H. URBAN.

Fire-Proof Safe.

No. 196,725. Patented Oct. 30, 1877.

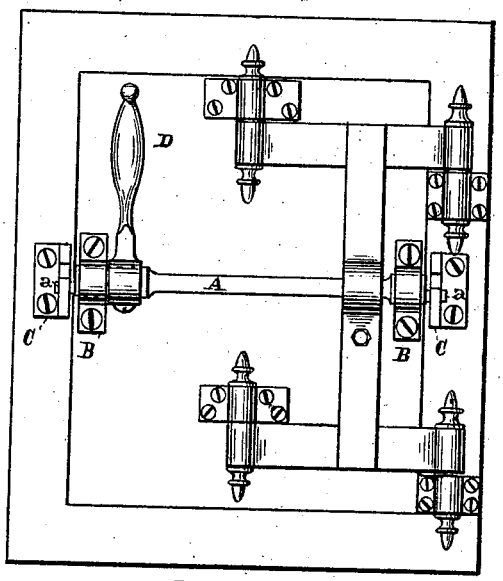

Fig. 1

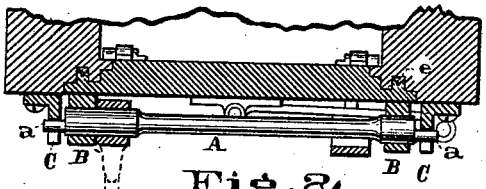

Fig. 2

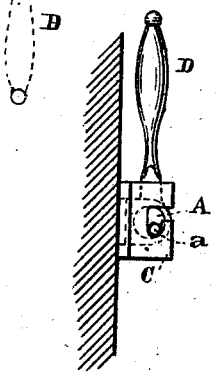

Fig. 3

Attest

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UNITED STATES PATENT OFFICE.

HERMAN URBAN, OF CINCINNATI, OHIO, ASSIGNOR TO MACNEALE & URBAN, OF SAME PLACE.

IMPROVEMENT IN FIRE-PROOF SAFES.

Specification forming part of Letters Patent No. **196,725**, dated October 30, 1877; application filed July 27, 1877.

To all whom it may concern:

Be it known that I, HERMAN URBAN, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Improvement in Fire and Burglar Proof Safes, which improvement is fully set forth in the following specification and accompanying drawing.

This invention relates to safes in which the door carries an exterior cross-bar whose ends terminate in crank-pins or cams adapted to engage hook-bearings on the jambs, so that by giving a partial turn to the cross-bar the door, in closing, can be forced tightly into or against its seat.

My improvement consists in such a construction of parts that the cross-bar rests in fixed bearings, and receives only axial oscillations in fastening and unfastening the door.

In the drawings, Figure 1 is a front elevation of a safe to which my improvement is attached; Fig. 2, a horizontal section of the same; and Fig. 3 is an end view of the device and part of the door-frame in section.

A is a shaft passing across the center of the door, journaled in bearings B B, secured to the front of the door near two of its edges. On the ends of this shaft are cranks *a a*, which project over opposite edges of the door and enter the slotted lugs C C, which are secured to the door-frame in a position to receive them. The lugs are open from the front to the top of the slot, to allow the cranks to pass out of them as the door is swung open upon its hinges.

D is a lever-arm, secured to the shaft A for the purpose of revolving it to force the door into its seat in the jamb by being thrown up in the position shown in Figs. 1 and 3, and to draw it out preparatory to swinging it back on its hinges by bringing it down. *e* is an elastic packing pressed into a groove which extends around the casing of the door. A corresponding projection upon the inner face of the door, to enter the groove, has a channel extending around its inner edge, having sharp projections, which are forced into the elastic packing by the eccentric-pins *a a* acting against the outer edge of the slot in lugs C C, when the shaft is revolved, by throwing up the lever D, thus making a perfectly air-tight joint.

This improvement may be applied with advantage to safes which have the inner edge of their doors and their casings formed in steps or rabbets instead of projections and grooves, and can be applied with advantage whether the elastic packing is used or not, as, from its location across the middle of the door, and the power of its lever being exerted equally upon the hinge and lock edges, the door will be carried out and in in a line perpendicular to the face of the door, and thus avoid locking or jamming the parts together, no matter how close the joint between the door and its casing.

A special advantage in using this operating device with the elastic packing arises from the fact that the packing upon all edges of the door can be compressed by the device, and spread into any cavities left by inaccuracy in fitting, and when the bolt-work is thrown the door is held to its place, and the crank-pins and hinges relieved from strain.

I claim—

In combination with the door and casing of a safe or vault, the operating device composed of shaft A, journaled in bearings B B, secured to the door, and having cranks *a a* projecting over the edges of the door in a position to engage with the lugs C C, which are secured on the casing, for the purpose of closing or withdrawing the door from its casing by turning the lever D, the parts being constructed and located, with relation to the door and its casing, substantially as shown and described.

HERMAN URBAN.

Witnesses:
GEO. J. MURRAY,
D. T. WILLIAMS.