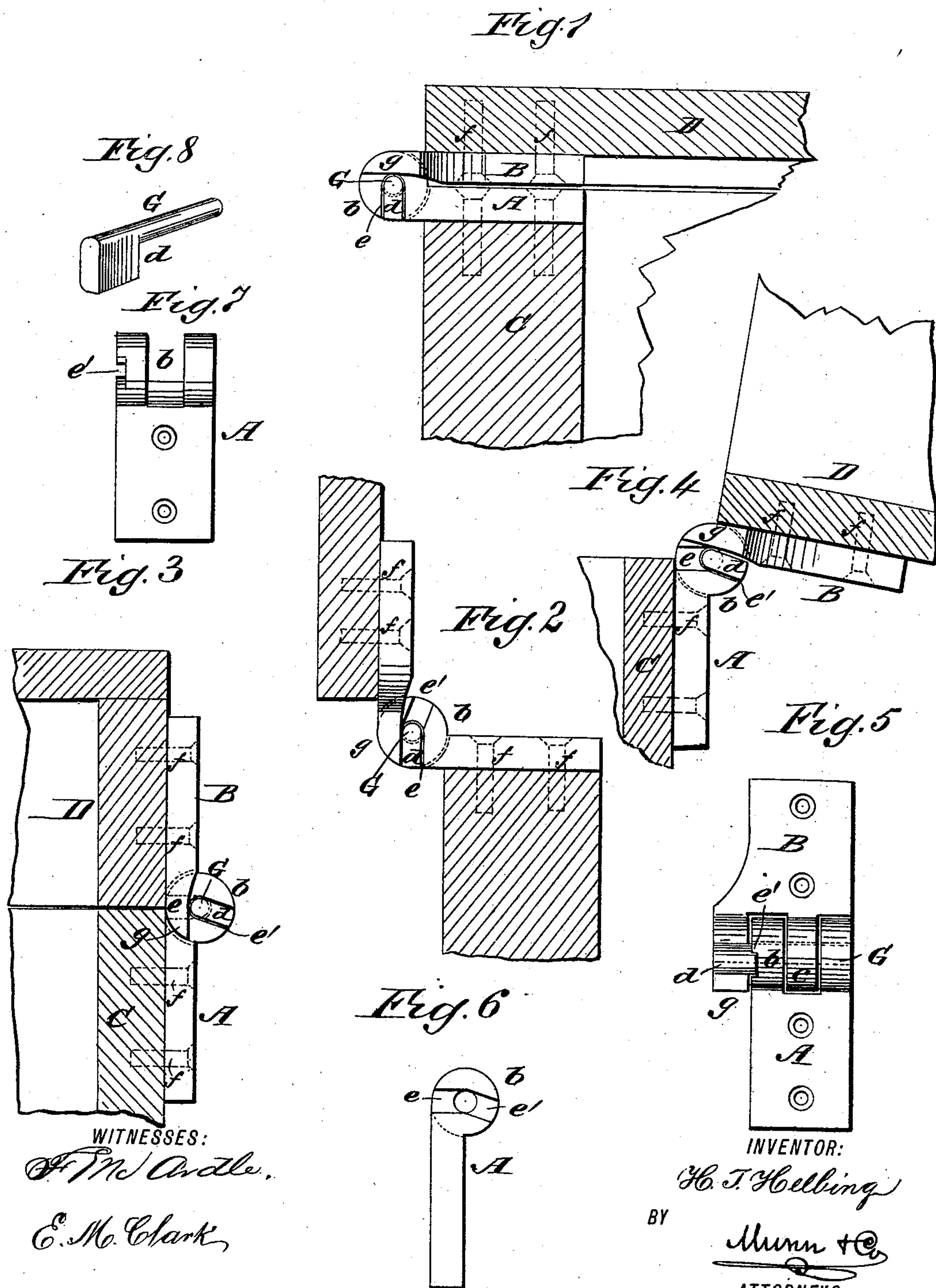


(No Model.)

H. T. HELBING.
TRUNK HINGE.

No. 414,905.

Patented Nov. 12, 1889.



UNITED STATES PATENT OFFICE.

HENRY T. HELBING, OF HIGHLAND, NEW YORK.

TRUNK-HINGE.

SPECIFICATION forming part of Letters Patent No. 414,905, dated November 12, 1889.

Application filed August 15, 1889. Serial No. 320,797. (No model.)

To all whom it may concern:

Be it known that I, HENRY T. HELBING, of Highland, in the county of Ulster and State of New York, have invented a new and useful Improvement in Trunk and other Like Hinges, of which the following is a full, clear, and exact description.

This invention relates to hinges mainly applicable to trunks, chests, and boxes; and it consists in a novel construction of the joint portion of the hinge and of the hinge-pin, substantially as hereinafter described, and pointed out in the claims, whereby the lid or cover of the trunk, chest, or box, when thrown open or into an approximately upright position, is held or supported in such position by the hinge, as herein set forth.

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

Figure 1 represents a side or end view of my improved hinge as applied to a trunk or box body and its cover when the hinge is secured on the inside thereof, the cover, which, as well as the body, is only shown in part and in section, being represented in a closed position. Fig. 2 is a partly-sectional side or end view of like parts when the cover is thrown up or open. Fig. 3 shows a transverse vertical section of a trunk-body and its cover in part when the latter is closed, with the hinge secured on the outside instead of on the inside of the trunk, as in the previous figures; and Fig. 4 is a partly-sectional end view of the same with the cover thrown up or open. Fig. 5 is a face view of the hinge detached, with its parts in the position represented in Fig. 3. Fig. 6 is an end view of one leaf of the hinge detached, and Fig. 7 is a face view of the same. Fig. 8 is a view in perspective of the hinge-pin detached.

A and B indicate the two leaves of the hinge, either one of which may be secured to the body part C of the trunk or box and the other one to the cover D thereof; but, as here shown, the leaf A of the hinge is represented as secured to the trunk-body and the leaf B to the cover. These leaves A and B are secured together by a knuckle-joint *b c* and hinge-pin G, passing therethrough. This

hinge-pin is constructed with a one-sided head *d*, which engages with one or other of two notches or recesses *e e'* in the outside end surface or face of one of the knuckle-joint portions *b* of the leaf A, said notches being on opposite sides of the hinge-pin hole of the joint, as clearly shown in Fig. 6. When the hinge is secured, as by screws *f*, upon the inside of the trunk, as shown in Figs. 1 and 2 of the drawings, then the head *d* of the hinge-pin G is fitted to engage with the notch *e* in the knuckle-joint piece *b* of the leaf A, and this notch *e* is so arranged as to leave the head *d* of the hinge-pin in such a position that a side arm or stop *g* on the joint end of the other leaf B will ride over the shank end of the head *d* of the pin G when the cover D is being opened, and when the latter is fully lifted or thrown up into an approximately upright position, as shown in Fig. 2, said side arm or stop *g* will bear on or against the side of the head *d* of the hinge-pin, and so prevent the cover from falling farther back. When the hinge is secured, as by the screws *f*, upon the outside of the trunk or box, as shown in Figs. 3 and 4 of the drawings, then the head *d* of the hinge-pin is fitted to engage with the other notch *e'* in the knuckle-joint piece of the leaf A, instead of with the notch *e*, but the action is the same; and when the cover D is fully lifted or thrown into its approximately upright position, as shown in Fig. 4 of the drawings, it will be restrained from falling farther back by the side arm or stop *g* on the leaf B coming down upon or resting against the side of the head *d* of the hinge-pin, as illustrated in Fig. 4, and in which case the whole weight of the cover will be thrown upon the hinge-pin. To secure this cover-supporting action of the hinge in either application of the latter to the trunk or box, the hinge-pin G is prevented from turning by the engagement of its side head in the notch *e* or *e'* of the one leaf, in order that the side arm or stop *g*, attached to the other leaf may be arrested by said side head when the cover of the box or trunk reaches an upright position or a position only slightly inclining therefrom. Of course, when it is not intended that the same hinge should be used either on the outside or inside of the

box or trunk, its hinge portion *b* may have only one of said notches *e* or *e'*, accordingly as it is required to be an outside or inside hinge. By this construction of the hinge all 5 straps, cords, or jointed braces restraining the cover of the trunk or box from falling fully back or opening farther than is necessary are dispensed with.

Having thus described my invention, what I 10 claim as new, and desire to secure by Letters Patent, is—

1. In a trunk or other like hinge, the one leaf thereof having its knuckle-joint portion provided with a side notch or recess, in combination with a hinge-pin having a lateral 15 head adapted to engage with said notch, and the remaining leaf of the hinge provided with an arm or stop in the same transverse plane

as the lateral head of the hinge-pin, whereby the hinge-pin is made to limit the motion of 20 the hinge, substantially as and for the purpose herein set forth.

2. In a trunk or other like hinge, the combination of the leaf A, with its knuckle-joint portion *b*, having notches or recesses *e e'* in 25 its end or face on opposite sides of the axis of the hinge, the leaf B, with its attached side arm or stop *g*, and the hinge-pin G, having a lateral head *d*, adapted to engage with either notch *e e'*, substantially as and for the pur- 30 poses specified.

HENRY T. HELBING.

Witnesses:

WILLIAM BROWN,
JAMES S. BROWN.