F. HACKETT & J. C. CROUNSE.

Fire-Escape for Safes.

No. 160,184. Patented Feb. 23, 1875.

Fig. 1.

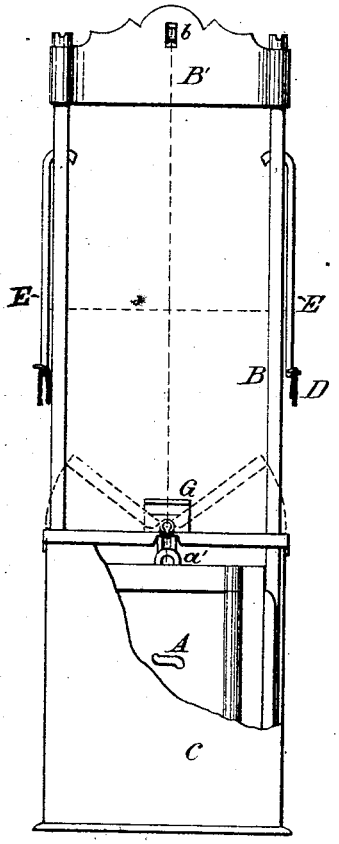


Fig. 2.

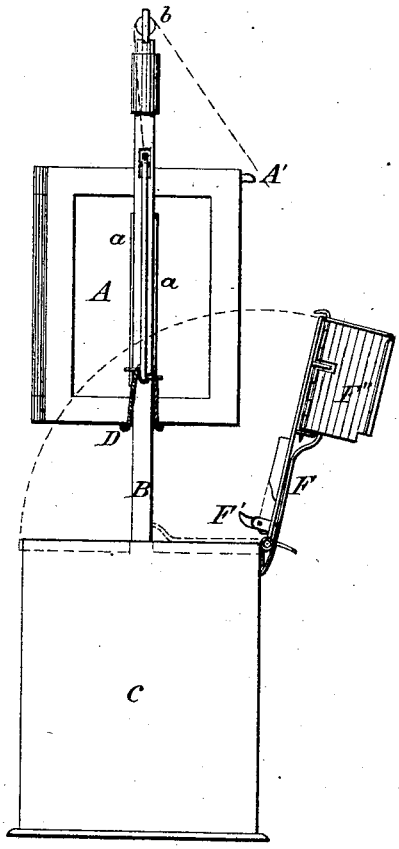
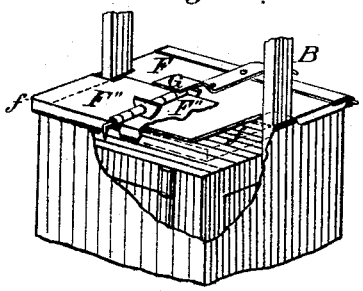


Fig. 3.



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UNITED STATES PATENT OFFICE.

FLETCHER HACKETT AND JOHN C. CROUNSE, OF HALE'S CORNERS, WIS.

IMPROVEMENT IN FIRE-ESCAPES FOR SAFES.

Specification forming part of Letters Patent No. **160,184**, dated February 23, 1875; application filed December 12, 1874.

To all whom it may concern:

Be it known that we, FLETCHER HACKETT and JOHN C. CROUNSE, of Hale's Corners, Milwaukee county, Wisconsin, have invented certain new and useful Improvements in Safe-Escapes; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a front elevation, the corner of the vault being broken away to show the safe in the vault. Fig. 2 is a side elevation, showing the safe hoisted up into the office or apartment for use. Fig. 3 is a detail, showing in perspective the safe in the vault, with the cover in position closing the vault.

The object of the present invention is to prevent the injury or destruction of a safe in case of fire in the house or apartment where the safe is used, or of conflagration; and to this end it consists in the special means provided for readily conducting away or dropping the safe from the apartment where it is ordinarily had for business uses into a fire and water proof vault beneath, all as will now be more fully and specifically set forth.

In the accompanying drawing, A denotes a safe of any usual or ordinary style, size, or construction, and having on each of its two sides parallel flanges *a a*, which form ways or guides whereby the safe may be moved up and down on the vertical standards B B, which extend from the apartment where the safe is designed to be used down into the vault C in the cellar or lower part of the building, wherein, as will be presently explained, provision is made to securely protect said safe from all harm or injury by fire or water. This vault may be constructed of masonry or metal in any convenient or desirable manner, so long as it is built water and fire proof. The safe may be raised or lowered between said standards B by means of a chain or rope secured at one end in the eye *a'* in the top of the safe, and thence passing over a pulley, *b*, in the cross-piece B', which connects the two standards B at their tops, extends to any convenient point in the building, and, if desired, attached to suitable hoisting mechanism. For ordinary use the safe is hoisted by said means up into the apartment or office where it is needed. This may be in the first story above the vault, as now generally indicated in the drawings. But it is evident that by similar mechanical arrangements and construction the safe can be placed on any floor in the building. When raised into position a rope, D, secured to the lower end of one of the arms E, which arms are attached to the standards B, or the standard itself, is passed under the safe and fastened to the end of the arm E on the opposite side, or to the opposite standard, by which means the safe can be secured and maintained in any desired position for daily or ordinary use. If a chain has been used in hoisting, it should now be disconnected. The arms E may be hinged or attached to said standards in any desirable manner. When thus suspended the top of the vault can be covered by paper, either laid loosely over it or pasted over it, or cotton cloth, or any like material, can be used for this purpose. If, now, fire should occur, it would be only necessary to cut the sustaining-rope D, when the safe, descending the boss or projection A' on the upper part of its rear edge, striking upon the projection F' of the hinged cover F, causes said cover to turn down upon the top of the vault. This cover is constructed of metal, and in such manner as to adapt it to fit closely round said standards, and upon the vault-top. It is made in three pieces, the main portion of which is, at the back of the vault, of the full width of the same and attached to the rear edge of the vault by a hinge. At each side of the said main portion longitudinal pieces, corresponding in width to the size of a horizontal section of said standard, are cut off, as shown at *f*. By this means the front part of said cover F will readily pass between said standards in opening or shutting the vault. Upon the forward part of said standard are two supplemental covers, F'' F'', which are hinged to and upon the same. When said cover is being turned down upon the vault these covers are thrown up, their edges impinging against the standards, and thus the downward motion of the said cover is

unimpeded; but when the cover comes upon the vault said supplemental pieces drop and cover the longitudinal recesses *f* of the main cover F, and thus the vault is effectually closed. The edges of the covers as thus made up may, at the front and sides, be turned or bent down, so as to completely close the opening between the top of the vault and the said cover.

It may, in some instances, be found convenient to change the size and shape of the cover; but the construction should always be such that its operation and office shall be substantially as above set forth.

To prevent too wide swing to these supplemental covers there is provided a stop, *g*, upon the top of F, against which the leaves F″ F″ strike when lifted up, and against which they rest when the cover is thrown open.

In some instances it may be found of advantage to use no other means for sustaining the safe when hoisted than the rope by which it has been raised; but ordinarily we prefer to use the sustaining-rope above described for this purpose.

From the above description the operation and use of said invention will be readily understood. When a fire rages in the apartment containing the safe the rope which holds the safe in position may be cut, as above remarked; or, in default of that, it is presently burned off, and the safe falls through the temporary covering of the opening to the vault, and on its entrance into vault causes its cover to turn down upon and over it. This is very soon banked up with ashes and the débris of the fire, and is thus securely protected from all harm from heat or water.

Having thus described our invention, what we consider new, and desire to secure by Letters Patent, is—

1. A safe-escape vault provided with the hinged cover F, having supplemental hinged side pieces F″, substantially as and for the purposes set forth.

2. The combination of safe A, having boss A′, with hinged cover F, having projection F′, substantially as and for the purposes set forth.

3. The combination of vault C, having a hinged cover, F F′ F″, and standards B, with the safe A A′, provided with lateral flanges *a a*, the whole constructed substantially as described, and adapted to operate in manner set forth.

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Witnesses:
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