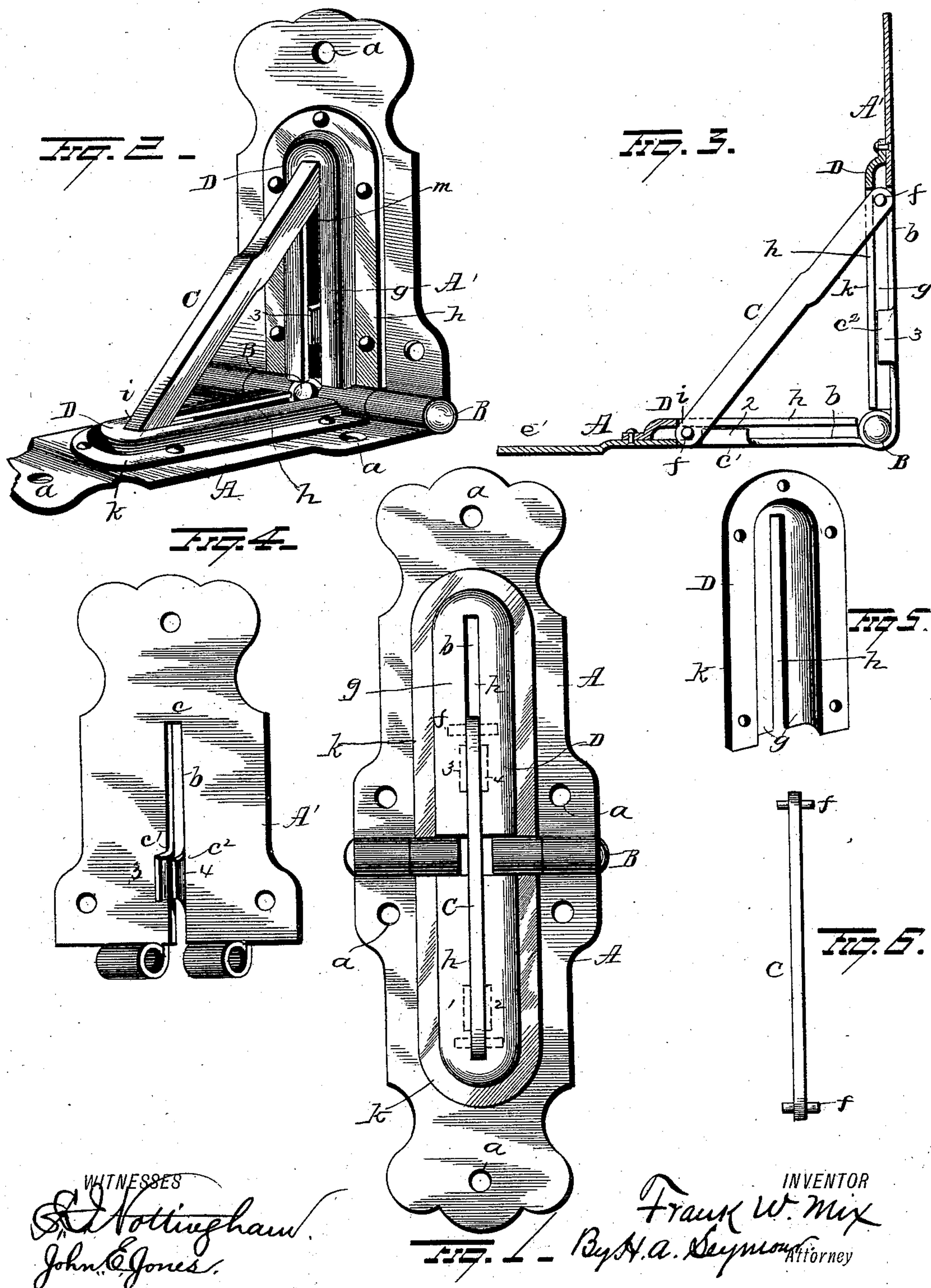


(No Model.)

F. W. MIX.
TRUNK OR BOX HINGE.

No. 362,305.

Patented May 3, 1887.



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FRANK W. MIX, OF NEW BRITAIN, CONNECTICUT.

TRUNK OR BOX HINGE.

SPECIFICATION forming part of Letters Patent No. 362,305, dated May 3, 1887.

Application filed January 11, 1887. Serial No. 224,063. (No model.)

To all whom it may concern:

Be it known that I, FRANK W. MIX, of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and
5 useful Improvements in Trunk or Box Hinges; 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
10 same.

My invention relates to trunk or box hinges of a type or class provided with a stay bar or brace which serves to support the lid of a box or trunk when in its open position.

15 The invention consists in a combined hinge and stay-bar embodying certain improved features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

20 In the accompanying drawings, Figure 1 is a plan view of my improved hinge and stay-bar. Fig. 2 is an edge view showing the hinge in an open position, in which the stay-bar serves to support a lid or cover. Fig. 3 is a
25 longitudinal section of the device. Figs. 4, 5, and 6 are views of detached parts of the hinge and stay-bar.

A A' represent the leaves of the hinge, which are preferably made of sheet metal,
30 formed by suitably-shaped dies, and connected together by the pintles B. The plates A A' are each furnished with any desired number of holes *a* for the insertion of the fasteningscrews that attach it to a trunk or box. Each
35 plate or leaf is also provided with a central longitudinal slot, *b*, which extends from the inner edge of the plate toward its free outer end, terminating at such point in its body as will be required to accommodate any desired
40 length of bar or brace. By this method of construction the hinge is provided with a central longitudinal slot, *b b*, that extends across the joint of the hinge to its outer terminations, which are preferably a sufficient distance from
45 the ends of the leaves A A' to permit the formation of a screw-hole through these ends, as shown in Fig. 1. The material of the leaves A A' at the points *c' c'* is not cut away, as in the other portions of these plates, in the formation of the slots *b b*, but is slit through the center, to form two flanges, 1 2 and 3 4, at each

of these points, which are bent at right angles to the outer face of the leaves A A', and in this manner produce a continuation of the slots *b b*. The flanges 1 2 on the plate or leaf
55 A are located near the end of the slot *b* in this plate, while the ears or flanges 3 4, that are formed on the other leaf, A', are given a position nearer to the inner edge of the leaf, where it is hinged to the leaf A. The position of the
60 flanges 3 4 depends upon the length of the stay bar or brace C, as will be presently shown.

The bar C is preferably constructed of wrought-iron, cut into form with a die, and of a suitable thickness to slide neatly in the con-
65 tinuous slot cut in the plates A A', these slots *b b'* together producing a continuous opening for the accommodation of the bar C, as shown.

The width of the bar C is considerably greater than its thickness, to provide strength
70 to support an end-thrust or weight thrown on it suddenly in the direction of its length. Each end is perforated to receive a transverse short bar. These are secured tightly in place and form short journal ends *f*, that project from
75 each side of the bar C at its ends.

The leaf or plate A is made with an offset, this provision being necessary to permit the leaf to fit over the metallic band that is secured on the outer surface of a trunk body or lid
80 where these parts join. The outer end, *e'*, of the leaf A is returned by the offset, to have a bearing on the body of the trunk.

Upon the outer faces of the leaves A A' the cap-plates D are rigidly affixed, preferably by
85 rivets that are inserted through proper holes made in their flanged edges *k*. The plates D are preferably struck from sheet metal, having a raised portion, *g*, and a center slot, *h*, the latter being made of a proper width to re-
90 ceive the bar C and permit its free movement therein.

The raised parts *g* of the plates D are made of such a proportionate width as to form a cavity or recess that is adapted to receive the
95 laterally-projecting studs or journals *f*, that are secured in or formed upon the ends of the brace-bar C, and permit them to neatly slide in the guide-slots formed by the junction of the dishd or raised portions of the cap-plates
100 D with the leaves A A'. The end *i* of the bar C is held by its journals at the end of the slot

5 *b* in the plate A, to permit the bar to be vibrated upon this end by the abutment of the adjacent ends of the projecting parallel flanges 1 2, which are made to loosely bear against the studs *f*. The opposite end of the bar C is free to slide in the grooves or channels *m*, made for the retention of its journals or studs *f*. When the hinge is extended, or in a position it assumes when the lid to which it is attached is closed on the body of the trunk or box, the studs *f* engage with the lower or adjacent ends of the flanges 3 4, and by their contact the bar C is made a connecting-link to hold the two hinged leaves together, and a bursting strain is prevented from being exerted upon the pintles of the hinge. The projecting flanges are made of such a relative height as to permit them to bear on the under surface of and afford a support to the cap-plates D at these points.

20 These hinges are secured by clinch nails or screws to the lid and body of a trunk or box, two being generally used. When the lid is opened, the hinges will be bent at a right angle, as shown in Fig. 3, and the end of the bar C will abut against the lower termination of the slot *b*, which serves as a foot, the opposite end of the bar will engage the shoulder on the cap-plate D at the termination of its slot in which the bar C slides, thus affording a substantial support to the horizontal leaf of the hinge and the attached trunk-lid.

35 Although I prefer to secure one end of the bar C to vibrate and not slide in the slot *b*, it is not imperative that this method of construction be adopted, as the bar will assume a

proper position if left free at both ends to permit its journaled ends to slide in the guide-slots, in which they are movably secured.

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

1. In a combined hinge and stay bar or brace, the combination, with a hinge provided with a central longitudinal slot, of a brace bar or stay and slotted cap-plates or housings fastened to the leaves to form bearings for the brace bar or stay, substantially as set forth.

2. In a combined hinge and stay bar or brace, the combination, with a hinge provided with a central longitudinal slot, of a brace bar or stay and slotted cap-plates, each being formed of sheet metal and riveted to the leaves or plates of the hinge, substantially as set forth.

3. In a combined hinge and stay bar or brace, hinge-leaves, each having a cap secured thereto and a flange formed thereon and turned to constitute a support for the flange of the cap, substantially as set forth.

4. In a combined hinge and stay bar or brace, the combination, with the hinge and stay-bar and slotted cap, of flanges formed on the hinge-leaf and serving as bearings or keepers for the trunnions of the stay bar or brace, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

FRANK W. MIX.

Witnesses:

H. C. FOSS,
 E. L. PRIOR.