

H. B. TRIPP.

Hinges for Safe-Doors, &c.

No. 154,995.

Patented Sept. 15, 1874.

FIG. 1.

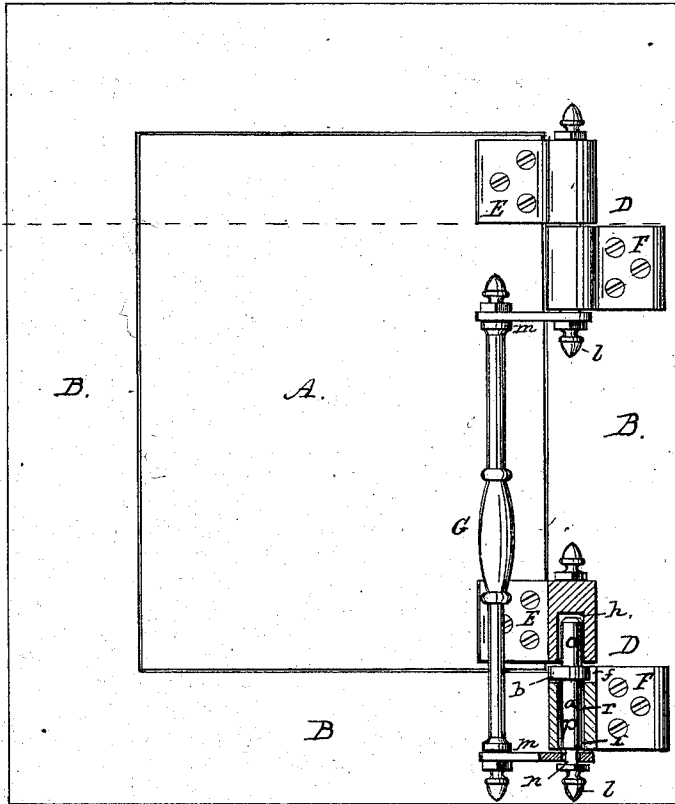
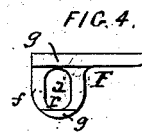


FIG. 2.



FIG. 3.



WITNESSES.

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IMPROVEMENT IN HINGES FOR SAFE-DOORS, &c.

Specification forming part of Letters Patent No. **154,995**, dated September 15, 1874; application filed February 13, 1874.

To all whom it may concern:

Be it known that I, HIRAM B. TRIPP, of South Boston, Suffolk county, State of Massachusetts, have invented an Improved Hinge, of which the following is a specification:

This invention relates to a hinge for the hanging of safe-doors, more particularly those constructed with a square tongue and groove between jamb and door, and its object is to adapt a hinge to permit a door to be set in a direct line, out of or into its jamb.

The improvements are fully hereinafter described.

In the accompanying plate of drawings, Figure 1 is a front view of a safe having its door hung by hinges of my improved construction, one hinge being shown in partial vertical section. Figs. 2 and 3, both horizontal sections, similar in every respect, except that in Fig. 2 the door is shown as set into its jamb, and in Fig. 3 as set out of its jamb; Fig. 4, a detail view.

In the drawings, A represents a safe-door, B the frame, and C the jamb, of a square tongue-and-groove construction. These several parts are constructed as ordinarily, and therefore need no more particular description herein. D, a hinge. The hinge D is constructed of two leaves E and F, arranged to turn upon or about a common pin or pintle, *a*, and the leaf E is secured to the door A, and the leaf F to the door-frame B. The pintle *a*, immediately of its length, has an eccentric collar, *b*, and the portion *o* of its length receives the one leaf, E, and the portion *p* of its length receives the other leaf, F. The portion *p* includes the eccentric collar *b*. The leaf E is bored out, as at *h*, so as to receive the pintle portion *o*, as above stated, and the leaf F is also bored out, as at *i*, so as to receive the pintle portion *p* and the eccentric collar *b* on such portion. The bore of the leaf E is cylindrical and of the same diameter as the pintle portion *o*, and it extends along a portion of the width of the leaf. The bore of the leaf F at *r* is oblong in a direction at right angles to the face of the leaf, and this oblong in width equals the diameter of the pintle portion *p*, and receives all of

such portion except the eccentric collar *b*. For receiving the eccentric collar *b* of the pintle *a*, the hinge-leaf F is provided with a way, *f*, of a width equal to the diameter of the collar *b*, and this way *f* has walls *g g*, parallel to each other and at right angles to the side walls of the oblong portion *r* of the bore *i* to the leaf F. *l*, a screw-nut. This screw-nut *l* is applied to the pintle *a*, and secures it to the hinge-leaf F, as shown.

In the drawings, two hinges, D, are shown as applied to the door A and the door-frame, and in their application the leaf E on the door is above the leaf F on the door-frame.

These two hinges B are connected together through a common rod, G, which rod is the operating-rod in the application of the hinges shown in the drawings. The connection of the operating-rod G with the hinges D is made by the arms *m* of the rod, and the square portions *n* of the hinge-pintles *a*. Swinging the operating-rod G turns the two pintles *a a*, and in this turning of the pintles *a a*, by the action of their eccentric collar *b* on the walls *g* in hinge-leaves F, the pintles are moved along the oblong bore *r* of the hinge-leaves F toward the one or the other end thereof, as the case may be, and thus the hinge-leaves E are carried in a direction at right angles to and across the axis of revolution of the hinges upon or about their pintles *a*.

Under the illustrated application of hinges D and operating-rod G to a safe-door and door-frame, shown in the drawings with the door in its jamb, as in Fig. 2, obviously before the door can be swung on its hinges it must be set out from its jamb. This is done by pulling the operating-rod G outwardly from the safe-door, and this causes the pintles *a* and hinge-leaves E to travel to the outer end of the oblong bore *r* in the hinge-leaves F, carrying, thereby, the door in a direct line out of its jamb. If the operating-rod G be swung toward the door, the door will be carried back into its jamb, the pintles *a*, in this instance, then moving to the inner ends of the oblong bore.

Although the improved hinge has been de-

scribed in connection with a safe having a door and jamb constructed with a square tongue and groove it is not intended to limit the application of the hinge thereto.

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

In combination, with the leaves E F, the pintles *a*, having eccentric collars *b*, and

square portions *n*, and the arms *m*, and vertical rod G, connecting the hinges together, and all operating as herein shown and described.

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Witnesses:

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