

No. 632,820.

Patented Sept. 12, 1899.

F. MINSTER.
FIRE ESCAPE.

(Application filed May 18, 1899.)

(No Model.)

Fig. 1.

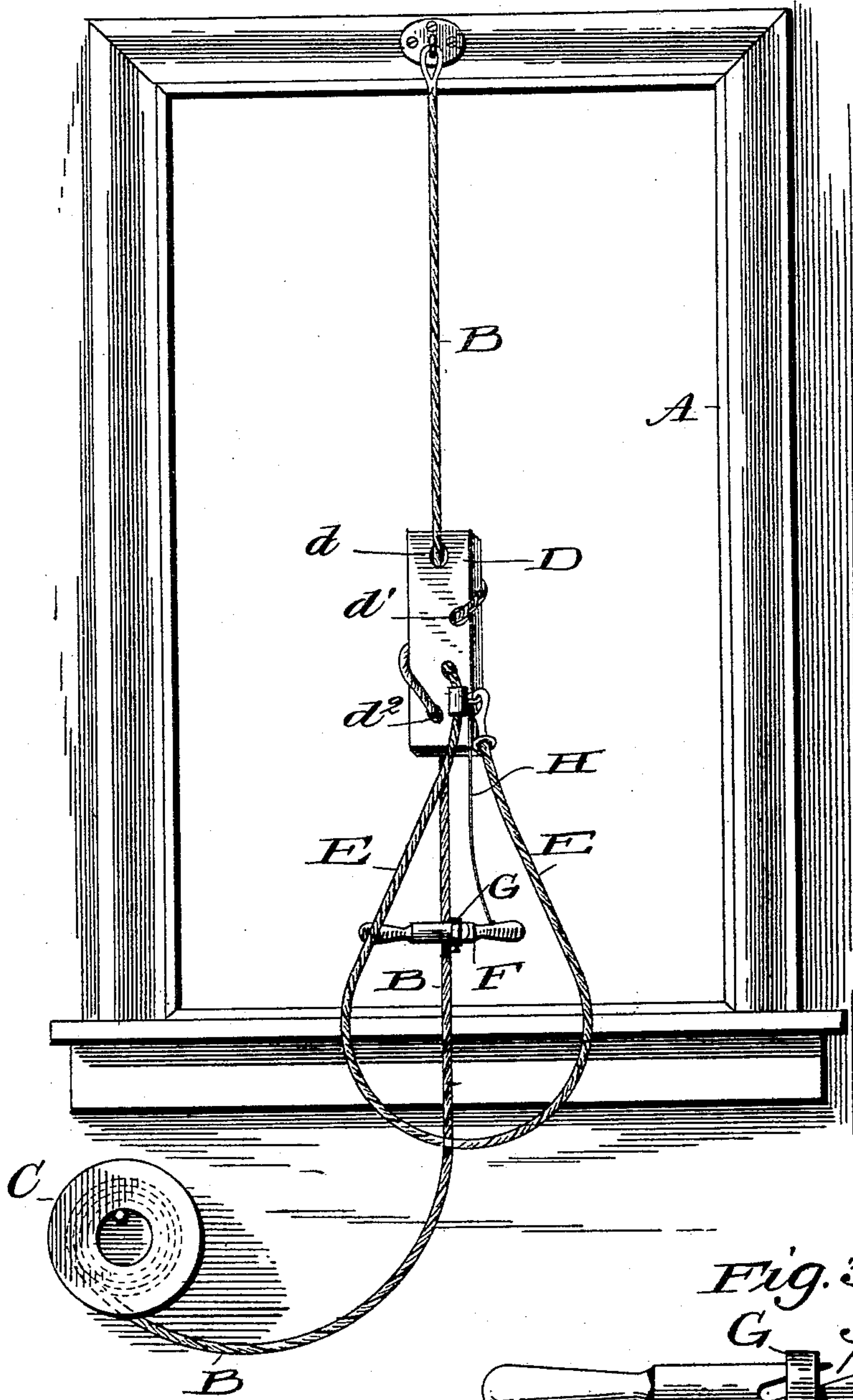


Fig. 2.

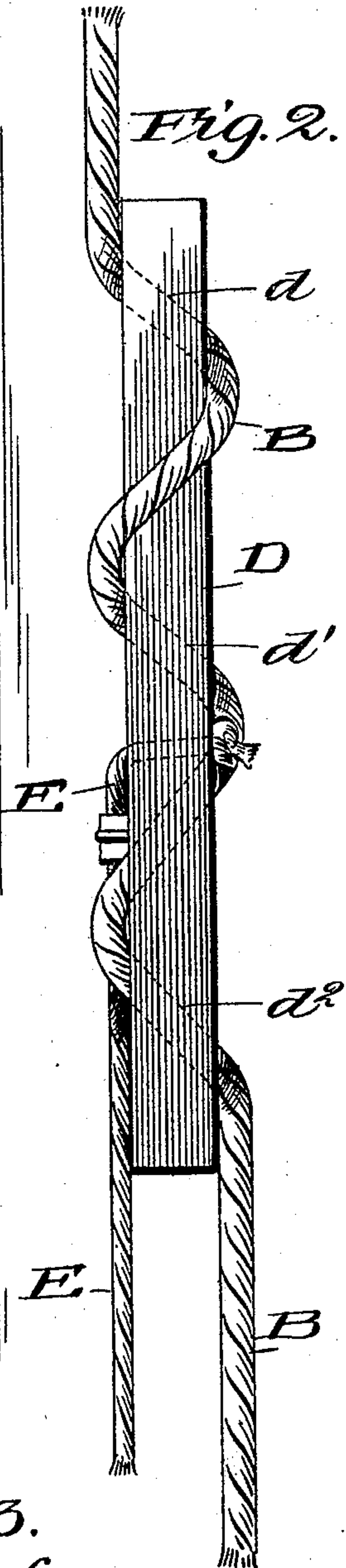
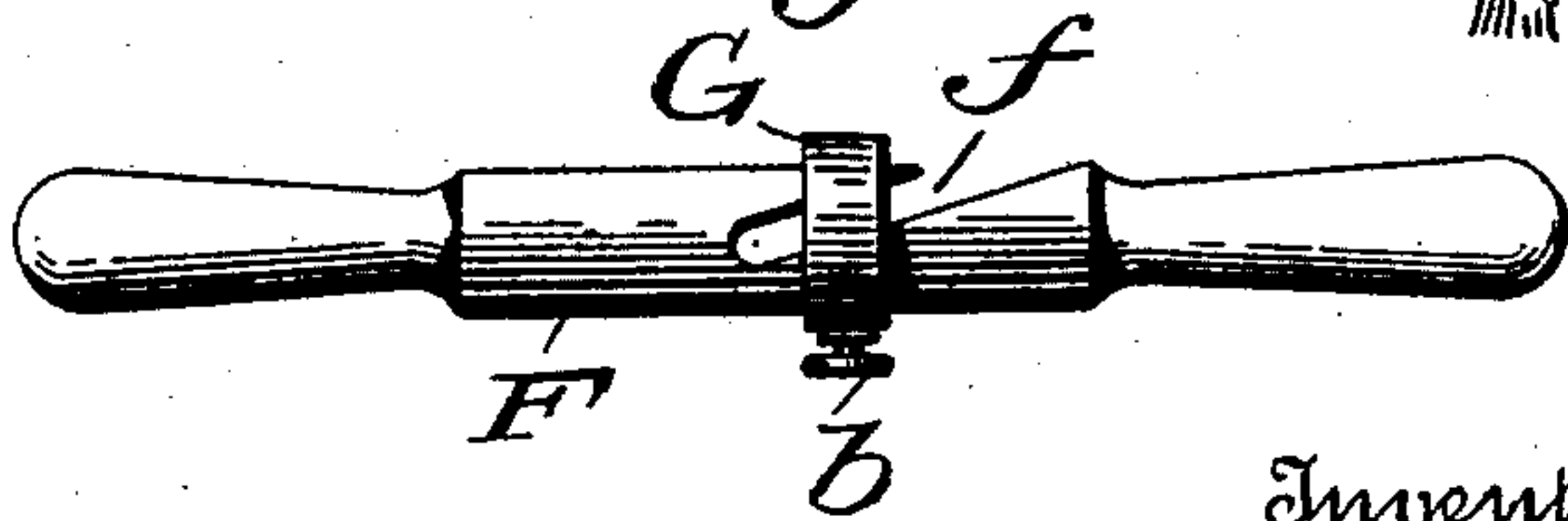


Fig. 3.



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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 632,820, dated September 12, 1899.

Application filed May 18, 1899. Serial No. 717,301. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK MINSTER, a citizen of the United States, residing at Marshville, in the county of Montgomery and State of New York, 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 relates to an improvement in fire-escapes; and it is embodied in the construction and arrangement of parts herein-after described, and definitely pointed out in the claim.

The invention relates more particularly to that class of fire-escapes wherein a wire, cable, or rope is employed, the same having threaded thereon a friction block or bar to which the carrying belt or strap is attached. There are numerous forms of this type of device, but in practical use it is necessary to employ a non-combustible line, and therefore a wire is preferred to either a wire rope or other rope or stranded construction. The objection to this latter class is that when used in a friction-block the breaking of a single strand would necessarily block the movement of the friction-block and prevent escape. My invention is designed for use in connection with a single strand of wire more particularly, although the wire may be duplicated, but should be of sufficient strength not to break when in use.

In the accompanying drawings I have shown my invention in its simplest form, but desire it understood that slight changes in shape can be made without departing from the principle of the invention.

Figure 1 is an elevation. Fig. 2 is an enlarged detail view of the block, showing the same in side elevation with the wire adjusted. Fig. 3 is a detail view, in side elevation, of the hand-bar.

In the drawings, A represents a window-casing, at the top of which is securely fastened by a hook or otherwise the escape-wire B. This wire is conveniently coiled on spools or reel C, so that in use the reel can be cast out of the window and the wire unreeled and carried to the ground without kinking.

D represents the friction-block, which block is formed with three or more oblique and diagonally-arranged apertures d , d' , and d^2 , arranged, respectively, at opposite ends and center of the block. The wire B is first threaded through the aperture d , is then carried around the edge of the block to the opposite side, thence passed through the apertures d' , carried around the opposite edge of the block, and finally through the aperture d^2 . By this interweaving or threading of the wire through the block and by the inclination of the apertures it will be seen that all direct or angular bends are avoided, while at the same time the bending and arrangement of the wire are such that the requisite amount of friction is attained for the purposes desired. To secure an additional bending of the wire at the ends of the block, I secure in any convenient manner the carrying or supporting loop E to the block at a point substantially midway its length, so that when the load is on the block would have a tendency to tilt, thus increasing the friction by virtue of the additional bends. In the drawings I have shown the carrying-rope attached by having its end passed through an opening in the block and knotted.

F designates the hand-bar, which has a diagonal channel f formed therein and in which the wire B is placed. This bar has a sliding collar or sleeve G, adapted to project over the overhanging end wall of the channel and is there held by a suitable set-screw b , thus securing the handle on the wire, but permitting the former to move. This hand-bar is conveniently attached to the carrying-rope by a flexible connection H, so that the same may be held in its proper position. The wire passing through the hand-bar in the manner above described can be clamped by turning the bar, the latter thus acting as a friction-clutch auxiliary to the main clutching-block.

The operation of the device, it is thought, will be readily understood from the foregoing description. I desire it understood, however, that the particular material of which the block is formed is wood, although other material can be employed—as, for instance, metal.

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

The combination with the escape-wire, of the friction-block having apertures therein through which apertures and around the edges of the block the wire is passed, the carrying-loop secured to the block, a hand-bar having the inclined channel therein in which the wire is placed and provided with a sliding collar G having fastening means and the

flexible connection between the hand-bar and the friction-block, substantially as described. 10

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

FRED. MINSTER.

Witnesses:

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