

(No Model.)

B. FRANKLIN.

FIRE ESCAPE.

No. 366,948.

Patented July 19, 1887.

Fig. 1.

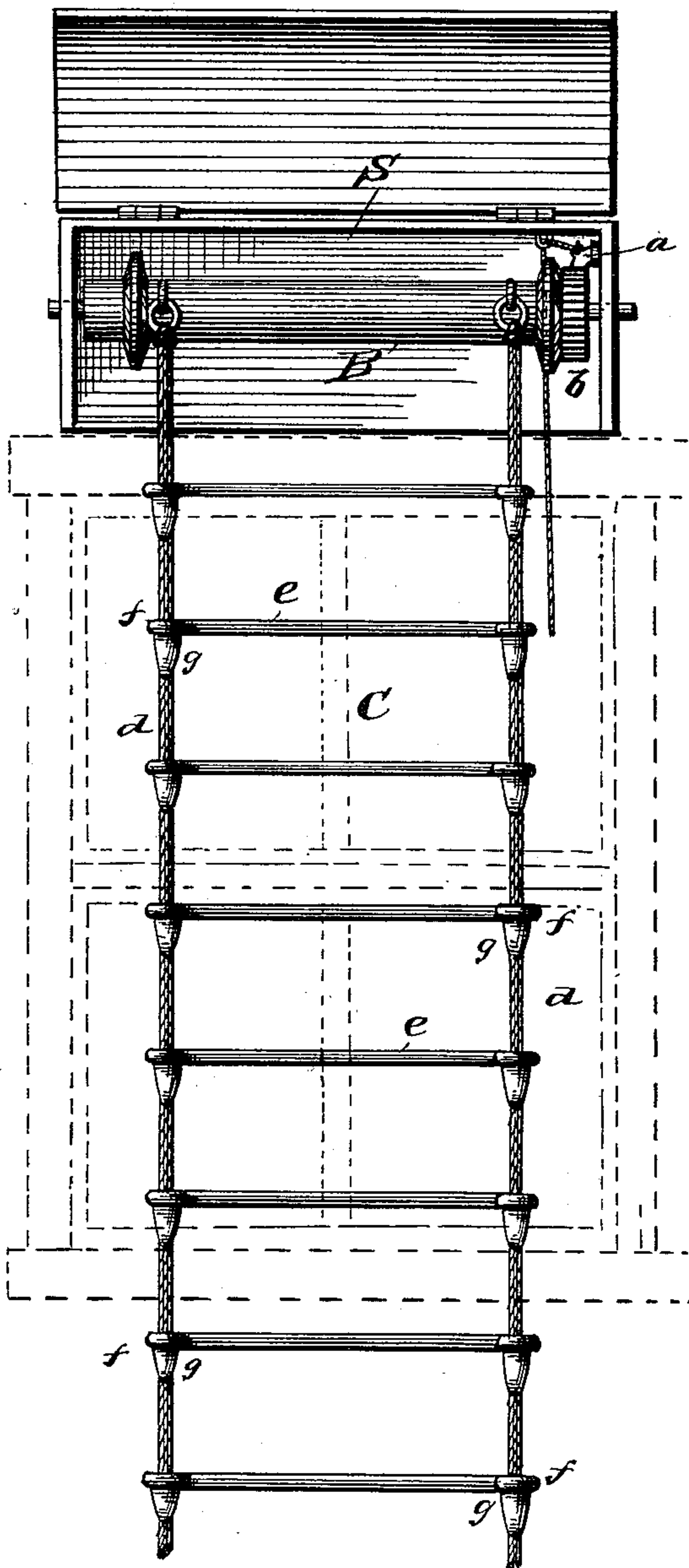


Fig. 2.

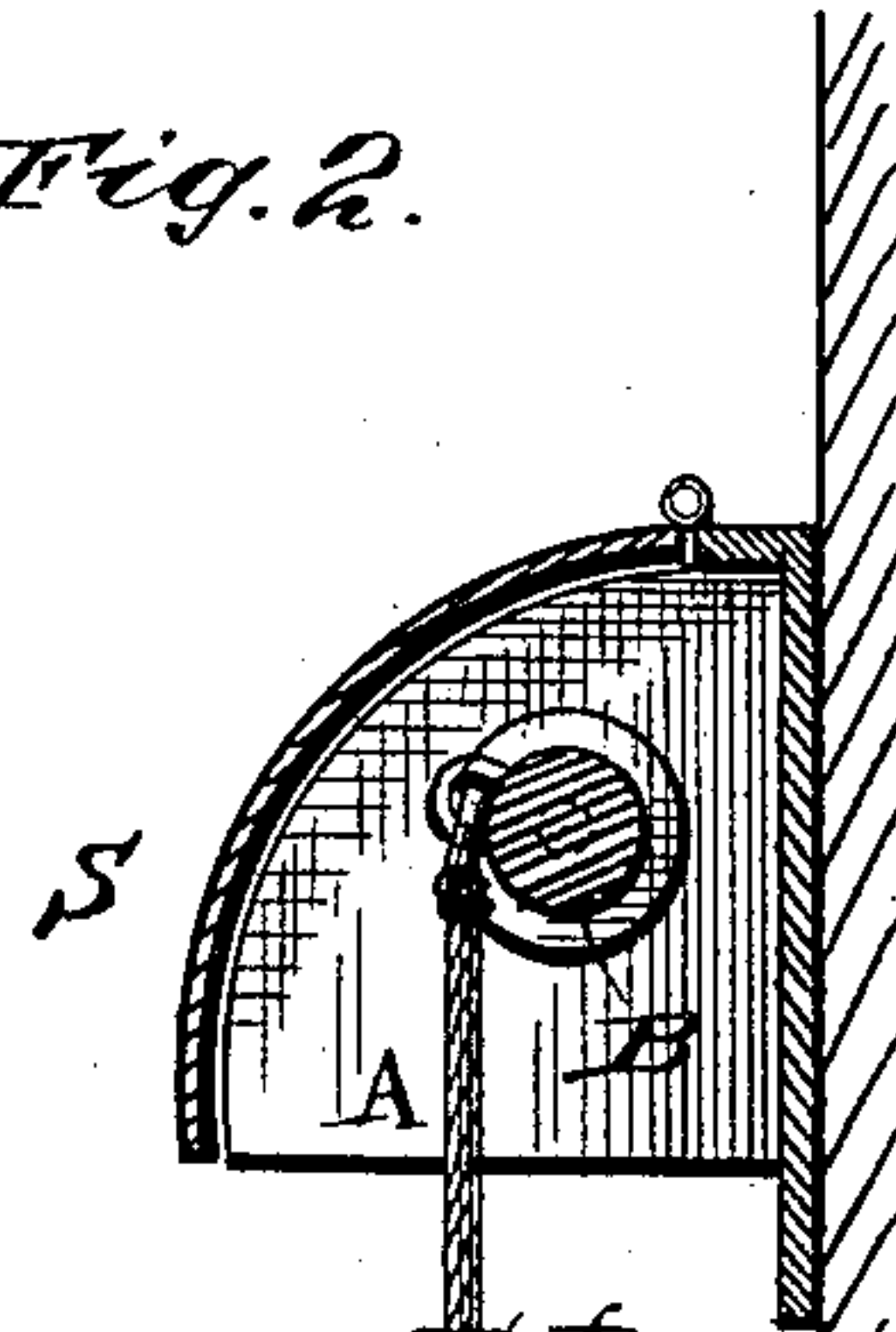


Fig. 8.

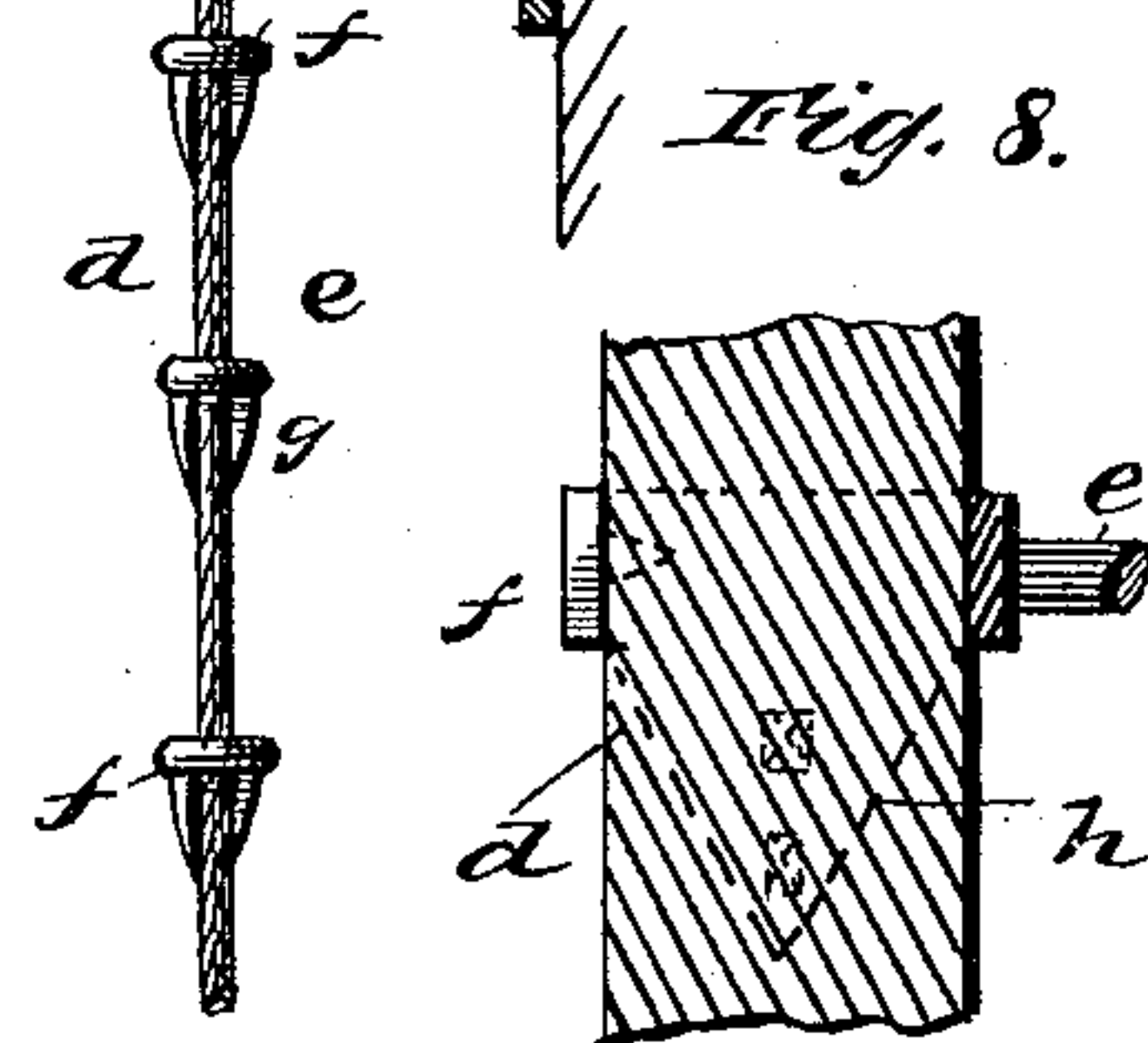


Fig. 3.



Fig. 4.

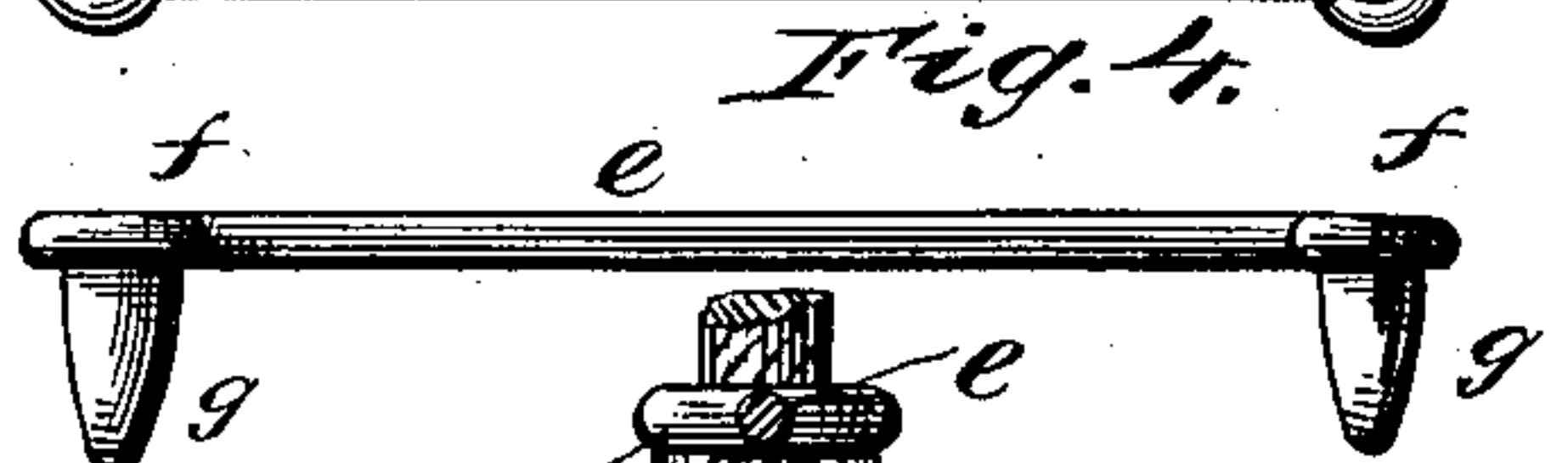


Fig. 5.

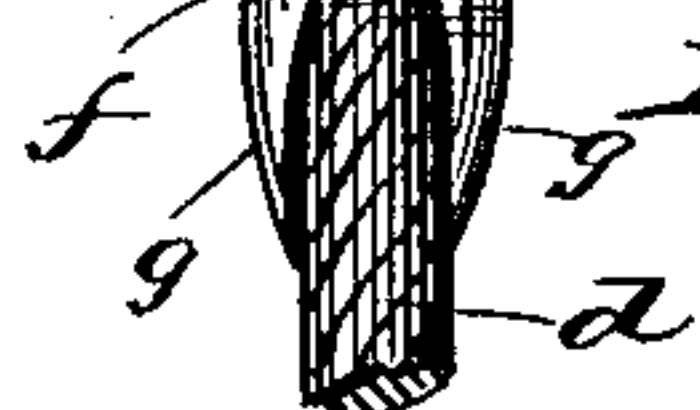


Fig. 6.

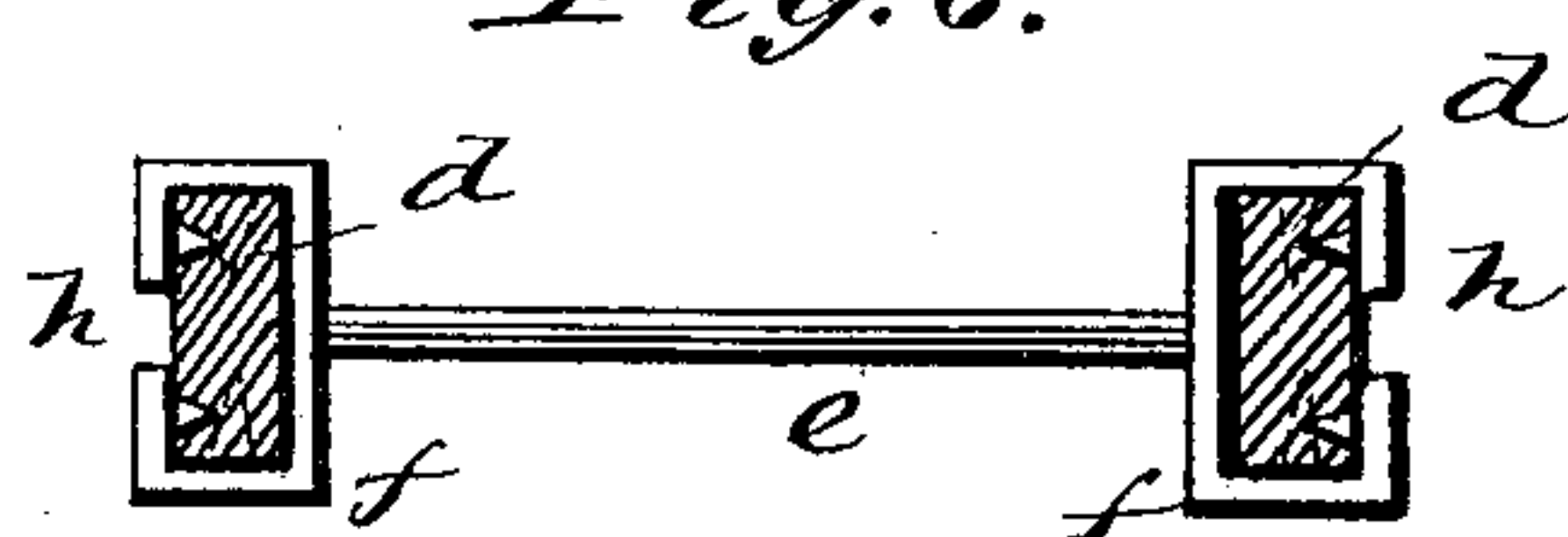
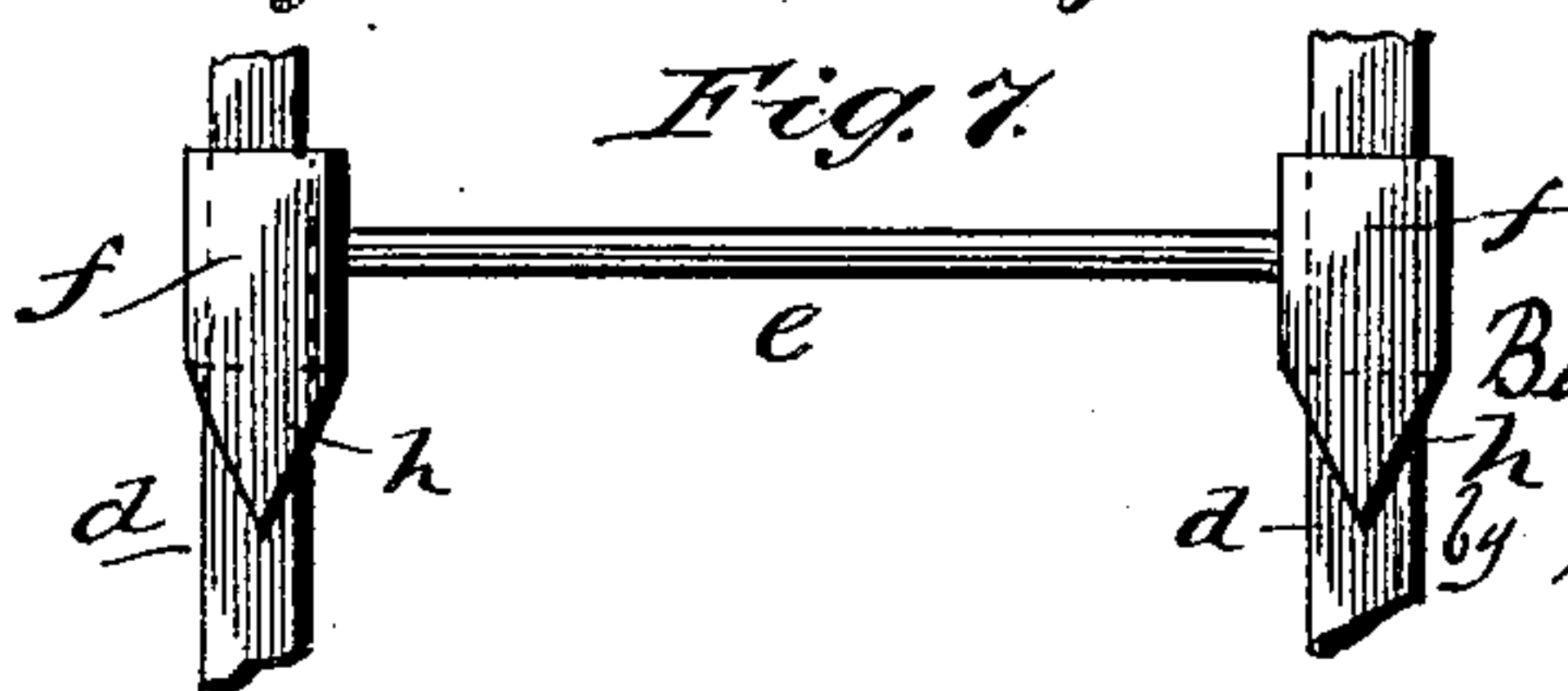


Fig. 7.



WITNESSES

Phil. Dietrich.
G. L. Mitchell.

INVENTOR

Benjamin Franklin.
Smith & Sheehy

Attorneys

UNITED STATES PATENT OFFICE.

BENJAMIN FRANKLIN, OF ALBION, NEW YORK.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 366,948, dated July 19, 1887.

Application filed April 20, 1887. Serial No. 235,433. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN FRANKLIN, a citizen of the United States, residing at Albion, in the county of Orleans and State of New York, have invented certain new and useful Improvements in Fire-Escapes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to escape-ladders and means for operating the same in connection with the wall of a building or other structure, and the improvements will be fully understood from the following description, when taken in connection with the annexed claim and accompanying drawings, in which—

Figure 1 is a view of a casing as attached to a building above a window with the ladder let down. Fig. 2 is a cross-sectional view of the same. Figs. 3, 4, and 5 are detail views of the ladder. Figs. 6 and 7 are detail views of a modification of the ladder, and Fig. 8 is a detail sectional view.

Referring by letter to the said drawings, A indicates a casing for the ladder when reeled. This casing may be of any suitable form, having an open bottom, as shown, for the passage of the ladder.

B indicates a horizontal roller which is journaled at opposite ends in the end walls of the casing, and is provided with a fixed ratchet-wheel, *b*, which is designed to be engaged by a pawl or dog, *a*, to hold the reel or roller when the ladder has been wound thereon. From this pawl may be lead a string, whereby the said pawl may be disengaged from the ratchet in dropping the ladder, any suitable means being employed to turn the roller in reeling the ladder thereon.

C indicates the ladder, which is of a peculiar construction, being composed of longitudinal ropes *d d* and metallic rounds *e*. These ropes may be treated so as to render them fire-proof,

or chains may be used. The rounds are preferably made of iron, which may be annular in cross-section, having integral eyes or loops *f* at opposite ends for the passage of the longitudinal ropes, and beneath these eyes are depending clamps or teeth *g*, which are slightly tapered from their base to their outer ends and are designed to bite the rope and secure the rounds thereto. It will be seen that by having these clamps on the under side of the eyes they will quickly bite the rope and firmly embed themselves therein as weight is brought upon the rounds. The clamps may be turned slightly upward at their ends, so as to insure a firm grip upon the rope.

As a modification of my invention I have shown a round with rectangular loops at opposite ends for the reception of the rails of any ordinary ladder. These loops have branches *h*, which are free at their ends and are barbed on their inner sides, so that they may be driven into the rails, as shown. The other walls of the loop may also be provided with barbs similar to those of the branches *h*; and while I have shown and described these loops as engaging the rails of a ladder, yet it is obvious that they may engage ropes on a flexible ladder equally as well.

Having described this invention, what I claim is—

The combination, with the case and the reel therein, as described, of the flexible ladder composed of the longitudinal ropes and the rounds provided with integral eyes at opposite ends, having the depending clamps or teeth *g* on their under sides for biting the said rope, substantially as specified.

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

BENJAMIN FRANKLIN.

Witnesses:

LUCIUS R. POST,
WM. W. ARMSTRONG.