

No. 641,809.

Patented Jan. 23, 1900.

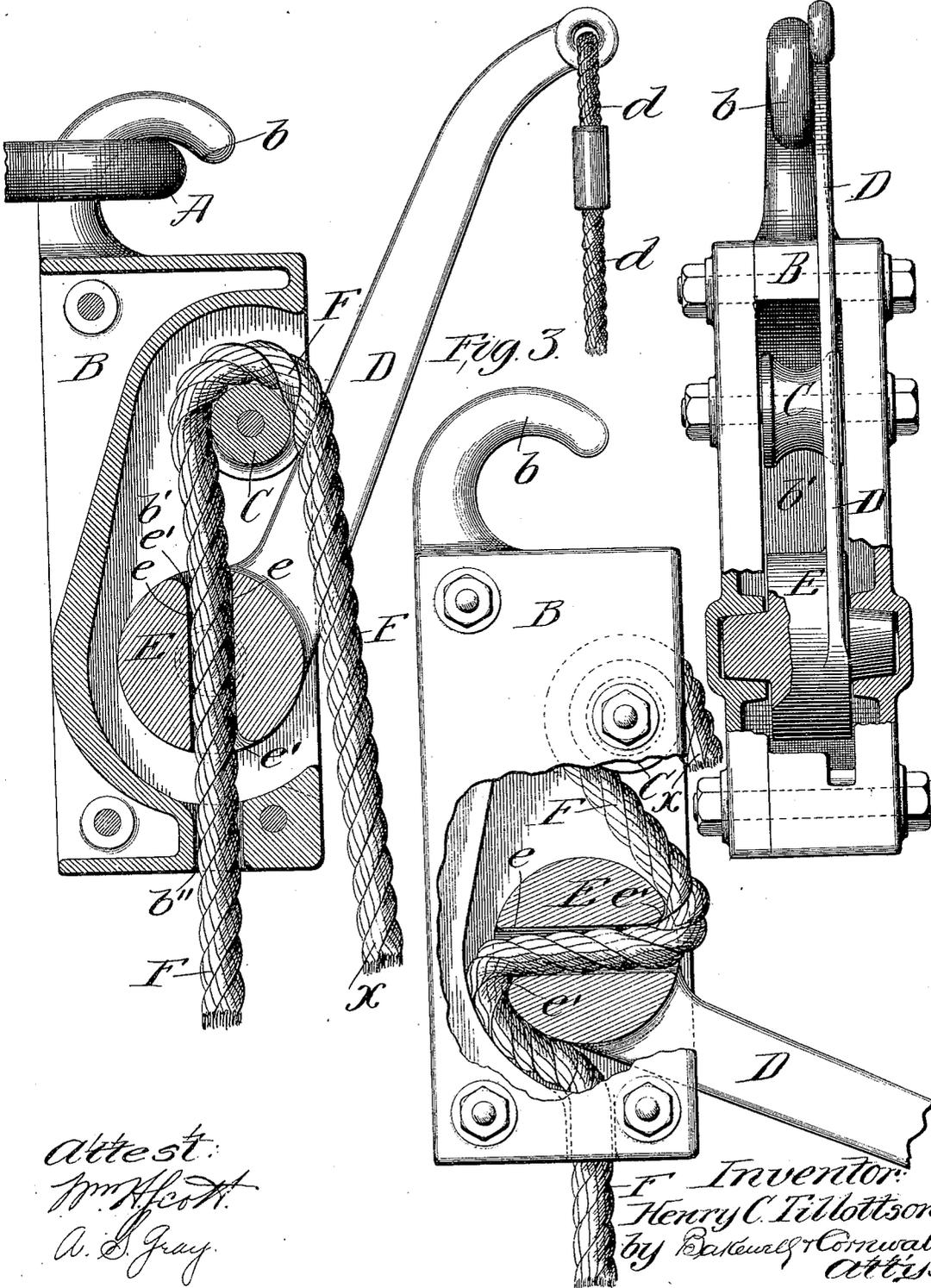
H. C. TILLOTTSON.
FIRE ESCAPE.

(Application filed July 5, 1899.)

(No Model.)

Fig. 1.

Fig. 2.



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UNITED STATES PATENT OFFICE.

HENRY C. TILLOTTSON, OF LINCOLN COUNTY, MISSOURI, ASSIGNOR OF ONE-HALF TO RICHARD H. NORTON, OMER H. AVERY, AND WILLIAM R. YOUNG, OF TROY, MISSOURI.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 641,809, dated January 23, 1900.

Application filed July 5, 1899. Serial No. 722,789. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. TILLOTTSON, a citizen of the United States, residing in the county of Lincoln, State of Missouri, have invented a certain new and useful Improvement in Fire-Escapes, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a sectional view of my improved fire-escape apparatus. Fig. 2 is a front view thereof, partly in section; and Fig. 3 is a side elevational view, partly in section, showing the parts in a changed position.

This invention relates to a new and useful improvement in fire-escapes, the object being to provide a device of the character described which will enable a person seeking safety by escaping through a window located some distance above the ground to control his or her descent by regulating the speed thereof, or the device may be controlled by a person standing on the ground, so that the speed of the descending person can be controlled.

With this object in view the invention consists in the arrangement, construction, and combination of the several parts, all as will hereinafter be described and afterward pointed out in the claims.

In the drawings, A indicates a hook or eye designed to be firmly secured in the window-framing or walls of the building on which the apparatus is supported, said hook or eye being of sufficient strength to support the weight of the person.

B indicates the casing of my apparatus, which, as shown in Fig. 2, is preferably formed of two parts, from one of which extends a hook *b* for engagement with the supporting medium A. Casing B is formed with a recess *b'*, open at one side, from the bottom of which recess leads an opening *b''*, through which the rope is designed to pass.

C indicates a pulley or sheave arranged in the upper portion of the recess *b'*, said pulley being mounted on a suitable spindle secured in the casing.

D indicates a lever whose outer end is preferably formed with an eye, through which is passed and secured one end of a controlling-rope *d*, which is preferably of sufficient length to extend to the ground. The inner end of lever D is formed with an enlarged boss or hub portion E, provided with laterally-extending trunnions fitting in suitable recesses in casing B. Hub E is also formed with an opening *e*, preferably arranged at right angles to the axis of rotation thereof, so as to intersect said axis of rotation. Diagonally opposite corners of openings *e* are round, as at *e'*, to prevent the chafing of the rope.

F indicates a rope which is passed over the pulley C through the opening *e* of the rotatable hub and through the opening *b''* in the casing. This rope may have its ends spliced, so as to be made endless, but should be of such length as to extend from the apparatus to the ground. One side of this rope—say that indicated by *x*—has attached to it a suitable harness, platform, or other securing device designed to be assumed by the person desiring to descend.

The casing B is supported by a suitable fixed support, while the rope F and the controlling-rope *d* are preferably coiled within easy reach and close to said casing.

In the event of a fire the person seeking to escape by using my improved apparatus places the harness or other securing device in position and then throws the ropes *d* and F out of the window or other opening. Controlling-rope *d* is pulled down, so that the hub E will be rotated on its axis, and places a kink in the rope, as shown in Fig. 3, so as to offer a firm support when the person releases his hold on the window-sill or other part of the building. The lower curved portion of recess *b'* is preferably eccentric to the hub, so that when the lever is in the position shown in Fig. 3 the rope will be clamped firmly in place and cannot slip through the apparatus. When pressure is taken from the controlling-rope, the tendency of the wear side of rope F will be to raise lever D to the position shown in Fig. 1, in which the openings through which the rope is threaded will be in alinement to offer a straight path for the rope and not re-

tard its movement. However, the true alignment of the openings would leave too much freedom for the rope, and therefore the passage of said rope is restrained by pulling on the controlling-rope and rotating the hub E to any desired position, so that the speed of the descent may be regulated at will. If at any time it is desired to place such restraint on the rope that it can no longer pass through the apparatus, the lever D is pulled to its lowest position, as shown in Fig. 3, when the rope will be clamped between the hub and the eccentric portion at the back of the recess. When the person supported by the rope reaches the ground and it is desired to send the harness or platform upward, the opposite side of the rope is pulled, so as to cause the elevation of said harness or platform, and in so pulling the opposite side of the rope, even were the parts in the position shown in Fig. 3, the tendency would be to aline the opening *e* with the opening *b''*.

It is obvious that the controlling-rope *d* may be manipulated by the person suspended by rope F or by any person on the ground. By providing the eccentric portion at the back of the recess I am enabled to lock the rope in any position, so that if the apparatus is placed on the top floor of the building a person supported by a rope passing thereunder can stop at any floor in his descent. It is also obvious that a fireman or other person can assume the harness on the ground and be elevated by his companions pulling on the opposite side of the rope, in which event the apparatus would act as an ordinary tackle.

I am aware that minor changes in the arrangement, construction, and combination of my device can be made and substituted for those herein shown and described without in the least departing from the nature and principle of my invention.

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

1. In an apparatus of the character described, the combination with a casing formed with a recess opening at one side, and an opening in the bottom portion of said casing,

of a pulley arranged in the upper portion of said recess, and a lever formed with a head portion pivotally mounted in the lower portion of said recess, said head portion of the lever being provided with an opening at an angle to its axis of rotation for receiving a rope which is designed to be placed in alignment with the opening in the bottom of the casing; substantially as described.

2. In an apparatus of the character described, the combination with a suitable casing formed with a recess opening at one side, a pulley mounted in the upper portion of said casing in said recess, and a lever formed with a hub pivotally mounted in the lower portion of said casing, said hub being provided with an opening arranged at an angle to its axis of rotation, diagonally opposite corners of the hub adjacent to said opening being round; substantially as described.

3. In an apparatus of the character described, the combination with a suitable casing, of a pulley mounted therein, a lever D, a controlling-rope *d*, a hub E on said lever formed with an opening arranged at an angle to its axis of rotation, and a rope F which passes over said pulley and through said opening in the hub portion of said lever; substantially as described.

4. In an apparatus of the character described, the combination with a casing, means for supporting the same, pulley C, lever D, a controlling-rope attached to said lever, a hub portion rotatable with said lever and provided with an opening arranged at an angle to its axis of rotation, a rope F passing over said pulley and through the opening in said hub portion, said casing being formed with an eccentric portion in juxtaposition to the hub for the purpose of locking the rope in position when the lever and hub are rotated; substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 9th day of June, 1899.

HENRY C. TILLOTTSON.

Witnesses:

LAFAYETTE PENDLETON,
CLAUDE T. WOODSON.