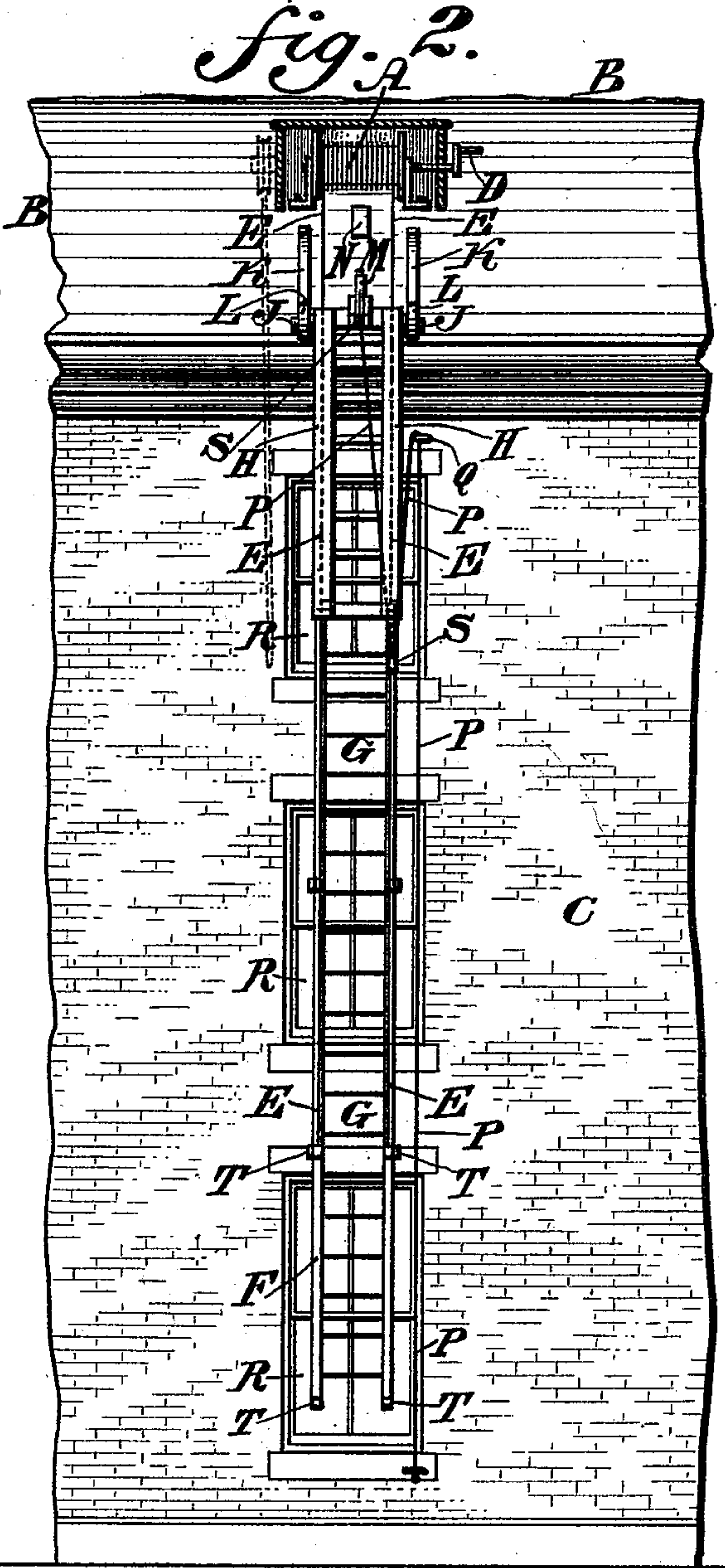
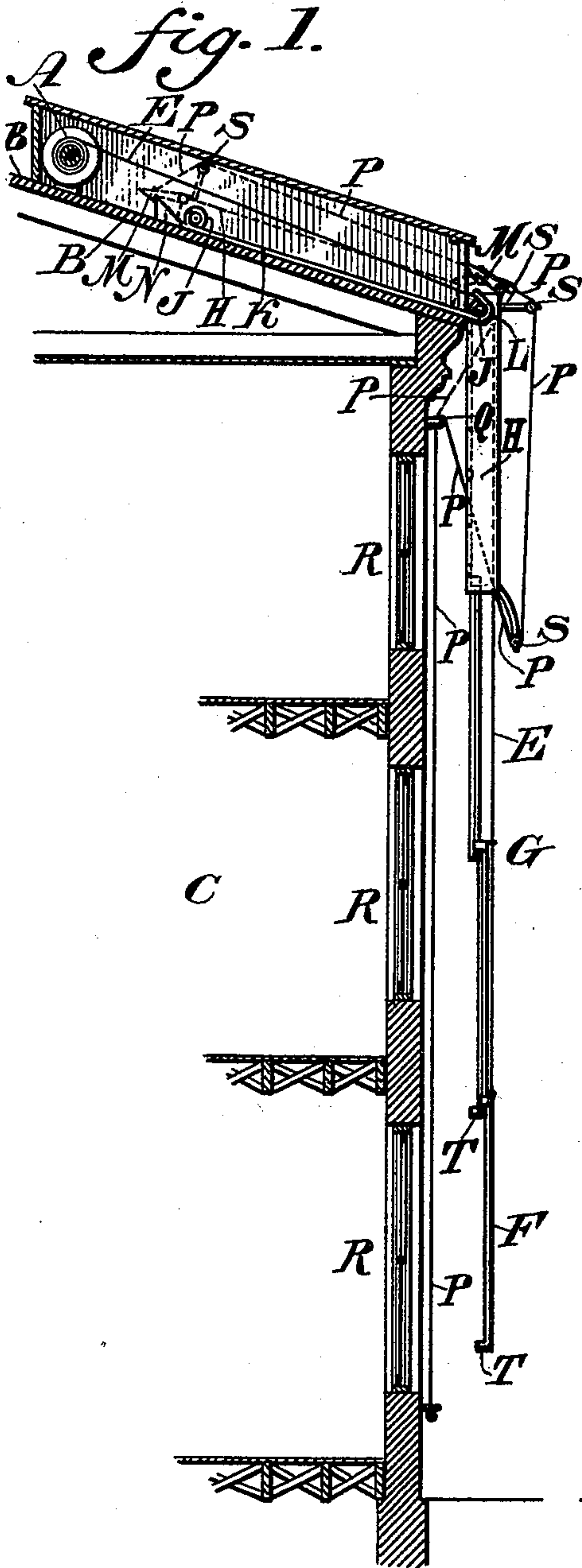


(No Model.)

E. GOLDBERG.
FIRE ESCAPE.

No. 516,528.

Patented Mar. 13, 1894.



WITNESSES:

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EUGENE GOLDBERG, OF PHILADELPHIA, PENNSYLVANIA.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 516,528, dated March 13, 1894.

Application filed September 4, 1893. Serial No. 484,721. (No model.)

To all whom it may concern:

Be it known that I, EUGENE GOLDBERG, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Fire-Escapes, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a fire escape composed of an extension ladder, a frame or casing adapted to receive the same, means for holding said casing with the folded ladders on the roof or upper portion of a building, and means for releasing said casing, whereby it descends and permits the unfolding of the ladder, whereby the latter is placed in position to be reached by the occupants of the building, all as will be hereinafter fully set forth.

It further consists of the combination of parts hereinafter set forth and claimed.

Figure 1 represents a partial side elevation and partial vertical section of a fire escape embodying my invention. Fig. 2 represents a front elevation of the fire escape.

Similar letters of reference indicate corresponding parts in the two figures.

Referring to the drawings: A designates a drum mounted on the roof B, of a building C, and operated by a crank D.

E designates chains or ropes wound around the drum A, and connected with the bottom section F of an extension ladder G, so that said section may be raised by the winding of said chain or rope.

H designates a frame or casing provided with projections or rollers J, adapted to travel on rails or guides K, secured to the roof B, and adjacent to the eaves of the same. The ends of the rails K which project beyond the eaves of the roof are provided with hooks L, into which the rollers J are guided by the rails K. The hooks L prevent the rollers J from leaving the rails K, and permit the casing H to hang from the former, when the ladder G is in its operative position. The frame H is provided with a dog M adapted to engage with a lug N secured to the roof B, so as to retain the frame on the roof B in the position shown in dotted lines in Fig. 1, when the ladder G is not in use.

P designates a chain, rope, wire, &c., secured to the dog M, so that the latter may be dis-

engaged from the lug N by pulling the chain P, which is guided in an eye Q, and is kept close to the wall of the building C, so that said chain may be easily reached from any of the windows R. The chain P after passing through the eye Q is guided by rollers S on the casing H.

When it is desired to lower the ladder G, the chain P is pulled so as to cause the dog M to leave the lug N, and the casing H then slides down the inclined roof and the rollers J enter the hooks L, and act as pivots for the casing H, and permit the latter to turn and then hang in a vertical position, so that the several sections of the ladder G may drop into the positions shown.

When it is desired to restore the several parts of the device to their normal positions, the crank D is rotated, and causes the chains E to wind around the drum A, and raise the bottom section F of the ladder G, said section sliding freely on the one above it, until its bottom lips T abut against those on the section above. Both sections now rise together until the lips T reach the under side of the top section, when this latter will also be raised by the action of the other sections, and the ladder G in folded position will be drawn by the chains E into the casing H, and the latter in turn will be drawn by the chains E which pass over the plane of the centers of the rollers J to the position shown in dotted lines on the roof B, it being noticed that the said chain has greater incline than the roof, or rather that the periphery of the drum to which the said chain is connected is at a greater distance from the roof than are the centers of the rollers J. When the casing H has reached its normal position, the dog M engages with the lug N, and said casing is then securely held in place on the roof B.

In lieu of the crank D, I may employ a roller which is secured to the shaft of the drum A as shown in dotted lines Fig. 2, the same being adapted to be rotated by an endless rope or chain within convenient reach of either window, especially the upper one.

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

1. In a fire escape, a casing, and a ladder adapted to be folded therein, a drum on the

building, and a chain or rope connected with said drum and casing, a tooth on the building, a dog on the casing and a chain or rope connected with said dog, the parts named being combined substantially as described.

2. In a fire escape, the hooks L on the building, and the ladder casing with projections adapted to engage with said hooks, the parts named being combined substantially as described.

3. In a fire escape, the rails K on the building, the hooks L on the ends of said rails at the eaves of the building, the casing H adapted to engage with said hooks and the extensible ladder connected with said casing, said parts being combined substantially as described.

4. In a fire escape, the casing H, and the extensible ladder connected therewith, the chain E attached to said casing and means on the building for winding said chain and raising the ladder, the dog M on the casing and the tooth N on the building for holding the casing with the ladder in elevated position, and the chain P on the building connected with said dog for releasing the casing and

permitting the descent and unfolding of the ladder, said parts being combined substantially as described.

5. A fire escape consisting of a casing having rollers thereon, and an extension ladder therein, a rotatable drum, a chain connected with said ladder and drum, and rails having hooks at their ends, said parts being combined substantially as described.

6. In a fire escape, a casing with a sectional extension ladder therein, each of said sections having a projecting lip on its lower end, substantially as described.

7. A fire escape having a rotatable drum, a casing with a sectional ladder therein and rollers thereon, a track for said rollers, a chain connecting said drum and ladder, a lug adapted to be secured to a stationary support, and a catch on said casing engaging said lug, said parts being combined substantially as described.

EUGENE GOLDBERG.

Witnesses:

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