

(No Model.)

J. M. MURPHY.

FIRE ESCAPE.

No. 390,308.

Patented Oct. 2, 1888.

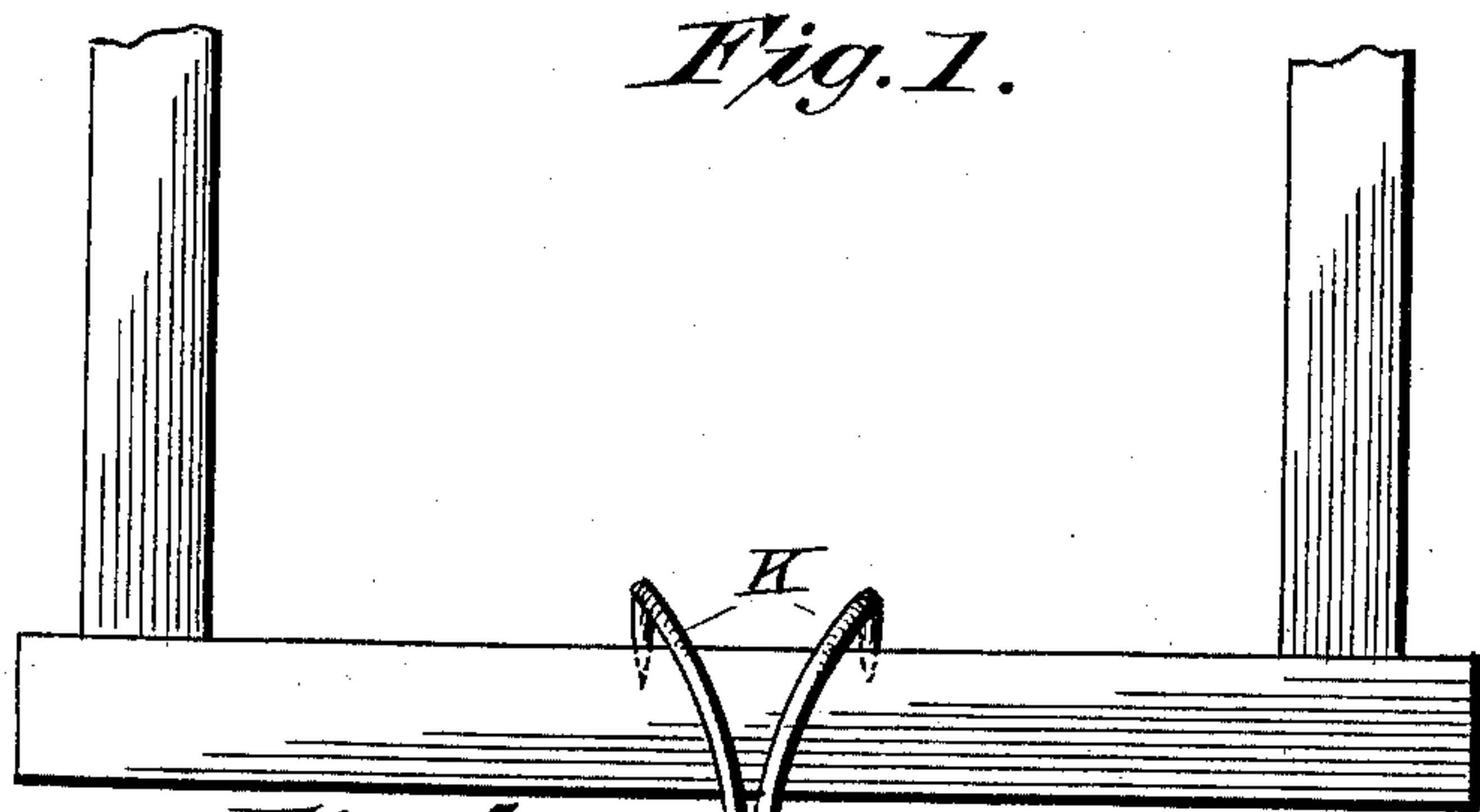


Fig. 5.

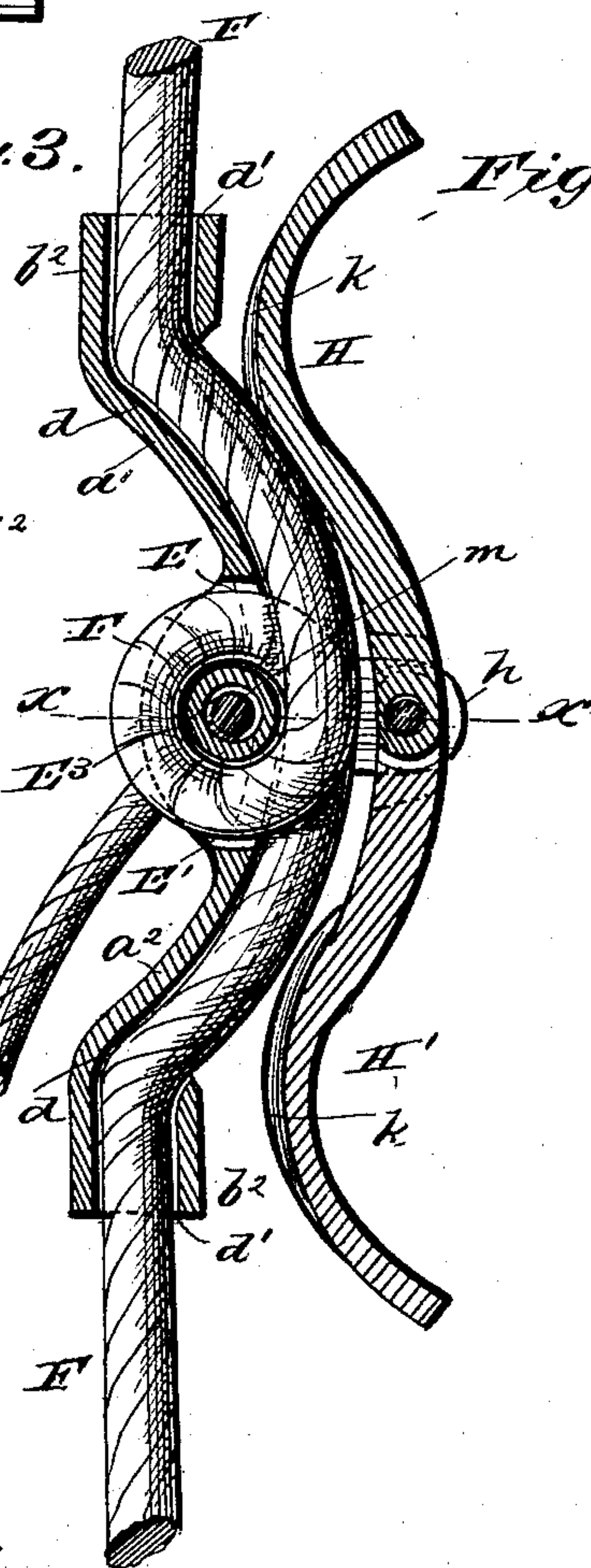
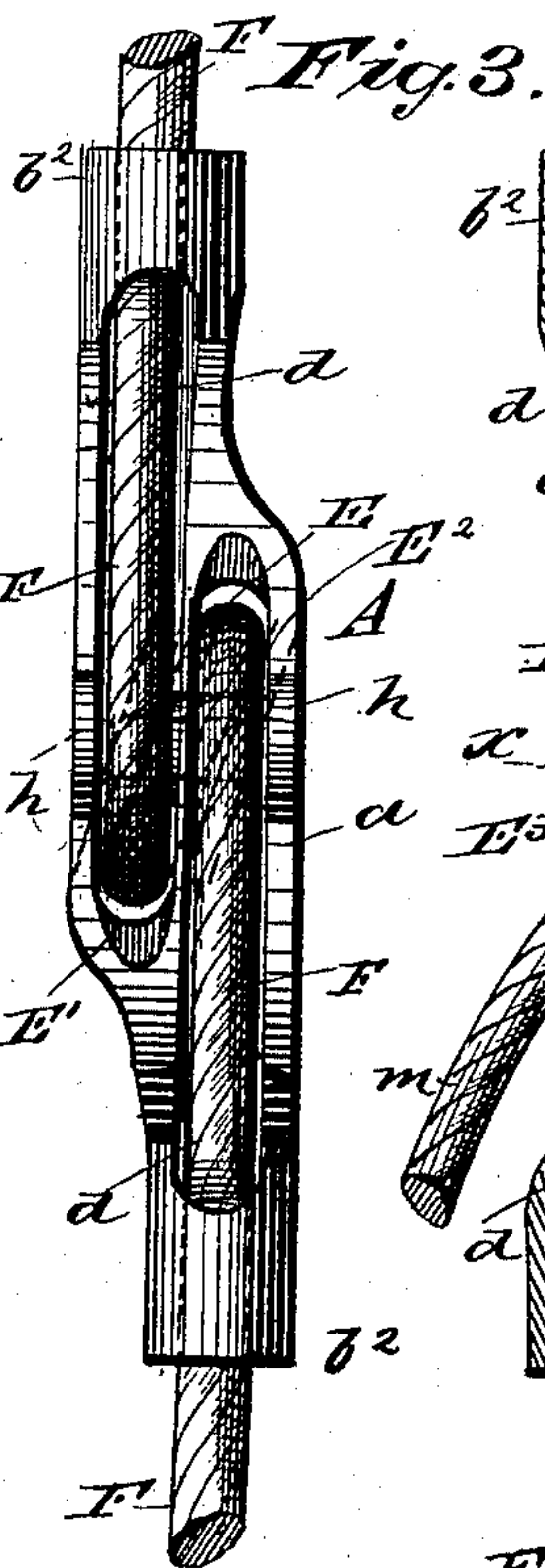
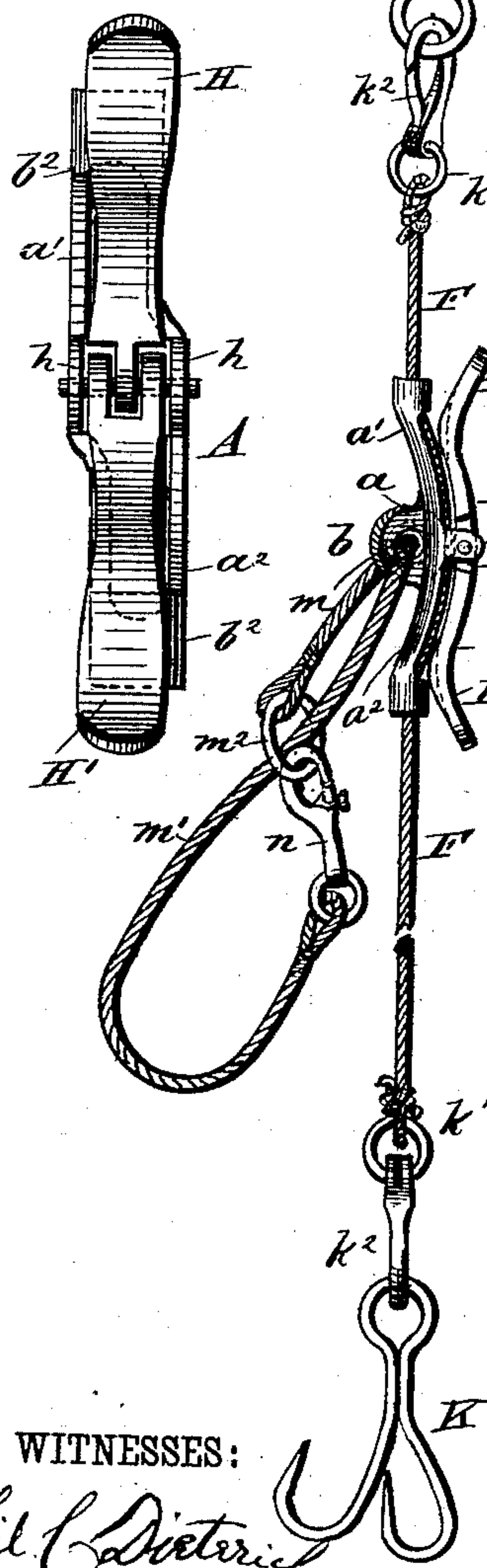
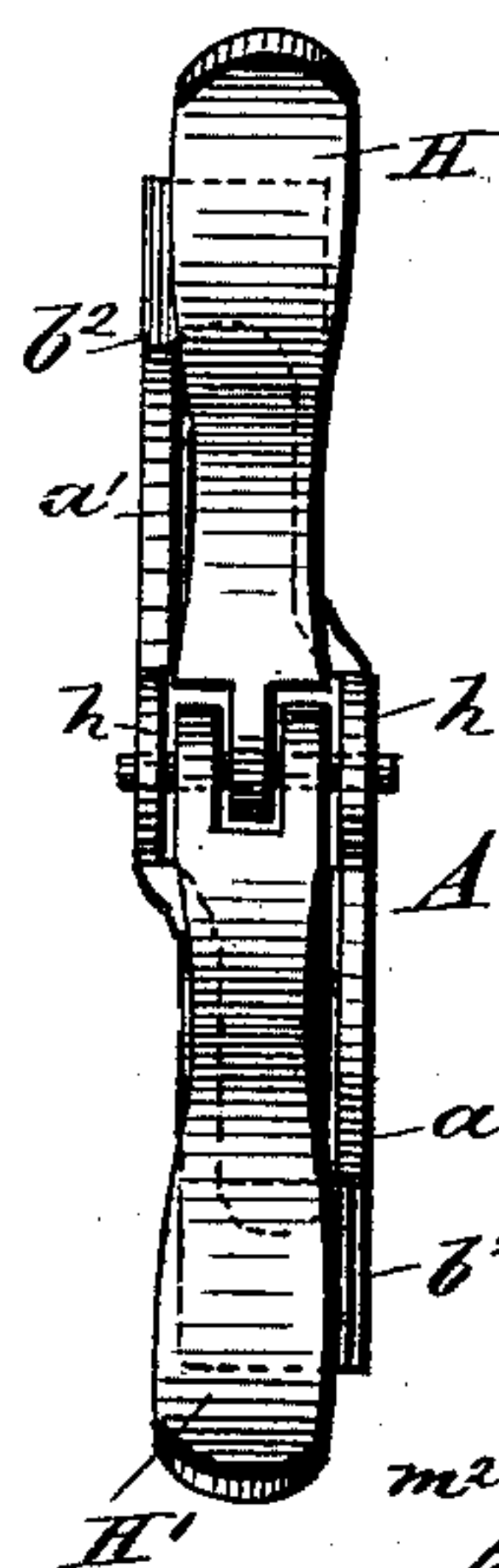
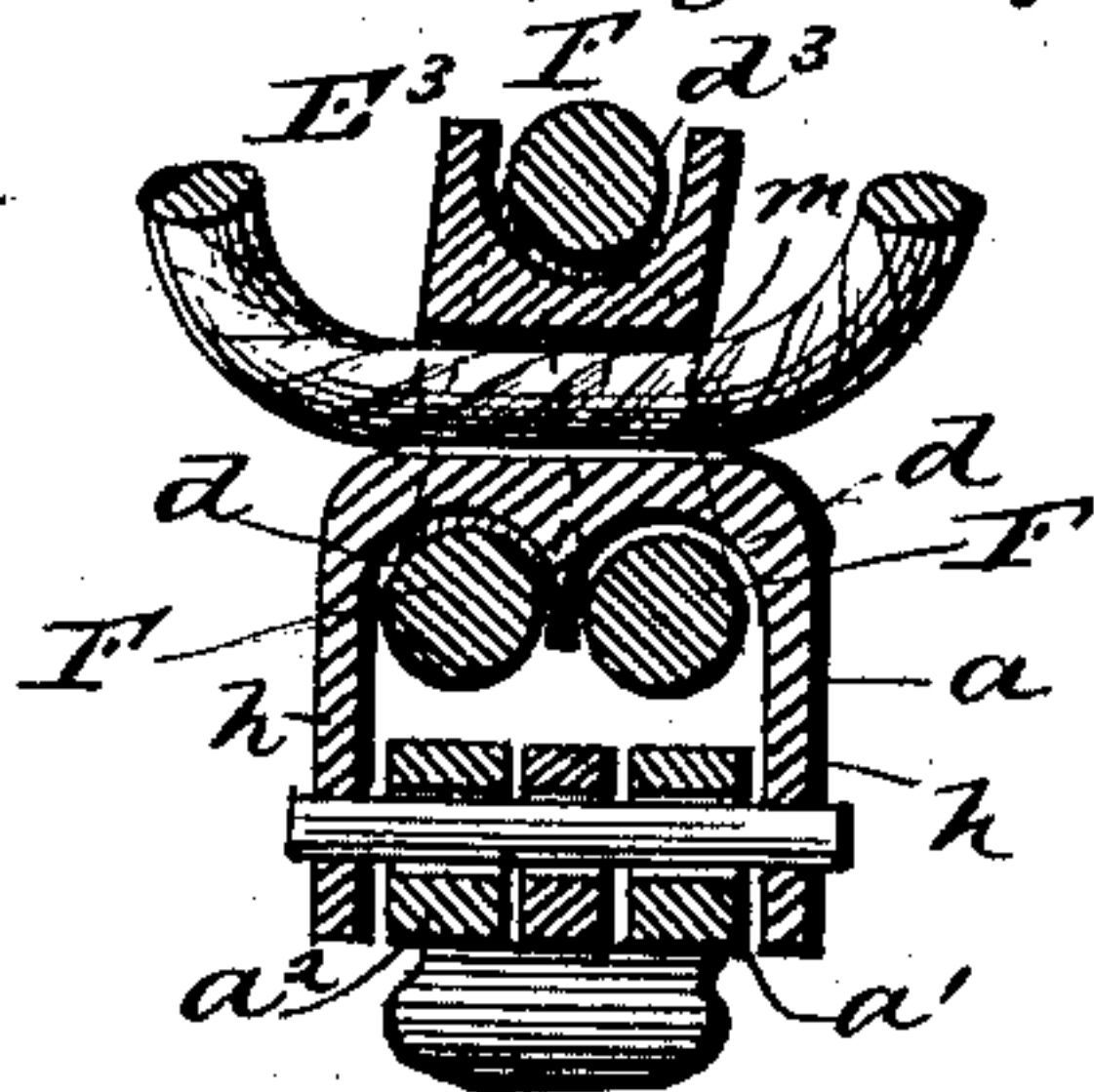


Fig. 4.



WITNESSES:

Phil. C. Dietrich,
C. Sedgwick

INVENTOR:

J. M. Murphy
BY
Munn & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN M. MURPHY, OF NEW YORK, N. Y., ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE LEE HOTEL FIRE ESCAPE COMPANY, OF POUGH-KEEPSIE, NEW YORK, AND FRANK H. BEECHER, OF SEYMOUR, CONNECTICUT.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 390,308, dated October 2, 1888.

Application filed October 4, 1887. Serial No. 251,423. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. MURPHY, of the city, county, and State of New York, have invented a new and Improved Fire-Escape, of which the following is a full, clear, and exact description.

My invention relates to an improvement in fire-escapes, and has for its object to provide a portable device adapted for attachment to the frame or sill of a window, wherein the rapidity of its descent will be completely within the control of the party descending, and wherein, further, but little exertion will be requisite to check or completely stop its descent at any desired point.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is an elevation of the fire-escape applied. Fig. 2 is a central longitudinal sectional view. Fig. 3 is a front elevation of the same. Fig. 4 is a transverse section on line xx of Fig. 2, and Fig. 5 is a rear elevation.

In carrying out the invention the sliding friction-block A is provided with a central—preferably segmental—body, a , having integral and oppositely-extending curved arms a' and a'' .

The cylindrical portion of the body constitutes the front b or face, presented to the operator in its descent, the opposite or rear face, b' , being slightly convex. The arms a' and a'' are integral with the rear face, and are projected from opposite ends, carried toward the front face of the body, the greater part of their length terminating in a straight line at the ends, as illustrated at b^2 in Fig. 2. The two arms a' and a'' are not in alignment, as shown in Fig. 3, being arranged in parallel planes, and the formation of the two arms is identical. Each arm is provided with an open groove, d , in its rear face, which groove terminates

with the curve, and the ends b^2 are provided with a longitudinal aperture, d' , adapted to intersect the grooves d . The said grooves d of the arms are extended in parallel lines across the rear of the body, as illustrated in Fig. 3. Each groove intersects a horizontal aperture in the body, designated, respectively, by the letters E E', which apertures are located at the ends and project through the body at the front or cylindrical face, and the two apertures are connected upon the said front face by a diagonal recess, E^2 , as shown in dotted lines, Fig. 3. This construction produces in the body a core or hub, E^3 . The aforesaid grooves and also the recess E^2 are all more or less U-shaped, and are so made to prevent chafing the strands of the rope F, with which they come in contact.

Integral with the central side edges of the body aligning ears h are formed, in which ears are pivoted the interlocking inner ends of independent opposing and duplicate brake-levers H H'. The said levers are curved downward in the direction of the body and arms at their inner ends, and outwardly and upwardly at their outer ends, being provided upon their under face, at the greatest point of convexity, with a longitudinal groove, k .

The block above described is adapted to slide upon a rope, F, heretofore mentioned, and the said rope is passed in through the aperture at the end of one arm, along the groove therein, through the transverse body-aperture E at the end of said groove, around the hub E^3 in the recess E^2 , through the other transverse body-aperture, E', along the groove of the other parallel arms, and out the end thereof, as illustrated in Figs. 1, 2, and 3. It will thus be observed that inasmuch as the levers H and H' each cover one arm when they are depressed either independently or together their grooved convex surface coming in contact with the rope F will, according to the pressure exerted upon the lever, instantly partially or entirely check the block in its descent upon the rope.

It will also be observed that there is no top

or bottom to the block, so that it will work with equal efficacy with either end pointed downward; and it will be further observed that the two brakes which extend beyond the ends of the block can be manipulated by the most timid person, as, naturally grasping the block in its descent, they cannot fail to also clutch a brake, and, ascertaining thereby that the descent is completely at their control, the operator will gain confidence and consequently more or less self-possession.

At each end of the rope passing through the block a ring, k' , is attached carrying a spring clip, k^2 , which may be secured to a suitable eye in the room when the escape is to be permanently left therein. When, however, the escape is designed for carriage in a trunk or valise, grapples K are attached to the clips, as illustrated in Fig. 1.

In the body, at the hub, an opening, m , is produced to provide for the attachment of the harness to the block. The harness consists of a rope, m' , passed through the opening m , one end of which rope is provided with a ring, m^2 , the other end being provided with a snap, n , adapted to receive the aforesaid ring m^2 . Thus, no matter how the harness is worn, the weight of the person wearing the same will cause it to clamp and tightly hug the person, the action being similar to that of a slip-knot.

I do not confine myself to the exact mode of securing the harness to the block, as many other equivalent means may be employed.

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

1. In a fire-escape, the combination, with a rope, of a reversible friction-block adapted to receive and slide upon the rope, consisting of a central recessed body provided with non-aligning parallel curved twin arms, one extending from each end of the body, substantially as shown and described.

2. In a fire-escape, the combination, with a rope, of a reversible friction-block adapted to receive and slide upon said rope, consisting of a central recessed body, non-aligning parallel curved arms, one projecting from each end of

the body, and provided with apertured and straight outer ends, and a groove upon the curved surface intersecting the aperture at the end and the recesses in the body, substantially as shown and described.

3. In a fire-escape, the combination, with a reversible friction-block adapted to receive and slide upon the rope, consisting of a central recessed body provided with curved non-aligning parallel twin arms, one extending from each end of the body, of independent brakes pivoted centrally of the outer face of the block and arranged with non-aligning parallel bearing-surfaces, substantially as shown and described.

4. In a fire-escape, the combination, with a friction-block consisting of a central recessed body, curved non-aligning and parallel arms projecting from opposite ends, provided with straight apertured tips, and a groove in the curved surface intersecting the aperture of the tip and recesses of the body, of opposing independent brake-arms pivoted centrally of the body and extending in opposite directions above the grooves in the body-arms, substantially as shown and described.

5. In a fire-escape, the combination, with a friction-block consisting of a central recessed body, curved non-aligning and parallel arms projecting from opposite ends, provided with straight apertured tips, and a groove in the curved surface intersecting the apertures of the tip and recesses of the body, and a rope passing through the said tips, through said recesses, and along said grooves, of opposing independent brake arms pivoted centrally of the body and extending in opposite directions above the rope, and provided with a longitudinally-grooved under surface, substantially as shown and described, whereby the block may be used either end up and either or both brake-arms be made to bear simultaneously or intermittently upon the rope, as set forth.

JOHN M. MURPHY.

Witnesses:

JULIUS MARTIN,
FRANK H. BUCHER.