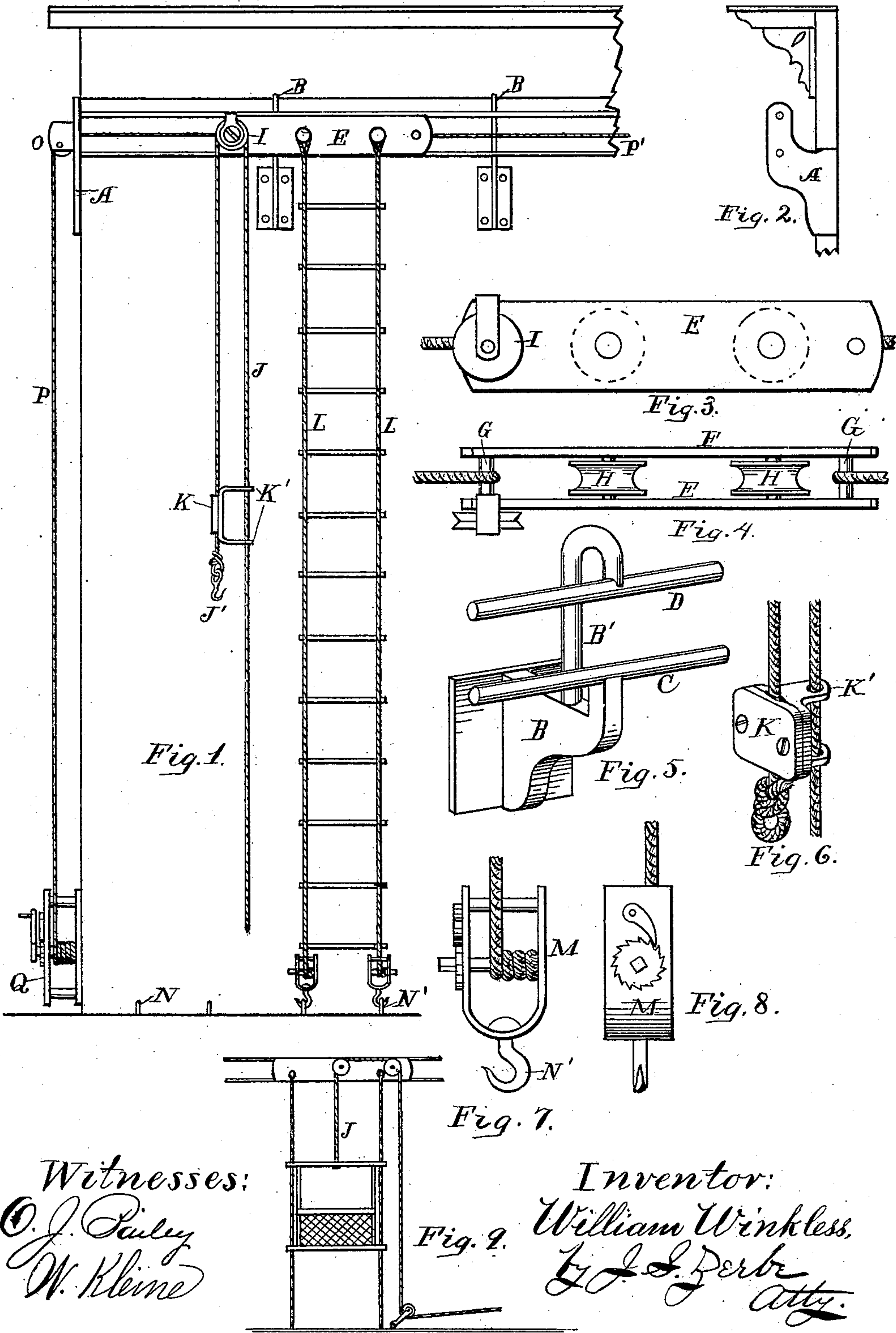


(No Model.)

W. WINKLESS.
FIRE ESCAPE.

No. 253,459.

Patented Feb. 7, 1882.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM WINKLESS, OF NEWPORT, KENTUCKY.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 253,459, dated February 7, 1882.

Application filed September 12, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WINKLESS, of Newport, in the county of Campbell and State of Kentucky, have invented a new and useful Improvement in Fire-Escapes, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a front view of the building equipped with my fire-escape. Fig. 2 is an end view of the upper part of the building. Fig. 3 is a front view of the carriage to which the ladder is attached. Fig. 4 is a top view of the same. Fig. 5 is a perspective view of one of the brackets to which the track is secured. Fig. 6 is a perspective view of the rope-clamp and guide. Fig. 7 is a front view of the tackle-block for the lower end of the ladder, and Fig. 8 is a side view of the same. Fig. 9 is a modified view of hoist or elevator.

It is the object in the present invention to provide a combined fire-escape and elevator, both of which are attached to a movable carriage running in a suitable track secured to the building at a point near the cornice; and it further provides a means for conveying the carriage from point to point, and in firmly securing the ladder at any desired point, so that it will be taut and easily adapted for the escape of the occupants of the building in case of a fire.

It has been found in the ordinary rope ladder that, if provision is made below for stretching the side ropes by means of one common shaft or windlass, one of the sides will be taut while the other will be loose, and to obviate this I have provided each side rope with an independent tackle-block having a pawl and ratchet, so that each rope of the ladder can be stretched independently of the other rope.

Referring to the accompanying drawings, A represents a bracket of any suitable form, secured to the side or end of the building, and B other brackets secured to the face of the building, or along that part over which the track is to pass. Fig. 5 shows in detail the form of this latter bracket. In this it will be seen that the lower horizontal rod or track, C, rests upon the lower part of the bracket, while the upper rod, D, is suspended from the lower end of a goose-neck, B', the opposite end of

which is in turn attached to the bracket B. Thus the space between the two track-rods C and D is free and open.

Figs. 3 and 4 represent the carriage, composed of two plates, E F, secured to each other by means of studs G, one at each end, as shown. Between these plates are concave wheels H, adapted to tread on the lower rod or track, C, while the upper rod, D, acts as a guide to keep the carriage erect. One or both ends of this carriage may be provided with a pulley, I, over which a rope, J, passes. This rope has at one end a hook, J', and a clamp, K, provided with guide-arms K', through which the opposite end of the rope passes, as shown in Fig. 1. This is used for the purpose of elevating or lowering any objects in connection with the ladder or in the absence of the same.

The upper ends of the ropes L L, constituting the ladder, are secured to the outer face of the carriage E at any suitable point, and the lower ends of these ropes are each provided with a tackle-block or pulley, M, provided with a ratchet, pawl, and key.

Suitable rings, N, or rods may be secured to the pavement or to the sides of the building, and a hook, N', fastened to the lower side of the block M, is hooked into the rings N' and the separate ropes made taut, as will be readily understood.

The carriage above, as will be observed, is adapted to move along to any point on the track. To more readily accomplish this a pulley, O, is attached to the end bracket, A, and a rope, P, having one end attached to the carriage, has its opposite end pass over the pulley and down by the side of the building, where it is coiled on a suitable windlass, also provided with suitable pawl, ratchet, and crank. A rope, P', on the opposite end of the carriage passes from thence to the opposite side of the building and over a similar pulley down to a windlass corresponding to the one just described. It will thus be seen that the carriage can be run to any point on the track, and by means of the ropes P P' and the windlass Q it can be firmly secured to the position desired. At the same time the rope ladder L can be made taut, also from below, so that we have at once a firm and desirable means of escape provided in case of accident or fire.

The elevator or hoist provided by means of the rope J will be of the greatest service in connection with the ladder thus formed. It is within reach at any point up the ladder, and
5 can be operated from the ground.

I do not confine myself to the form of bracket shown for suspending the track, since it is obvious that other equally feasible plans may be devised to accomplish this purpose; but the
10 form given I consider most preferable.

One or more carriages may be placed on the same track, and one of these carriages may be provided with stay-ropes for a hoist or elevator, instead of a ladder, as is obvious.

15 Having described my invention, what I claim is—

1. In a fire-escape, the rope ladder L, secured to a movable carriage above, having at the lower end of each rope a windlass, M, or block and tackle, provided with suitable pawl, 20 ratchet, and key, by means of which each rope may be drawn taut independently of the other, as and for the purpose herein set forth.

2. In a fire-escape, the movable carriage E F, having the wheels H H, in combination with 25 the rods or tracks C D, secured to the building, substantially as and for the purpose herein set forth.

WILLIAM WINKLESS.

Witnesses:

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