No. 874,581. PATENTED DEC. 24, 1907

W. H. FLOOD.

ATTACHMENT FOR DRAWERS.

APPLICATION FILED JULY 11, 1907.

FIG. 1

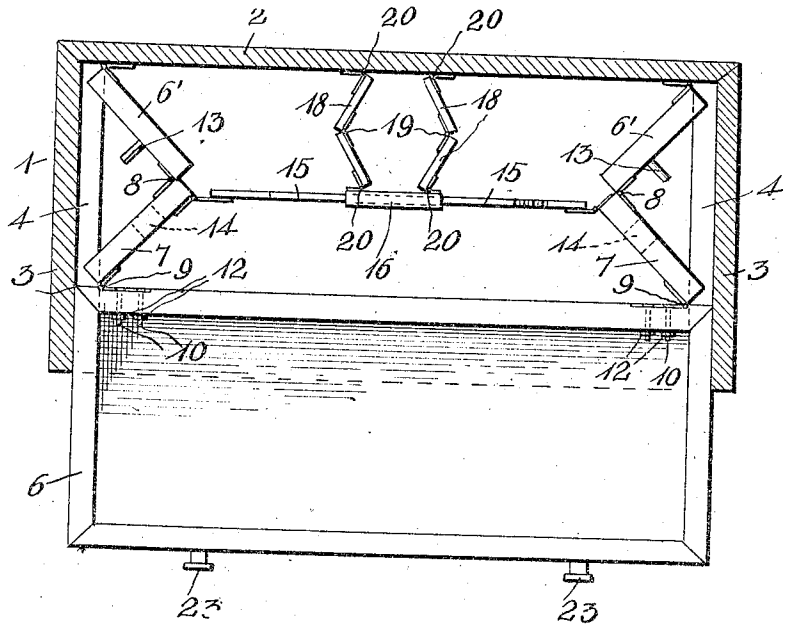


FIG. 2

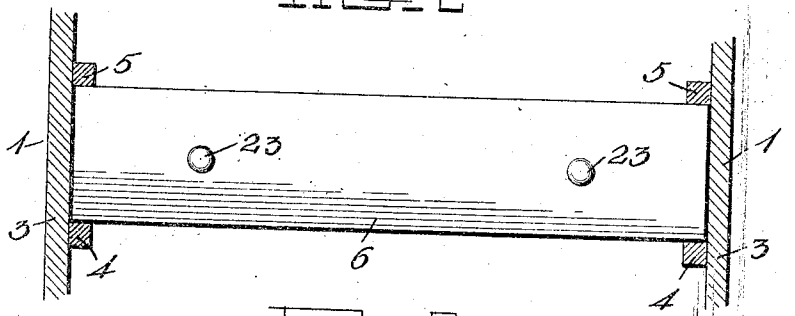
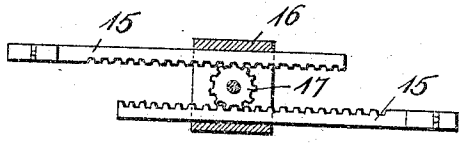


FIG. 3



Witnesses
a. abeel
C. H. Griesbauer.

Inventor
William H. Flood
by H. B. Williamson & Co
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM HENRY FLOOD, OF ILION, NEW YORK.

ATTACHMENT FOR DRAWERS.

No. 874,581. Specification of Letters Patent. Patented Dec. 24, 1907.

Application filed July 11, 1907. Serial No. 383,296.

To all whom it may concern:

Be it known that I, WILLIAM HENRY FLOOD, a citizen of the United States, residing at Ilion, in the county of Herkimer and State of New York, have invented certain new and useful Improvements in Attachments for Drawers; and I do 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.

This invention relates to improvements in drawer guides and retaining devices.

The object of the invention is to provide a device of this character by means of which a drawer will be prevented from being drawn entirely out of its casing, and means whereby the same will be guided and prevented from clamping or sagging, when being drawn out or pushed into the casing.

With this object in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a horizontal sectional view through a drawer casing taken immediately above one of the drawers therein, showing the latter partly withdrawn from the casing. Fig. 2 is a front elevation of a drawer showing the manner in which the same is engaged with and supported in the casing, the latter being shown in section; and Fig. 3 is a detail view of a portion of the operating mechanism.

Referring more particularly to the drawings, 1 denotes the drawer casing, which consists of a back, 2, and end pieces, 3. To the end pieces 3 are secured lower supporting cleats, 4, and upper supporting cleats, 5, between which the drawer, 6, is adapted to slide when pulled out or pushed into the casing, 1.

Arranged adjacent to the opposite sides of the casing, 1, are pairs of hingedly connected drawer retaining and guiding strips, 6′ and 7, said strips being hingedly connected at their inner ends, as shown at 8. The hingedly connected strips, 6′ and 7, are disposed between the upper and lower drawer cleats, 4 and 5, and the rear strips, 6′, of each pair are hingedly connected at their outer ends to the back, 2, of the casing, 1. The strips, 7, of each pair are hingedly connected at their outer ends to the rear side of the drawer by hinges, 9. The hinges, 9, are detachably secured to the rear side of the drawer, 6, by means of bolts, 10, the threaded ends of which project through the back of the drawer and into the same, and are adapted to receive nuts, 12, which may be readily screwed on and off the same from the inside of the drawer, thus permitting the bolts to be removed and the drawer detached from the strips 7 when it is desired to entirely remove the drawer from the casing.

On the outer side of each of the strips, 6′, adjacent to the hinge connection thereof with the strip 7, are formed right-angularly projecting studs, 13, which, when the drawer is pulled out, and the strips, 6′ and 7 straightened out, or unfolded, will engage the inner sides of the end pieces, 3, of the casing, thus preventing said strips from being brought into alinement or entirely straightened, in which condition they could not be readily folded together by the inward movement of the drawer, and would thus serve to prevent the drawer from being pushed in. The strips 7 are provided with passages, 14, in which the studs, 13, are adapted to project when the strips 6′ and 7 are in folded position, and the drawer closed.

In order that the strips 6′ and 7 will move in unison when being folded or unfolded by the inward or outward movement of the drawer, the same are connected by parallel horizontally disposed rack bars, 15, the outer ends of one of which is hingedly connected to the adjacent inner ends of one of the strips, 7, while the outer end of the opposite rack bar is hingedly connected to the inner end of the other strip, 7, at the opposite side of the casing. The rack bars 15 are adapted to slide through and are held in position by means of a casing 16, in which is revolubly mounted a spur gear pinion, 17, the teeth of which are adapted to engage and mesh with the teeth on the inner edges of the rack bars 15, as clearly shown in Fig. 3 of the drawing. The casing, 16, is supported and held in position by pairs of strips, 18, the inner ends of which are hingedly connected together at 19, while the outer ends of the forward strips are hingedly connected to the rear side of the casing 16, as shown at 20, and the outer ends of the rear strips are hingedly connected to the inner side of the back, 2, as shown at 21. The drawers are provided on their outer sides with suitable knobs or drawer-pulls, 23.

By providing an attachment for drawers as herein shown and described, the latter will

be prevented from sagging down in front when drawn out of the casing, and will be prevented from being entirely withdrawn, thus avoiding the necessity of carefully withdrawing the drawer, or watching the same. This attachment also causes the drawer to slide straight when being drawn out or pushed into the casing, thus preventing the same from clamping or sticking.

Having thus particularly described my invention, what I claim as new, and desire to secure by Letters Patent, is:

1. An attachment for drawers comprising strips arranged in pairs and connected to the rear side of the drawer, and to the back of the casing to guide the drawer and prevent the same from being entirely withdrawn from the casing, rack bars hingedly connected to said strips, and a gear pinion revolubly mounted in said drawer casing and adapted to be engaged by said rack bars, substantially as described.

2. An attachment for drawers comprising strips arranged in pairs and connected to the rear side of the drawer, and to the back of the casing to guide the drawer and prevent the same from being entirely withdrawn from the casing, rack bars hingedly connected to said strips, a gear pinion revolubly mounted in said drawer casing and adapted to be engaged by said rack bars whereby said strips are caused to move in unison and hinged supporting strips adapted to hold said rack bars in position, substantially as described.

3. An attachment for drawers comprising pairs of strips, the strips of each of said pairs being hingedly connected together at their inner ends whereby the same are folded and unfolded by the inward and outward movement of the drawer, a hinge connection between the outer ends of the rear strips and the back of the drawer casing, a hinge connection between the outer ends of the forward strips and the rear side of the drawer, means to detachably secure said hinges with the rear side of the drawer, right-angularly projecting studs formed on the outer side of the rear strips, said studs being adapted to engage a passage formed in the adjacent strip when said bars are folded together by the inward movement of the drawer, rack bars hingedly connected to said strips, a casing adapted to receive the free ends of said rack bars, a gear pinion revolubly mounted in said casing and adapted to be engaged by said rack bars, and means to hold said casing and pinion in operative position, substantially as described.

4. An attachment for drawers comprising upper and lower supporting cleats adapted to be secured to the inner walls of the opposite sides or end pieces of the drawer casing to support and guide said drawer, pairs of hingedly connected strips arranged adjacent to each side or end of the casing, a hinge connection between the outer ends of the rear strips of said pairs and the back of the casing, a detachable hinge connection between the outer ends of the forward strips and the rear side of the drawer, means to prevent said pairs of strips from being entirely straightened out or brought into alinement, a pair of rack bars, one of which is hingedly connected at its outer end to one pair of said strips, while the other rack bar is hingedly connected to the opposite pair of strips, a casing adapted to receive the free ends of said rack bars, a pinion revolubly mounted in said casing to engage the teeth of said bars, pairs of hingedly connected supporting strips having a hinge connection at one end with said casing and at their opposite ends to the rear side of the drawer casing, substantially as described.

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

WILLIAM HENRY FLOOD.

Witnesses:

HARRY F. WILLIAMSON,

ANTOINETTE R. FLOOD.