(No Model.)

# R. HAMMILL.

## FIRE ESCAPE.

No. 303,004. Patented Aug. 5, 1884.

Fig. 1.

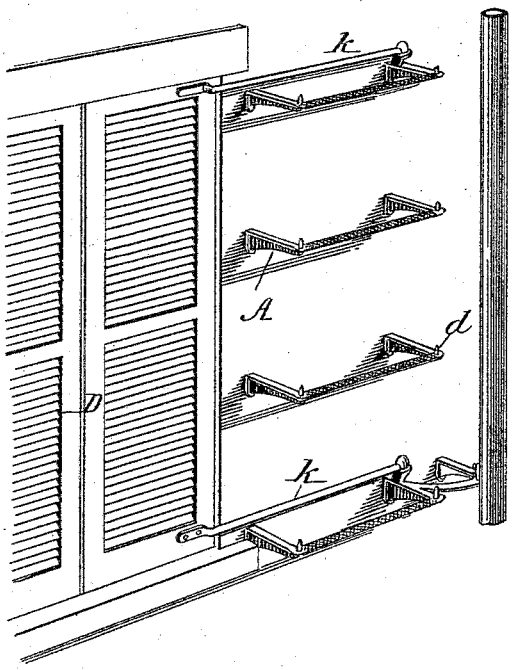



Fig. 2.

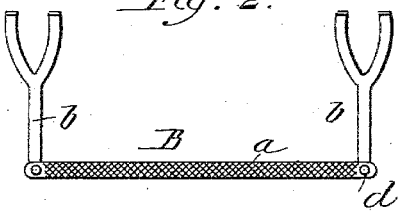



Fig. 3.

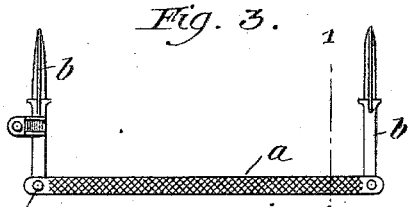



Fig. 4.

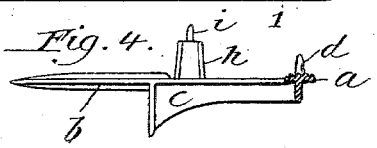



Fig. 5.

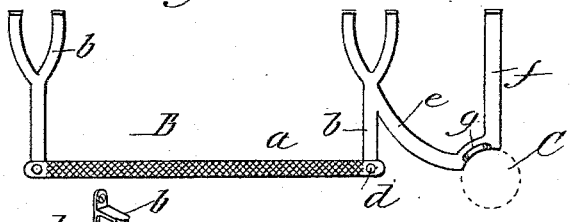



Fig. 7.

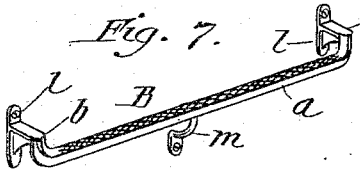
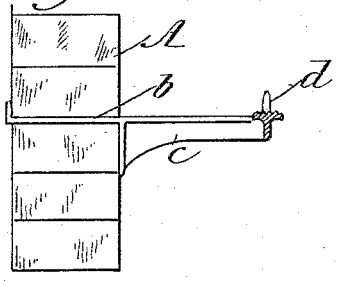



Fig. 6.

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# UNITED STATES PATENT OFFICE.

RICHARD HAMMILL, OF CHICAGO, ILLINOIS.

## FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 303,004, dated August 5, 1884.

Application filed April 5, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, RICHARD HAMMILL, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, 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.

My invention relates to an improved fire-escape. The object it has in view is to provide safe and convenient means for gaining access to different parts of buildings in case of fire, or at other times.

To the accomplishment of the above the invention consists of the novel devices and combination of devices, as will be described and claimed.

Reference will be made to the accompanying drawings, in which Figure 1 is a view of part of a building with my improvements in use; Fig. 2, a view of one of the steps of which the escape is formed; Fig. 3, a view of a modified step; Fig. 4, a section on line 1 1 of Fig. 3; Fig. 5, a plan of a step with stand-pipe support; Fig. 6, a view in detail showing one step in position, and Fig. 7 a step for use on freight-cars.

Like letters refer to like parts in each view.

My invention relates more especially to that class of escape wherein a series of steps are secured to the outside of the building—one above the other—to form a ladder.

In the drawings, A represents a building, and B one of the steps, which is formed of any suitable material; and it consists of a cross-piece, *a*, which forms the rest for the foot, and two arms, *b*, preferably V-shaped, as shown, said arms being cast with and at right angles to cross-piece *a*, as shown. Arms *b* are placed between the bricks in the course of building, and their inner ends bent, as shown in Fig. 6, to prevent their withdrawal.

Cast upon the lower face of each arm *b* is a lug, *c*, which, when the step is in position, presses against the building, as shown in Fig. 6, and prevents all bending of the steps when subjected to heavy weight and strain. In the formation of these steps as heretofore manufactured the cross-piece or foot-rest has been rounded at its corner, and there has always been great liability of the person's foot slipping. To obviate and avoid this difficulty I cast upon the upper face of cross-piece *a*, and at points near each end thereof, a pin, *d*, which prevents the foot from slipping off at the side.

In arranging this style of escape upon buildings it is often found desirable to provide a stand-pipe for the supply of water to the different stories. In Fig. 5 I have shown a step formed with a support for such stand-pipe. As shown, there is cast with one of the arms *b* a curved arm, *e*, and an arm, *f*, adapted to be inserted between the bricks of which the building is formed, there being a circular indenture to receive the pipe C, as shown, said pipe being held in position by suitable bolts passed through a lug, *g*.

Cast with arms *e f*, I design to use a step constructed in the manner last described at points about ten feet apart, that number being sufficient to afford a steady support to the pipe.

Another inconvenience arising from the use of these steps as heretofore constructed has existed in the necessity of placing them a sufficient distance from the windows of the building to give free play to the window-blinds.

To enable the steps to be placed within convenient distance of the windows, and at the same time not to interfere with the movement of the blinds, I cast upon one arm *b* of two of the steps—one at the top and the other at the bottom of the windows—a lug, *h*, formed with pin, *i*, at its upper end.

Pivoted upon each pin *i* is an arm, *k*, the opposite end of which is secured to the blind D. By this arrangement it will be seen that the blind can be swung back, and will clear the steps.

In Figs. 3 and 4 I have shown the steps constructed for use where the arms *b* are to be driven into wooden bearings.

I do not wish to confine myself to the use of my invention as a fire-escape, for it will be apparent that ladders composed of steps constructed in accordance with my invention could be employed for many other purposes and under different circumstances. Steps so constructed are especially adapted to use on freight-cars, where it is desirable to have ready means for the train-hands to ascend to the roof of the cars. In such a case I would pre-

fer to shorten the arms *b* and screw-thread them on their ends to accommodate suitable nuts to hold them in position, or secured in any other suitable manner.

I make no claim in this application to the construction shown in Fig. 7 of the drawings, but reserve the right to claim the same in a subsequent application to be made by me.

What I claim is—

1. The step B, provided with pins *d*, as and for the purpose set forth.

2. The step B, provided with lugs *c* and pins *d*, as and for the purpose set forth.

3. The step B, provided with support *e f*, as and for the purpose set forth.

4. The combination, with blind D and arm *k*, of steps B, provided with lug *h* and pin *i*, as and for the purpose set forth.

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

RICHARD HAMMILL.

Witnesses:
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LOUIS NOLTING.