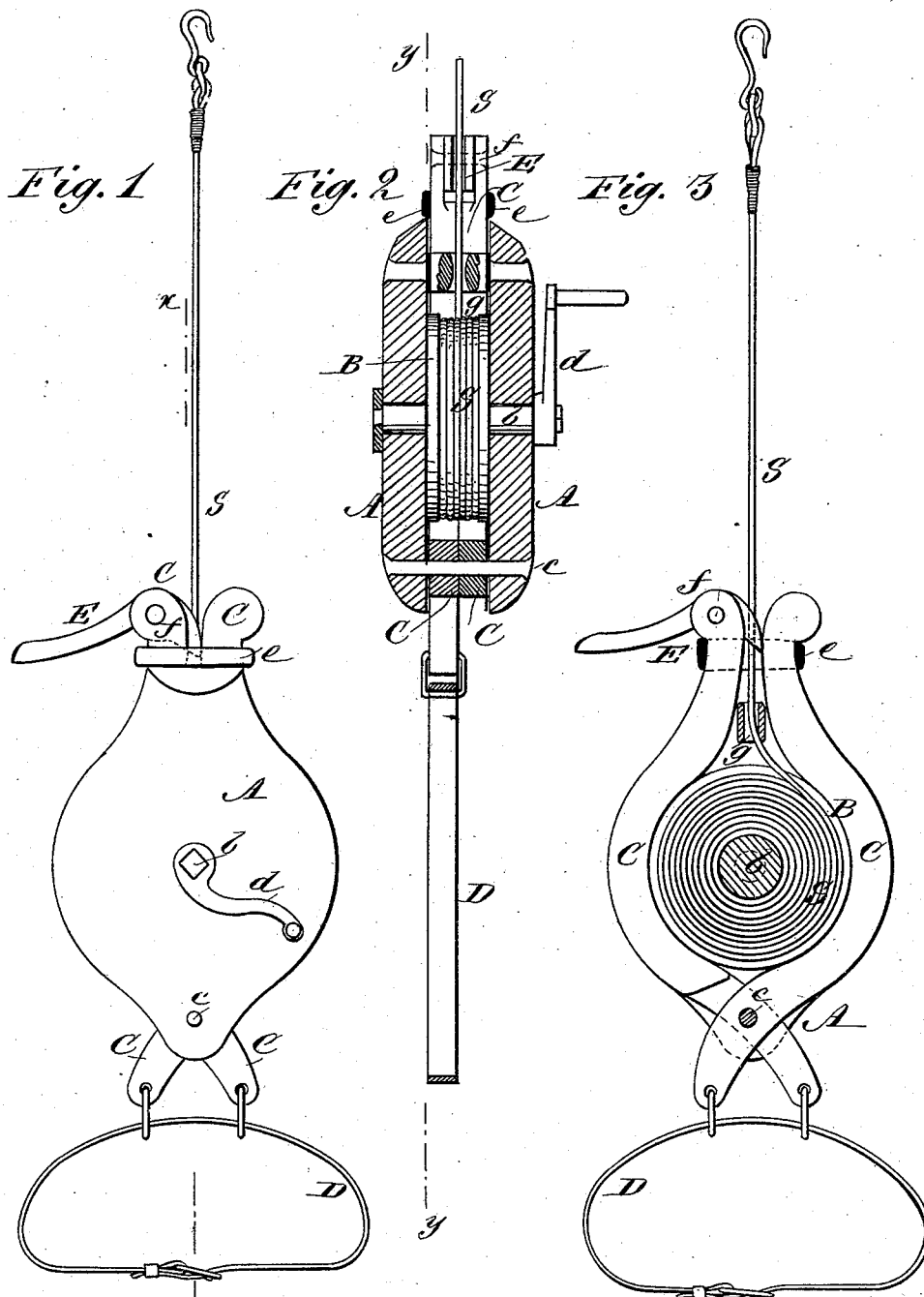


(No Model.)

S. A. PRICE.
FIRE ESCAPE.

No. 307,224.

Patented Oct. 28, 1884.



WITNESSES:
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UNITED STATES PATENT OFFICE.

SYLVESTER A. PRICE, OF EUREKA, KANSAS.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 307,224, dated October 28, 1884.

Application filed March 15, 1884. (No model.)

To all whom it may concern:

Be it known that I, SYLVESTER A. PRICE, of Eureka, in the county of Greenwood and State of Kansas, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a full, clear, and exact description.

This invention relates to fire-escapes for enabling firemen and others to descend from a burning building when retreat by other or the ordinary available means of escape is cut off, in which a drum-like device having attached to and wound upon it a lowering wire or rope, and provided with means for attachment of the device to the body of the person descending by it, also means for controlling or regulating the descent of said person, are used; and it consists in certain novel constructions, combinations, and arrangements of said parts, whereby great simplicity and efficiency are obtained, substantially as hereinafter described.

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

Figure 1 represents a side view of my improved portable fire-escape. Fig. 2 is a vertical section of the same on the line *x x* in Fig. 1, and Fig. 3 a vertical section on the line *y y* in Fig. 2.

A A are the two cheeks or sides of or forming the outside shell of the device, making bearings for the axle *b* of the wire or rope wheel B contained within the shell, also carrying the fulcrum *c* for two tong-like or cross levers C C, which constitute clamps or brakes that bear upon the peripheral portions of the sides or flanges of the wheel or drum upon opposite sides of its axis to stop or control the motion of said drum. These clamps or brakes are also arranged to work within or between the sides A A of the shell, which protects them, and the fulcrum-pin *c*, on which they are crossed, is arranged below, leaving two short lower arms and two long upper arms, the latter of which bear on the drum.

S is the wire or rope attached at its one end to the body of the drum between its side flanges, and wound thereon by a crank or handle, *d*, which is removable so as not to be in the way when the escape is being used. The other end

of the wire or rope is attached to any convenient part of the building from which it is required to descend by the fire-escape; or it may be secured to any suitable article within the building. The clamping levers or brakes C C bearing against the flanges of the drum upon opposite sides of its axis, also serve to stiffen or strengthen the axle *b* of the drum. These levers or brakes are kept in place against the flanges of the drum by a rubber band or other spring, *e*, until the weight of the person descending by the device is brought upon the lower arms of the levers C C by means of a suspension-strap, D, attached thereto, and carrying the person making the descent, said strap being secured under the arms or elsewhere around the body of the person. When the weight of the person is so or otherwise applied to the strap D, the brakes C C will be caused to firmly grip the drum B and restrain it from turning. Pivoted, as at *f*, to the upper end of one of the brakes C, and bearing against the other brake, is a cam-lever, E, for control by the hand of the person making the descent, and by means of which he is enabled, accordingly as he puts pressure upon said lever, to give more or less force to the brakes C C, and so to control the speed of his descent; or, by taking off pressure from the lever E, the weight of the person will throw the brakes into action to stop the rotation of the drum and descent of the whole device. In this way or by these means a person is enabled to descend fast or slow, or to stop at any point in the descent that may be desired, his weight acting automatically to arrest the motion of the apparatus.

There is no liability of the wire or rope, which may work through a groove in the cam F and through a guide, *g*, cutting or getting out of order in the working of the device, and the strap D, instead of being applied to the person, as described, may be made to form a seat, and so as to bring the lever E within convenient reach of the hand of the occupant.

The apparatus may be used with perfect safety by even the most timid.

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

1. In a suspension lowering fire escape or

device, the combination, with the shell A A, of the flanged wheel or drum B, on which the lowering wire or rope is wound, and the opposite cross-clamping levers or brakes C C, 5 curved to pass around the drum, and pivoted at their point of crossing to and within the lower part of the shell and yieldingly connected at their upper ends, arranged to carry the weight of the person descending by the escape, and to automatically arrest the motion 10 of the drum, substantially as specified.

2. The flanged drum B, with its attached wire or rope S, and opposite cross-clamping levers or brakes C C, all arranged within or 15 between the sides of shell A A of the device, essentially as described.

3. The regulating hand cam-lever E, in combination with the cross-clamping levers or brakes C C, and their attached strap D, the flanged wheel or drum B, with its attached 20 wire or rope S, and the shell A A, substantially as specified.

4. The spring e, in combination with the cross-clamping levers or brakes C C, and the flanged drum B of the device, essentially as 25 and for the purpose described.

SYLVESTER A. PRICE.

Witnesses:

HAMILTON ELLIS,
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