

No. 892,514.

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W. C. FULLER.
SAFE, VAULT, &c.
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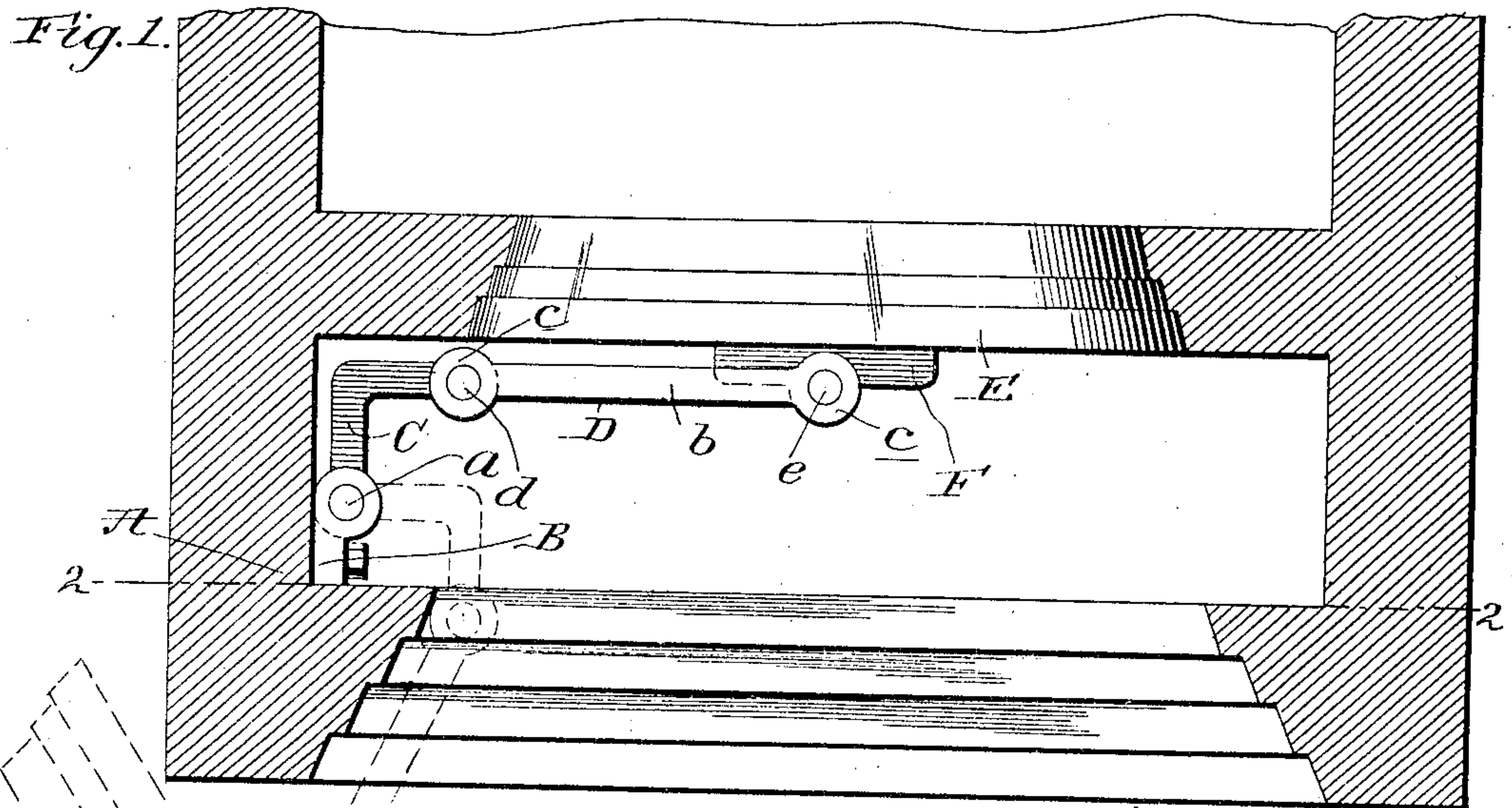
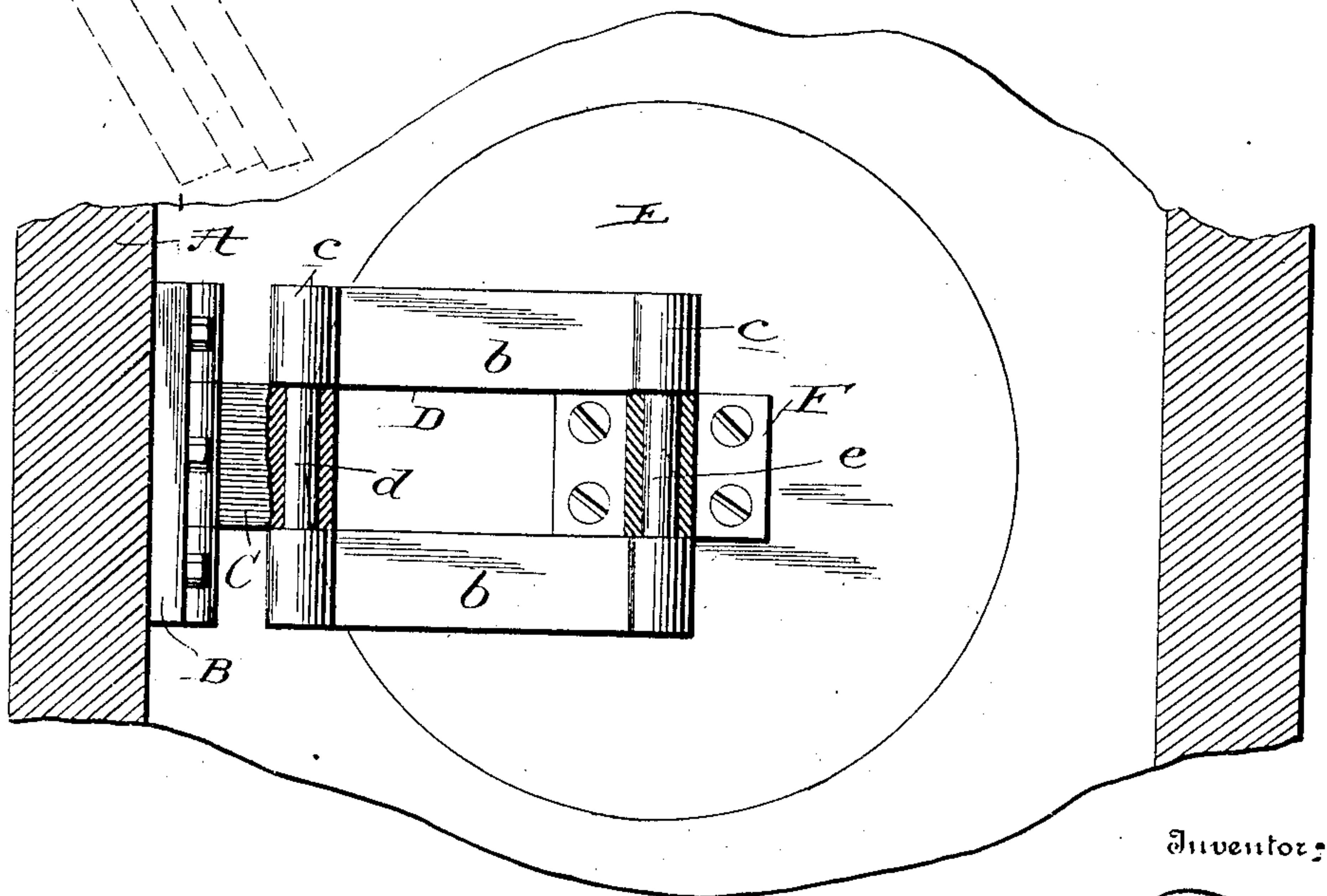


Fig. 2.



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UNITED STATES PATENT OFFICE.

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SAFE, VAULT, &c.

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To all whom it may concern:

Be it known that I, WALTER CLARK FULLER, a citizen of the United States, residing at Hamilton, in the county of Butler and State of Ohio, have invented certain new and useful Improvements in Safes, Vaults, &c., of which the following is a specification.

My invention consists in a hinge or support for the door of a safe, vault or like structure, designed to permit the door to swing from a position well within the structure to a point outside thereof, and to one side of the doorway or opening, so that a clear way into the safe is afforded.

In the accompanying drawings, Figure 1 is a horizontal sectional view of the front portion of a safe or vault, showing the door and its hinge or support in full lines, and omitting other details of the safe construction; Fig. 2, a front or face view of the inner front wall of the structure, showing the door and its hinge or support, the latter partly in section, the front of the safe being cut away on line 2—2 of Fig. 1.

The present invention is more especially intended for the inner doors of safes and vaults having an inner and an outer wall at the front side of the safe, each provided with a doorway and door. With such construction considerable difficulty is experienced in so mounting the inner door that it may be readily swung to and from closing position, and thrown clear of the doorways when opened.

Safes and vaults of the class mentioned have a considerable space between the inner and outer front walls, as indicated in Fig. 1, and it follows that any support to be satisfactory must carry the door through or across that space, out through the outer doorway or opening, and thence to one side of the doorway.

I attain the desired end by securing to a wall or jamb of the safe A, a hinge-leaf or knuckle-plate B, of the form used in a common knuckle-hinge, and connect thereto by a hinge-pin or pintle *a*, a second hinge member C, which may be of L form, as shown, or straight or curved, said member C serving in turn to support a third hinge member D, to the outer end of which the door E is hung or pivotally connected.

The third hinge member, D, comprises two bars *b, b*, each formed with a boss or enlargement *c* at each end, the bars being arranged

respectively above and below the second member C, and similarly above and below the door-block F, and their corresponding ends being connected by hinge-pins *d* and *e*, passing through the enlarged end of member C and through block F, respectively. The manner of introducing the pins or pintles *d* and *e* is unimportant, provided only that they be securely held in and connect said bars. They may be screwed, driven or keyed therein, or they may be welded or pinned, and the bosses through which they pass be made in two separable parts. These and other minor details may be varied as desired.

The door may be of any desired form, and its fastenings may be whatever circumstances suggest.

The hinge or support being thus constructed, its operation is as follows: Assuming that the door E is closed or seated in its opening, if it be desired to open it, it is drawn straight forward or outward, the member C swinging very slightly to permit such movement. When the door is clear of its opening, it is carried outward through the outer doorway or opening, the hinge swinging about the pins or pintles *a* and *d*, until the members C and D attain the positions indicated by dotted lines in Fig. 1. The door E is then swung upon or about pin *e* until it assumes the position also indicated by dotted lines in Fig. 1, or even passes further outward and to one side. In this way the door is carried well away from the outer doorway or opening and free access to the interior is afforded.

While I have shown member C as of L shape, whereby it is caused to stand more closely in the corner or angle of the two walls, it is evident that it may be a straight bar or plate extending from one boss or enlargement to the other.

The pins *a* and *d* will advisably be so set that the middle joint *d* shall swing close to the side or jamb of the inner doorway when the door is closed, and close to that of the outer doorway when it is opened, as seen in Fig. 1.

Having thus described my invention, what I claim is:

1. In combination with a safe or vault having inner and outer walls, each provided with a doorway or opening; a door or closure for the opening in the inner wall, and a hinge for said door, comprising a wall plate B, member C, hinged or jointed to member B, and of such length that its free end when

5 moved outward shall swing into the outer doorway or opening, a member D, hinged or jointed to the member C, and pivotally connected to the door, the joints or pivots being
10 arranged substantially as described and shown, whereby the middle joint of the hinge is caused to swing from a position close to the jamb of the inner door to a position close to the jamb of the outer door, the member D
15 and the door are permitted to move outward through the outer doorway or opening, and the door is enabled to swing off to one side and clear of the outer doorway.

2. In combination with a safe, vault or
15 like structure; a door or closure therefor; and a hinge or support for said door, consist-

ing of a wall plate B, a member C pin-jointed thereto; two bars *b*, *b*, respectively above and below the member C; a pin *d* connecting said bars and passing through the end of member C; a block F secured to the door of the safe and extending between the bars *b*, *b*; and a pin *e* connecting the bars *b*, *b*, and extending through block F, substantially as described. 25

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

WALTER CLARK FULLER.

Witnesses:

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