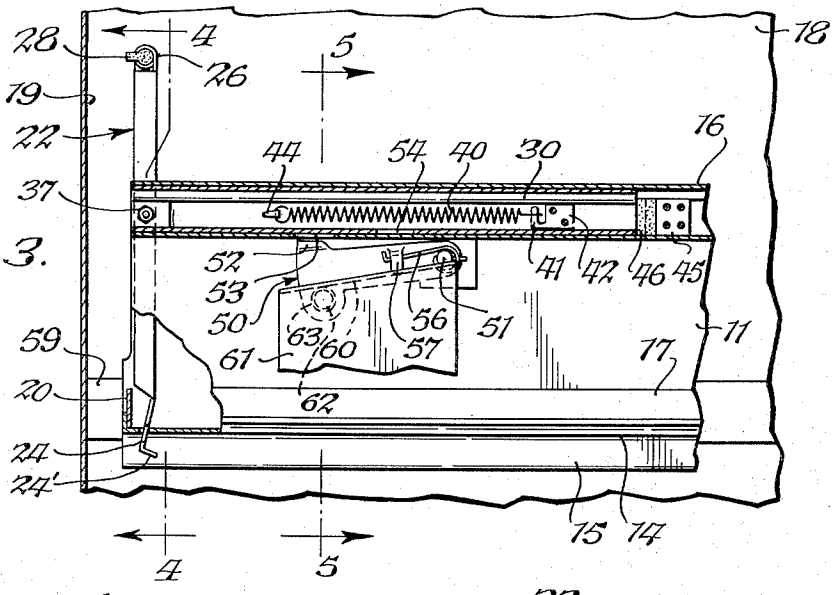
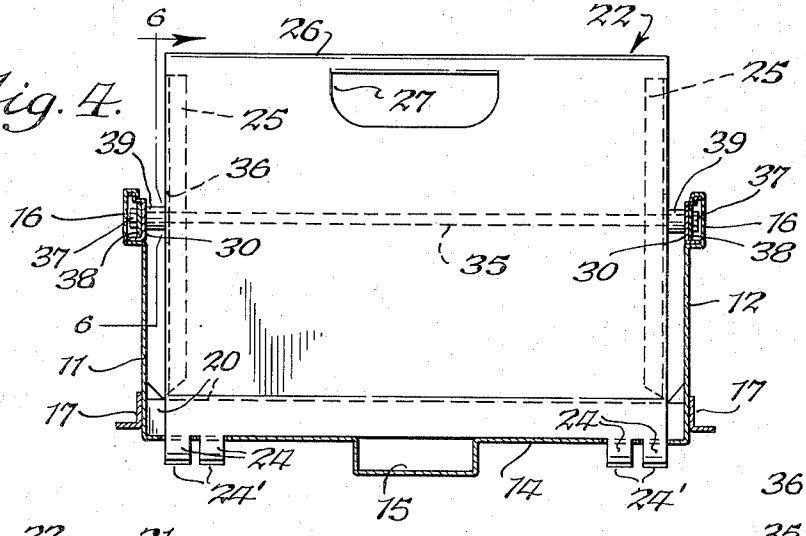


Fig. 4.



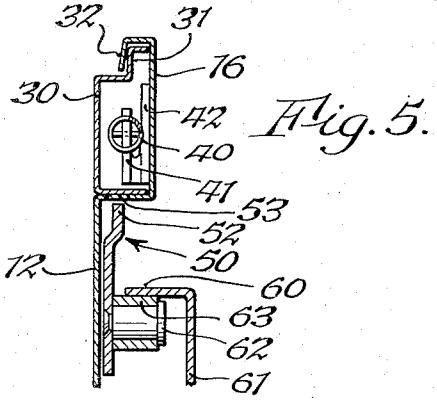


Fig. 5.

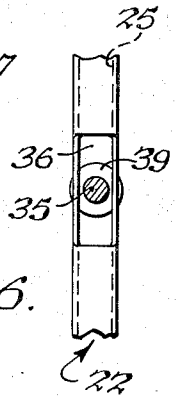


Fig. 6.

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FILING CABINET DRAWER

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9 Claims. (Cl. 312—273)

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This invention relates to filing cabinet drawers having compression plates disposed at the rear ends thereof to permit the files contained in the drawer to be rendered more readily accessible and for compressing the files when the drawer is closed.

One of the objects of this invention is to provide a drawer with a compression plate yieldingly held in position to compress the files in the drawer and, when the drawer is opened, may be swung rearwardly and releasably held in such a position while the drawer is open, to afford ready access to the files. Another object of this invention is to provide a latch for holding the compression plate in inclined position against spring action to render the files in the drawer more readily accessible for inspection and removal, and which latch when released permits the compression plate to be moved by said spring action into the compressing position. Another object is to provide means for automatically releasing the latch when the drawer is moved into closed position to permit the compression plate to be yieldingly urged into position to compress the files within the drawer. A further object is to provide a drawer with a compact arrangement of springs which urge the compression plate into position to compress the files. It is also an object of this invention to provide a filing drawer with a release bar or cam member mounted on the cabinet and arranged to release a latch for holding the compression plate in rearwardly swung position, to permit the compression plate to be moved by spring action into substantially upright position.

Other objects and advantages of this invention will appear from the following description and the novel features of this invention are set forth in the appended claims.

In the accompanying drawings, which illustrate by way of example one embodiment of this invention:

Fig. 1 is a perspective view of a filing drawer removed from its cabinet and provided with a compression plate and actuating mechanism therefor embodying this invention.

Fig. 2 is a fragmentary sectional elevation approximately on line 2—2, Fig. 1, on a slightly larger scale, and showing a portion of the drawer arranged within a cabinet.

Fig. 3 is a fragmentary sectional elevation thereof similar to Fig. 2, but showing the compression bar in position to compress the files.

Fig. 4 is a transverse sectional elevation thereof, on line 4—4, Fig. 3.

Fig. 5 is a fragmentary transverse sectional elevation thereof, on line 5—5, Fig. 3.

Fig. 6 is a fragmentary longitudinal sectional elevation thereof, on line 6—6, Fig. 4.

The filing drawer on which the improvements embodying my invention are employed may be of

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any suitable or desired construction, that shown by way of example in the drawings including a front panel 10, which is rigidly secured to the drawer sides 11 and 12, and 14 represents the bottom of the drawer. The bottom may be of any suitable or desired construction and may have a depression or channel 15 extending centrally and longitudinally of the drawer bottom, and this channel may be formed to cooperate with spacer plates (not shown), such as are commonly used in connection with drawers of this type.

The upper portions of the sides 11 and 12 of the drawer are preferably channelled as indicated at 16 for reinforcing the drawer sides. The drawer sides may be provided on their outer surfaces with angle bars 17 secured thereto, for example, by welding, which may cooperate with suitable rollers or tracks (not shown), for guiding the drawer while sliding into and out of a cabinet. This cabinet may be of any suitable or desired form and may include side walls 18 connected by a back wall 19, see particularly Figs. 2 and 3. The lower portions of the side walls of the drawer are preferably connected at the rear thereof by means of a strip 20 which may be welded to parts of the side walls 11 and 12.

The rear end of the drawer is closed by means of a compression plate 22, the lower end of which may be hinged in any suitable manner on the drawer. In the construction shown for this purpose, the compression plate 22 is provided at the lower end thereof with a plurality of downwardly extending tongues 24, which may extend through slots formed in the bottom 14 of the drawer near the rear end thereof. The lower ends of these tongues may be bent to lie substantially parallel to the bottom, thus forming projections or offsets 24' which serve to hold the tongues against withdrawal from the slots and thus prevent the lifting of the compression plate 22 out of operative relation to the bottom 14 of the drawer. Any other suitable means for hinging the lower end of the compression plate to the drawer may be provided, if desired.

The sides of the compression plate are preferably bent into substantially channel form as shown at 25 to reinforce the same and the upper end of the compression plate may be turned over or beaded as shown at 26. The compression plate may also have an opening 27 therein, by means of which the bead 26 of the compression plate may be readily grasped by the hand of the operator. Bumpers 28 of rubber or other cushioning material may be provided on the beaded portion of the compression plate to cushion the impact caused by contact of the drawer against the rear wall 19 of the cabinet.

The pivotal connection between the compression plate and the drawer bottom enables the compression plate to be swung into a rearwardly

inclined position, as shown in Figs. 1 and 2 and to an upright or compression position, as shown in broken lines in Fig. 1 and in full lines in Fig. 3, and it is desirable to provide means for releasably holding the compression plate in the inclined position when the drawer is opened, so that the upper portions of the files in the drawer may be easily separated to afford ready access to the same for inspection or removal of files from the drawer. It is also desirable to hold the compression plate in approximately the upright position shown in Fig. 3, when the drawer is closed in order that the files may be compressed and kept in flat condition. In order to accomplish these purposes, I have in the particular construction illustrated by way of example provided a pair of slide bars 30 which are slidable lengthwise in the channel-shaped upper portion 16 of the drawer sides 11 and 12. These slide bars 30 may be formed of sheet metal and, as shown, are of substantially channel-shape to fit within the channelled portions 16 of the side walls. In order to retain these slide bars within the channel 16, the slide bars are preferably provided with Z-shaped portions 31 extending along the upper edges thereof, see particularly Fig. 5, and the upper edges of the drawer sides at the upper ends of the channels may be flanged over, as shown at 32, to partly enclose the Z-shaped portions of the slide bars 30 and prevent dislodgement of the same from the channel portions 16. Any other suitable means for guiding the slide bars on the side walls may be employed, if desired. By means of the construction described, it will be noted that the inner surfaces of the slide bars are substantially in the same plane with the inner faces of the side walls of the drawer and, therefore, do not obstruct in any manner the files within the drawer.

The compression plate 22 may be connected with the two slide bars 30 in any suitable or desired manner, and in the construction illustrated, a rod 35 extends crosswise of the drawer in rear of the compression plate and extends through upright slots or openings 36 in the channel-shaped size portions 25 of the compression plate, see particularly Fig. 6. The ends of the rod 35 extend through holes in the end portions of the slide bars 30 and these ends of the rod 35 may be threaded and secured to the slide bars by means of nuts 37. Washers or small plates 38 may be interposed between the nuts 37 and the upright webs of the slide bars. Spacing sleeves or collars 39 are preferably interposed between the inner surfaces of the slides 30 and the flange portions 25 of the compression plate, these sleeves being of sufficiently large diameter so that they will not pass through the slots 36 in the channel portions 25. By means of this construction, the two slide bars 30 are connected by the transverse rod 35 and during the swinging of the compression plate about its pivot, the transverse rod 35 may move in the slots 36.

Any suitable resilient means may be provided for urging the compression plate into its upright position, as shown in Fig. 3, and in broken lines in Fig. 1, and in the construction shown for this purpose, I have provided a pair of coil springs 40 which are arranged in the spaces between the channelled portions 16 of the drawer sides and the channel-shaped slide bars 30. Each of these springs is connected at one end to a hook portion 41 formed on a plate 42 welded or otherwise secured to a side of the drawer within the channelled portion 16. The other end of each of these springs is connected to a hook or lug 44 which may be formed integral with and struck out of the adjacent slide bar 30. Consequently, it will be obvious that the springs will urge the slide bars 30 to the right in Figs. 1 and 2, and thus draw the compression plate into upright position. The drawer sides are preferably also provided within the channeled portions 16 with stop members 45 also welded in the channeled portions 16 of the draw sides and having suitable bumpers 46 of rubber or other cushioning material secured thereto in position to be engaged by the forward ends of the slide bars 30 when these bars have been moved by the springs 40 into upright positions.

It is desirable to provide means for releasably holding the compression plates 22 in their rearwardly inclined positions when the upper ends of these plates are pushed rearwardly by an operator against the action of the springs 40. In the particular construction shown for this purpose, a dog or latch 50 is provided which is pivoted on a lug 51 welded or otherwise secured to the outer surface of a side wall of the drawer, for example, to the side wall 11. This latch has a tooth or projecting portion 52 formed to extend through a slot 53 formed on the undersurface of the channelled portion 16 of the drawer side 11. The slide bar 30 mounted on the drawer side 11 is also provided with a slot 54 which is so located that when the compression plate 22 has been swung rearwardly to the desired extent, it will be in registration with the slot 53, so that the tooth or the projecting part 52 of the latch 50 may enter into both of these slots. This latch is yieldingly urged upwardly into a position in which the tooth 52 will pass through both slots 53 and 54, and for this purpose, a coil spring 56 is provided on one end, which passes through an aperture in the lug 51, and thereby serves to prevent the latch from becoming disengaged from this lug, and the other end of this spring may engage between the latch 50 and a lug or lip 57 pressed out of the latch. The spring is under tension to urge the outer end of the latch 50 to swing upwardly so that its tooth will pass through the two slots, and thus hold the slide bar from moving forwardly. The compression plate will thus be releasably held by the latch in the position shown in Fig. 2, and in full lines in Fig. 1. When the latch is released by swinging the same downwardly, the springs 40 will draw the compression plate 22 into the upright position shown in Fig. 3, and in broken lines in Fig. 1.

Means are preferably provided for swinging this latch into releasing position when the drawer is moved into the cabinet. In the construction shown for this purpose, a cam or release bar 60 is provided which is rigidly mounted on the cabinet. In the particular construction shown, this cam or release bar is in the form of a flange of a plate 61, which is secured to the cabinet, for example, to a strap or bar 59 forming a part of the cabinet, and the flange 60 is arranged to engage a projecting part on the latch to move the latch downwardly during the rearward movement of the drawer in the cabinet. For this purpose, a stud or projection 62 may be provided on the latch on which an anti-friction roller 63 may be mounted in such manner that as the drawer approaches its final position within the cabinet, the roller 63 will ride on the downwardly sloping undersurface of the cam or flange 60, thus drawing the rear end of the latch downwardly to move the tooth 52 thereof out of the slot 54 in the slide bar 30. Consequently, when

the latch releases the slide bar, the compression plate 22 will be drawn by the springs 40 into upright position. Any other means for releasing the latch from position to hold the compression plate in rearwardly inclined position may be employed, if desired.

The structure described has the advantage that when the file drawer is loaded to capacity, it is still easily possible to get at the contents thereof by swinging the compression plate rearwardly about the pivoted lower end thereof. By means of the construction described, the file drawer can be filled to capacity from the inside front to the back thereof and no space is required for operation of a follower block or compressor. By latching the compression plate in rearwardly swung position, the same can be maintained in that position by means of the latch as long as the drawer is in open position and the compression plate when swung rearwardly lies at an angle to facilitate the examination of the contents. When examination of the files is completed, it is not necessary for the operator to remember to release the latch, since this is automatically taken care of when the drawer is moved approximately into its final position in the cabinet.

It will be understood that various changes in the details, materials, and arrangements of parts which have been herein described and illustrated in order to explain the nature of the invention, may be made by those skilled in the art within the principle and scope of the invention, as expressed in the appended claims.

I claim as my invention:

1. In a filing cabinet drawer including a compression plate for compressing the contents of the drawer and having its lower portion pivotally mounted on said drawer, spring means for urging said compression plate to swing into a substantially upright position and against which said plate may be swung manually into a rearwardly inclined position, latch means mounted on said drawer for holding said compression plate in a rearwardly inclined position against the action of said spring means, and latch disengaging means actuated by the movement of said drawer into said cabinet to release said latch means to permit said springs to draw said compression plate forwardly.

2. A filing cabinet drawer according to claim 1, in which said latch disengaging means include a part mounted on said cabinet and which cooperates with said latch means when said drawer is moved into said cabinet.

3. In a filing cabinet drawer including a compression plate having its lower portion pivotally mounted on said drawer, a pair of slide bars slidably mounted one on each side of the drawer, connections between said slide bars and said compression plate, springs connected with said slide bars and urging the same to swing forwardly with reference to said drawer, and latch means engaging a slide bar for latching said slide bar and said compression plate in a rearwardly inclined position, said latch means when disengaged from said slide bar permitting said springs to draw said compression plate forwardly.

4. In a filing cabinet drawer including a compression plate having its lower portion pivotally mounted on said drawer, a pair of slide bars slidably mounted one on each side of the drawer, connections between said slide bars and said compression plate, springs connected with said slide bars and urging the same to swing forwardly with reference to said drawer, latch means engaging a slide bar for latching said slide bar and said compression plate in a rearwardly inclined position, and latch disengaging means actuated by the movement of said drawer into said cabinet to release said latch means to permit said springs to draw said compression plate forwardly.

5. A filing cabinet according to claim 4 in which said latch disengaging means include a part mounted on said cabinet and which cooperates with said latch means when said drawer is moved into said cabinet.

6. In a filing cabinet drawer including a compression plate having its lower portion pivotally mounted on said drawer, a pair of slide bars slidably mounted one on each side of the drawer, one of said slide bars having a slot therein, connections between said slide bars and said compression plate, springs for urging said compression plate to swing forwardly with reference to said drawer, a latch member pivoted on said drawer and having a tooth formed to enter said slot of said slide bar for holding said slide bar against forward movement when said compression plate has been swung rearwardly to a predetermined extent, and means for swinging said latch out of engagement with said slide bar to permit said springs to return said compression plate to its upright position.

7. In a filing cabinet drawer including a compression plate having its lower portion pivotally mounted on said drawer, a pair of slide bars slidably mounted one on each side of the drawer, one of said slide bars having a slot therein, connections between said slide bars and said compression plate, springs for urging said compression plate to swing forwardly with reference to said drawer, a latch member pivoted on said drawer and having a tooth formed to enter said slot of said slide bar for holding said slide bar against forward movement when said compression plate has been swung rearwardly to a predetermined extent, and means mounted on said cabinet in position to engage said latch to move said latch out of engagement with said slide bar when said drawer is in proximity to its inner position in said cabinet.

8. In a filing cabinet drawer including a compression plate having its lower portion pivotally mounted on said drawer, a pair of slide bars slidably mounted one on each side of the drawer, one of said slide bars having a slot therein, connections between said slide bars and said compression plate, springs for urging said compression plate to swing forwardly with reference to said drawer, a latch member pivoted on said drawer and having a tooth formed to enter said slot of said slide bar for holding said slide bar against forward movement when said compression plate has been swung rearwardly to a predetermined extent, a roller mounted on said latch, and a release bar mounted on said cabinet in position to engage said roller before said drawer moves to its inner position within said cabinet, said release bar being inclined in a direction to swing said latch on its pivot out of engagement with said slide bar.

9. In a filing cabinet drawer having side walls provided with channel-shaped portions adjacent the upper edges of said side walls and including a compression plate having its lower portion pivotally mounted on said drawer, a pair of slide bars slidably mounted on each side of said drawer and of substantially channel-shape and arranged to slide within said channel-shaped upper portions

of said drawer sides, and having its open face facing the interior of said channel-shaped portions of said side walls and said slide bars, springs confined in the space between said channel-shaped portions of said side walls and said slide bars, each of said springs having one end thereof connected to said drawer and the other end to a slide bar, connections between said slide bars and said compression plate, and latch means engaging a slide bar for latching the same in position to support said compression plate in a rearwardly inclined position against the action of said springs, and latch releasing means for disengaging said latch from said slide bar to permit said springs to draw said compression plate into substantially upright position.

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