Sept. 25, 1951 N. S. WELK 2,569,209

LEDGER TRAY CABINET

Filed Jan. 19, 1948 3 Sheets-Sheet 1

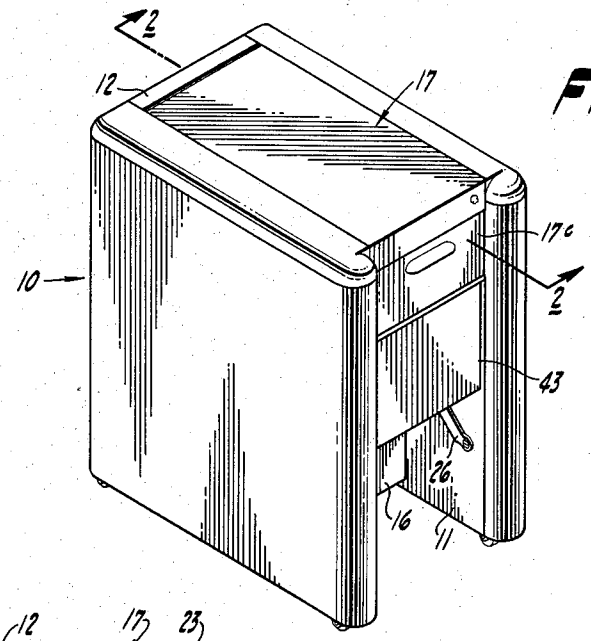


FIG. 1

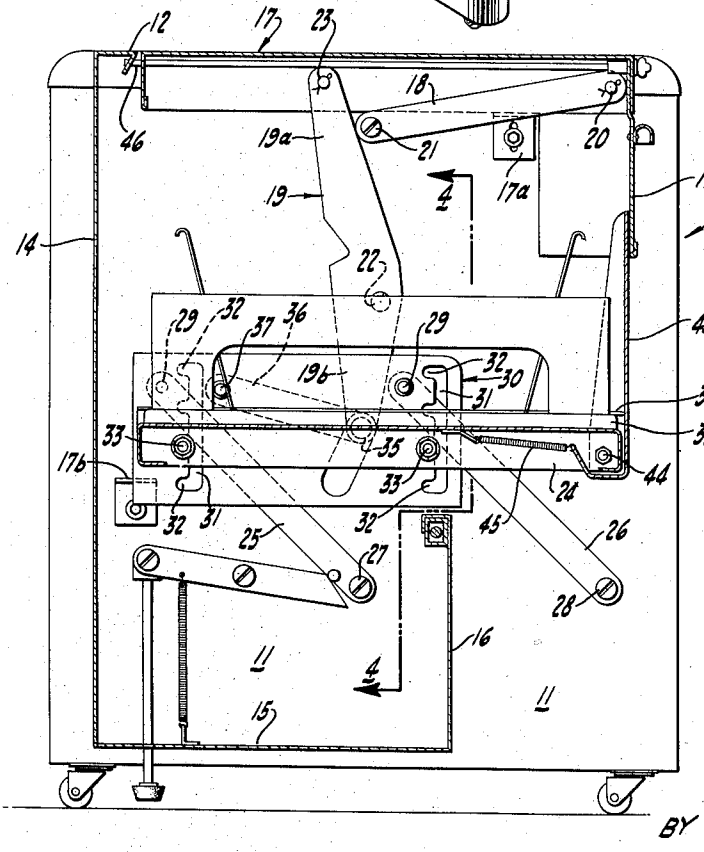


FIG. 2

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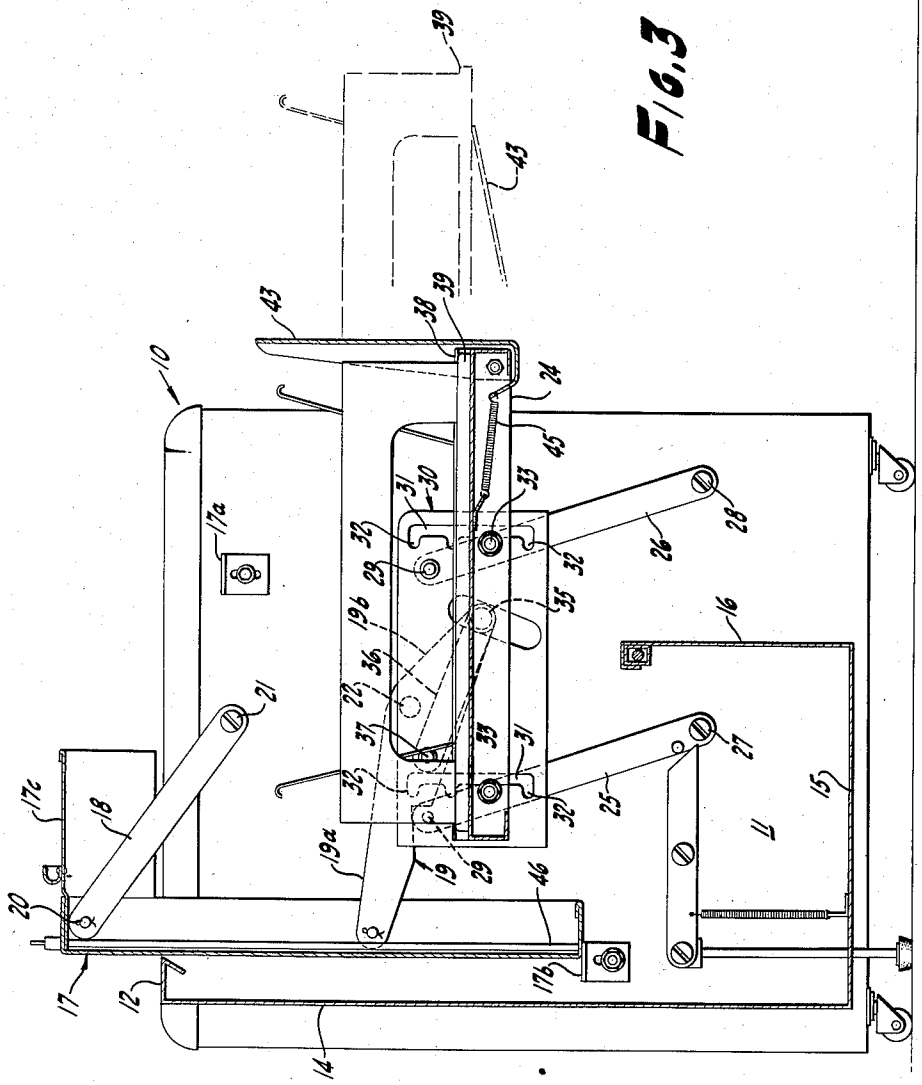
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FIG. 3



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Filed Jan. 19, 1948 3 Sheets-Sheet 3

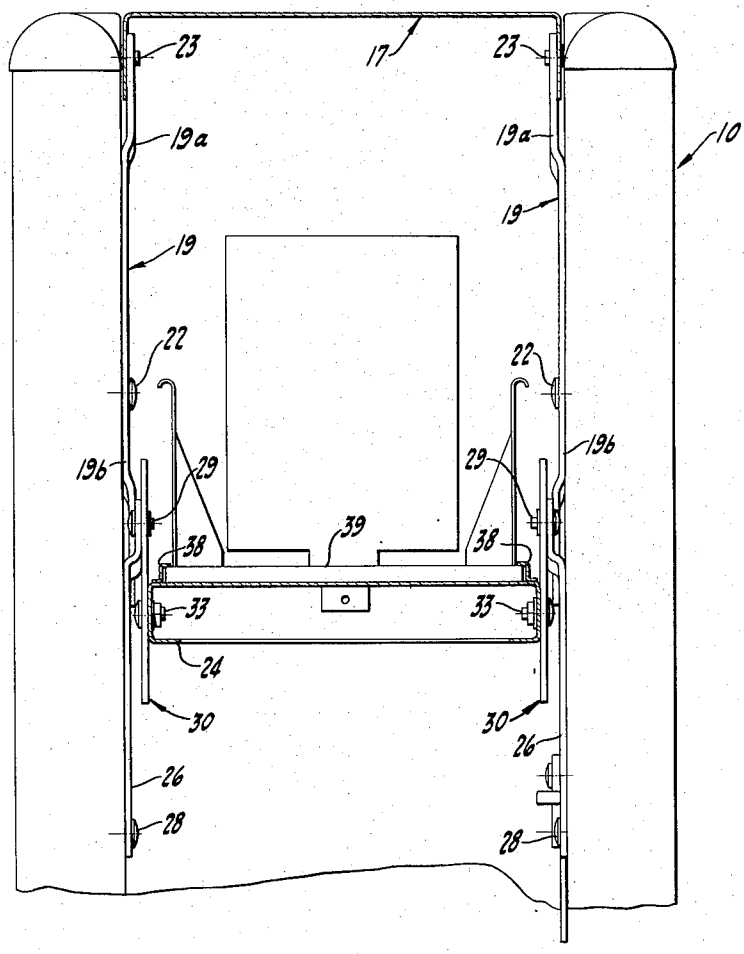


FIG. 4

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LEDGER TRAY CABINET

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6 Claims. (Cl. 312—271)

1

This application is a continuation-in-part of my prior application entitled "Ledger Tray Cabinet," Serial No. 698,689, filed September 23, 1946, and now abandoned.

This invention relates to ledger tray cabinets.

Prior to my invention, conventional ledger cabinets have usually been fitted with electrical or crank means for raising the tray for use and lowering the ledger tray. Such devices have not been found entirely satisfactory since the expensive electrical units are not operable when the electricity is cut off, such as in the event of a fire, and the crank operated units are difficult to operate, complicated, and subject to mechanical failure. In order to avoid these difficulties, most ledger trays are housed in sliding drawer cabinets. Such cabinets must be constructed of sufficient height to enable the user to post with the tray remaining in the sliding drawer or the tray must be removed from the cabinet. If posting is to be done while the tray remains in the cabinet drawer, the cabinet, of necessity, must be bulky and utilize an excessive amount of office space. If the ledger tray is to be removed from the cabinet, the user is subjected to the difficulty and inconvenience of carrying the heavily laden tray.

It is the principal object of my invention to provide a generally improved, simple and compact ledger tray cabinet having a simple, direct action mechanism whereby the ledger tray can be easily and expeditiously raised to an efficient working position by the opening of the cabinet cover, and lowered within the cabinet by the closing of the cabinet cover.

In practicing my invention, I have provided a ledger tray cabinet having a ledger tray carrier movably mounted internally thereof which is operatively connected to the movable cover of the cabinet. The operative arrangement is such that the opening of the cover operates to raise the ledger tray carrier to and support the same in horizontal working position. Similarly, the repositioning of the cabinet cover to closed position operates to lower the ledger tray carrier within the confines of the cabinet.

One form which the invention may assume is exemplified in the following description and illustrated by the way of example in the accompanying drawings, in which:

Fig. 1 is a perspective view of the cabinet in the closed position.

Fig. 2 is an enlarged longitudinal sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is a view similar to Fig. 2 showing the cabinet cover in its open position.

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 2.

Referring more particularly to the accompanying drawings, 10 indicates a ledger tray cabinet

2

comprising side walls 11, a top plate 12, a back plate 14, a bottom plate 15, and a front plate 16. These members are all rigidly connected at their junctions to form a rigid, sturdy cabinet structure as shown.

A cover 17, preferably of box-type construction, is mounted between the side walls 11 in such a manner as to be pivotal from a horizontal closed position, enclosing the top of the cabinet, to a vertical open position at a spaced distance inside of the back plate 14. The rotational movement of the cover 17 is limited by a pair of adjustable stops 17a and 17b extending inwardly from the side walls 11.

As illustrated in Figs. 2 and 3, the cover 17 is pivotal about two axes by means of a pair of links 18 and a pair of fulcrum levers 19, one of each pair being disposed on each side of the cover 17 adjacent to a side wall 11. The upper ends of the links 18 are pivoted about a common axis as at 20 on opposing sides of the cover 17. The lower ends of the links 18 are pivoted on a common axis as at 21 to the opposing side walls 11.

The fulcrum levers 19 each comprise an upper arm 19a and a relatively shorter lower arm 19b. The levers 19 are pivotally connected as at 22 to the opposing side walls 11, as shown, the pivotal axis of both being aligned. The terminals of the upper arms 19a of the levers 19 are pivoted on a common axis as at 23 to the opposing sides of the cover 17.

A ledger tray carrier 24, preferably of inverted box-type construction, is so mounted between the side walls 11 as to be movable from a position within the cabinet 10, as shown in Fig. 2, to an elevated working position, as illustrated in Fig. 3. The mounting of the carrier 24 includes two pairs of parallel levers 25 and 26, the lower terminals of each pair being pivotally connected to the opposing side walls 11 as at 27 and 28, respectively. The upper ends of the levers 25 and 26 are pivotally connected as at 29 with a pair of rectangular carrier hangers 30 adjustably affixed to the carrier 24 as hereinafter described.

The hangers 30 are disposed at opposite exterior sides of the carrier 24 intermediate the ends thereof and parallel to the side walls 11 of the cabinet. The hangers 30 are formed with parallel vertical slots 31 having a plurality of vertically spaced sockets 32 formed rearwardly from the rear edges thereof. The hangers 30 are attached to the opposing sides of the carrier 24 by bolts 33 engaging aligned sockets 32 as shown. By loosening the bolts 33, the vertical height of the tray carrier relative to the cabinet may be adjusted by engaging those bolts with selected sockets 32.

The lower terminal of the arms 19b of the fulcrum levers 19 are pivotally connected by means of pivot pins 35 to the ends of a pair of

links 36. The opposite ends of the links 36 are pivotally connected at the carrier hangers 30 as at 37 as shown. Thus, when the cover 17 is moved to its open position, the upper arms 19a of levers 19 are swung downwardly and rearwardly, and the lower arms 19b are swung upwardly and toward the front about the pivotal point 22. As the lower arms 19b move, the carrier 24 is pivoted forwardly and upwardly by the levers 25 and 26 through the plates 30 to its elevated working position.

The mechanical advantage achieved by the employment of the fulcrum levers 19 actuated by the cover 17 is such that it insures ease of operation of the cabinet mechanism even under heavy loads.

A pair of parallel guide tracks 38 are rigidly affixed to the face of the carrier 24 which serve to reciprocally connect the base of a ledger tray 39 to the carrier 24. When the carrier 24 is in its working position, the ledger tray 39 can be slid forwardly in the tracks 38 so that the ledger sheets or cards contained in the ledger tray 39 will be more accessible for a posting operation. Since the ledger tray 39 has been shown in the accompanying drawings only for the purpose of illustration and the cabinet 10 can be utilized to house any similar ledger tray, the latter is not described in detail herein.

A closure plate 43, hinged as at 44 to the front of carrier 24, is pivotal from a normally vertical closed position to a substantially horizontal open position. In the open position, it provides a support for the tray 39, when the tray 39 has been slid outwardly in the carrier 24. A spring 45, extending under tension from the cover plate 43 to the carrier 24, tends to hold the plate 43 in its closed position.

It should be noted that when the cabinet cover 17 is in its closed position, its front portion 17c extends so as to approximately abut the upper portion of the front closure plate 43 so as to completely enclose the tray 39 and thus protect its contents.

Slidably mounted in the cover 17 is a latch 46 which is effective to latch the cover 17 to the top plate 12 when the cover 17 is in its closed position. Since the latch 46 is standard in construction and in manner of mounting, it is not described in detail herein.

In the use of the ledger tray cabinet 10, its simple, sturdy mechanism enables the user to easily operate the cover 17 and effectively raise the ledger tray 39. The mechanism is not subject to mechanical failure and the tray carrier 24 can be easily adjusted in height. While the cabinet 10 is compact, it provides adequate protection for the ledgers and makes them readily accessible at all times.

While I have shown the preferred form of my invention, it is to be understood that various changes may be made in its construction by those skilled in the art without departing from the spirit of the invention as defined in the appended claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. In a device of the character set forth a cabinet including a body having open top and front sections, a pivotally mounted cover for said sections including a top portion adapted to lie horizontally over the open top when the cover is closed and a front section adapted to lie vertically over the open front section when the cover is closed, and a movable carrier normally within said cabinet adapted to move forwardly through the open front section, said movable carrier having a front portion vertically disposed in parallelism with the vertical section of the cover and in registration therewith when the carrier is within the cabinet and the cover is in closed position.

2. In a device of the character described, a cabinet having an open top and open front, a cover for said top and front comprising a top section horizontally disposed when the cover is closed and a front section vertically disposed when the cover is closed, means for bodily moving said cover to an open position where the top section lies vertically within the cabinet and the front section extends horizontally thereover, carrier means within said cabinet pivotally movable to extend through the open front portion thereof, a front piece for said carrier, said front piece for said carrier being vertically disposed within the cabinet when the carrier is retracted therein and lying parallel with and in contact with the vertical front portion of the cover when the cover is closed so that said front cover and said carrier front form a front closure for the cabinet and so that the front cover precludes movement of the carrier from the cabinet when the cover is closed.

3. A cabinet of the character described, a body having an open top and an open front, a cover for said top and front including a top section adapted to lie horizontally over the top when the cover is closed and a front section adapted to be vertically disposed when the cover is closed, means for pivotally moving said cover, a carrier movably mounted within said cabinet and having a vertical front, means for moving said carrier in response to movement of said cover, the front of said cover and the front of said carrier being normally disposed in parallel juxtaposition when the carrier is within the cabinet and the cover is closed.

4. A cabinet of the character described, a body having an open front and an open top, a cover having a top section lying horizontally disposed over the top when the cover is closed and a front cover portion lying vertically over the open front when the cover is closed, linkage means for moving said cover bodily to a position where the top section lies vertically within the cabinet and the front section lies horizontally over the cabinet, a bodily movable carrier mounted within said cabinet, a normally vertically disposed front for said carrier, linkage within said cabinet for bodily moving said carrier upwardly and outwardly with respect to said cabinet, said front of said carrier and said front of said cover being disposed in parallel juxtaposition when the carrier is within the cabinet and when the cover is closed, and means for moving said cover and said carrier simultaneously to withdraw the vertical portion of said cover from the front of said carrier so as to permit forward movement of said carrier with respect to said cabinet.

5. A cabinet of the character described, a body having an open top and an open front, a pivotally mounted cover for said cabinet having a top section horizontally disposed when the cover is closed, and a front portion vertically disposed when the cover is closed, a carrier within said cabinet having a normally vertical front and being movable upwardly and forwardly with respect to said cabinet, means interconnecting said cover and said carrier to provide movement of said carrier in response to movement of said

cover, linkages supporting said carrier within said cabinet and for guiding the movement thereof in response to the movement of the cover, means adjustably supporting said carrier on said linkage whereby said carrier may be vertically adjusted within said cabinet, said cabinet, cover and carrier and carrier front being constructed and arranged to provide for the parallel disposition of the front of the carrier inwardly of the vertical portion of the cover when the cover is closed so as to preclude movement of the carrier when the cover is closed.

6. A cabinet of the character described, a body having an open front and an open top, a bodily movable cover for said carrier including a normally horizontal top portion adapted to cover the open top when the cover is closed and a normally vertically disposed front portion adapted to lie in front of the open front portion when the cover is closed, linkages supporting said cover and providing for pivotal movement thereof to a position where the normally horizontal front cover lies vertically within the cabinet and the normally vertical front portion lies horizontally over the cabinet when the cover is opened, a tray carrier within said cabinet, a tray transversely slidable with respect to said cabinet mounted on said carrier, means for moving said carrier with respect to said cabinet when said cover is moved,

linkages supporting said carrier to guide the same for upward and outward movement in response to movement of said cover, slots in said carrier, bolts carried by said linkages, said bolts and slots being adjustably engageable to permit vertical adjustment of said carrier and hence said tray with respect to said cabinet without adjustment of either of said linkages, a pivotally mounted normally vertical front for said tray, said cover and said tray front being constructed and arranged to provide for the internal juxtaposition of said tray front with respect to said cover when the tray is retracted within the cabinet and the cover is closed.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
646,191	Pope	Mar. 27, 1900
701,449	Yawman	June 3, 1902
1,699,740	Kusterer	Jan. 22, 1929

FOREIGN PATENTS

Number	Country	Date
389,029	Germany	Jan. 30, 1924