No. 620,447. Patented Feb. 28, 1899.

T. HANSON.

DRAWER GUIDE.

(Application filed Oct. 14, 1898.)

(No Model.)

Fig 1

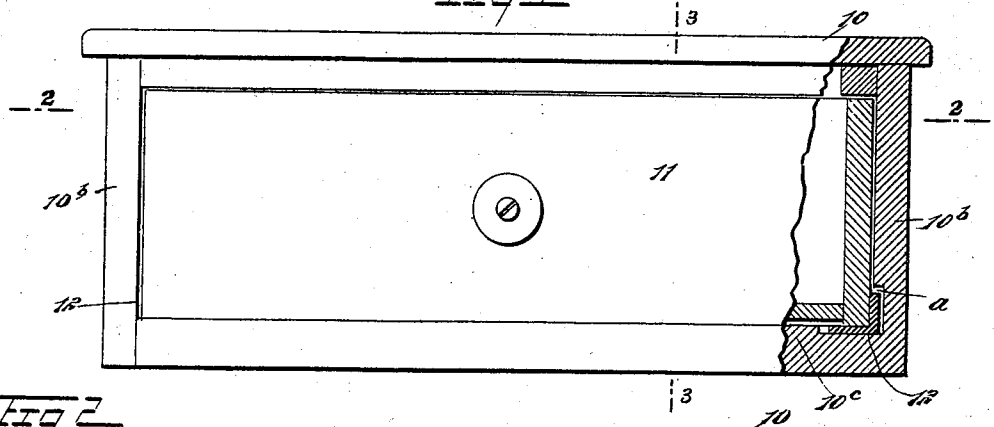


Fig 2

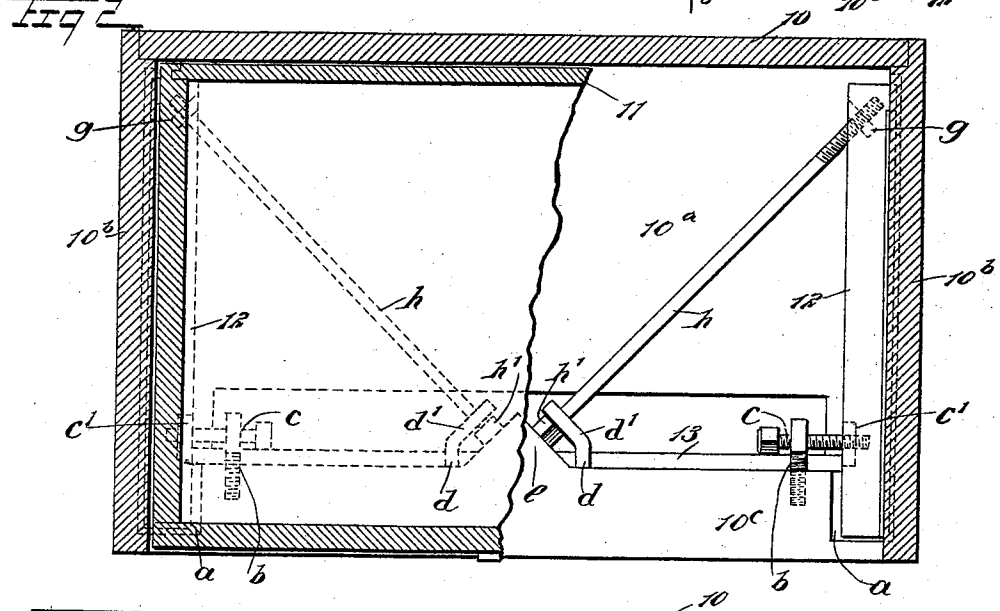
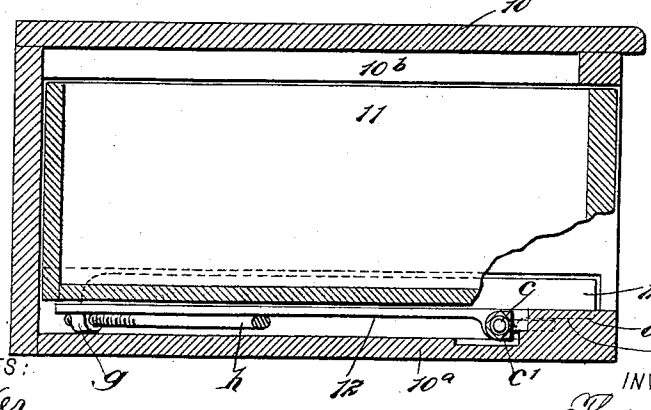


Fig 3



WITNESSES:

H. Walker

Wm. L. Patton

INVENTOR

Thorvald Hanson.

BY Munn & Co

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

THORVALD HANSON, OF EAU CLAIRE, WISCONSIN.

DRAWER-GUIDE.

SPECIFICATION forming part of Letters Patent No. 620,447, dated February 28, 1899.

Application filed October 14, 1898. Serial No. 693,482. (No model.)

To all whom it may concern:

Be it known that I, THORVALD HANSON, of Eau Claire, in the county of Eau Claire and State of Wisconsin, have invented new and useful Improvements in Drawer-Guides, of which the following is a full, clear, and exact description.

This invention relates to drawer-guides adapted for adjustment to take up lateral looseness that may result from shrinkage or wear of the drawer or the frame it is held to slide in, and has for its object to provide a novel simple device of the character indicated which will be capable of general application upon structures having slidable drawers, which will be very convenient to adjust, and that may be produced at a low cost.

The invention consists in the novel construction and combination of parts, as is hereinafter described, and indicated in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation, partly in section, of a rectangular frame having a drawer therein held in place by the improvements. Fig. 2 is a sectional plan view of the frame and part of the drawer, taken on the line 2 2 in Fig. 1, the improved drawer-guide being represented in place by full and dotted lines; and Fig. 3 is a transverse sectional view substantially on the line 3 3 in Fig. 1.

The rectangular frame 10 may be the body of a portable cabinet or any other structure, wherein the drawer 11 is adapted to slide back and forth through an opening at the front of said frame. The frame 10 may have a bottom wall 10^a, which is joined at the side edges upon the lower portions of the vertical parallel sides 10^b, and preferably at the corners where the side walls 10^b join the bottom 10^a an angular recess *a* is formed at each side of the frame, as clearly shown at the right-hand side in Fig. 1. In each right-angular recess *a* a guide-strip 12 is seated, said strip being L-shaped in cross-section, thus providing a bottom and side wall for each guide-strip. The side and bottom portions of each guide-strip 12 have less width, respectively, than the side and bottom walls of the recess *a*, so that the strips may be freely moved a limited distance toward or from each other on the bottom 10^a.

The drawer 11 has its side walls extended a proper distance below the bottom, as usual, which will permit the lower edges of the sides of the drawer to rest on the horizontal members of the guide-strips 12, as shown at one corner of the drawer in Fig. 1.

The bottom wall 10^a of the frame 10 may in some cases be dispensed with and a front cross-strip 10^c be provided as a support and finish at the front of the frame below the drawer, or there may be a close bottom furnished, as shown in the drawings, the latter-mentioned construction being necessary in case the drawer-support is part of a box or cabinet.

When a close bottom 10^a is employed as part of the frame 10, the front finishing-strip 10^c is of any preferred thickness and the main portion of the bottom is thinner, thereby producing a shallow recess throughout the area of the bottom behind the front strip 10^c, and it will be seen that in each case the level parts of the two right-angular recesses *a* at the side lower corners within the frame 10 are formed in the top surface of the front strip 10^c. A metal cross-bar 13 is seated in the shallow recess of the bottom wall 10^a, along the inner surface of the front strip 10^c, and is thereto secured by the two screw-bolts *b*, that pass through perforations in the cross-bar and respectively formed near the ends of the same, as indicated in Fig. 2. The heads of the bolts *b* are flattened and transversely perforated, said perforations being threaded to receive two adjusting-screws *c*, that have their end portions which project through the bolt-heads toward the guide-strips 12 screwed into integral nuts *c'*, formed on the lower faces of said guide-strips.

On the cross-bar 13 two angularly-bent arms *d* are formed or secured, the members *d'* of which incline toward each other and are spaced from the sides of a triangular projection or abutment *e*, that is fixed on the inner side of the frame-strip 10^c at its center of length.

The guide-strips 12 extend a suitable length rearwardly over the shallow recess in the bottom 10^a of the frame 10, and near the rear ends of the guide-strips a depending nut *g* is formed

or secured on the lower side of each guide-strip, as indicated by dotted lines in Fig. 2.

Two elongated adjusting-screws *h* are provided, which are headed, as at *h'*, on one end of each and screw-threaded on their opposite ends. The adjusting-screws *h* are loosely inserted through lateral perforations in the members *d'* of the bent arms *d*, so that the bodies of said screws will project diagonally in opposite directions over the recessed portion of the bottom 10^a toward the depending nuts *g*, wherein they are screwed. When the parts of the improved device are assembled as described, and best shown in Fig. 2, it will be seen that the heads *h'* of the adjusting-screws *h* have a loose bearing against the adjacent sides of the triangular projecting abutment *e*, which prevents a recession of the bolts, but permits their rotation by means of a wrench applied upon the heads of the bolts.

It will be evident that when objectionable lateral play is had by the drawer 11, due either to shrinkage of the material composing the drawer or the frame wherein the drawer slides, an adjustment of the screws *c* and *h* manually will effect a correction of the objectionable looseness by drawing the upright members of the guide-strips 12 toward each other a proper degree, and in case the drawer binds a spreading adjustment of the guide-strips to obviate such an impediment to the free sliding movement of the drawer may be produced by a reverse adjustment of the screws *c* and *h*.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination with a frame, and a drawer slidable therein, of two L-shaped guide-strips loosely disposed on the frame, two short adjusting-screws near the front of the frame, and two diagonally-extended adjusting-screws, the four adjusting-screws being loosely held on the frame, and having threaded engagement with the guide-strips, substantially as described.

2. The combination with a box or the like, and a drawer slidable through a front opening of said box, of two guide-strips L-shaped in cross-section, and loosely seated in the lower side corners of the box to afford support for the lower side corners of the drawer, nuts on the guide-strips and pairs of screws adjustable at the front of and within the box, one pair at each side thereof, said screws engaging the nuts on the guide-strips for the adjustment of said strips, substantially as described.

3. The combination with the frame of a box or the like, and a drawer slidable through an opening at the front of the frame, of two guide-strips, right angular in cross-section and seated in the lower side corners of said frame, nuts on the guide-strips, a cross-bar on the inner side of a transverse strip forming part of the frame, screw-bolts having perforated and threaded flattened heads, said bolts serving to hold the cross-bar fast upon the frame-strip, an adjusting-screw passing through the flattened heads of the bolts to an engagement with nuts on the forward portions of the guide-strips, and two elongated adjusting-screws passing loosely through the arms on the cross-bar and trending diagonally rearward to engage other nuts on the rear portions of the guide-strips, substantially as described.

THORVALD HANSON.

Witnesses:
G. J. LOSBY.
CHAS. W. FISKE.