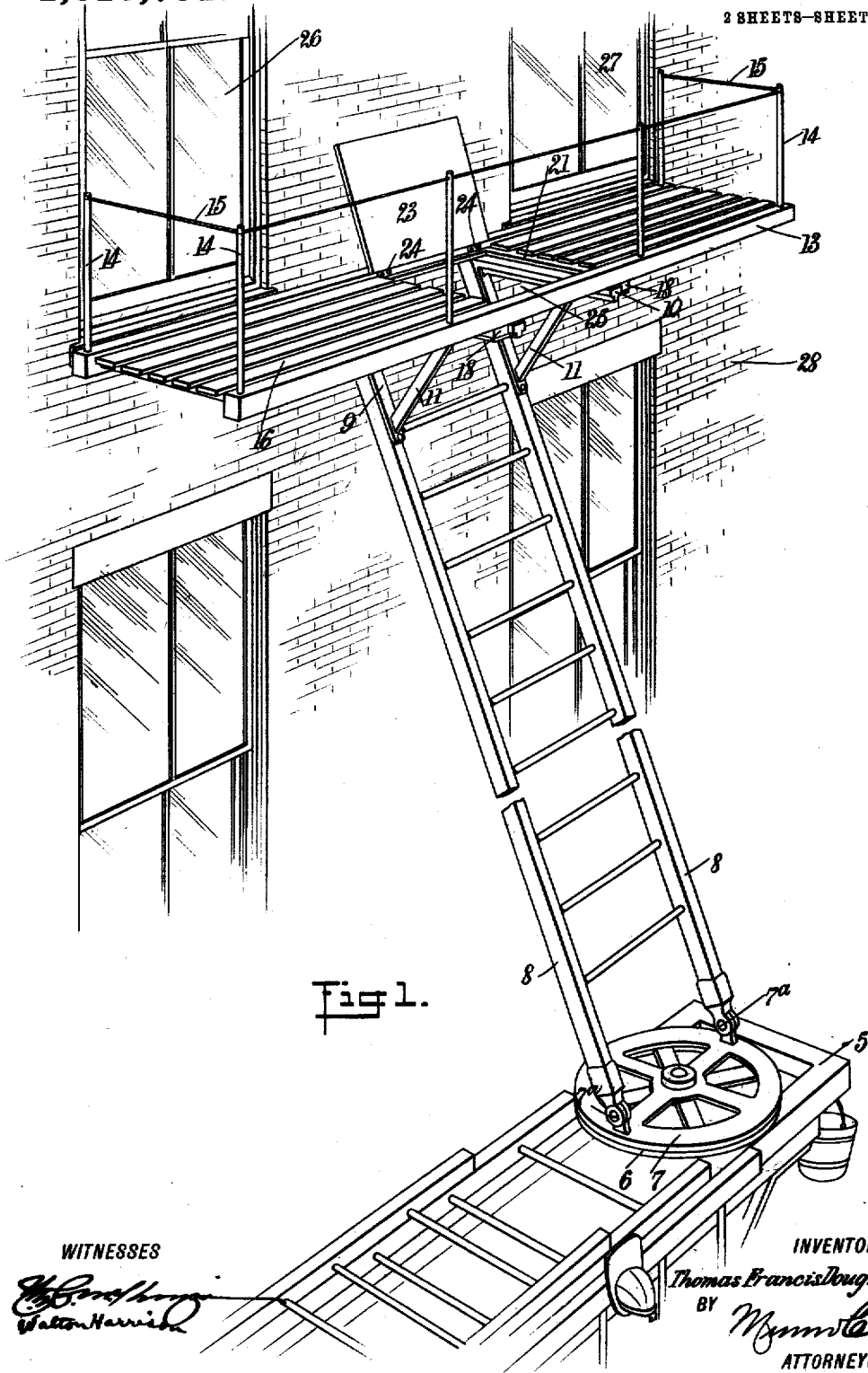


T. F. DOUGHERTY.
BALCONY FOR FIRE LADDERS.
APPLICATION FILED OCT. 10, 1911.

1,013,751.

Patented Jan. 2, 1912.

2 SHEETS—SHEET 1.



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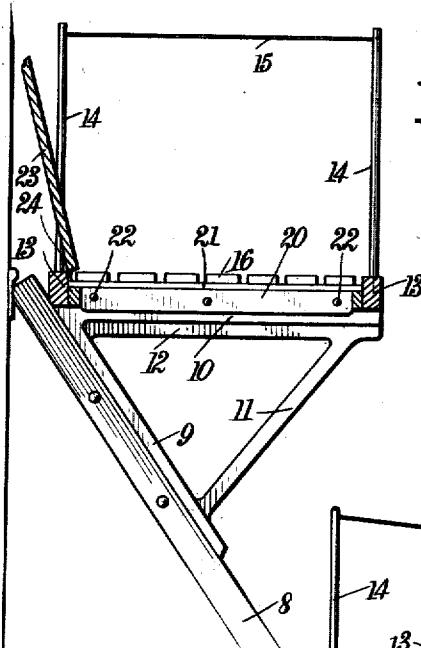


Fig. 2.

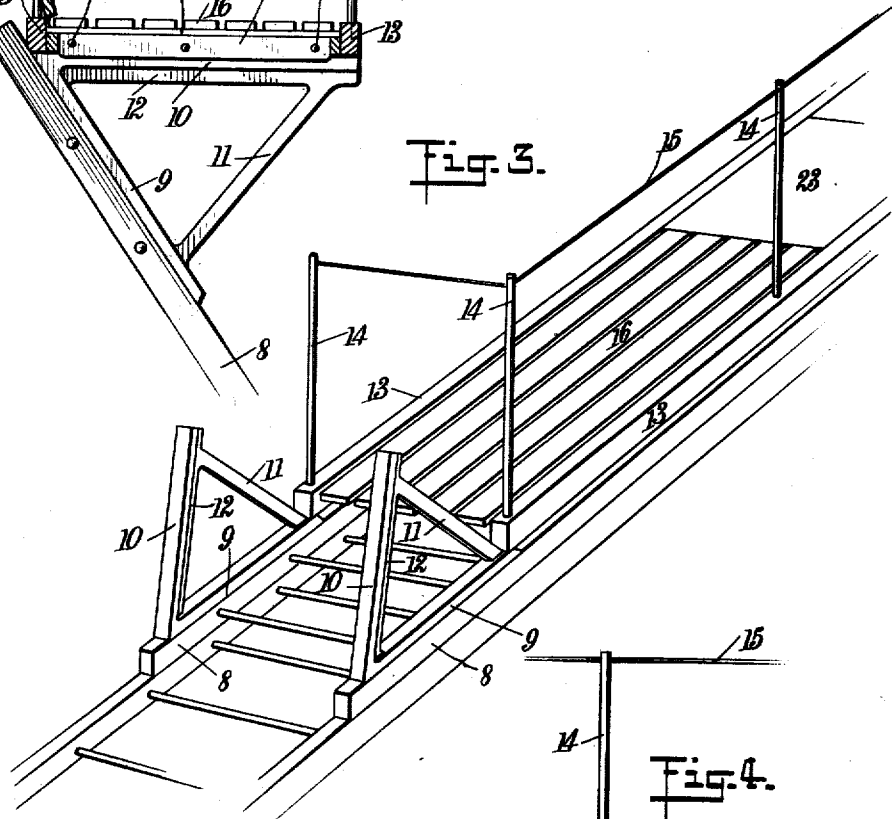


Fig. 3.

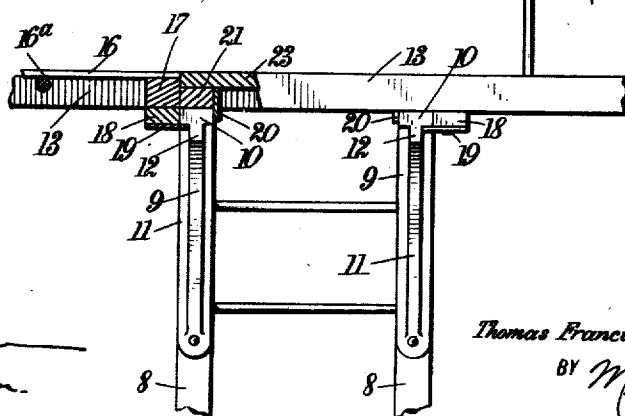


Fig. 4.

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THOMAS FRANCIS DOUGHERTY, OF NEW YORK, N. Y.

BALCONY FOR FIRE-LADDERS.

1,013,751.

Specification of Letters Patent.

Patented Jan. 2, 1912.

Application filed October 10, 1911. Serial No. 653,795.

To all whom it may concern:

Be it known that I, THOMAS FRANCIS DOUGHERTY, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Balcony for Fire-Ladders, of which the following is a full, clear, and exact description.

10 My invention relates to fire ladders, that is, to ladders used more especially for service in connection with fires, my more particular purpose being to provide a suitable platform or balcony to be carried upon a fire truck and to be detachably connected with the upper end of a ladder for the purpose of facilitating the escape of persons from a burning building.

20 More particularly stated I provide a balcony suitable for reaching across from one part of a house to another part thereof, or from one window to another, or from one house to another house, as the case may be, thus facilitating the escape of persons otherwise unable to leave the burning building.

25 My invention further comprehends a balcony provided at its middle with an opening and with a trap door for closing said opening in order that persons may, if they so desire, descend through said trap door and escape by aid of the ladder which supports the balcony.

30 Reference is to be had to the accompanying drawings forming a part of this specification in which like characters of reference indicate corresponding parts in all the views, and in which—

35 Figure 1 is a perspective showing my device in active use; Fig. 2 is a cross section through the balcony and parts immediately associated therewith when the balcony is in the position indicated in Fig. 1; Fig. 3 is a fragmentary perspective showing my improved balcony and the ladder associated therewith, these parts being knocked down or disassembled and ready to be carried upon a fire truck; and Fig. 4 is a detail showing, partly in section and partly in elevation, the means whereby the balcony, when in use, is supported upon the ladder.

40 A fire truck is shown at 5 and carries a bearing ring 6, and adjacent to this bearing ring is a turntable 7. A ladder 8 which may be of ordinary construction, or may be an extension ladder, as desired, is secured upon

the turntable 7 by aid of pivotal connections 7^a. This ladder may be readily raised and turned to any desired angle so as to be readily rested against the front or side of a building, as will be understood from Figs. 60 1 and 2.

Mounted upon the outer or free end of the ladder 8 are brackets 9 which are provided with arms 10 each having generally a form adapted for use as a slide. Each arm 65 10 is strengthened by a brace 11 having a web 12 which forms a continuation of it, the web 12, the brace 11 and the slidable arm 10 being integral with the brackets 9.

The balcony is essentially a platform. 70 It contains two side beams 13 and extending upwardly from these are posts 14 which support a railing 15, the posts and railing extending around three sides of the platform. Disposed between the side beams 13 75 are thick boards 16 which are supported upon cross pins 16^a (see Figs. 2 and 4) and serve as a floor. The platform is provided with a pair of cross beams mating each other and substantially alike, one of these cross 80 beams being shown at 17 in Fig. 4. Below each cross beam 17 is a thick board 18, and secured upon the underside of the latter is a metallic plate 19. Another metallic plate 20 is mounted upon a cross beam 21, the 85 latter being secured to the cross beam 17. The plates 19 and 20 lie in different planes, the plates 19 being horizontal and the plates 20 being vertical, as will be understood from Fig. 4, when the parts are in normal position. The plates 20 are held in position by aid of fastenings 22 which engage the cross 90 beams 21, as will be understood from Fig. 2.

A trap door is shown at 23 and is mounted upon the balcony by aid of hinges 24. 95 The balcony is provided with a doorway 25 which may be left open or closed by swinging the door 23 into horizontal position, as desired. At 26, 27 are shown two windows with which the house 28 is provided, and my device is shown in Fig. 1 as used for establishing communication from one of these windows to another.

The operation of my device is as follows: Normally the various parts are arranged 105 as indicated in Fig. 3. The ladder 8 is laid flat and the balcony with the railing 15 uppermost is rested upon it. If desired, the balcony and ladder may be lashed together. As above indicated, the ladder 8 110

may be pivotally connected to the turntable 7 of a fire truck, as indicated in Fig. 1. In this event, the ladder, when resting upon the truck either alone or in connection with other ladders, as indicated in Fig. 1, is so disposed that the brackets 9 are uppermost and the balcony is simply rested upon the top of the ladder. The brackets 9 serve as limiting stops for preventing the balcony from traveling endwise in one direction, as will be understood from Fig. 3. Suppose, now, that a fire breaks out, say, in the house 28, and that people wish to escape from the window 26. Experience shows that escaping down a ladder is quite hazardous and in many instances it is impracticable for some persons, and especially women, children and invalids, to escape in this manner. By erecting the balcony, as indicated in Fig. 1, however, such persons can readily pass out of the window 26, along the floor 15 and over the trap door 23, thence through the window 27 and back into the building, and thus make their escape down a stairway or otherwise. In such case, the trap door 23 should, of course be closed. If, however, it be desired to escape down the ladder, the trap door is raised, as indicated in Fig. 1, and the refugees can then climb down the ladder 8 to the fire truck which is upon the ground. In order to mount the balcony in position the ladder is first rested against a convenient wall of the building 28, the fire truck being placed a proper distance from the building so that the arms 10 will become approximately horizontal. The platform, which is sufficiently light to be handled readily by one man, is placed in such position that the arms 10 engage the plates 19 and 20, as indicated in Fig. 4. This being done, the platform is pushed edgewise toward the building until the ends of the arms 10 come out flush with the edge of the balcony extending away from the building. The balcony is now ready for use in either manner above described; that is to say, the persons can escape by its aid from one window to another, or they can raise the trap door and descend by climbing down the ladder.

I do not limit myself to the use of any particular form of ladder, or any special kind of fire truck. Neither do I limit myself to the particular construction here shown for the balcony or the parts associ-

ated with it, the scope of my invention being defined by my claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A device of the character described comprising a balcony provided with slideways, a ladder for supporting said balcony, and brackets mounted upon said ladder and provided with arms for slidably engaging said slideways.

2. A device of the character described comprising a balcony provided centrally with an opening, a trap door for closing said opening, a ladder for supporting said balcony and brackets mounted upon said ladder and disposed upon opposite sides of said opening, said brackets being provided with arms for engaging said balcony in order to support the same.

3. A device of the character described comprising a ladder, brackets mounted thereupon and provided with arms and also with braces, said arms and braces being integral with said brackets, and a balcony provided with slideways for receiving said arms in order that said balcony may be detachably mounted upon said ladder.

4. A device of the character described comprising a ladder, a balcony separate from said ladder and adapted to reach in a substantially horizontal direction from one part of a building to another part thereof, and brackets mounted upon said ladder and engaging said balcony for the purpose of supporting the ladder.

5. A device of the character described comprising a ladder, brackets mounted thereupon and provided with arms, a balcony having a length greater than its width, said balcony being provided with slideways extending crosswise of its length and further provided with an opening extending substantially from one of said slideways to another, said slideways being adapted to receive said arms of said brackets in order to enable said balcony to be secured upon said ladder, and a door connected with said balcony and adapted for closing said opening.

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

THOMAS FRANCIS DOUGHERTY.

Witnesses:

MICHAEL F. RUDDY,

WILLIAM R. LANAHAN.