

(No Model.)

F. W. TOBEY.
COMBINED HINGE AND SUPPORT.

No. 533,570.

Patented Feb. 5, 1895.

Fig. 3.

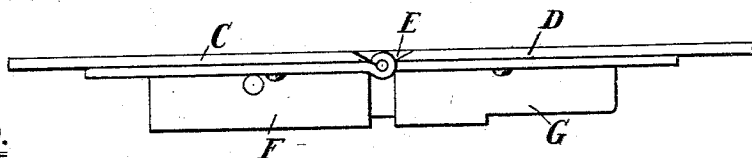


Fig. 4.

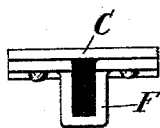
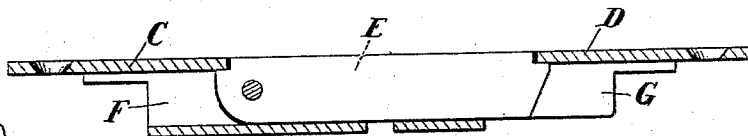
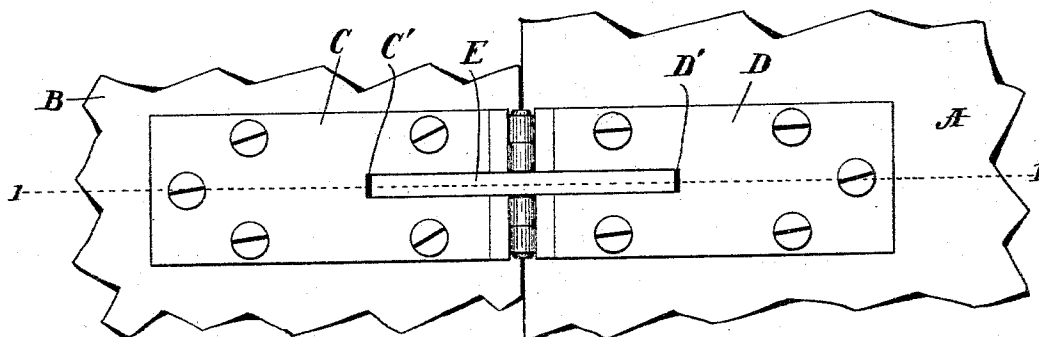
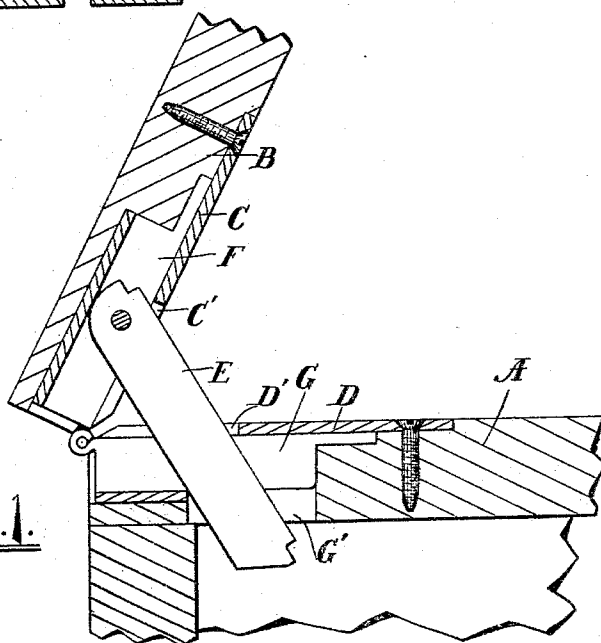


Fig. 5.

Fig. 1.



WITNESSES:

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Fig. 2.

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UNITED STATES PATENT OFFICE.

FRED W. TOBEY, OF GRAND RAPIDS, MICHIGAN.

COMBINED HINGE AND SUPPORT.

SPECIFICATION forming part of Letters Patent No. 533,570, dated February 5, 1895.

Application filed May 11, 1894. Serial No. 510,941. (No model.)

To all whom it may concern:

Be it known that I, FRED W. TOBEY, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in a Combined Hinge and Support; 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 a combined hinge and support, and its object is to provide the same with certain new and useful features, hereinafter more fully described and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical section of my device on the line 1—1 of Fig. 2, showing the position of parts when the desk front is closed. Fig. 2 is a plan view of the same when open. Fig. 3 is a side elevation of my device detached; Fig. 4, a longitudinal vertical section of the same; and Fig. 5 an end elevation of the same.

Like letters refer to like parts in all of the figures.

My device consists essentially of a common long strap hinge and a bar to support the movable leaf of the same in a horizontal position.

A represents a portion of the desk top and B a portion of the desk front.

C, D, are the plates of the hinge, pivoted together at their adjacent ends, and having the slots C', D' adapted to receive the supporting bar E and bisecting the hinge joint. Secured to the plate C is the casing F adapted to receive one end of the bar E, and in which said bar is pivoted near said end. Secured to the plate D is the casing G which receives the opposite end of said bar. In the bottom of said casing G is the opening G' adapted to allow the downward thrust of the bar E.

When the desk front is open the bar E lies within the casings F, G, with its ends engaging the plates C, D, and its lower side engaging the bottom of said casings, which casings thus form a support for said bar, which bar thus operates as a support for the movable

leaf of the hinge, thus giving a strong support for the desk front when in a horizontal position without any strain on the pivot of the hinge or bar. As the desk front is closed the bar E turns on the pivot in the casing F, and at the same time the hinge leaves being bisected by the slots C', D', said pivoted end rises, while the opposite end is lowered and thrust through an opening G' provided in the desk top.

The hinge joint is placed below the plane of the hinge plates C, D, which plates are beveled at their adjacent ends to allow the closing of the desk, and the bar E at the points of engagement with said plate is cut away so that when the desk front is open a portion of said bar projects into and fills the openings C', D'. By this arrangement I am enabled to provide a desk support and hinge, which presents a smooth surface in a plane with the desk front and also a strong support for the movable leaf of the hinge, that will avoid all strains on the pivots of the device.

It is evident that various modified forms of this device may be constructed without departing from the essential features of my invention. One of the casings may be omitted, and any loop, or support attached near the hinge joint to either leaf of the hinge would operate as well, and perform the functions of the casing; also the bar E might be arranged at the side of the hinge instead of within a slot in the hinge, or two bars, one at each side might be easily arranged to operate in the same manner in conjunction with a hinge, or by permitting the strain to come on the pivot pin of the bar, the engagement of the said bar with the hinge plate at the pivoted end would not be necessary.

I am aware that a rigid bar pivoted to one leaf of a hinge and engaging the other with an end thrust and acting as a prop or brace to hold said leaves at an angle to each other, is old; also that a jointed bar pivoted at both ends to the respective leaves of a hinge and acting as a prop to sustain said leaves at an angle to each other and having a lateral support for the said joint is old. I do not claim such broadly, but

What I claim is—

1. In combination with a hinge, a rigid bar

pivoted near one end to one leaf of said hinge and laterally engaging the other leaf of the same near the other end, and supporting said leaves in the same plane, and a support laterally engaging said bar near the middle, and attached to said hinge near the joint thereof, substantially as described.

2. In a desk support, a hinge having a slot bisecting its joint, a bar in said slot, said bar also pivoted to one of said leaves near one end, and laterally engaging the other of said leaves near the other end, to support the said leaves in the same plane with each other, and a casing attached to said hinge near the joint, and engaging said bar near the middle, substantially as described.

3. In a desk support, a hinge having a longitudinal slot bisecting its joint, casings secured to the leaves of said hinge, a bar pivoted in one of said casings and sliding in the other, said bar engaging said casings at one

side and said hinge leaves at the other side, when the desk front is open, substantially as described.

4. In combination with a desk, a hinge having a longitudinal slot bisecting its joint, said joint being below the level of the plane of the hinge leaves, and said hinge leaves having their adjacent ends beveled to allow the closing of the hinge, casings secured to said hinge leaves, a bar pivoted within one of said casings and slidable in the other, said bar being supported by said casings, and being in engagement with the hinge leaves near its ends, and an opening in the desk top, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FRED W. TOBEY.

Witnesses:

LUTHER V. MOULTON,

LEWIS E. FLANDERS.