

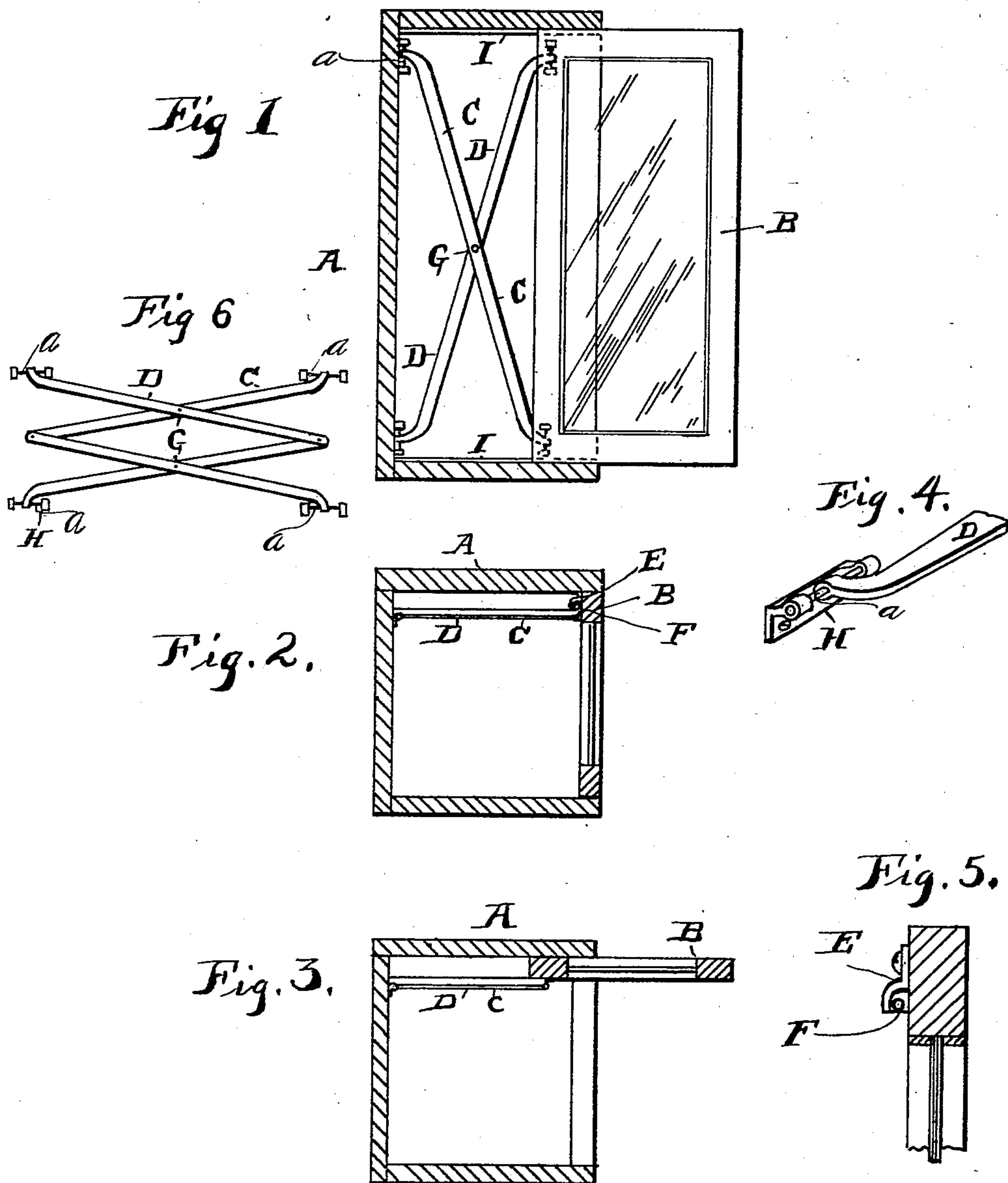
No. 632,607.

Patented Sept. 5, 1899.

O. H. L. WERNICKE.
DRAWER OR SLIDE EQUALIZER.

(Application filed Dec. 3, 1898.)

(No Model.)



WITNESSES.

Harry J. Perkins.
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UNITED STATES PATENT OFFICE.

OTTO H. L. WERNICKE, OF GRAND RAPIDS, MICHIGAN.

DRAWER OR SLIDE EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 632,607, dated September 5, 1899.

Application filed December 3, 1898. Serial No. 698,197. (No model.)

To all whom it may concern:

Be it known that I, OTTO H. L. WERNICKE, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented new and useful Improvements in Drawer or Slide Equalizers, of which the following is a specification.

This invention relates to a new and useful device for equalizing the movement of drawers, slide-doors, desk-shelves, and the like; and the same consists in the combination and arrangement of parts hereinafter described.

The objects of the invention are, first, to furnish a device that will prevent a drawer, door, or slide which moves horizontally from binding and cause both ends to move uniformly, and, second, to simplify and cheapen the construction of equalizing devices for drawers and analogous purposes. These objects I accomplish by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 shows a plan view of a case with the top removed and a door pulled out or partially pulled out of the case, it showing the form of my invention when applied to a door that is raised from a perpendicular position when opened and slid back within the case and which can be drawn out and dropped down to close the opening. Fig. 2 shows a transverse section of a case having the door drawn out and closed. Fig. 3 shows a like sectional view with the door partially drawn out. Fig. 4 shows my preferred form of attachment. Fig. 5 shows a sectional view of the door with the stop arrangement upon it, which in the example of my invention shown in the drawings forms a sort of a hinge for the drawer or door. Fig. 6 shows a modified form which may be applied to very lengthy drawers.

Like letters refer to like parts throughout the various views.

A represents the frame of the case.

B represents the drop-door.

C and D represent the levers pivoted at G, one end of the levers secured movably to the case, the other end of the levers secured movably to the door. This illustrates my preferred form; but any suitable method of securing the levers to the door and case which allows the ends to move may be adopted.

In the example of my invention shown in the drawings I provide a ledge or other suitable support for the end of the door, (shown in the drawings by I,) so that when the door is raised to a horizontal position it slides on these ledges I.

E shows a hook or stop secured to the door, and F shows pins in the case.

H shows an enlarged view of my preferred form of attaching the levers to the case.

The operation of my invention is as follows: The door is opened or raised to a horizontal position, when it slides upon the ledges I, and a pressure upon any part of the door backward will cause the levers to close, and the levers will operate so that the pressure is applied to both ends of the door at once, and the door or drawer, in case the same be attached to a drawer, will move uniformly at both ends into and out of the case, the ends of the levers moving longitudinally of the case as the door or drawer is slid in and out, said levers turning freely upon the pivot G. By drawing the door open or outwardly the levers are spread or opened until the hook on the door reaches the stop F, when the door can be dropped down into the position shown in Fig. 2.

In some cases it may be desirable to interpose one or more sets of levers, and I have illustrated the modified form in Fig. 6. The levers which are secured to the case are secured movably, the same as above described, and the ends of the levers that are fastened to the door or drawer are also secured movably, inasmuch as the device will not work without such movable connection.

I have found this device peculiarly efficient in connection with bookcases having sliding doors and equally efficient in connection with drawers, and the same may be applied perpendicularly as well as horizontally.

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

1. The combination with a case of a movable part such as a door or drawer, levers arranged in said case to cross and to have pivotal connection centrally, said levers being movably connected to the movable part and to the case at or near the sides of the latter with which said movable part engages,

and guides for the connected ends of said levers arranged at right angles to the line of movement of said movable part, substantially as described.

5 2. The combination with a case of a movable part, such as a door or drawer, levers arranged in said case between its rear wall and the movable part, said levers being centrally crossed and pivotally connected together, and guide-rods for the ends of said
10 levers arranged upon the rear wall of the case and upon the movable part at right angles to the line of movement of the latter, substantially as described.

15 3. The combination of the case, a sliding door adapted to open to a horizontal position and to be slid within the case, levers having their ends adjacent to the case movably attached thereto, other ends adjacent to the
20 door movably attached thereto, a support for the sliding door, and a stop for the door gating the distance the door may be withdrawn from the case, the whole constructed so as to

allow the door to be raised to a horizontal position and slid into the case and to be pulled
25 outwardly and to be dropped to a perpendicular position, substantially as described.

4. The combination with a case of a movable part, such as a door or drawer and a plurality of pairs of levers arranged in said case,
30 the members of each pair crossing each other, the first pair being connected at one end to move in suitable guides on the movable part and their other ends connected to the ends of the members of the adjacent pair, the last
35 pair having their ends connected to move in guides on the case parallel to those on the movable part, substantially as described.

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

Witnesses:

EDWARD TAGGART,
CHRISTOPHER HONDELINK.