No. 627,893. Patented June 27, 1899.

E. P. BECKER.

FIREMAN'S LADDER.

(Application filed Sept. 12, 1898.)

(No Model.)

Fig. 1.

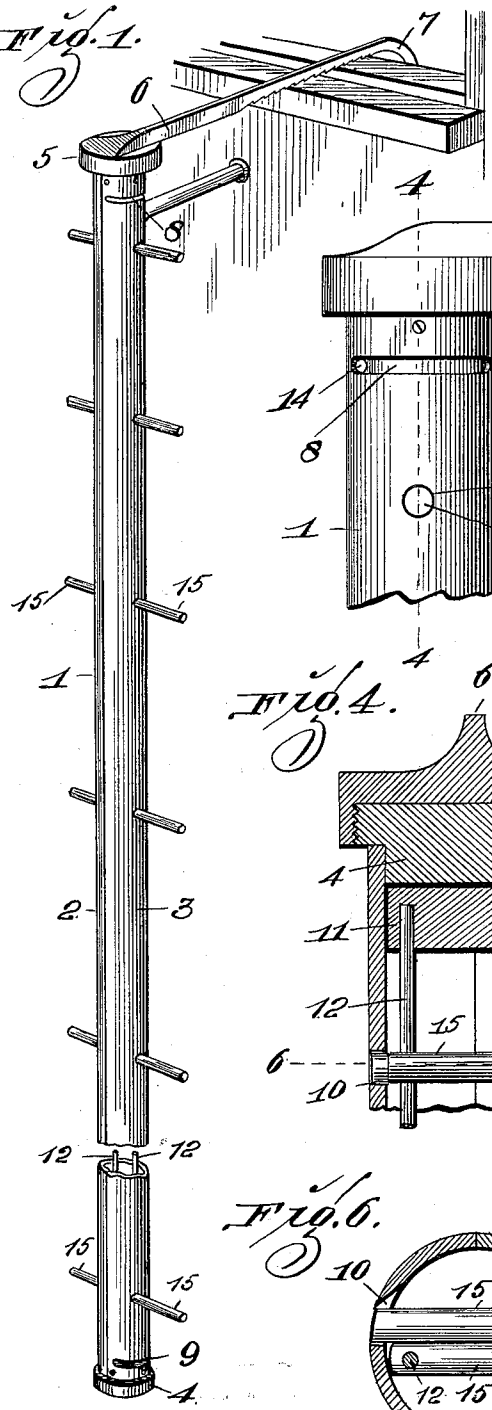


Fig. 2

Fig. 3.

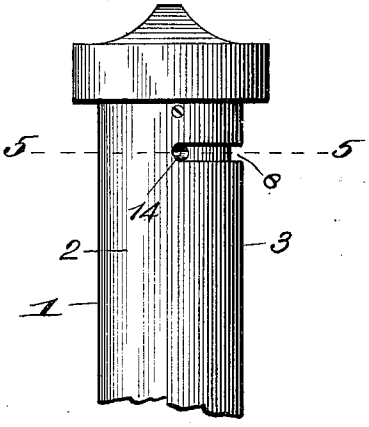


Fig. 4.

Fig. 5.

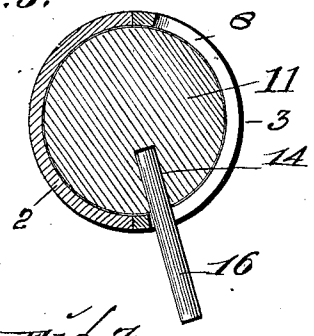


Fig. 7.

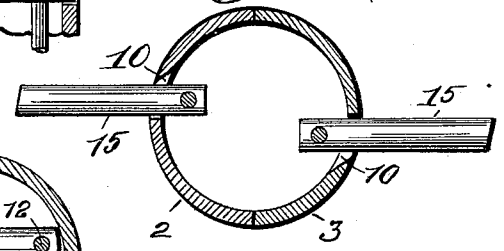
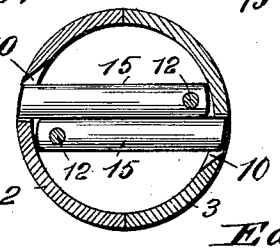


Fig. 6.



Witnesses:
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C

UNITED STATES PATENT OFFICE.

EDWARD P. BECKER, OF ST. LOUIS, MISSOURI.

FIREMAN'S LADDER.

SPECIFICATION forming part of Letters Patent No. 627,893, dated June 27, 1899.

Application filed September 12, 1898. Serial No. 690,785. (No model.)

To all whom it may concern:

Be it known that I, EDWARD P. BECKER, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Firemen's Ladders, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to firemen's ladders; and it consists of the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

Figure 1 is a view in perspective of my improved ladder, the same being shown in position upon a building. Fig. 2 is an enlarged side elevation of the upper end of the ladder. Fig. 3 is a front elevation of the upper end thereof. Fig. 4 is a vertical sectional view taken approximately on the line 4 4 of Fig. 2. Fig. 5 is a horizontal sectional view taken approximately on the line 5 5 of Fig. 3. Fig. 6 is a horizontal sectional view taken approximately on the line 6 6 of Fig. 4. Fig. 7 is a view analogous to Fig. 6 and showing the rungs of the ladder extended.

In the construction of the device as shown I make use of the tube 1, which is composed of the two mating sections 2 and 3, the ends of which are rigidly fixed to circular blocks 4, the upper one of which is exteriorly screw-threaded. Removably located upon the upper one of said blocks is a cap 5, with which is formed integral a laterally-projecting arm 6, the end 7 of which is formed into a hook that is to be engaged inside a window-sill or behind any projection or portion of the building whereon the ladder is used.

Formed through the upper and lower ends of the member 3 are the slots 8 and 9, and formed through each of the mating sections 2 and 3, at equal distances apart and directly opposite each other, are the apertures 10. Rotatably arranged in the top and bottom ends of the tube 1, immediately adjacent the blocks 4, are the disks 11, in which are seated the ends of the oppositely-arranged rods 12. Formed in each of these disks 11 is a recess or pin-hole 14, which lies in direct alinement with the corresponding ones of the slots 8 and 9. Rotatably arranged upon the rods 12 are the ends of the rungs 15, said rungs being constructed of short sections of metallic rods and arranged to operate through the apertures 10.

When my improved ladder is not in use, the disks 11 are axially rotated so as to draw the rungs 15 into the tube 1, as shown in Fig. 6, and when it is desired to throw the rungs outwardly, so as to be engaged by the hands and feet of the fireman or other person using the ladder, a pin, such as 16, is inserted in either one of the pin-holes 14, and the disks 11, carrying the rods 12, are given a half-turn, which causes the rungs 15 to pass outwardly through the apertures 10, as shown in Fig. 7. A person may readily ascend or descend the ladder when the rungs are thrown outwardly, and should a fireman after having ascended the ladder find himself in danger and desire to descend the ladder rapidly the pin 16 may be inserted in the upper one of the disks 11 and said disks turned so as to draw the rungs into the tube, after which the fireman may slide down the tube in much less time than he could descend by means of the rungs.

A ladder of my improved construction is simple in operation, light in weight, very compact, may be easily carried by a fire-wagon, and is of great value to a fireman or other person who is forced to descend from a burning building.

I claim—

1. A fireman's ladder constructed with a tube, rung-mountings within said tube, and rungs arranged to be drawn into said tube upon rotary movement of the said rung-mountings with relation to the said tube, substantially as specified.

2. A fireman's ladder, constructed with a tube, a hook removably located upon the upper end thereof, said tube having a series of oppositely-arranged apertures formed in its body, a pair of disks rotatably arranged, one in each end of said tube, a pair of oppositely-arranged rods having their ends seated in said disks, and rungs pivotally held upon said rods and extending outwardly through the apertures in the tube, substantially as specified.

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

EDWARD P. BECKER.

Witnesses:

EDWARD E. LONGAN,

M. P. SMITH.