

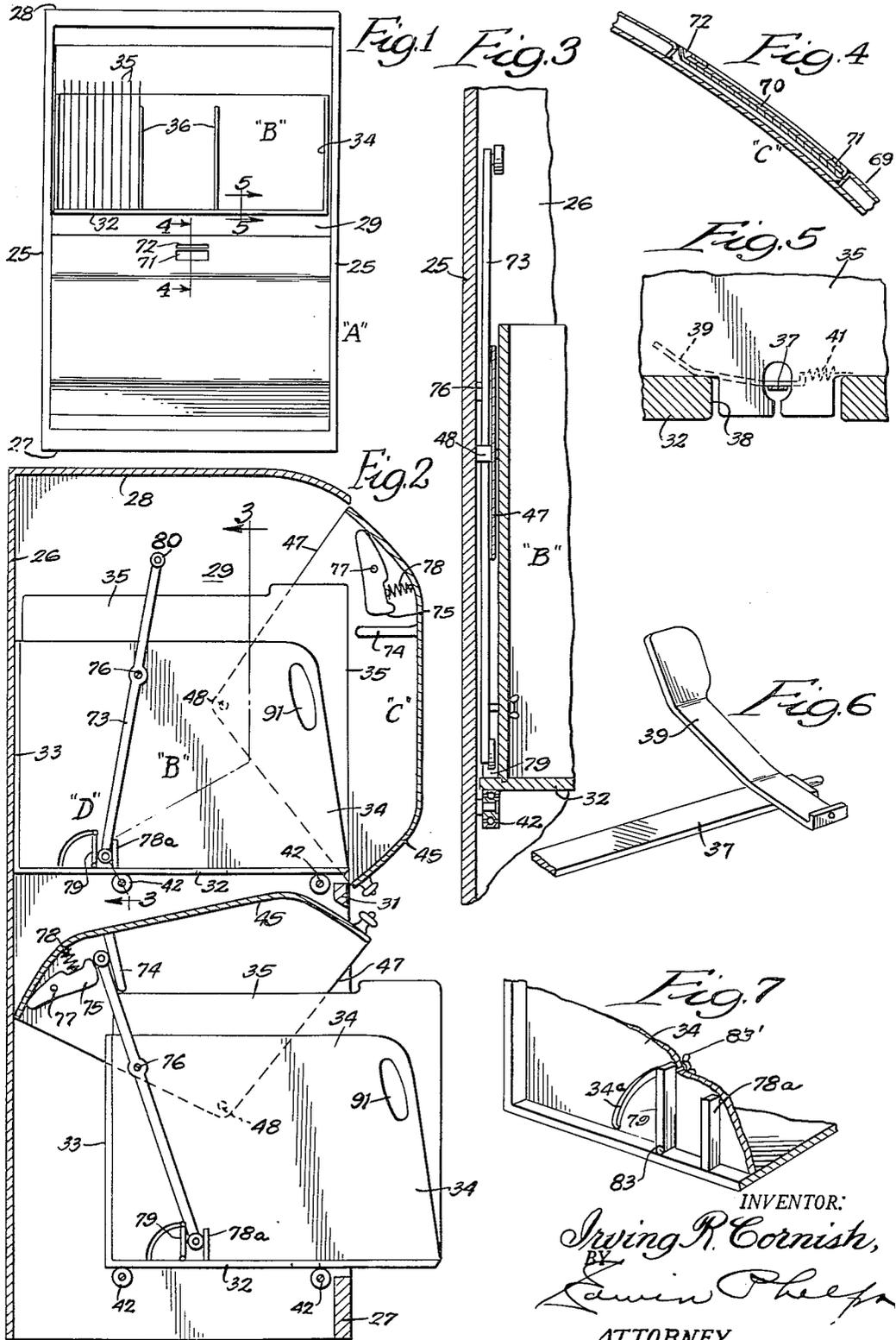
May 15, 1956

I. R. CORNISH
FILING CABINET

2,745,708

Filed Dec. 26, 1951

2 Sheets-Sheet 1



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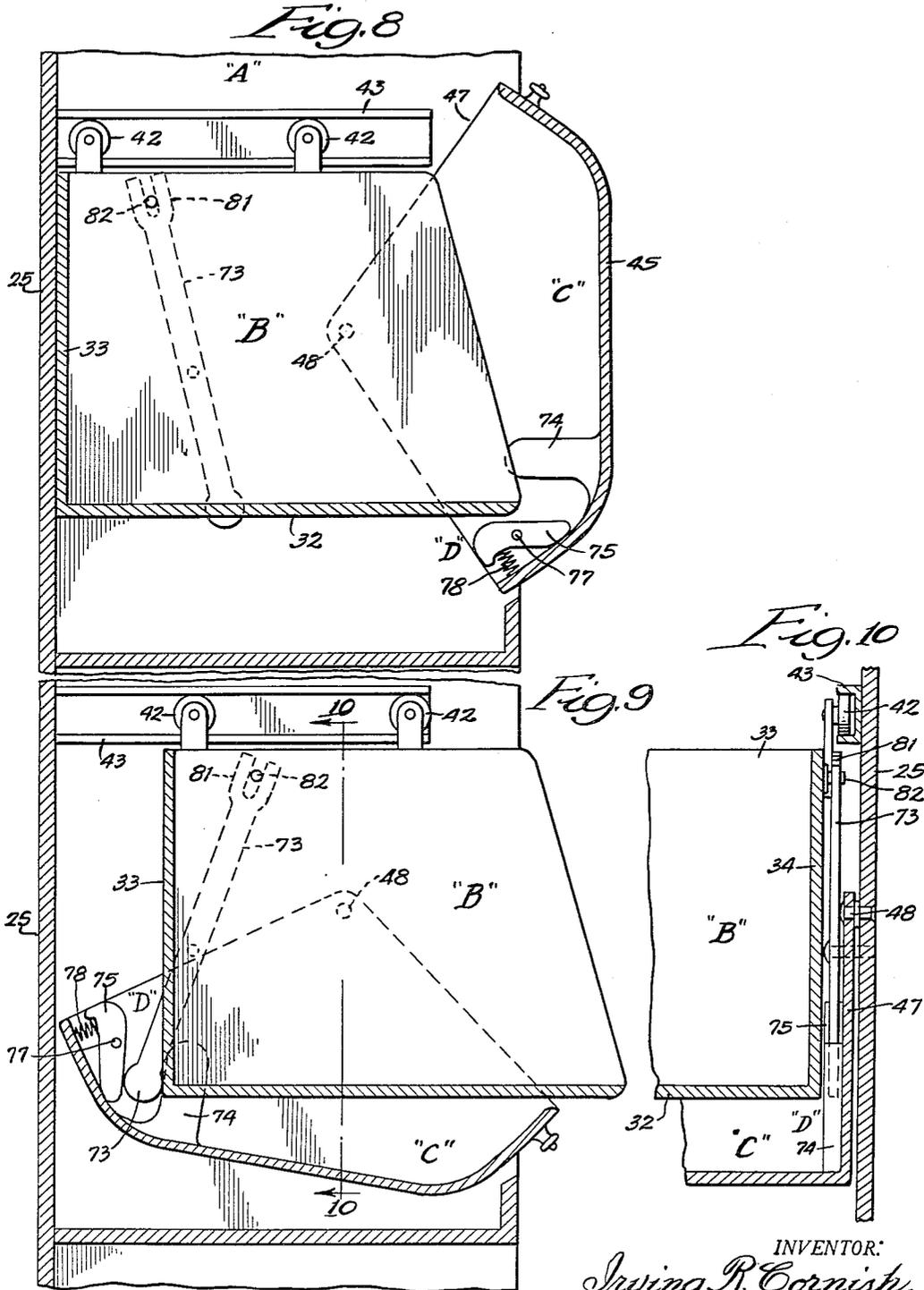
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1

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FILING CABINET

Irving R. Cornish, Elmhurst, Ill.

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7 Claims. (Cl. 312—311)

Modern, large-scale businesses and governmental agencies, which require extensive and comparatively expensive personnel work-areas, are increasingly confronted with the necessity of economizing space for filing cabinets without sacrificing the facility of their use. To this end recent attempts have been made to provide a substitute for the conventional, horizontal-sliding container stack; a substitute which would commend itself not only because it saved floor and cubic space but because it would afford greater facility in use. However, such structures, as heretofore produced and as have found a present measure of acceptableness, have possessed some disadvantages not encountered in the conventional horizontal-sliding container stack. These disadvantages have limited the appeal of these prior substitutes.

The main objects of this invention are, therefore, to provide an improved form of filing cabinet wherein the opening and closing of a casing closure panel respectively effects the extension and recession of a file container and its contents with respect to the casing; to provide an improved relative arrangement of a swinging closure panel and sliding container so as to occupy the minimum floor and cubic space; to provide improved means for permitting the easy removal of a container from the casing; to provide improved arrangement of means for removably securing the index guides in place in the container; to provide improved means for locating on the closure panel a label identifying the contents of the respective container; to provide improved means for releasably locking the closure panel in either its closed or open positions; and to provide an improved filing cabinet of this kind which is so simple in construction as to make its manufacture extremely economical and its use facile and practically free of the necessity for repairs and/or replacements.

In the accompanying drawings:

Fig. 1 is a reduced, front elevation of a two container filing cabinet constructed in accordance with this invention, the upper container being shown "open," the lower one "closed";

Fig. 2 is an enlarged, cross-sectional view of the same;

Fig. 3 is an enlarged, fragmentary, sectional detail, taken on the line 3—3 of Fig. 2, showing the pivotal connections of the container-actuating mechanism;

Fig. 4 is an enlarged, fragmentary, sectional view, taken on the line 4—4 of Fig. 1 showing a pocket and slot construction of the panel for supporting an index card;

Fig. 5 is an enlarged, fragmentary, sectional detail, taken on the line 5—5 of Fig. 1, showing a form of guide-card retaining and release-bar;

Fig. 6 is a further, enlarged, detail perspective view of the same;

Fig. 7 is a fragmentary, sectional perspective detail of one end of the container showing an adjustable part of the container-actuating mechanism a retraction of which part permits the removal of the container from the casing and its replacement therein;

2

Fig. 8 is a view similar to the upper portion of Fig. 2 but showing, somewhat more enlarged, a modified arrangement of the container mounting;

Fig. 9 is a view of this modification with the panel shown in its fully-retracted position and the container in its fully-extended or "access" position; and

Fig. 10 is a vertical, sectional detail of the same taken on the line 10—10 of Fig. 9;

The essential concept of this invention involves a container with an open side and top to permit a placing and removal of the files therein sidewise transverse to its longitudinal dimension, the container being mounted in an open front casing for horizontal shifting under the action of an oppositely swingable panel, constituting a closure for the casing open front, whereby the container is moved into and out of an access position forwardly of the casing to render the ends of the file folders and the guide cards visible for examination and accessible for horizontal or sidewise removal and insertion.

A filing cabinet embodying this concept comprises, a supporting housing or casing "A" wherein is arranged one container "B" or several containers in one or more tiers, with a closure panel "C" for each container compartment, and panel-controlled container actuating mechanism "D" interposed between each container and panel. These herein-shown several parts are preferably made of metal. However, it will be understood that they could be made of other materials; certainly of wood and perhaps of plastic. Although, except for Figs. 1 and 2, the drawings show only a single container "B" in relation to a casing "A," it will be understood that the containers may be arranged in horizontally extending tiers two, three, four, five, or more containers high.

The casing "A" comprises the usual sides 25, a back 26, a base 27, and a top 28 (see Figs. 1 and 2) suitably assembled and secured together so as to provide one or more open-front container compartments 29. Obviously, where the casing "A" tiers several containers "B" there would be various cross braces and compartment dividers such as indicated at 31 in Fig. 2.

The container "B" is formed with a bottom member 32, a back member 33, secured together at right angles by a pair of ends 34. The bottom member 32 in width is substantially equal to the front to back dimension of the container compartment 29. In length the container "B" is slightly less than the inside dimension of the compartment 29 between the casing ends 25. The container back 33 and the ends 34 extend up from the bottom member 32 more than a major portion of the vertical dimension of the herein designated container compartment 29 of the casing "A."

Obviously the container "B" has to be equipped with means for supporting indexing guide cards 35 and a follower 36. For the guide cards 35 there is herein-shown a flat bar 37 of the well known type extending longitudinally of the container in a bottom recess 38, which bar is journaled at its ends for a 90 degree turning. Secured to one end of the bar 37 is a lever 39 biased by an overcenter spring 41 (Fig. 5) so that the bar is held in its vertical position for receiving the guide cards 35 or permitting their removal and in its horizontal position for locking the cards against accidental displacement.

The slide-retaining device for the follower 36 may be any of the conventional structures such, for example, as the one known as the channel lever compressor or the wingstop movable partition.

The support for the container "B," to permit its horizontal shifting, comprises suitably arranged pairs of rollers 42 arranged at the ends of the container "B" and the casing "A." These rollers may be fixed to the casing "A" and travel on a track on the container or fixed to the container "B" and travel on a track 43 (see Figs.

8 and 9) or they may be part of a carriage with the rollers traveling on conventionally arranged tracks, as circumstances may dictate. The placement of the rollers 42 at the bottom of the container or adjacent the top is determined by whether the panel "C" is to swing up over or down under the container "B."

The panel "C" is designed to serve the dual function of a closure for the open front of the casing container compartment 29, thereby concealing and protecting the contents of the container, and of a force-receiving element for causing the actuating-mechanism "D" to cause the fore-and-aft horizontal shifting of the container "B" between its retracted or "storage" position and its forwardly-extended or "access" position.

As herein-shown for the arcuate panel C-45 the sector-shaped ends 47 subtend the arc of the panel the chord for which arc is substantially equal to the height of the open front of the compartment 29. The pivot 48, on which the panel is hinged, is slightly inward from the junction of the radii which define the sides of the sector-shaped panel-supporting ends 47.

In order to permit the location of container-content indexes on the panel "C," at a point intermediate its ends and near the upper edges, the outer panel plate 69 of the panel "C" is depressed to form a pocket 71 and a communicating slot 72 to provide for the insertion and removal of a card 70 into the pocket 71.

The panel-controlled container actuating mechanism "D" is shown herein in lever (Figs. 2, 8, and 9). The horizontal movement of the container "B" needs to be only enough to extend the advancing edge of the container "B" a sufficient distance forwardly of the front of the casing "A" to expose the index guide labels and the folder notations to easy view and make convenient the removal or insertion of the files or folders. A movement of three or four inches has been found sufficiently practical. Moreover, that movement has to be effected when the panel "C" is sufficiently retracted to avoid contact thereof with the container contents. Obviously, that will be when the movement of the panel "C" is adjacent its fully-retracted position. Accordingly, in any of these adaptations of the container actuating mechanism "D" there has to be what properly might be called a "delayed action" of the panel-controlled container actuating mechanism.

In the lever-type adaptation, for the arcuate panel C-45, the lever 73, mounting a roller 80, coacts with panel pocket-forming shoulders 74 and 75. The lever 73 is pivoted at 76 to the casing "A" at such a point on the lever, intermediate its ends, as will cause the lever to give the desired horizontal movement of the container "B" when the lever 73 does come into engagement with the shoulders 74 and 75. In this adaptation, however, these shoulders 74 and 75 are not engaged by the roller 80 on the free end of the lever 73 until the panel "C" is near the end of its fully-retracted movement. As the lever end moves into the pocket between the shoulders 74 and 75 a continued movement of the lever end causes the required horizontal movement of the container "B." As the panel recedes from its retracted position the shoulder 75 presses against the free end of the lever and shifts the container "B" to its retracted position.

The shoulder 75 is in the form of a pawl pivoted at 77 and biased by a spring 78 so that it is depressible as the free end of the lever 73 approaches. This precludes any movement of the container "B" in advance of the lever contact with the shoulder 74.

The lever 73 could be pivotally fixed to a container side 34. That, however, would preclude ready removal of the container "B" from the casing "A." To make such removal—and subsequent replacement—easily possible the lever 73 is detachably connected with the container "B." In the adaptation shown in Figs. 1-3 this is effected by locating the lever end in a pocket between

posts 78a and 79. In the adaptation shown in Figs. 8-10 this is accomplished by forming a fork 81 on the end of the lever 73, which fork fits over a pin 82 on the container side 34.

To enhance the removal of the container "B" for the adaptation shown in Figs. 1-3 the post 79 is hinged at 83 (see Fig. 7) and provided with a winged-nut-and-bolt connection 83' operating in a slot 34a in the container end 34. By this connection 83' the post may be locked into its vertical operative position, as shown in the figures, or released to permit swinging to a horizontal position free of the lever end when the container "B" is to be lifted out of or replaced in the casing "A."

At times it may be desirable to lift the container "B" and its contents bodily out of the casing "A." To that end hand-grip openings 91 are formed in the ends 34 of the container "B."

The operation of this improved type of filing cabinet is more or less apparent from the foregoing description, hence the following explanation can be comparatively brief.

Swinging the panel "C" from its vertically-disposed compartment-closing position at the front of the casing "A" into its horizontally-disposed retracted position within the casing "A" results in the forward horizontal shifting of the container "B" to extend its forward edge and its contents several inches beyond the front face of the casing "A." This forward movement of the container "B" occurs as the panel "C" approaches the limit of its retracted position, when the lever 73 enters the pocket formed by the shoulders 74 and 75.

Extended thus forwardly of the casing front the notations on the guide cards 35 and on the file folders for the entire length of the container "B" are visible. This is so not only for one container when so advanced but simultaneously for all the advanced containers in a stack thereof. This is a material advantage over the conventional form of pull-drawer filing cabinet where all of the contents of only one drawer at a time can be exposed to view and access and then only when the drawer is pulled out to its full limit. Moreover, the container "B" being horizontally movable into and out of its advanced content-accessible position has an advantage over the tilting container, proposed as a substitute for conventional sliding drawer, in that the contents or the folders are not disturbed or disarranged when the container is shifted into its "storage" position.

When access to the container is no longer desired the panel "C" is pulled outwardly and downwardly into its vertically disposed position to serve as a closure for the open front of the container compartment 29 thereby concealing the container contents. As the movement of the panel "C" from its retracted position is initiated the link 73 of the container "B" into the casing "A" and out of the path of the panel "C." As Figs. 8 and 9 indicate, it will be apparent that the panel "C" may be mounted so as to swing down under the container "B" as well as up over the container, as shown in most of the other adaptations. This simply means a different positioning of the link and gear-rack mechanisms as well as the supporting rollers with respect to the container "B."

I claim:

1. A filing cabinet comprising, a casing having an open-front container compartment, a container mounted for limited opposite horizontal movement in the compartment into and out of an advanced position with respect to the casing open front, a panel swingably mounted on the casing for movement between positions for closing the casing open front and retracted within the casing, a pair of spaced shoulders arranged on the inner face of the panel, and a lever pivoted intermediate its ends to the casing and having one end connected to the container and the opposite free end disposed in the arc of the panel shoulders to be engaged and disengaged thereby during the swinging of the panel only when it is adjacent its fully-retracted position

5

whereby the lever positively effects the opposite limited horizontal movement of the container into and out of the advanced position only during the movement of the panel adjacent its fully-retracted position, the outer-most shoulder being biased toward its lever-engaging position but retractable by the approaching free end of the lever so that no advance movement of the container is effected until the lever is contacted by the inner-most shoulder.

2. A filing cabinet comprising, a casing having an open-front container compartment, a container mounted for limited positive horizontal movement in the compartment into and out of an advanced position with respect to the casing open front, a panel swingably mounted on the casing for movement between positions for closing the casing open front and retracted within the casing, a pair of horizontally-spaced posts at one end of the container forming a pocket between them, a pair of spaced shoulders arranged on the inner face of the panel, and a lever pivoted intermediate its ends to the casing and having one end received in the pocket between the container posts and the free end disposed in the path of the panel shoulders to be engaged and disengaged during the swinging of the panel only when it is adjacent its retracted position and whereby the lever positively effects the limited horizontal movement of the container into and out of the advanced position only during the movement of the panel adjacent its fully-retracted position within the casing.

3. A filing cabinet comprising, a casing having an open-front container compartment, a container mounted for limited opposite horizontal movement in the compartment into and out of an advanced position with respect to the casing open front, a panel swingably mounted on the casing for movement between positions for closing the casing open front and retracted within the casing, a pair of horizontally-spaced posts at one end of the container forming a pocket between them, a pair of spaced shoulders arranged on the inner face of the panel, and a lever pivoted intermediate its ends to the casing and having one end received in the pocket between the container posts and the end normally free and disposed in the path of the panel shoulders to engage and disengage the pocket between the shoulders during the swinging of the panel adjacent its retracted position and whereby the lever effects the limited horizontal movement of the container into and out of the advanced position only during the movement of the panel adjacent its fully-retracted position within the casing, the outer-most post being retractable to permit the removal of the container from and its replacement in the casing.

4. A filing cabinet comprising, an open front casing, a container mounted for opposite horizontal movement in the casing between retracted and advanced positions with respect to the casing open front, a panel swingably mounted on the casing on an axis above the base of the container and intermediate its front and back for movement between a position for closing the casing open front and a retracted position within the casing, a first means on the casing connected to the container to effect the opposite horizontal movements thereof between its retracted and advanced positions, a part of the first means disposed in the path of the panel when the panel is swinging adjacent its fully-retracted position within the cabinet, and pocket means on the panel adapted to embracively engage the part on the first means only during the swinging movement of the panel adjacent its fully-retracted position, whereby the opposite horizontal movements of the container are effected by the panel only as the panel moves into and out of its fully-retracted position.

5. A filing cabinet comprising, an open front casing, a container mounted for opposite horizontal movement in the casing between retracted and advanced positions with

6

respect to the casing open front, a panel swingably mounted on the casing on an axis above the base of the container and intermediate its front and back for movement between a position for closing the casing open front and a retracted position within the casing, a lever means pivoted to the casing adjacent one end of the container for swinging in a plane parallel to the horizontal movement of the container, means on the container providing a constant pivotal connection with the lever means at one side of its pivot to effect the opposite horizontal movement of the container, and means on the panel normally free of engagement with the lever means and positioned to enter into and recede from temporary pivotal connection with the lever means at the opposite side of its pivotal connection to the casing as the panel approaches and recedes from its fully-retracted position within the casing, whereby the horizontal movement of the container occurs only as the panel moves into and out of its fully-retracted position.

6. A filing cabinet comprising, an open front casing, a container mounted for opposite horizontal movement in the casing between retracted and advanced positions with respect to the casing open front, a panel swingably mounted on the casing on an axis above the base of the container and intermediate its front and back for movement between a position for closing the casing open front and a retracted position within the casing, a single lever pivoted intermediate its ends to the casing adjacent one end of the container for swinging in a plane parallel to the horizontal movement of the container, means on the container providing a constant sliding pivotal connection with one end of the lever to effect the opposite horizontal movement of the container, and means on the panel normally free of engagement with the other end of the lever but positioned to enter into and recede from temporary sliding pivotal engagement with the other end of the lever as the panel approaches and recedes from its fully-retracted position within the casing, whereby the horizontal movement of the container occurs only when the panel moves into and out of its fully-retracted position.

7. A filing cabinet comprising, an open front casing, a container mounted for opposite horizontal movement in the casing between retracted and advanced positions with respect to the casing open front, a panel swingably mounted on the casing on an axis above the base of the container and intermediate its front and back for movement between a position for closing the casing open front and a retracted position within the casing, a single lever pivoted intermediate its ends to the casing adjacent one end of the container for swinging in a plane parallel to the horizontal movement of the container, pin and slot means on the container and lever providing a constant sliding connection with one end of the lever to effect the opposite horizontal movement of the container, and pin and slot means on the panel and lever normally free of engagement with the other end of the lever and positioned to enter into and recede from temporary sliding pivotal engagement as the panel approaches and recedes from its fully-retracted position within the casing, whereby the horizontal movement of the container occurs only when the panel moves into and out of its fully-retracted position.

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