No. 702,348. Patented June 10, 1902.

F. L. FORSTER.

DOOR SLIDE OR GUIDE FOR FURNITURE.

(Application filed Jan. 10, 1902.)

(No Model.)

Fig. 1.

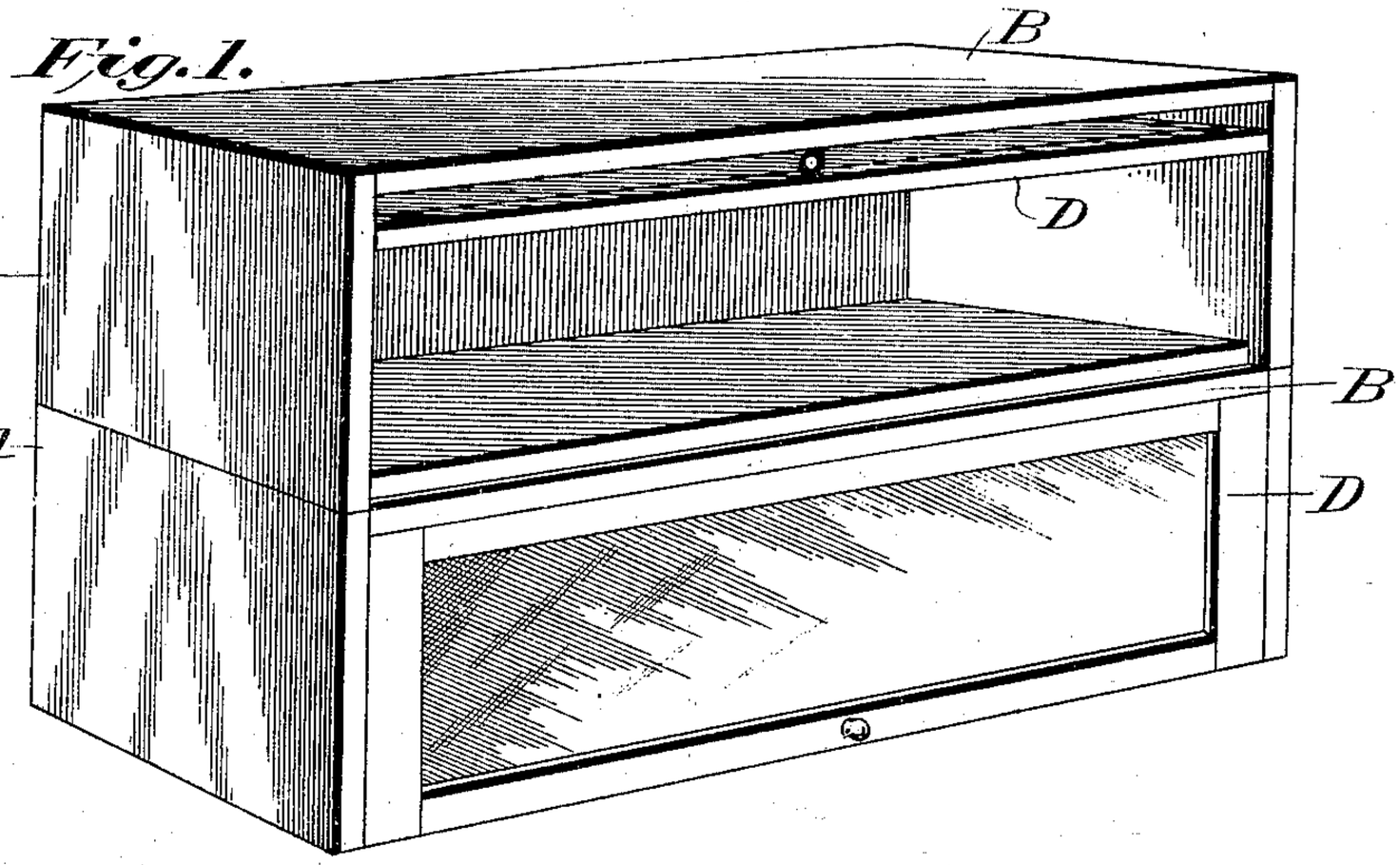


Fig. 2.

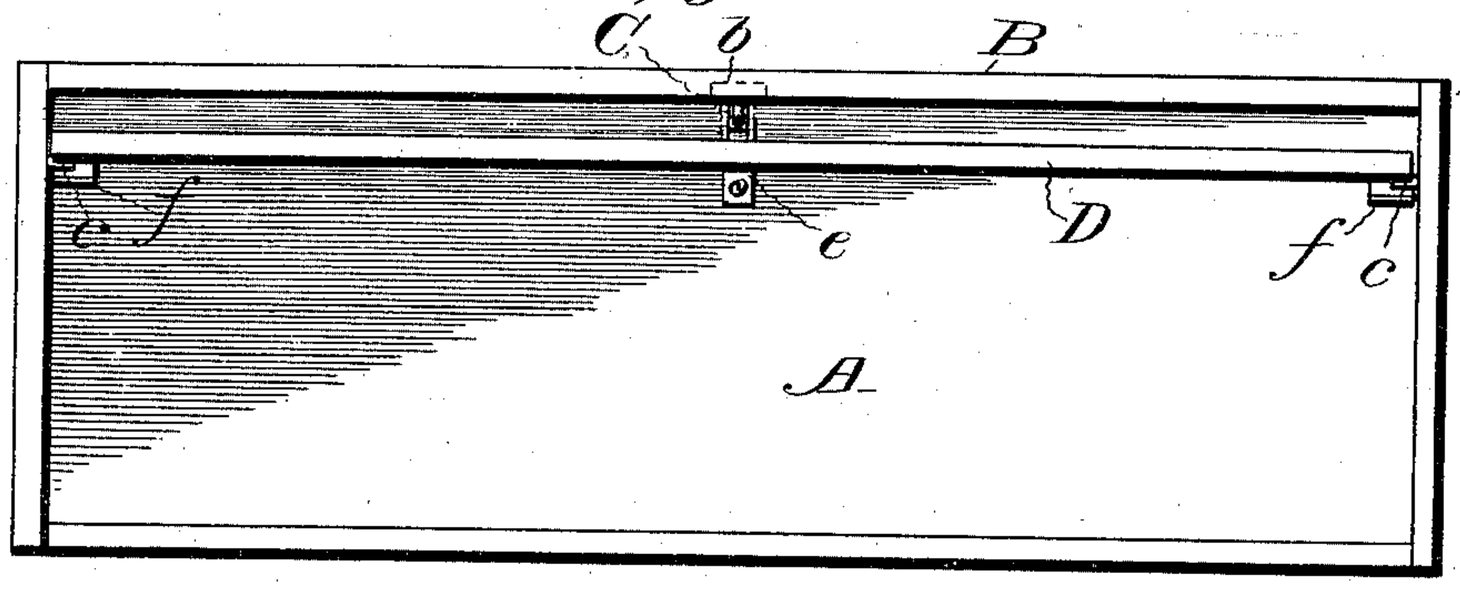


Fig. 3.

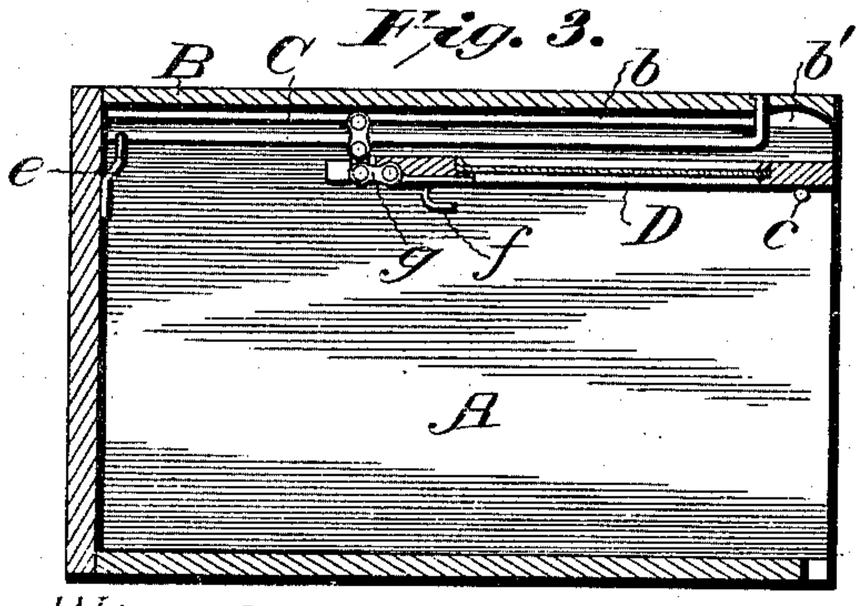
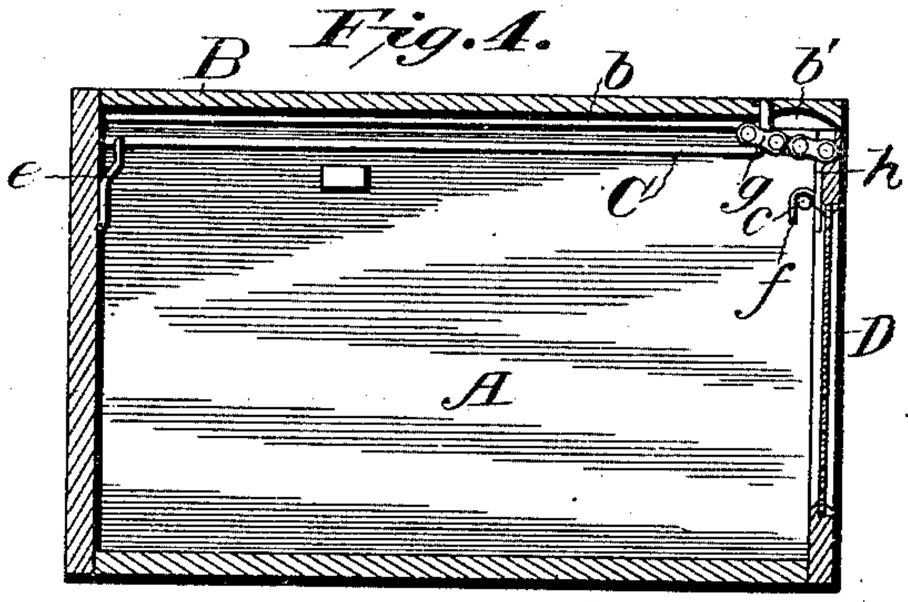


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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DOOR SLIDE OR GUIDE FOR FURNITURE.

SPECIFICATION forming part of Letters Patent No. 702,348, dated June 10, 1902.

Application filed January 10, 1902. Serial No. 89,167. (No model.)

To all whom it may concern:

Be it known that I, FRANK L. FORSTER, a citizen of the United States, residing at Shelbyville, in the county of Shelby and State of Indiana, have invented new and useful Improvements in Door Slides or Guides for Furniture, of which the following is a specification.

This invention relates to certain new and useful improvements in door slides or guides for the doors of sectional cases, the object being to provide means for connecting a door to the section of a case or chamber of a sectional bookcase or other article of furniture in such a manner that the door may be slid into the case parallel with and adjacent to the top thereof and when drawn outward will depend from supports to close the opening of the case.

The invention consists in the combination, with a case, box, or chamber, of a rod which is attached thereto to be maintained parallel with the top, a door which is held in engagement with the rod by a flexible connection, the parts being organized so that the door may be detached from its support and when in engagement therewith may be maintained parallel with the top or at right angles thereto to close the opening, as will be hereinafter more fully set forth.

The invention further consists in the construction and combination of the parts, as will appear by reference to the claims.

In the accompanying drawings, which illustrate one embodiment of my invention, Figure 1 is a perspective view showing two cases, one being positioned above the other, the door of the upper case being slid back, the door of the lower case being in a position to close the case. Fig. 2 is a front elevation, the door being shown parallel with the top of the case. Fig. 3 is a sectional view, the door being shown maintained within the case; and Fig. 4 is a similar sectional view, the door being shown lowered to close the front opening in the case.

The boxes or chambers may be one of the several units of a sectional bookcase or other article of furniture, and this invention is applicable to any object having a door which is supported so as to be slid into the case when it is desired to have access to the interior of the chamber. The case A is closed, except as to its front, and its top B may be provided centrally on its under side with a recess *b*, and parallel with the front edge there may be a curved recess *b'*. The sides of the box or case adjacent to its front edges below the recess *b'* are provided with studs or pins *c c*, and stops may be attached to the side pieces to limit the inward movement of the door.

To the rear wall of the case, on its inner side and practically in the center thereof, there is attached a plate *e*, the upper portion being bent away from the rear wall, and said plate is notched or bifurcated to receive the rear end portion of a guide-rod, which is permanently attached to the top of the case, so as to depend and be maintained parallel with said top. The guide-rod C is permanently attached to the top near its front end and is bent at right angles, the rearwardly-extending portion being engaged by the plate *e*, and said rear end may be separated from the plate by first raising it and then moving it to one side and downward.

The door D has near its upper edge on its sides hooks *f f*, which engage the pins *c c* when the door is drawn outward to its full extent. To the center of the upper inner side of the door are attached links *g* or equivalent connecting means, one of the links being held in engagement with the door by a leaf *h*. The other end link is connected to the rod C, as said rod is passed through the end link farthest from the door.

By the construction shown I provide a center slide and guide for the door, and in use the links and rod together provide a guide which holds the door in position to be moved inward when raised without other accessories. In practice I prefer to use flat links, such as are usually employed with sprocket-wheels.

When the door is closed, it will depend from the pins which engage the hooks, and to open the door the lower end is moved outward and upward to a horizontal position, when it can be slid into the case, the link sliding upon

the rod and maintaining the rear of the door against sidewise movement, and being so held there is no liability of the door jamming.

When the end of the rod is disengaged from the plate *e*, the rod may be moved downward, which will admit of the door being disengaged from the rod to separate it from the case. This is desirable, as the doors when glazed are shipped and packed separate from the cases, and to detach the door or place it in position it is not necessary to disturb or remove any part of the case. The recess *b* is present only for the purpose of allowing the links and rod to be nearer the top of the case than would be possible if the recess was not present. In the construction shown it is only necessary to provide each door with a single guide-rod and one flexible connection or coupling between the rod and door, both being centrally located.

What I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a case having a rod which is maintained parallel with and in proximity to the under side of the top, a vertically-swinging and horizontally-sliding door, and a jointed coupling which is pivotally attached to the door at one end the other end being held in slidable engagement with the rod, substantially as shown.

2. In combination with a case having a guide-rod maintained within the same to be parallel with and in proximity to the under side of the top of the case, a vertically-swinging and horizontally-sliding door, and connected links which engage the door and guide-rod.

3. In combination with a case having a rod attached to the center to be maintained parallel and in proximity to the under side of the top, of a door, a plurality of connected links one of the end links being in sliding engagement with the rod, the other end link being attached to the door, substantially as shown.

4. The combination in a sectional case, of a top therefor having a recess adjacent and parallel to its front edge, pins which project from the ends said pins being below the recess, a central guide-rod maintained parallel with the top of the case, a vertically-swinging and horizontally-sliding door having hooks for engagement with the pins, and links which connect the door to the guide-rod, substantially as shown.

5. In a case having top, bottom, end and side walls, a vertically-swinging and horizontally-sliding door for the front thereof, a centrally-disposed rod carried by the case in close proximity and parallel to the top thereof, means for movably connecting the door to the rod, hooks attached to the door, and pins which project inward from the ends of the case near its front to be engaged by the hooks when the door is closed and by the under side of the door when slid inward, substantially as shown.

6. The combination in a case, of a horizontally-sliding and vertically-swinging door, a guide-rod attached to the upper portion of the case on its under side, a recess in the under side of the top of the case parallel with and adjacent to its front edge, and a jointed coupling in slidable engagement with the rod and pivotal engagement with the door the point of attachment being on the inner side of the door and below its upper edge, substantially as shown.

7. In a case which is open on one side and provided with a recess in the under side of the top adjacent to its front edge, a rod having at its front an angular portion the upper end of which engages the top rear of the recess therein, means for supporting the rod at its rear end, a horizontally-sliding and vertically-swinging door, flexible connections between the door and rod one end of said connections being attached to the door below its upper edge, substantially as shown.

8. A door connected to a case to slide horizontally therein and to be swung vertically to close the open end of the case, in combination with jointed and swinging connecting means attached pivotally at one end to the door below its upper edge when closed, a rod carried by the case which is encircled by one of the end portions of the connecting means, and a top for the case having a recess beyond the front end of the rod into which recess the upper edge of the door swings when its position is being changed from horizontal to vertical.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRANK L. FORSTER.

Witnesses:
GARNETT R. FLEMING,
ELISE SCHROEDER.