May 6, 1947. J. W. PAXTON ET AL 2,420,010

FILING CABINET WITH TILTABLE COMPARTMENT

Filed April 24, 1943 2 Sheets-Sheet 1

Fig. 1

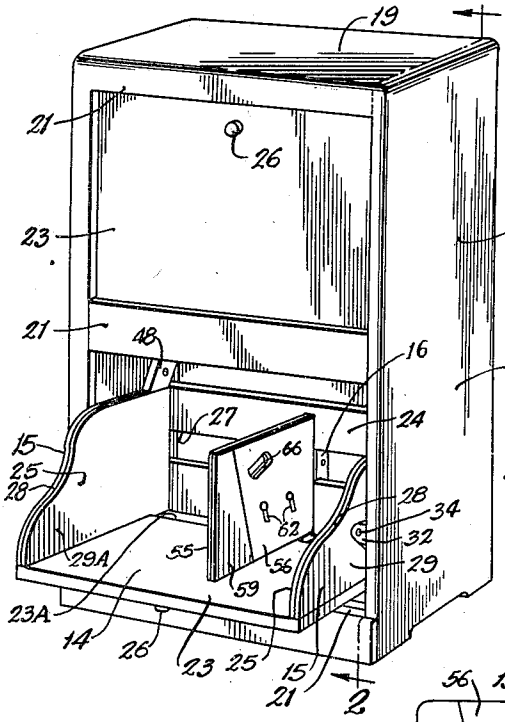
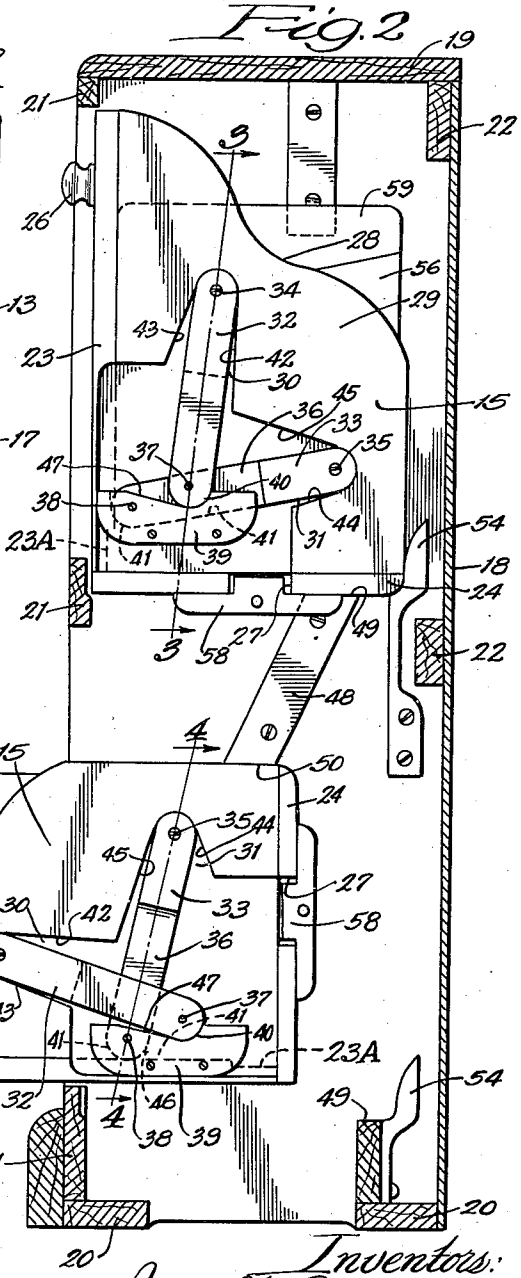


Fig. 2



Inventors:
John W. Paxton,
Irving R. Cornish
and George N. Paxton,
By Isaac, Pond & Lunderson
Attorneys.

May 6, 1947. J. W. PAXTON ET AL 2,420,010

FILING CABINET WITH TILTABLE COMPARTMENT

Filed April 24, 1943 2 Sheets-Sheet 2

Fig. 3

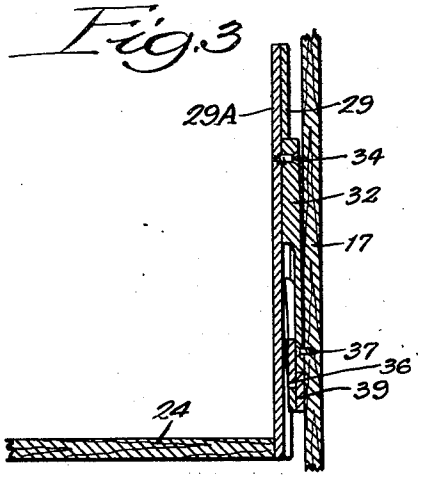


Fig. 4

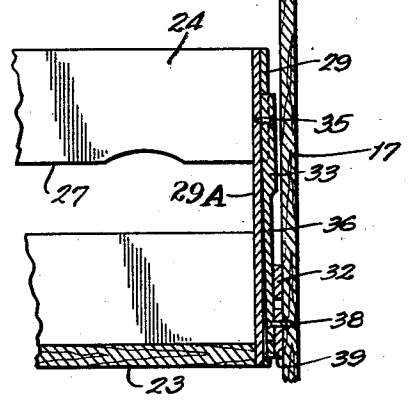


Fig. 5

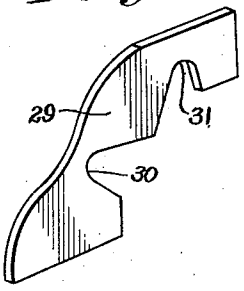


Fig. 6

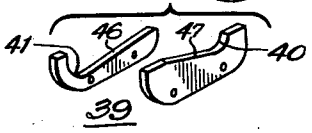
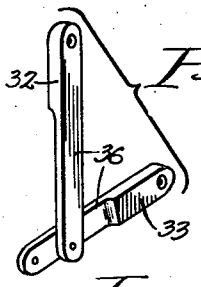


Fig. 7



Inventors:
John W. Paxton,
Irving R. Cornish
and George N. Paxton,
By Dorsey, Pond & Anderson
Attorneys.

Patented May 6, 1947 2,420,010

UNITED STATES PATENT OFFICE

2,420,010

FILING CABINET WITH TILTABLE COMPARTMENT

John Warren Paxton, and George Noble Paxton, Bloomington, and Irving Richard Cornish, Elmhurst, Ill.; Arlie L. Paxton and The National Bank of Bloomington, Bloomington, Ill., executors of said George Noble Paxton, deceased

Application April 24, 1943, Serial No. 484,392

3 Claims. (Cl. 45—2)

1

This invention relates to filing cabinets of the type commonly known as "side filing."

The main objects of this invention are to provide improved means for tiltably mounting the container in the open side of a casing for swinging between closed and open positions; to provide such an improved container-mounting means as will retain the container firmly in its closed and open positions; to provide an improved container-mounting means of this kind which advances the container outwardly horizontally of the casing when the container is shifted to its open position and retracts the container horizontally into the casing when it is shifted into its closed position; to provide an improved container-mounting means embodying all these advantages and which permits the container to be readily inserted into or removed from the cabinet but which insures the connection of the container to the cabinet against accidental displacement or removal; to provide an improved follower mechanism for filing cabinets of this kind; and to provide an improved structure for side-filing cabinets which is simple and economical in construction, easy and positive in operation, and which can be constructed of either wood, metal, or their appropriate substitutes.

In the embodiments of the invention as herein shown:

Fig. 1 is a perspective view of a two-drawer filing cabinet employing the preferred embodiment of mounting mechanism, the lower container being shown in its open position and the upper container being shown in its closed position;

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

Fig. 3 is a partial cross-sectional view of the preferred container-mounting mechanism taken on the line 3—3 of Fig. 2;

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

Fig. 5 is a perspective view of one of the lamina which forms a part of the end sections of the container for the embodiment shown in Figs. 1 to 4 inclusive;

Fig. 6 is a perspective view of the two parts which make up the cradle block used in connection with the container-mounting shown in Figs. 1 to 4; and

Fig. 7 is a perspective view of the link connection constituting the container-mounting shown in Figs. 1 to 4.

A filing cabinet embodying the essential features of this invention comprises a casing 13 in which are tiltably mounted one or more containers 14, supported therein by means of a mounting mechanism 15 whereby the container may be conveniently swung or tilted between its open and closed positions. Each of the containers 14 is equipped with a follower 16 whereby the contents are held in proper vertical position regardless of the quantity of material in the container.

2

The casing 13 may be constructed of wood or metal, or any of their appropriate substitutes. It comprises the usual sides 17, back 18, a top 19 and a bottom 20. The front of the casing is provided with top, bottom, and intermediate reinforcing cross slats 21 spaced so as to divide the casing into compartments for the reception of one or more containers 14. These various parts of the casing are reinforced by means of braces 22 placed at strategic points in the structure.

The container 14 is made up of a front-bottom part 23, a bottom-back part 24, and end or side members 25.

The front-bottom part 23, when the container is in its closed position, fits within the openings formed between the sides 17 and the reinforcing cross slats 21. Its rear edge is recessed at 23A to provide for the reception of extensions on the alphabetical guides of the type shown in Patent No. 2,368,349. A conventional form of grip, knob, or handle 26 is arranged near the upper edge of the member 23.

The bottom-back section 24 is preferably formed of two pieces spaced apart so as to provide a lateral slot 27 along the middle portion of the bottom-back section extending throughout the length thereof. This construction provides support for a follower 16 of the type shown in Patent No. 2,364,912.

The side or end members 25 may be of one piece or they may be laminated. In the embodiment shown in Figs. 1 and 2, the laminated structure is preferred. The forward portions of these sides or end members are cut away on an angle or preferably on a curve 28.

When these end or side members 25 are laminated, the outer section 29 is formed as shown in Fig. 5. The inner angle is cut away in order to provide the recesses 30 and 31 required to receive the link mechanism and to provide shoulders capable of coacting with the link mechanism in limiting the swinging movement of the container as will more clearly hereinafter appear.

This section 29 thus formed may be suitably secured on either side of a section 29A to form either a right hand or left hand end for the container. The right angle sides of the section 29A fit against and are secured to adjacent edges of

the front-bottom section 13 and the bottom-back section 24.

The preferred link container-mounting mechanism comprises a pair of crossed links 32 and 33 interposed between the end members 25 of the container 14 and the inner side walls 17 of the casing 13. The links are recessed at 36 throughout the greater portion of their lengths so that they may overlap, as most clearly shown in Figs. 3 and 4, and thus operate in practically the same plane in the limited space between the container ends and the casing sides. The upper or outer ends of the links 32 and 33 are received in the recesses 30 and 31 respectively of the outer lamina 29 and are pivoted to the inner lamina 29A at 34 and 35. The lower ends of the links 32 and 33 are pivotally connected at 37 and 38 respectively to the adjacent inner face of the casing sides 17.

Cradle blocks or members 39 are secured to the inner faces of the sides 17 of the casing so that the recesses 40 and 41 formed in said blocks receive the inner or lower ends of the links 32 and 33 respectively. As shown in Fig. 6, these cradle blocks are preferably made up of a laminated structure comprising two pieces. Thus formed, the two pieces may be assembled with the parts in the relationship shown in Fig. 6 or just the reverse thereof in order to provide cradle blocks for either the left or right hand sides of the container 14.

In this connection, it will be noted that the formation of the slot 30 in the lamina 29 provides shoulders 42 and 43 which, in the absence of other means, would contact with the sides of the link 32 to aid in respectively limiting the movement of the container 14 when shifted into its closed or open position in the casing. In like manner, the recess 31 provides shoulders 44 and 45 for coacting with the sides of the link 33 for the same purpose. Moreover, the recesses 40 and 41 in the cradle blocks 39 provide shoulders 46 and 47 that could have similar coaction with the adjacent sides of the links 32 and 33 for assisting in the extreme movements of the container 14 toward its closed and open positions in the casing.

To more positively insure the closed and open positioning of the container one or more blocks 48 are attached to the inner faces of the casing sides 17 so that the upper and lower ends thereof provide abutments 49 and 50. The abutment 49, engaged by the inner edge of the bottom-back 24, arrests the backward swing of the container 14 and supports it in its closed position. The abutment 50, engaged by the upper rear edge of the end member 25, arrests the outward swing of the container 14 and supports it in its open position.

If for any reason the block 48 should become displaced or the abutments 49 and 50 become worn away any extreme movements of the container would be checked by the link and shoulder contacts hereinbefore mentioned.

The crossing of the links 32 and 33 and the placing of the pivotal connections is such that the pivotal relationship of the container 14 and casing 13 shifts when the container is swung between its open and closed positions. This results in the container being advanced horizontally in its casing compartment as it is swung downwardly into its open position. This makes the contents of the container a bit more accessible than would be the case if the container were mounted on a pivot fixed relative to these parts. Obviously, therefore, when the container is swung to its closed position, it is retracted horizontally into the compartment as it swings upwardly.

The follower 16, indicated in Fig. 1 and more fully described in the aforesaid Patent No. 2,364,912, is made up of two plates 55 and 56 slidably mounted one upon the other. The plate 55 has an extension protruding rearwardly through the slot 27 in the bottom-back 24. To this extension is attached a T-shaped block 58 which engages the back face of the bottom-back member 24 and in cooperation with the plate 56 grips the members 24 for positioning the follower in the retainer. The plate 55 is also provided with an extension 59 on its outer edge disposed in the plane of the plate 56. The abutting edges of the plate or member 56 and the extension 59 are angularly disposed so as to provide shoulders inclined to the vertical. Likewise, the plate or member 55 has recesses 62 disposed at the same angle as said shoulders. Head pins secured to the plate or member 55 extend through these recesses 62 and retain the plates in their shiftable relationship. Springs interposed between the pins and the bottom of the recess 62 normally tend to force the plate 56 downwardly with regard to the plate 55. The inclined abutting shoulders consequently force the inner end of the plate 56 against the bottom-back 24 whereby the follower is firmly held in its position in the container 14. Elongated hand holes or openings (see 66) are formed near the upper outer corners of the plates 55 and 56. Normally the springs (above mentioned, but not shown) shift the plates so that these openings are out of full registration with each other. When the hand is inserted through the registering portions of the openings, the plate 56 may be pulled up against the action of the spring to cause the release of the grip of the plate 56 and block 58 on the bottom-back member 24 so as to permit the ready shifting of the follower in the container 14.

Variations and modifications in the details of the structure and arrangement of the parts may be resorted to within the spirit and coverage of the appended claims.

We claim:

1. A filing cabinet comprising, a casing having a vertical front provided with a rectangular opening therein, a swinging side-filing storage container mounted in said casing and having a rectangular face panel which in normal storage position of said container extends in a vertical plane and serves as a closure for said opening, a pair of container-supporting links interposed between each end of said container and the adjacent casing wall, one link of each pair being pivoted at one end to said casing adjacent to the front thereof near and above the bottom of said opening and with its other end pivoted to said container at a point transversely remote from said face panel, the other link of each pair being pivoted to said casing inwardly adjacent to the first-mentioned pivot of said one link and with its other end pivoted to said container intermediate said face panel and a vertical median plane through said container, said pairs of links coacting to permit said container to be swung outwardly in said opening through an angle of 90° to an access position in which said panel extends horizontally through and across the bottom of said opening so as to locate a substantial portion of said container inside of said casing.

2. A filing cabinet comprising, a casing having a vertical front provided with a rectangular opening therein, a swinging side-filing storage con-

tainer mounted in said casing and having a rectangular face panel which in normal storage position of said container extends in a vertical plane and serves as a closure for said opening, a pair of container-supporting links interposed between each end of said container and the adjacent casing wall, one link of each pair being pivoted at one end to said casing adjacent to the front thereof near the bottom of said opening and extending rearwardly transversely of said face panel when said casing is in its storage position and having the other end pivoted to said container end adjacent the edge thereof opposite said face panel, the other link of each pair being pivoted to said casing inwardly adjacent to the first-mentioned pivot of said one link and extending upwardly when said container is in its storage position and having the other end pivoted to said container intermediate said face panel and a vertical median plane through said container, said pairs of links co-acting to permit said container to be swung outwardly in said opening through an angle of 90° to an access position in which said panel extends horizontally through and across the bottom of said opening so as to locate a substantial portion of said container inside of said casing.

3. A filing cabinet comprising, a casing having a vertical front provided with a rectangular opening therein, a swinging side-filing storage container mounted in said casing and having a rectangular face panel which in normal storage position of said container extends in a vertical plane and serves as a closure for said opening, a pair of container-supporting links interposed between each end of said container and the adjacent casing wall, one link of each pair being pivoted at one end to said casing adjacent to the front thereof near the bottom of said opening and

with its other end pivoted to said container at a point transversely remote from said face panel, the other link of each pair being pivoted to said casing inwardly adjacent to the first-mentioned pivot of said one link and with its other end pivoted to said container intermediate said face panel and a vertical median plane through said container, said pairs of links co-acting to permit said container to be swung outwardly in said opening through an angle of 90° to an access position in which said panel extends horizontally through and across the bottom of said opening so as to locate a substantial portion of said container inside of said casing, and shoulders on said casing and container co-acting with said links for limiting the swing of said container to locate said face panel in its vertical and horizontal positions.

JOHN WARREN PAXTON.
GEORGE NOBLE PAXTON.
IRVING RICHARD CORNISH.

REFERENCES CITED

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

UNITED STATES PATENTS

Number	Name	Date
2,148,890	Wunderlich	Feb. 28, 1939
1,929,095	Hutchings	Oct. 3, 1933
349,643	Gould	Sept. 21, 1886
322,965	Powell	July 28, 1885
872,662	Malone	Dec. 3, 1907
2,160,267	Griswold	May 1939
1,051,108	Hemstreet	Jan. 21, 1913

FOREIGN PATENTS

Number	Country	Date
23,686	Britain	1902