

No. 708,777.

Patented Sept. 9, 1902.

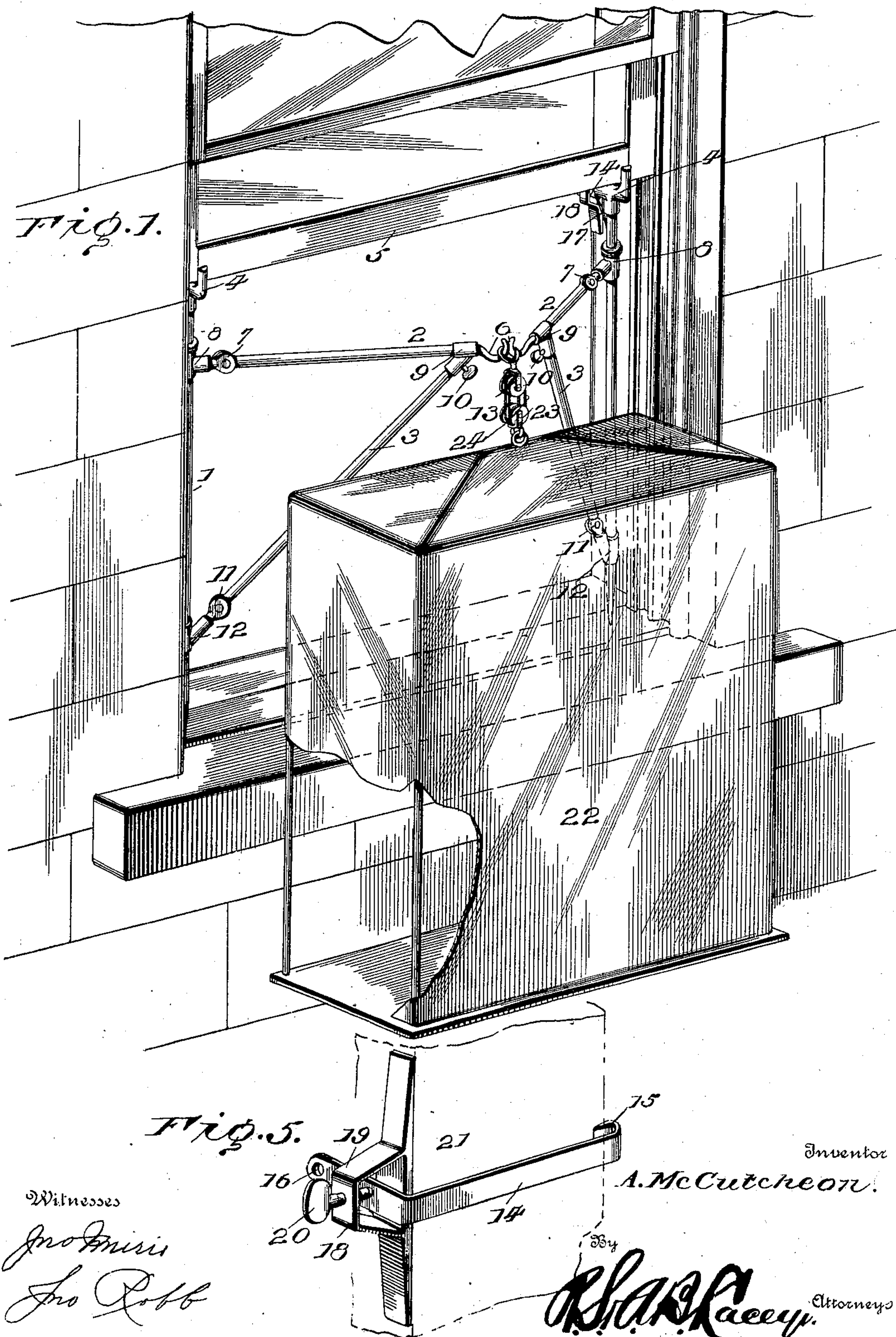
A. McCUTCHEON.

FIRE ESCAPE.

Application filed Oct. 9, 1901.

(No Model.)

2 Sheets—Sheet 1



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2 Sheets—Sheet 2.

Fig. 2.

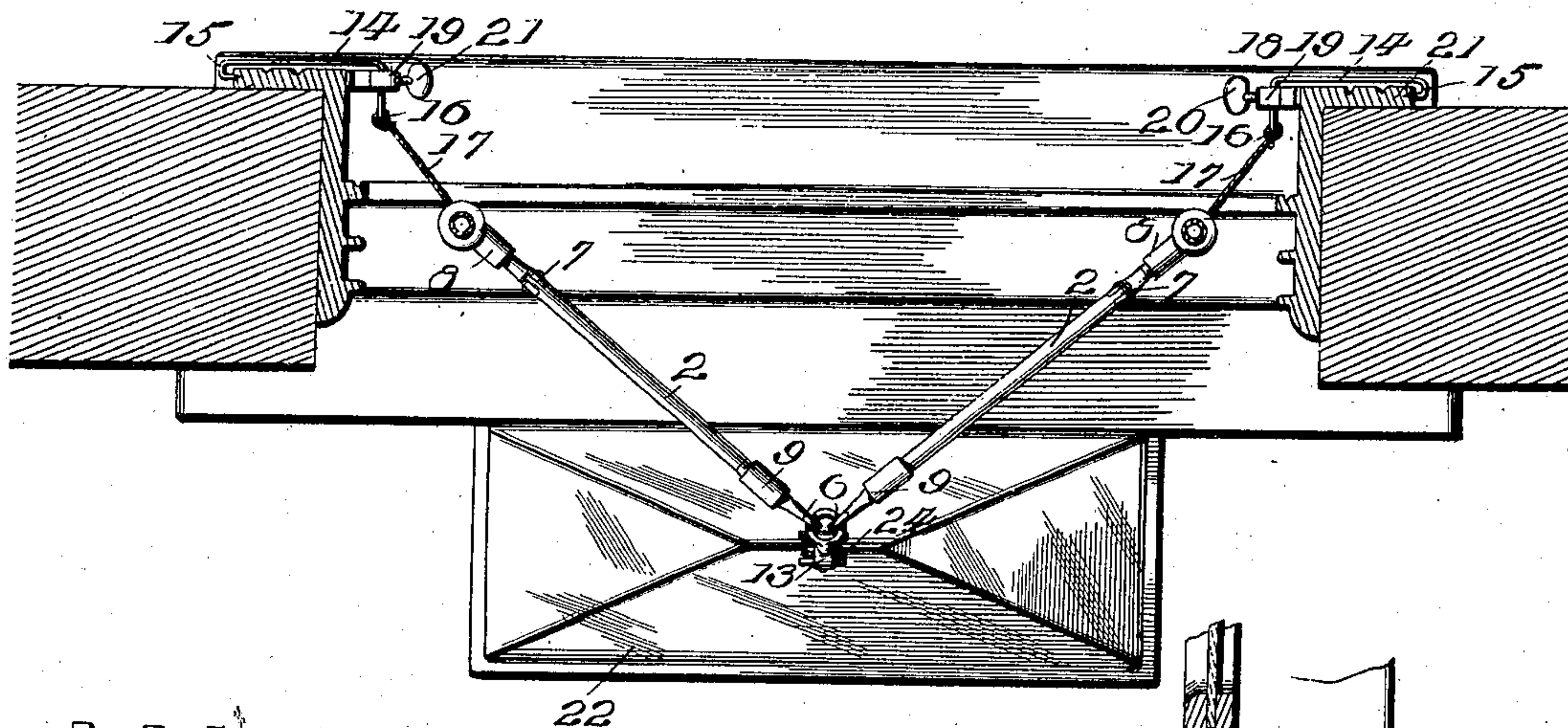


Fig. 3.

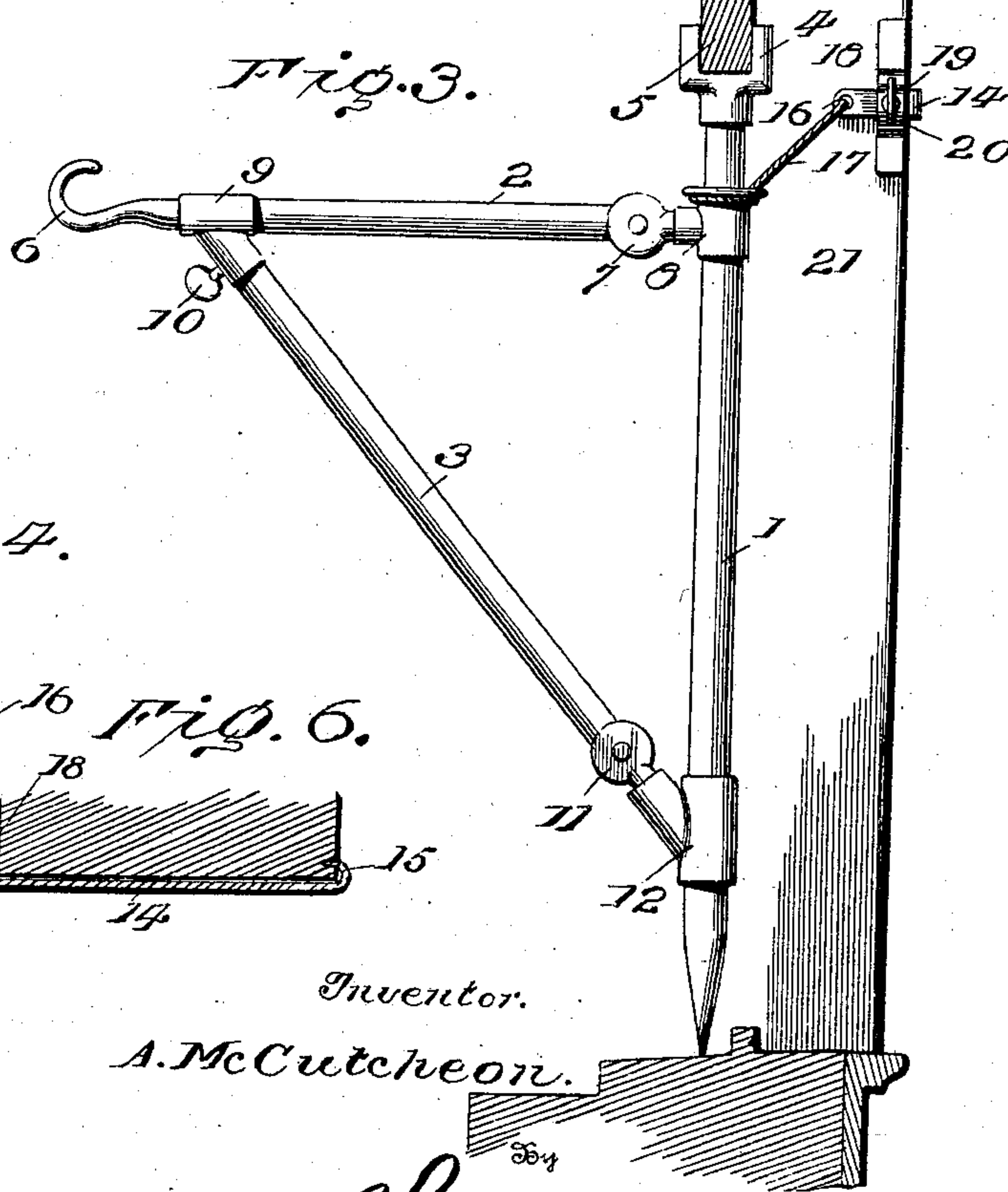


Fig. 4.

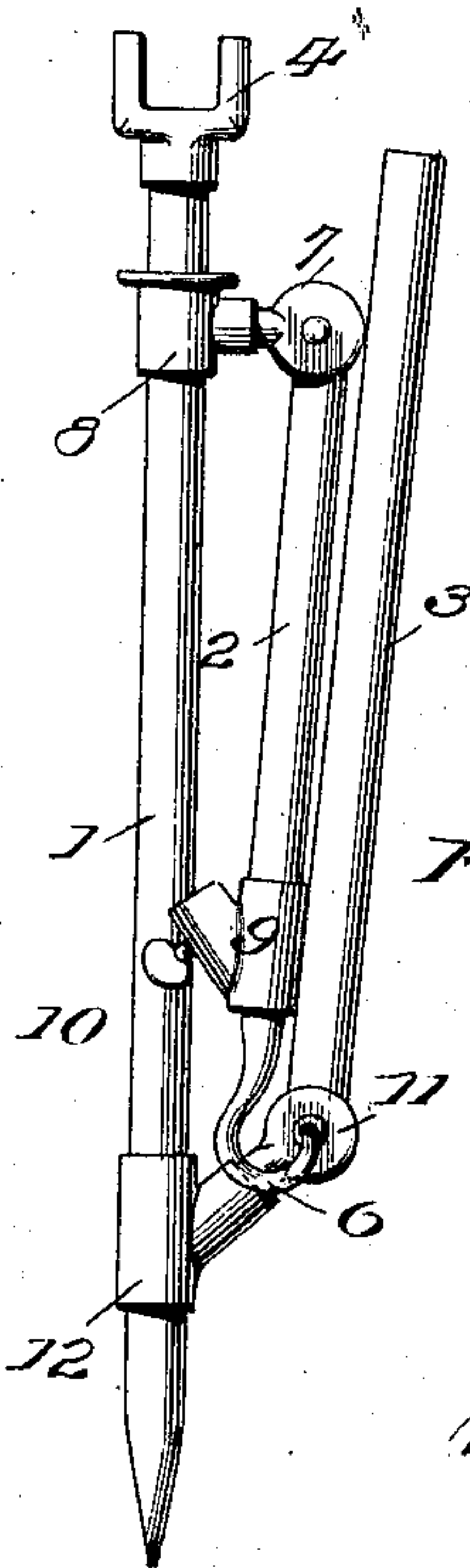
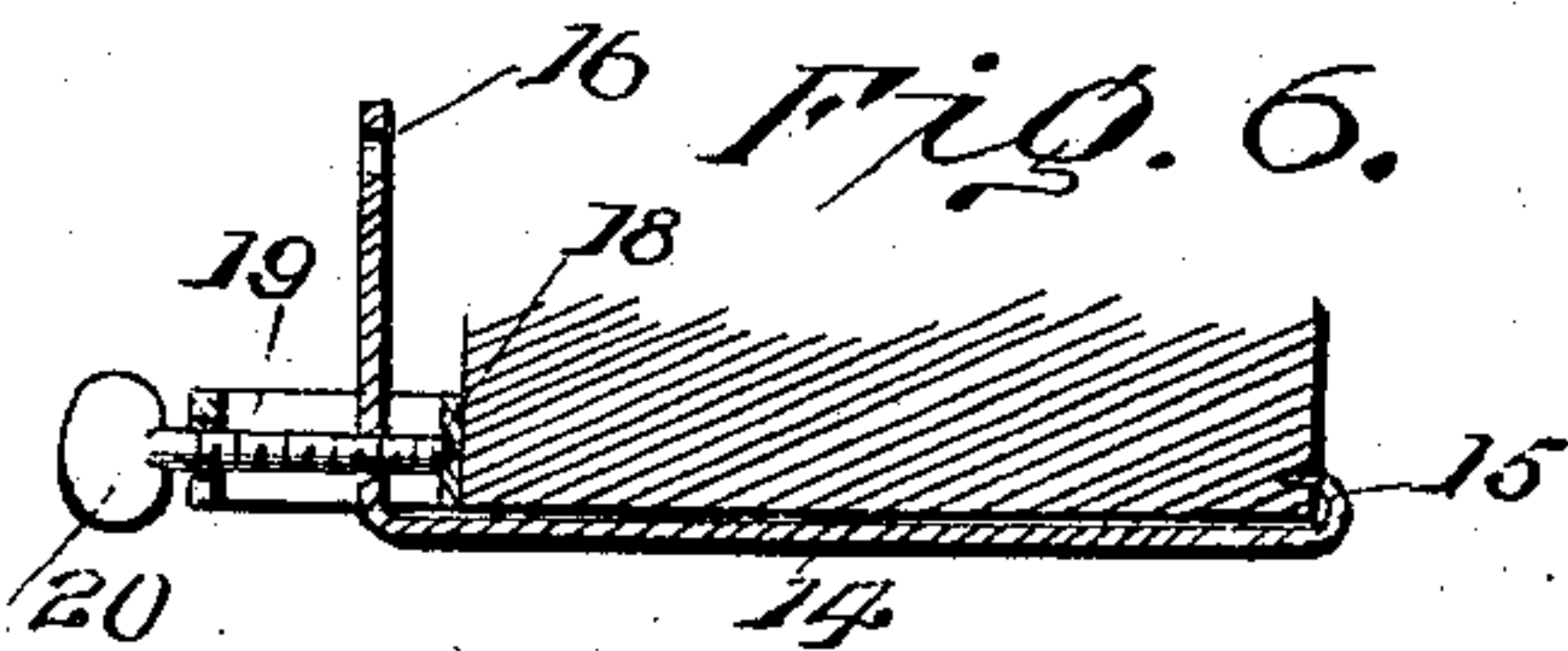


Fig. 6.



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UNITED STATES PATENT OFFICE.

ALEXANDER McCUTCHEON, OF EMPORIA, KANSAS.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 708,777, dated September 9, 1902.

Application filed October 9, 1901. Serial No. 78,124. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER McCUTCHEON, a citizen of the United States, residing at Emporia, in the county of Lyon and State of Kansas, have invented certain new and useful Improvements in Fire-Escapes; and I do hereby 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 belongs to the type of apparatus for saving life from fire which is portable and embodies a car, block and tackle, and a crane adapted to be readily and securely fastened to a window-opening of a burning building, so as to afford a safe retreat in the event of all other avenues of escape being closed.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and drawings hereto attached.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view. Fig. 2 is a top plan view showing the window-frame in transverse section. Fig. 3 is a detail view of the frame extended. Fig. 4 is a similar view showing the frame folded. Fig. 5 is a detail perspective view of the clamp. Fig. 6 is a longitudinal section of the clamp.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The contrivance embodies, essentially, three parts—a crane, a car or cage, and a block and tackle.

The crane comprises a post 1, jib 2, and brace 3, the parts being constructed to admit of the crane folding into a small space. The post 1 is pointed at its lower end and is provided at its upper end with a U-shaped head

4, adapted to embrace the lower rail of a window-sash 5 when the crane is in operative position. The jib terminates in a hook 6 and is hinged at 7 to a T-fitting 8, applied to the upper portion of the post, and has an approximately Y-shaped fitting 9 near its outer end to receive the upper end of the brace 3, which is connected therewith by a slip-joint, a clamp-screw 10 holding the parts together when the upper end of the brace 3 is slipped into the branch of the fitting 9. The brace 3 is hinged or pivoted at its lower end, as shown at 11, to a Y-fitting 12, applied to the lower portion of the post 1. By having the jib 2 and brace 3 articulate with reference to the post 1 they are enabled to fold against the said post when it is required to reduce the crane to a compact form, so as to occupy the smallest amount of space possible when not in position for service. In practice it is preferred to provide a pair of cranes for each window-opening, one being located at each side of the opening and the jibs being outwardly converged to bring their hooked ends 6 together to receive the upper block 13 of the block and tackle suspended therefrom. The pointed end of the post 1 is forced into the window-sill, or a depression may be provided for its reception, the lower rail of the sash entering the space between the arms of the U-shaped head 4. The crane when in operative position is made more secure by means of an iron 14, having a hook 15 at one end and having its opposite end bent, as shown at 16, and apertured to receive one end of a chain 17, by means of which the bent end 16 is connected with the fitting 8 or upper portion of the crane. A clamp-iron 18 is provided with a loop 19, through which the bent end 16 of the iron 14 passes and which is threaded to receive a set-screw 20, having threaded connection with the bent end 16 and mounted in the outer end of the loop 19 and having its inner end swiveled in the iron 18. The iron 14 is a strap or bar and, together with the iron 18 and adjunctive parts, constitutes a clamp for gripping opposite edges of the facing 21, surrounding the window-casement on the inner side. The hook 15 is caused to bite into an edge of the

facing 21, and the iron 18 is clamped against the opposite edge by turning up the set-screw 20, and after the clamp has been securely fastened the chain 17 is connected to the

5 crane if not already attached thereto.

The car or cage 22 consists of a skeleton frame, preferably of metal and having its opposite ends and outer side closed by a wire-netting or other material, preferably of a character to resist flames. The side adjacent the building is open to admit of a person having ready access to the cage, and by having the ends and outer side closed the chances for accident of an occupant by falling out are minimized. This car or cage is suspended from the crane by means of block and tackle, the lower block 23 being attached to the car and the rope or cord 24 passing around the pulleys of the blocks 13 and 23 in the usual manner and extending to the ground to admit of operation of the car therefrom.

The provision of a pair of cranes and the outward convergence of the jibs prevents a direct outward pull upon the cranes. Hence the latter are best calculated to withstand the strain ordinarily imposed thereon when the appliance is in active operation. The connection of the cranes with the facing of the window-casement materially assists in the safety of the device and prevents slipping of the parts. When the car is elevated, a person at the window fitted with the cranes can readily enter the car, and the latter in its descent passing by other windows in vertical line affords an avenue of escape for any person at any one of the said windows. The car can be quickly run up and down by means of the rope 24, so as to rescue any number of

persons in danger and cut off from other ways of escape.

Having thus described the invention, what is claimed as new is—

1. In a fire-escape and in combination with a window and hoisting mechanism, a post stepped upon the window-sill and having a U-shaped head to receive the lower rail of a sash, and a jib and a brace connected to each other and to the post, substantially as described.

2. In a fire-escape and in combination with a window and hoisting mechanism, a post stepped upon the window-sill, a U-shaped head at the upper end of the post to embrace the sides of the lower rail of a sash, a T-fitting near the upper end and a Y-fitting near the lower end of the post, a jib pivoted to the T-fitting, a Y-fitting at the outer end of the jib, and a brace pivoted to the Y-fitting of the post and adapted to make detachable connection with the Y-fitting at the outer end of the jib, substantially as specified.

3. In a fire-escape, the combination with a window, a crane, an iron having a loop, a second iron having a hook at one end and having its opposite end bent to pass through the said loop, a screw cooperating with the loop and bent ends of the irons to clamp a portion of the window-casement, and a connection between the crane and the bent end of the iron, substantially as set forth.

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

ALEXANDER McCUTCHEON. [L. S.]

Witnesses:

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