No. 809,670. PATENTED JAN. 9, 1906.

J. C. COVERT.

FIRE ESCAPE.

APPLICATION FILED JAN. 7, 1905.

Fig. 1.

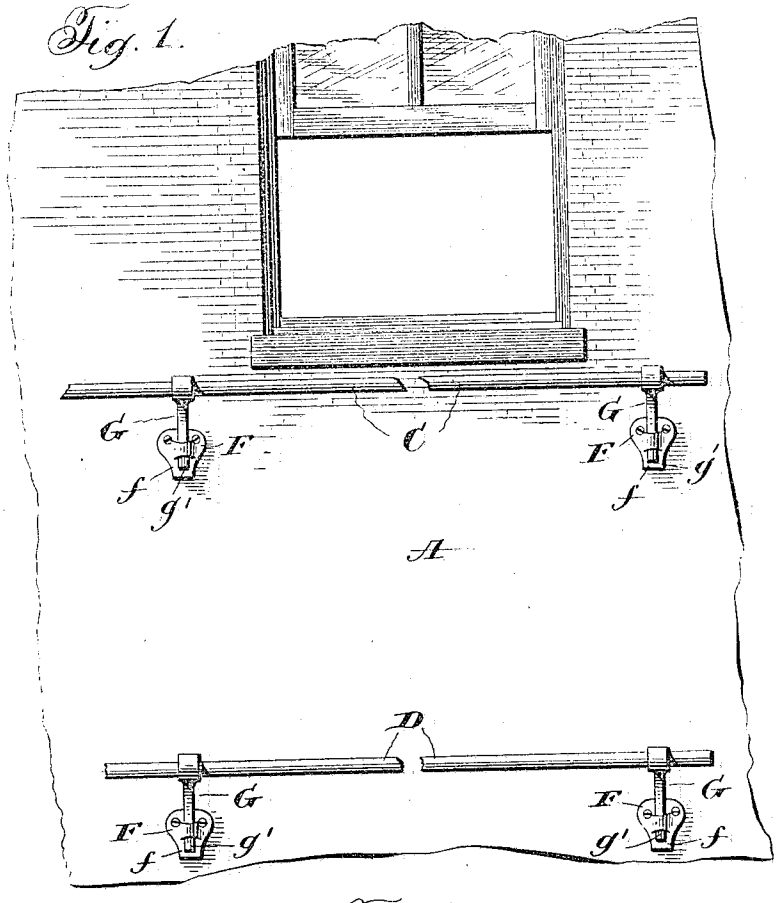


Fig. 2.

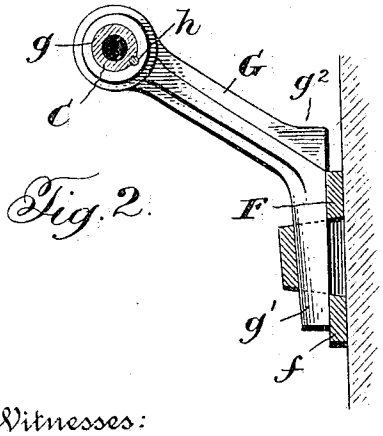


Fig. 3.

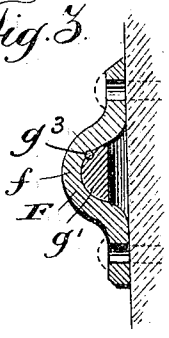
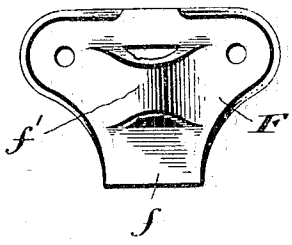


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

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FIRE-ESCAPE.

No. 809,670. Specification of Letters Patent. Patented Jan. 9, 1906.

Original application filed September 19, 1904, Serial No. 225,097. Divided and this application filed January 7, 1905. Serial No. 240,075.

To all whom it may concern:

Be it known that I, JAMES C. COVERT, a citizen of the United States, residing at Watervliet, in the county of Albany and State of New York, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification, reference being had therein to the accompanying drawings.

This application is a division of my pending application, Serial No. 225,097, filed September 19, 1904.

The present invention relates to an improvement in fire-escapes, and is embodied in the construction and arrangement of parts presently to be described, and defined in the claims.

The invention relates more particularly to that type or character of fire-escapes now known as "foot and hand rail" type—that is to say, a construction for equipping buildings which consists of a rail which extends across the front of the building, and on which a person can stand, and a rail, commonly known as a "hand-rail," located a convenient distance above the standing or foot rail. Such a construction is illustrated in my former patent, No. 712,504, dated November 4, 1902.

From experience I have ascertained that commercially it is very desirable to form the bracket supporting members for the foot and hand rails so that the base or securing part will constitute a unit and a supporting-arm, also a unit, detachable from the base. This enables the constructor to first equip the building with the base units and thereafter easily and readily apply the rails and the supporting bracket or arm members.

Novel details in the construction and arrangement of the several parts of the embodiment of the invention herein disclosed will be apparent from the detailed description hereinafter when read in connection with the accompanying drawings. It is to be understood, however, that changes and alterations may be made and mechanical equivalents resorted to without departing from the spirit of the invention.

Inasmuch as the hand and foot rails, in combination with the ladders adjoining the same, are fully set forth in my former patent and pending application hereinbefore referred to, I will confine the illustration and description in this instance to the rails and supporting devices only.

In the drawings, Figure 1 is an elevation of a portion of a structure, showing a hand and foot rail mounted thereon in accordance with the present invention. Fig. 2 is a side elevation of the bracket, showing the base member or unit in section. Fig. 3 is a cross-section through the line 9 9 of Fig. 2, and Fig. 4 is a front elevation of the bracket.

Referring more specifically to the drawings, wherein like reference characters refer to corresponding parts in the several views, A indicates the wall of a building or structure broken away in parts, on the face of which below the window B is a hand-rail C.

D designates the foot-rail, located a short distance below the hand-rail. These two rails are designed to extend from the escaping ladder or ladders (not shown) to any desirable point or points on the building, conveniently below the line of windows. With a view to equip the building in a substantial and permanent fashion and also of expediting such equipment many requirements are necessarily to be considered, and in keeping with such requirements I have found it advantageous to form the supporting-brackets of two members. The base or attaching member (designated at F) consists of a casting having a base portion formed with two openings at or near the upper and outer corners or ends thereof, as shown in Fig. 4. The bracket below these openings is extended down to form a tailpiece *f*, and at the center of the bracket is a curved retaining and clamping bar *f'*, between which and the base of the member F is fashioned or provided a space into which the toe of the supporting-arm member extends. This bar *f'* is inclined inwardly from its upper edge, thus forming a wedge-shaped recess between the same and the base, and for convenience in manufacturing the space immediately below the bar is left vacant, as indicated in Fig. 2. These bars or securing members F are secured to the building by expansion bolts or screws or other convenient means passing through the apertures in the upper part of the member, while the tailpiece serves as a fulcrum-point upon which pressure is centered, the same being

resisted by the attaching-bolts. Such a structure forms a very secure and exceedingly simple device.

G designates the supporting-arm formed with an oblique portion having a substantially cylindrical seat g at its outer end and having its inner end formed with an extended toe part g', inclined on its outer face and fashioned to correspond with the shape of the inner seat portion of the base member. This toe part is designed to pass into the space between the base part of the member F and the bar f' and there be wedged into a holding position. To securely seat the toe in the base member, a suitable heel g^2 is provided on the supporting-arm, against which force can be applied to force the toe firmly into position. I have found it convenient in this construction to provide a removable key, as at g^3, which passes in between the side of the toe part and the bar f'. This key serves largely as a means to take up any looseness which may possibly occur and prevent rattling, as well as serving as an additional means for normally fixing the parts against separation.

The rails are passed into the cylindrical seats g and are composed conveniently of gas, water, or ordinary commercial piping. They are secured against turning and are held fixedly in the seats by any suitable means, conveniently by keys, as indicated at h, Fig. 2, driven in between the same and the walls of the supporting-arm, a suitable groove being provided in the latter. The workman first places the base-pieces in their proper positions, thereafter sleeving the supporting-arms on the pipe, and then moves the respective arms to the various brackets or supports, and position the same therein. This can be done very readily. The parts are thereafter securely keyed in position, if found necessary.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In a fire-escape, the combination with a plurality of base or supporting members adapted to be secured at desired points upon a building, a hand or foot rail, and a corresponding plurality of supporting-arms carried by and shiftable relative to the said hand or foot rail adapted to be brought into registration with and connected to said base or supporting members.

2. In a fire-escape, the combination with a plurality of base or supporting members adapted to be secured at desired points upon a building, a hand or foot rail, and a corresponding plurality of supporting-arms carried by and shiftable relative to the said hand or foot rail adapted to be brought into registration with and connected to said base or supporting members, said supporting-arms and the base or supporting members being separable in a vertical direction.

3. In a fire-escape, the combination with a plurality of base or supporting members adapted to be secured at desired points upon a building, a hand or foot rail, and a corresponding plurality of supporting-arms carried by and shiftable relative to the said hand or foot rail adapted to be brought into registration with and connected to said base or supporting members, in combination with means for temporarily locking the arms and base members together.

4. In a fire-escape, the combination with a plurality of base or supporting members adapted to be secured at desired points upon a building, a hand or foot rail, and a corresponding plurality of supporting-arms carried by and shiftable relative to the said hand or foot rail adapted to be brought into registration with and connected to said base or supporting members, said supporting-arms and the base or supporting members being separable in a vertical direction, in combination with means for temporarily locking the arms and base members together.

5. In a fire-escape, the combination with a plurality of base or supporting members adapted to be secured at desired points upon a building, a hand or foot rail, and a corresponding plurality of supporting-arms carried by and shiftable relative to the said hand or foot rail adapted to be brought into registration with and connected to said base or supporting members, in combination with means for temporarily locking the arms and base members together, and means for preventing turning of the rail when engaged by the hand or foot when in use.

6. In a fire-escape, the combination with a plurality of base or supporting members adapted to be secured at desired points upon a building, a hand or foot rail, and a corresponding plurality of supporting-arms carried by and shiftable relative to the said hand or foot rail adapted to be brought into registration with and connected to said base or supporting members, said supporting-arms and the base or supporting members being separable in a vertical direction, in combination with means for temporarily locking the arm and base members together, and means for preventing turning of the rail when engaged by the hand or foot when in use.

7. In a fire-escape, the combination with a plurality of base or supporting members adapted to be secured at desired points upon a building, a hand or foot rail, and a corresponding plurality of supporting-arms carried by and shiftable relative to the said hand or foot rail adapted to be brought into registration with and connected to said base

or supporting members, in combination with means for preventing turning movement of the rail while engaged by the hand or foot when in use.

8. In a fire-escape, the combination with a plurality of base or supporting members adapted to be secured at desired points upon a building, a hand or foot rail, and a corresponding plurality of supporting-arms carried by and shiftable relative to the said hand or foot rail adapted to be brought into registration with and connected to said base or supporting members, said supporting-arms and the base or supporting members being separable in a vertical direction, in combination with means for preventing turning movement of the rail while engaged by the hand or foot when in use.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES C. COVERT.

Witnesses:
FRED W. COVERT,
JOHN B. BAXTER.