C. DWIGHT.

FIRE-ESCAPE.

No. 190,015. Patented April 24, 1877.

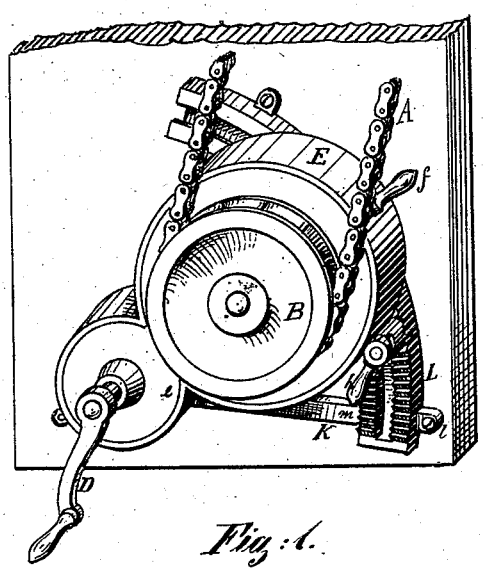

Fig: 1.

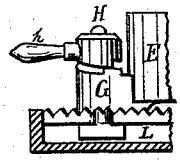

Fig: 2

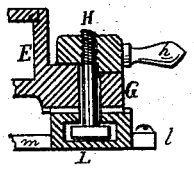

Fig: 3.

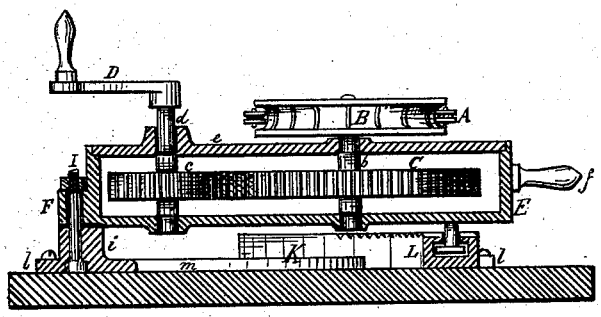

Fig: 4.

Witnesses
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By

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UNITED STATES PATENT OFFICE.

CHARLES DWIGHT, OF BROOKLINE, MASSACHUSETTS.

IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. **190,015**, dated April 24, 1877; application filed March 9, 1877.

To all whom it may concern:

Be it known that I, CHARLES DWIGHT, of Brookline, in the county of Norfolk and State of Massachusetts, have invented a new and Improved Fire-Escape and Hose-Elevator Combined, of which the following is a true and accurate description, reference being had to the accompanying drawing, in which—

Figure 1 is a perspective view of the hose elevator; Fig. 2, a sectional end elevation; and Fig. 3, a cross-section on line *x x* of the locking-bolt; and Fig. 4 a section of the hose-elevator on line *y y* in Fig. 1.

The nature of my invention relates to an improvement or addition to J. A. Talpey's fire-escape, described in the United States Patents No. 139,484, of June 3, 1873, and No. 141,093, of July 22, 1873, so as to make the same useful also as a hose-elevator; and it consists of a serrated pulley to hold the lower end of the endless chain or rope, said pulley being rotated by means of a crank-pinion and gear-wheel, all arranged within a box-frame, which at one end is pivoted to a frame fixed to the wall of the building, while its opposite end for tightening the rope or chain can be adjusted vertically.

A is the lower end of the endless chain, passed over the serrated pulley B, which is secured to the end of the spindle *b*, carrying also a gear-wheel, C, rotated from a pinion, *c*, which latter is secured upon a spindle, *d*, having attached to its end a hand-crank, D. These two spindles *b* and *c* are journaled within a box-frame, E, having a cover, *e*, secured upon the former by a series of bolts or screws, the whole being so arranged that the gear-wheels C and *c* are internal, while the pulley B and crank D are external of said box-frame E. Said box-frame E has two projecting lugs, F and G, at opposite ends, each having an eye for a bolt to pass through, of which lug F is for the fulcrum-bolt I, and lug G for the adjusting or tightening bolt H, the latter one being cam-shaped on its front face, for a cam-shaped handle-nut, *h*, while its rear face projects beyond the rear face of the box-frame E, and is provided with serratures radial with the fulcrum-bolt I. *f* is a handle, being part of the box-frame E, by which said frame is raised whenever the endless chain is to be detached. K is the frame fixed to the wall of the building, by means of bolts passing through the eyes in lugs *l*. This frame is shaped like the segment of a wheel, *i*, being the hub which holds the fulcrum-bolt I, and L the rim, having radial serratures to its front face, and a T-shaped groove in its center, for admitting the head of the adjusting-bolt H.

For elevating, the frame E is raised until the lower end of the endless chain can be put upon the pulley B, when the said frame is lowered until the chain is tightened, when it is locked by turning the nut *h*. Now, the hose, or a fireman, or both, are buckled to the chain, and by turning the crank, are hoisted up, while for the use as a fire-escape, the chain is detached from the pulley.

What I claim as my invention is—

1. In a hose-elevator, the combination, with the endless chain A, of the pulley B, operated by a crank, and the case E, of the form substantially as shown, inclosing the operating mechanism, when the said case is pivoted at one end, and adjustably secured at its opposite end, substantially as described, for the purposes set forth.

2. In combination with the frame E, having projecting lugs F and G, the frame K having hub *i*, and segmental rim L, when constructed and arranged substantially as described, and for the purpose specified.

3. In combination with the pulley B, spindle *b*, gear-wheel C, pinion *c*, spindle *d*, and crank D, arranged within a box-frame, E, having lugs F and G, the wall-frame K, having hub *i*, and rim L, substantially as described, and to operate in the manner specified.

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Witnesses:

WM. H. LOTZ,

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