Sept. 13, 1932. J. H. RAND, JR., ET AL. 1,876,748

FILE CABINET

Filed April 26, 1927 2 Sheets-Sheet 1

Fig. 1.

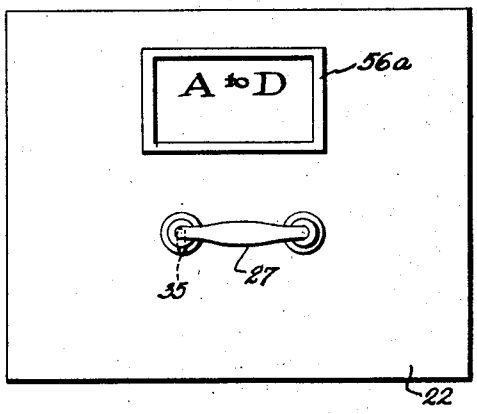


Fig. 2.

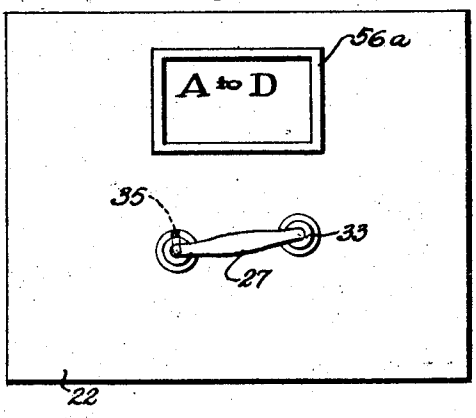


Fig. 3.

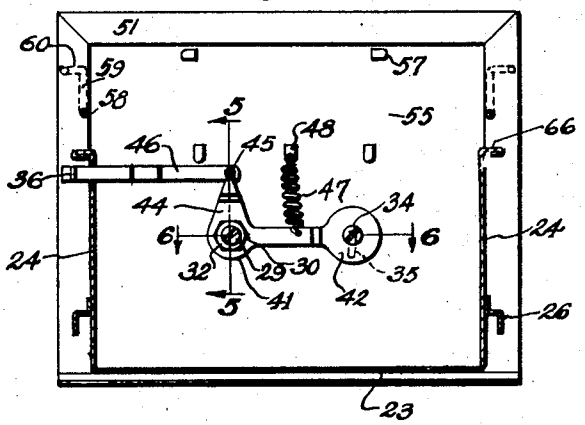


Fig. 5.

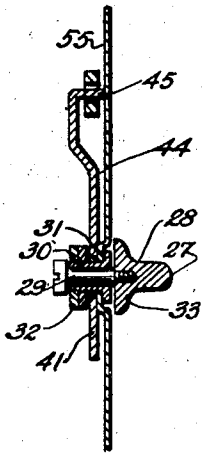


Fig. 4.

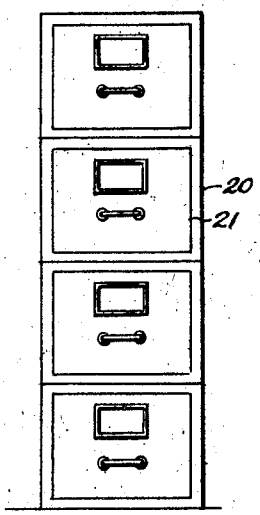


Fig. 6.

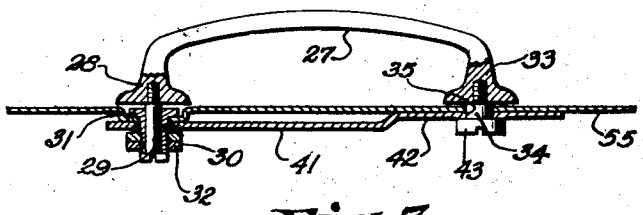


Fig. 8.

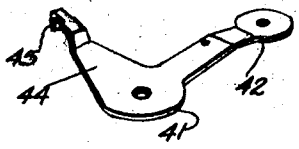
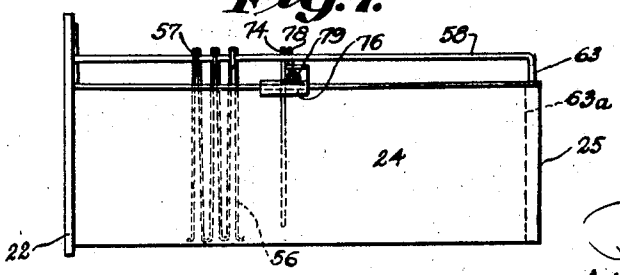


Fig. 7.



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Fig. 10.

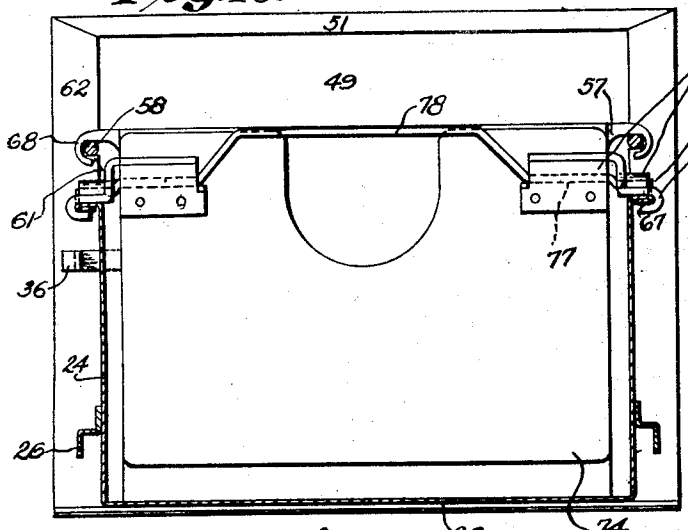


Fig. 9.

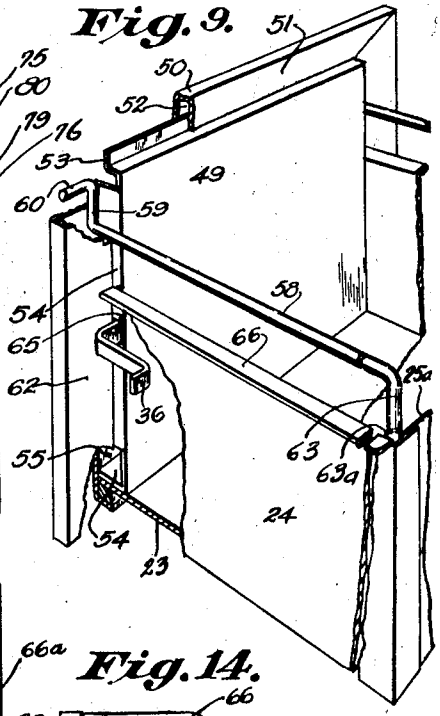


Fig. 12.

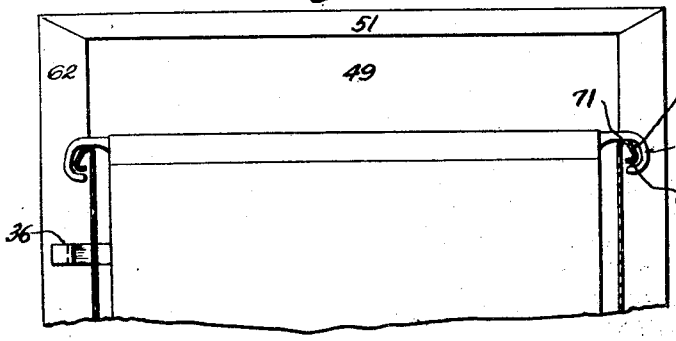


Fig. 14.

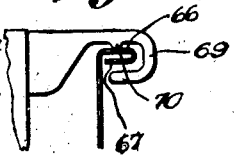


Fig. 11.

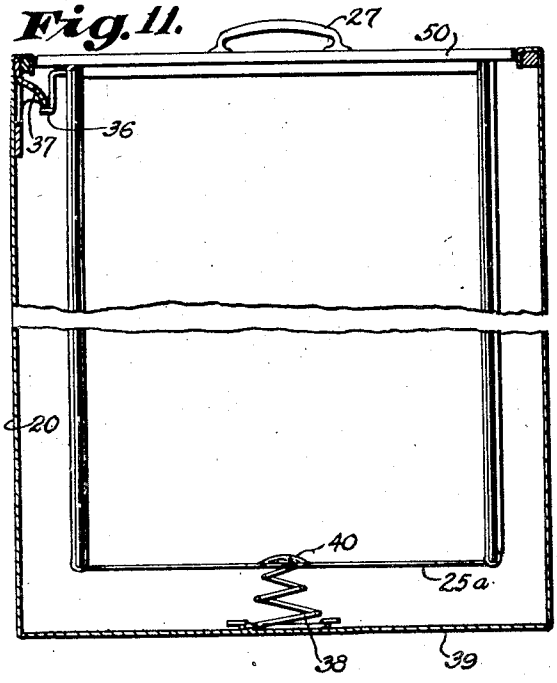
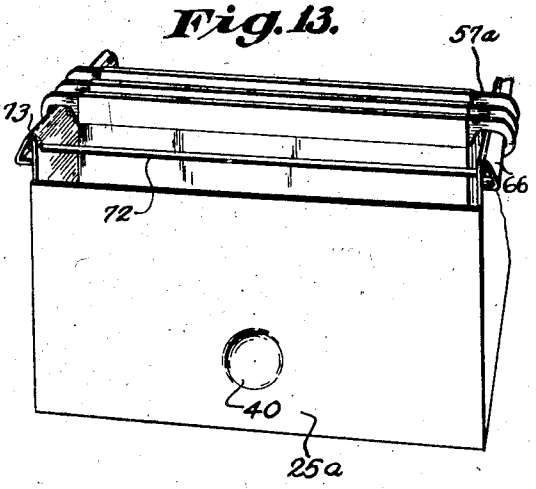


Fig. 13.



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UNITED STATES PATENT OFFICE

JAMES H. RAND, JR., OF BUFFALO, AND ENOCH OHNSTRAND, OF KENMORE, NEW YORK, ASSIGNORS, BY MESNE ASSIGNMENTS, TO REMINGTON RAND INC., OF NEW YORK, N. Y., A CORPORATION OF DELAWARE

FILE CABINET

Application filed April 26, 1927. Serial No. 186,794.

This invention relates to file cabinets, and in one feature of the invention has reference more particularly to file cabinets in which the drawers are especially adapted to receive reference data in a series of pockets suspended from cross bars.

An object of this invention is to provide a file drawer of the class described in which the construction is especially adapted to receive reference data in pockets suspended from slidably mounted cross bars.

Another object of the invention is to provide a file drawer which is adapted to open quickly under spring action when the latch is released by the handle.

A further object of the invention is to provide a file drawer in which the handle which is used to move the drawer relative to the housing is also connected to the latch so that the two motions of unlatching the drawer and withdrawing it from the housing can be accomplished nearly simultaneously.

A still further object of the invention is to provide a simple and inexpensive metal construction which is adapted to receive the slide members for supporting the pocket cross bars; also to improve file cabinets in other respects hereinafter specified and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which,

Fig. 1 is a front elevation of one of the improved file drawers with the handle of same in latched position,

Fig. 2 is a view similar to Fig. 1 but with the handle in unlatched position,

Fig. 3 is a transverse sectional elevation through the file drawer with liner removed,

Fig. 4 is an elevation of a cabinet with a series of the improved file drawers in position,

Figs. 5 and 6 are sectional views through the latch mechanism on lines 5—5 and 6—6 respectively of Fig. 3,

Fig. 7 is a side elevation of one of the improved file drawers,

Fig. 8 is a perspective view of the bell crank lever for opening the latch,

Fig. 9 is a perspective fragmentary view of the file drawer with parts broken away to disclose the construction,

Fig. 10 is a transverse sectional view through the drawer,

Fig. 11 is a sectional plan view of the drawer showing the spring opening device,

Fig. 12 is a transverse sectional elevation through a modified form of the drawer,

Fig. 13 is a perspective fragmentary view of the rear end of the modified drawer shown in Fig. 12,

Fig. 14 is a transverse fragmentary view of a still further modified method of attaching the cross bars to the drawer side wall.

Referring to the drawings by numerals, 20 indicates a file cabinet or housing in which a plurality of file drawers 21 for the reception of reference data is mounted for sliding movement. These file drawers 21 are preferably formed from sheet metal, which is both light and strong, and each drawer is composed of a front wall 22, bottom 23, side walls 24 and rear wall 25. The side walls 24 of the improved drawer are preferably each provided with guideways 26 which are adapted to slide in suitable guideways formed in the cabinet 20. In common with other file cabinets the drawer 21 is adapted to slide in and out of the housing 20 and to accomplish this sliding movement, a handle 27 is provided on the outside face of the front wall 22. This handle 27 is preferably U-shaped, and one of the legs 28 has a pivot pin 29 screwed therein, said pin passing through a bushing 30. The bushing 30 is loosely secured to the front wall 22 by an enlarged head 31 on the outside end and by lock nuts 32 on the inside end thereof. The pin 29 is rotatably received in said bushing 30 so that the handle 27 may be moved about pin 29 as a pivot. The opposite leg 33 of the handle 27 is provided with a pin 34 screwed therein, said pin passing through an arcuate slot 35 formed in the front wall 22 of the drawer.

The drawer 21 is normally held in place in the housing 20 by means of a latch 36 which extends transversely through one of the side walls 24 and engages a suitable flange 37 formed on the housing 20. The drawer 21 in its closed position is urged to slide to

open position out of cabinet 20 by suitable propelling means as for example by a spring 38 secured to the rear wall 39 of the housing 20, said spring being adapted to engage in a recess 40 formed in the rear wall 25 of the drawer. When the latch 36 is released from the flange 37 by the inward movement of said latch, the spring 38 moves the drawer to an open position where its contents can be inspected by an operator.

In order to properly control the latch 36, a bell crank lever 41 is pivotally mounted on the bushing 30, the end of one leg 42 of said lever being engaged by the pin 34 which passes through a suitable aperture in said leg, a head 43 on the pin 34 confining the leg 42 between said head and the front wall 22 of the drawer. The second leg 44 of the lever 41 preferably extends vertically and is pivotally connected by a lug 45 to the inward end of latch bar 46. A lever spring 47 secured between the leg 42 and a fixed lug 48 on the front wall 22 normally tends to urge the lever 41 in a counter-clockwise direction as seen in Fig. 3 so that the latch 36 is yieldingly held in the path of the flange 37 for locking the drawer in place in the cabinet 21. The counter-clockwise movement of the lever 41 is limited by the pin 34 which engages the end of the arcuate slot 35.

Thus when the operator moves the handle 27 about pivot pin 29, either with the hand or the foot, the drawer springs open under the action of spring 38 and exposes the contents of the drawer for reference. If desired by providing a spring or propelling means of suitable size and strength the drawer may be automatically completely extended or as provided for in the embodiment of the invention shown, complete extension of the drawer 21 from cabinet 20 may be accomplished by normal actuation of the handle 27. In a cabinet such as shown in Fig. 4 where several drawers are positioned one above the other, by being able to open the lower drawers by the foot instead of by leaning over to open them by hand, some labor is saved and the operation of filing is facilitated.

The major portion of the latch operating mechanism is positioned on the inner face of the front wall 22, and in order to separate the file contents of the drawer from said mechanism, a liner 49 is provided which is preferably of sheet metal. The upper edge of front wall 22 is bent inwardly to form flange 50 and then downwardly to form flange 51, the flange 51 being parallel to the front wall 22 and spaced therefrom to form a groove 52 for the reception of an offset flange 53 formed on the upper edge of liner 49. The other three edges of liner 49 are preferably provided with inturned flanges 54 which serve to space the liner 49 apart from the front wall 22 so as to form a compartment 55 in which the latch mechanism is contained. A suitable label holder 56*a* is mounted on the front wall 22 by means of lugs 57 extending through said wall and bent over on the inside thereof.

The drawer so far described is adapted for containing any type of reference data supported in any desired way. However, we prefer to support the reference data in pockets or folders 56 which are preferably suspended from cross bars 57 suitably mounted for sliding movement longitudinally of the drawer 21. In order to support the bars 57, we provide a pair of longitudinally extending slide members 58, one above each of the side walls 24, said slide members being preferably formed of a heavy and resilient spring wire. The forward end of the wire 58 may have an upwardly extending arm 59 terminating in a horizontally extending arm 60, and said wire extends through an aperture 61 formed in an inwardly extending flange 62 formed on each of the two vertical edges of the front wall 22. Each rear end of slide member 58 may be bent downwardly to form a leg 63 which may be received in a socket 63*a* formed in each of the rear corners of the drawer 21. The spring wire 58 is preferably bowed upwardly slightly in its center so that the weight of the reference data in the middle pockets 56 is counteracted by the resiliency of the wire. The wire 58 may be aided in yieldingly carrying the load of pockets 56 by the arm 59 engaging the flange 62, and by the rear leg 63 engaging its socket 63*a*. The wire 58 is kept from twisting by the arm 60 engaging the outer edge of flange 62 and by legs 63. In order to hold the wire 58 in aperture 61, the vertical liner flanges 54 are made to closely contact with the inner edge of the flanges 62 and arm 59, thus making the assembly of the entire drawer simple and easy to accomplish. A suitable slot 65 is formed in one of the vertical flanges 54 to receive the latch bar 46. The upper edge of each side wall 24 is preferably bent outwardly to form flange 66 and then again bent downwardly and inwardly to form flange 67, said flanges 66 and 67 providing stiffening beads for the side walls. The ends of cross bars 57 are provided with hooks 68 which engage the slide member 58 and permit sliding movement of said cross bars axially of the slide members 58 but prevent their vertical disconnection from said slide members.

If desired, the cross bars 57 may be caused to engage and slide on the flange 66 on the upper edge of side walls 24 by forming a hook 69 adapted to receive said flanges 66 and 67 as shown in Fig. 14. In this case the flange 66 takes the place of the wire slide member 58 and somewhat reduces the cost of the construction. To reduce the friction, a lug 70 may be formed on the hook 69 to engage the flange 66 for sliding movement. The flanges 66 and 67 may be formed as

flanges 66*a* and 67*a* as shown in Fig. 12, in which case the flange 66*a* extends obliquely downward so as to form a slide track 71 on the upper edge of each side wall 24, said slide track being of small diameter so as to engage the modified hook 69*a* with the least possible sliding friction.

In the forms of the drawers shown in Figs. 12, 13 and 14, the top edge of the rear wall 25*a* preferably extends across the back considerably below the flange 66 or track 71. The cross bars 57*a* with their suspended pockets 56 can then be assembled onto the drawer by sliding said cross bars forwardly from the rear end of the drawer over the top edge of rear wall 25*a*. In order to prevent the rearmost cross bars 57 from becoming disengaged from flanges 66 or track 71, a resilient wire 72 is placed across the side walls 24 above the top edge of rear wall 25*a*, said wire extending into suitable openings 73 preferably in said side walls 24.

As shown in Figs. 7 and 10, a follower 74 may be used if desired when the pockets are only partially filled with reference material in order to compress the pockets and hold the reference material compactly. This follower is preferably in the form of a sheet of metal which is provided at each of its two upper corners with a housing 75 which has a return bent flange 76 which slidably engages the flange 66 on the upper edge of each drawer side wall 24. A rock shaft 77 is rotatably mounted in the housings 75, and intermediate its ends is provided with an offset crank arm 78. Each end 79 of the rock shaft 77 is offset or eccentric and bears a rotatably mounted roller which operates through an aperture in housing 75 on the drawer flange 66 so that said follower is securely locked in the desired position when crank 78 is moved to locking position. It should be understood that the use of the follower 74 is not essential and same may be omitted if desired. When the follower is used, the suspended pockets may be dispensed with and separator partitions, folders or envelopes with their bottoms supported on the bottom of the drawer, may be used as is well known in the art.

We would state in conclusion that while the illustrated examples constitute preferred embodiments of our invention, we do not limit ourselves precisely to the details herein described since, manifestly, the same can be considerably varied without departing from the spirit of the invention as defined in the appended claims.

We claim:

1. In a file drawer, a container having a front wall, a U-shaped handle outside of said front wall, one leg of said handle being pivotally mounted on said front wall and the other leg of said handle having a section engaging an arcuate slot in said front wall, a housing for said drawer, a latch detachably securing said drawer to said housing, and means connecting said latch and handle so that said latch may be detached from said housing by moving said handle about the pivot thereof so as to permit movement of said drawer relative to said housing.

2. In a file cabinet, a housing, a drawer slidably mounted in said housing, a latch detachably securing said drawer to said housing, a pivotally mounted handle associated with said drawer, said handle being adapted to be actuated to slide said drawer relative to said housing, and a bell crank lever adapted to be actuated by said handle, said lever being adapted to move said latch to unlatched position to permit movement of said drawer relative to said housing.

3. In a file drawer, a container having a front wall, a latch for detachably securing said container to a housing, a U-shaped handle pivotally mounted on the front face of said front wall, a portion of said handle extending through said front wall to form a pivot, a second portion of said handle extending through an arcuate slot in said front wall, a lever pivotally mounted inside of said front wall, one arm of said lever being engaged by said second portion so that said lever can be rocked about the pivot thereof by rocking said handle about the handle pivot and a second arm of said lever being pivotally connected to said latch to cause said latch to be disengaged from said housing when said handle is actuated.

4. In a sheet metal file drawer, a container having a front wall, a handle outside of said front wall, a latch detachably securing said container to a housing, a downwardly extending flange formed along the inside top edge of said front wall, said flange being spaced from said front wall, a liner having a flange adapted to be inserted between said first flange and said front wall, the bottom of said liner being adapted to be forced along the bottom of said drawer so that said liner is positioned in parallel arrangement with said front wall so as to form a compartment between said front wall and liner, and operating mechanism in said compartment connecting said handle with said latch.

5. In a file cabinet, a housing, a drawer slidable in said housing, said drawer having a front wall, latching means for locking said drawer in closed position in said housing, and a handle having one portion pivotally secured to the front wall of said drawer and another portion spaced from the first portion and mounted for supported movement on the drawer front, said last named portion being formed for engaging and operating said latching means by the pivotal movement of said handle to release said drawer for outward sliding movement from said housing when a pull is exerted on said handle.

6. In a file cabinet, a housing, a drawer

slidable in said housing, latching means carried by the drawer for locking engagement with the housing to hold said drawer in closed position, and a handle having one end pivotally mounted on the drawer and the opposite end connected to said latching means for operating said latching means in the pivotal movement of the handle to release the drawer for opening movement when the handle is pulled.

7. In a file cabinet, a housing, a drawer slidable in said housing, said drawer having a front wall, a latch mounted on the drawer normally operable to engage said housing and lock said drawer in housed position, a handle mounted on the front side of said front wall, an operating member for said latch adjacent the rear face of said front wall, a single means for pivotally connecting said operating member and one end of said handle to said front wall, and means connecting the opposite end of said handle to said member for operating said latch upon the pivotal movement of said handle to release said drawer for opening movement.

8. In a file cabinet, a housing, a drawer slidably mounted in the housing, a handle pivotally mounted on the exterior of the drawer front, latching means on the drawer and cooperating means in the housing to secure the drawer against movement when in housed position, operating means for the latching means connected to the handle, a spring within the housing adapted to be engaged and compressed by rear portions of the drawer, said handle being operable to move the drawer into housed position to load said spring, the urge of said spring being resisted by the latch, said handle being also pivotally movable to release the latch and thereby release the spring to impel the drawer partially from the housing.

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