

No. 676,596.

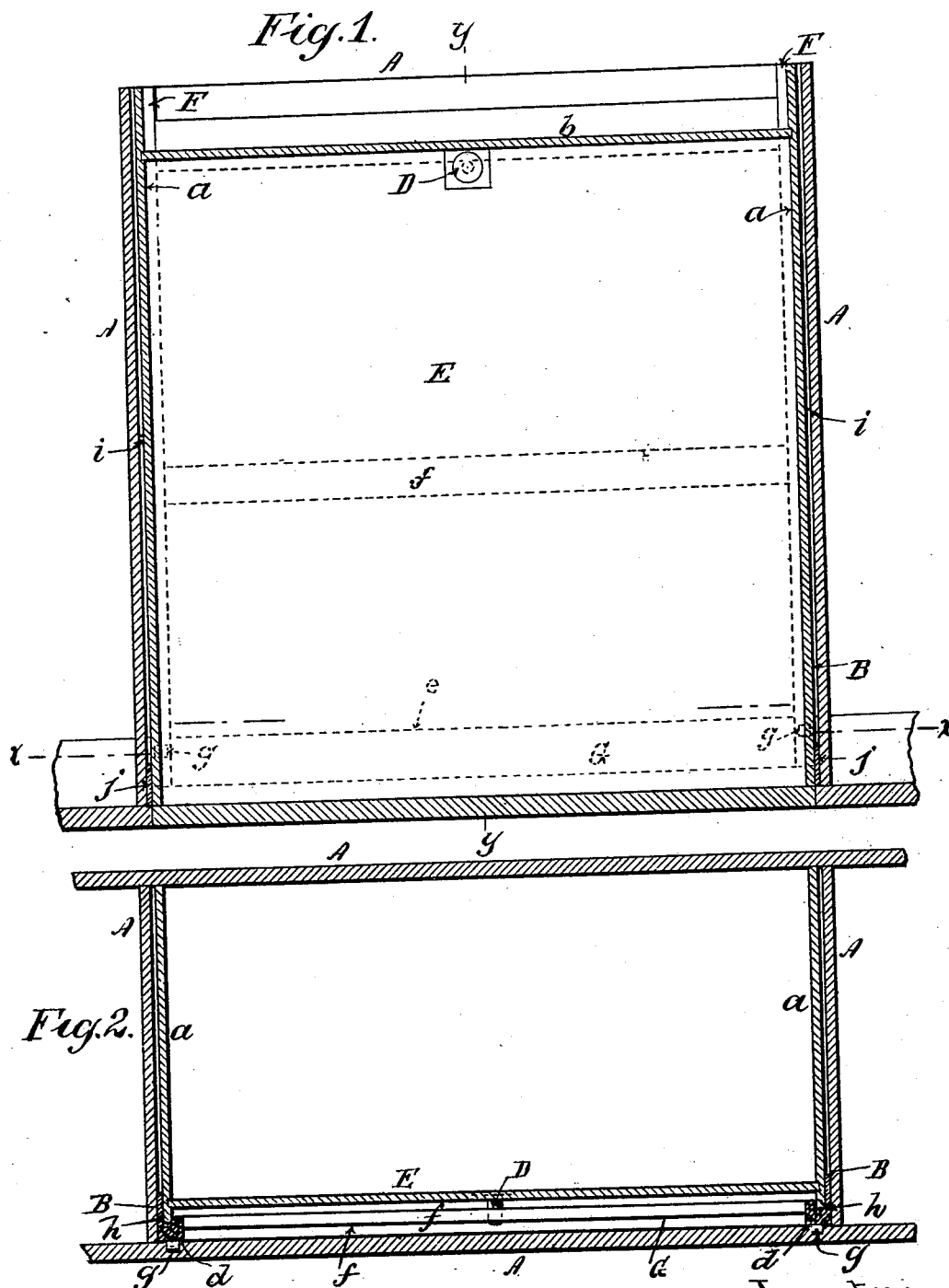
Patented June 18, 1901.

F. X. AMMANN.
EXTENSION DRAWER.

(Application filed Jan. 11, 1901.)

2 Sheets—Sheet 1.

(No Model.)



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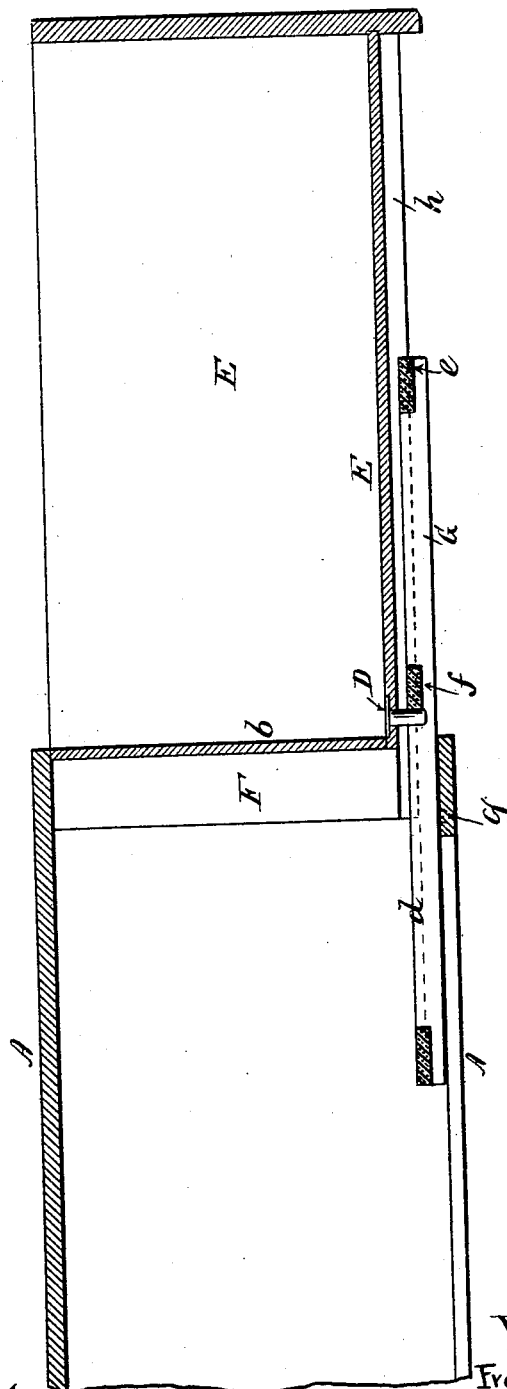
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2 Sheets—Sheet 2.

(No Model.)

Fig. 3.



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FRANK X. AMMANN, OF UNION HILL, HUDSON COUNTY, NEW JERSEY.

EXTENSION-DRAWER.

SPECIFICATION forming part of Letters Patent No. 676,596, dated June 18, 1901.

Application filed January 11, 1901. Serial No. 42,853. (No model.)

To all whom it may concern:

Be it known that I, FRANK X. AMMANN, a citizen of the United States, residing at Union Hill, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Extension-Drawers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in supports for drawers when pulled out of their cases.

The object of my improvements is to construct extension-drawers in such a manner that they will move perfectly true when pulled out or shoved in the casing, thus facilitating the opening and closing of the drawers and preventing binding; also, to adapt these drawers to be maintained in a horizontal position when pulled out of the casing to the full extent of the drawer-space.

My invention consists in an extension-drawer adapted to be supported horizontally and guided laterally by means of movable guides and supports arranged to move with the drawer when pulled out or shoved into the case.

In the accompanying drawings, Figure 1 represents a plan of my improved extension-drawer; Fig. 2, a longitudinal section of the same, taken on line *x x* of Fig. 1; and Fig. 3 is a transverse section taken on line *y y* of Fig. 1, showing the drawer extended and supported by the carriage.

Referring to the drawings, A A A A designate the case of the frame in which the drawer is fitted and adapted to slide in and out.

B B are strips fixed to the sides of the case, parallel to and slightly above the bottom of the case. These strips serve as guides for the extensible supports, hereinafter described, that prevent the said supports from tilting when drawn out of the case or extended to support the drawer.

G represents a frame of rectangular form that is placed on the bottom of the case, into which it fits easily. This frame takes the place of the fixed frame that is commonly placed in the drawer-case and on which the drawer slides. The side members *d d* of the

frame are right angular in cross-section and they are connected together transversely by front piece *e* and a piece *f*, that connects or joins the side members at a point about midway between the front piece *e* and the rear or inner ends of the side members *d d*. The horizontal parts of the side members *d d* of the frame project under the guide-strips B B and at or near the front rest upon antifriction-rollers *g g*, let into the frame of the bottom of the case. The sides of the drawer project below the bottom of the drawer and form runners *h h*, and when the drawer is placed in the case these runners rest and slide upon the horizontal parts of the side members *d d* and between the vertical parts of the side members and the guide-strips B B. At or near the back of the drawer a downwardly-projecting pin D is fastened to the bottom.

E is the drawer, which is constructed in the usual manner, except that the sides *a a* are extended, say, about three inches beyond the end *b* for the purpose of forming horns F F.

The operation of the invention is as follows: When the drawer is pushed wholly within the case, the frame is shoved in with it. Now when it is desired to open the drawer it is pulled out and slides on the side members *d d*, between the vertical sides of the side members and the guide-strips, which thus guide its motion and prevent it from losing its parallelism with the sides of the case. The side members and the entire frame remain in the case until pin D comes in contact with transverse piece *f*, when the pin bearing against the said piece couples the frame and drawer together, so that the farther movement of the drawer outward causes the frame to move out with it, and thus the side members *d d*, which serve both as guides and supports for the drawer, follow the movement of the drawer and the vertical parts of the side members guide the drawer, while the horizontal parts form extended supports, whereby the drawer is held in a horizontal position by the supports, while the vertical parts serve as lateral guides that hold the drawer true with respect to the sides of the case. When the drawer is entirely outside of the case, the horns F F remain within the same and bearing against the top form a counterbalance,

which, with the extended supports, prevents the drawer from sagging.

The outward movement of the carriage is limited by the shoulders *i i* in the side members *d d* of the frame coming in contact with the blocks *j j*, fixed to the sides *A A* of the case near the front.

The side members *d d*, it will be seen, serve as slides on which the drawer makes part of its movement, and when it reaches the limit of its independent movement the side members take up and complete the movement required to carry the drawer to its extreme extended position.

I claim—

1. In an extension-drawer the combination with the drawer and its case of extensible right-angular slides that form supports and guides for the drawer when pulled out, guide-strips fixed to the sides of the case over the horizontal part of the right-angular slides to prevent the slides from tilting when extended and means by which the drawer is caused to engage the slides and draw them out to hold the drawer parallel to the sides of the case and support it horizontally in its extended position, substantially as specified.

2. In an extension-drawer the combination with the drawer and its case of a rectangular sliding frame the side members of which are right angular in cross-section—the horizontal parts of the side members forming the support on which the runners of the drawer rest and slide and the vertical parts forming the lateral guides for said runners—a transverse piece that connects the side members of the frame at a point about midway between the front and rear of frame, a pin projecting from the bottom of the drawer at the rear end that engages the said transverse piece when the drawer is partially pulled out and thus causes the frame to slide out with the drawer, and

guide-strips fixed to the sides of the case and over the horizontal parts of the side members of the frame that prevent the frame from tilting when extended, substantially as specified.

3. In an extension-drawer, the combination of the drawer-case, a drawer provided with a pin, guide-strips located between the sides of the drawer and the drawer-case, and a carriage for the drawer consisting of a frame, having right-angular side members held under the guide-strips, stops for limiting the distance the carriage can move and a transverse piece connecting the sides of the carriage, which is engaged by the drawer-pin when the drawer is pulled out, substantially as specified.

4. In an extension-drawer the combination with the drawer-case and the drawer, of guide-strips fixed to the sides of the case, a carriage having right-angular side members, the horizontal parts whereof project under the guide-strips while the vertical parts are parallel with the guide-strips, runners for the drawers inserted between the guide-strips and the vertical parts of the side members, and adapted to slide on the side members of the carriage and between the same and the guide-strips, a transverse piece connecting the side members of the carriage, a pin projecting downward from the bottom of the drawer near the back part of the drawer and antifriction-rollers inserted in the frame of the case under the carriage, substantially as and for the purpose specified.

In testimony that I claim the invention above set forth I do affix my signature in presence of two witnesses.

FRANK X. AMMANN.

Witnesses:

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