GEORGE L. DAMON & HIRAM B. TRIPP.

Improvement in Devices for Operating Safe Doors.

No. 115,714. FIG. 1. Patented June 6, 1871.

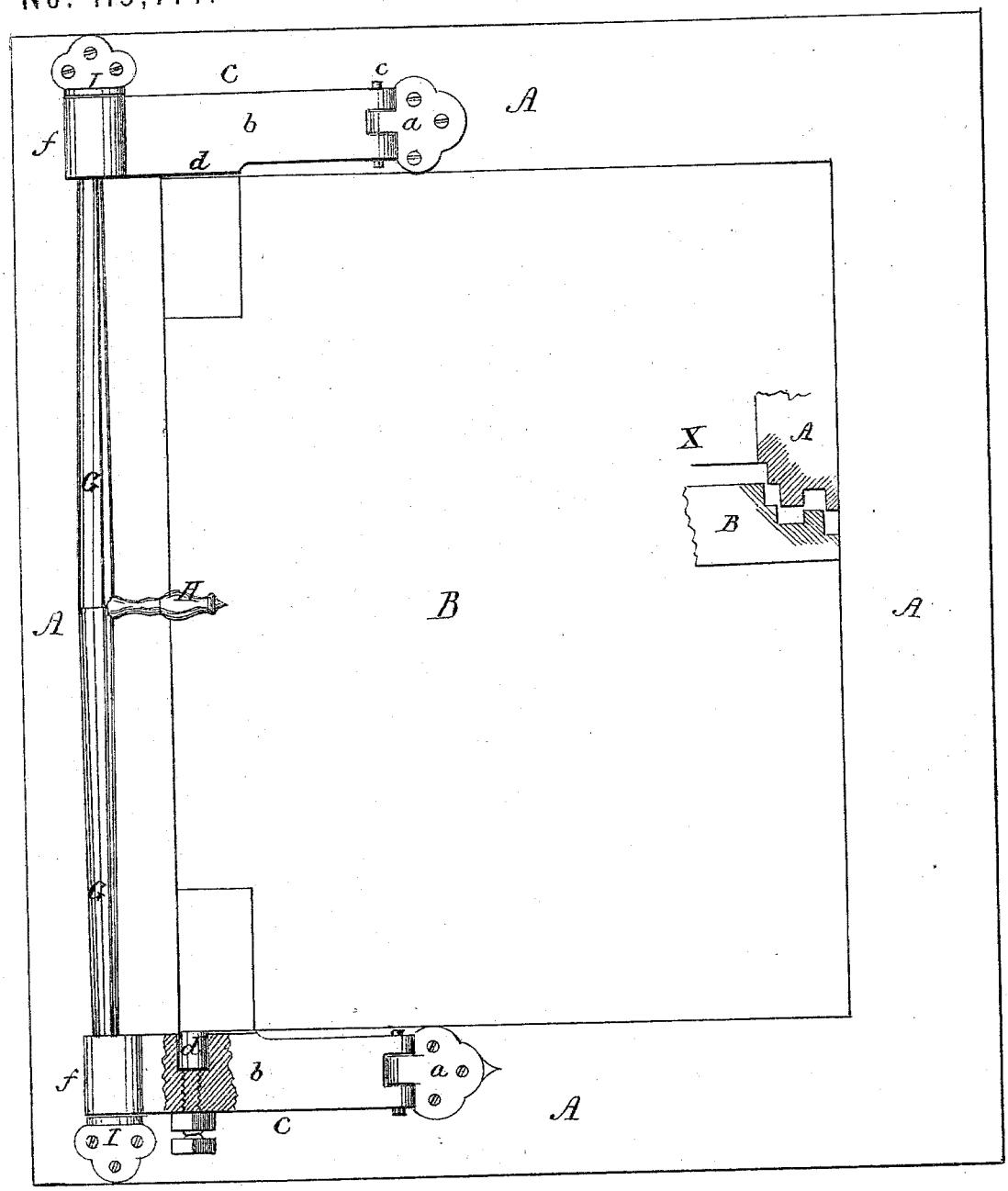
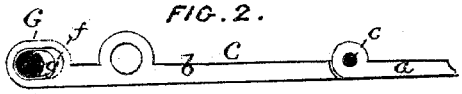


FIG. 2.



WITNESSES.

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AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

GEORGE L. DAMON, OF CAMBRIDGE, AND HIRAM B. TRIPP, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN DEVICES FOR OPERATING SAFE-DOORS.

Specification forming part of Letters Patent No. 115,714, dated June 6, 1871.

To all persons to whom these presents shall come:

Be it known that we, GEORGE L. DAMON, of Cambridge, in the county of Middlesex, and HIRAM B. TRIPP, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Safes; and that the following is a full and exact description of the same, reference being had to the accompanying drawing.

The present invention relates to the hanging of safe-doors; and consists of a door hung and arranged, as will be hereinafter described, for a movement in a right line in and out of its seat or jamb, thus bringing it sufficiently clear of the jamb to allow of its being swung on its hinges and opened. The arrangement of a door in this manner enables a combined square or right-angular tongue-and-groove construction to be employed between the edges of the door and its seat, or the entrance to the vault, thereby obtaining greater security against burglars and attempts to blow the safe-door open by the use of nitro-glycerine or other explosive agent.

In the accompanying drawing our improvement in safes is illustrated, Figure 1 being an elevation of a door hung according thereto, showing at X a transverse horizontal section through the door and its jamb, with the door swung straight out from its seat; Fig. 2, a plan view of one of the hinges or links in which the door is hung, and through which the door is swung out into the position shown at X, Fig. 1.

A in the drawing represents the body of a safe, to which B is the door. Between the body A and door B of safe a combined right-angular tongue-and-groove joint is made, as shown at X, Fig. 1, for the purposes hereinbefore specified. C, hinges or links applied to body of safe, one just above, and the other just below, the door B. These hinges C are made with two leaves, *a* and *b*, pivoted together at *c*, and by the one, *a*, they are fastened in any suitable manner to the safe-body, and to and within the other, *b*, the safe-door is hung by pins or centers, *d*, one at its bottom and another at its top. Beyond the point of pivot of the door, within the leaf *b* of each hinge C, each leaf is extended, and constructed with an elongated opening or slot, *f*. G, a rod provided with a handle, H, and located on a safe in a vertical position, extending by its ends through the elongated slots *f* of hinge-leaf, and arranged by its extreme ends to turn in bearing-plates I, suitably affixed to the safe-body in proper position therefor. Within the elongated slots *f* of hinge-leaves *b* the rod G is provided with a cam or eccentric surface, *g*. By turning the rod G in the proper direction through its eccentric or cam portions *g* the leaf *b* of hinge C is swung on its pivot *c* of the stationary portion *a*, carrying the safe-door B outward in a straight line, or sufficiently so that, in the opening of the door, its square tongue-and-groove construction will perfectly clear that of its seat or jamb within the entrance to safe-body A.

What we claim as our invention, and desire to secure by Letters Patent, is—

Hinge or hinges C, having an elongated opening or openings *f*, and rod G constructed with a cam or eccentric *g*, when all combined with a door hung to said hinges C, substantially as and for the purpose described.

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Witnesses:
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