(No Model.) 2 Sheets—Sheet 1.

C. E. RICE.

FIREMAN'S APPARATUS FOR HANDLING LADDERS AT FIRES.

No. 597,022. Patented Jan. 11, 1898.

Fig. 1.

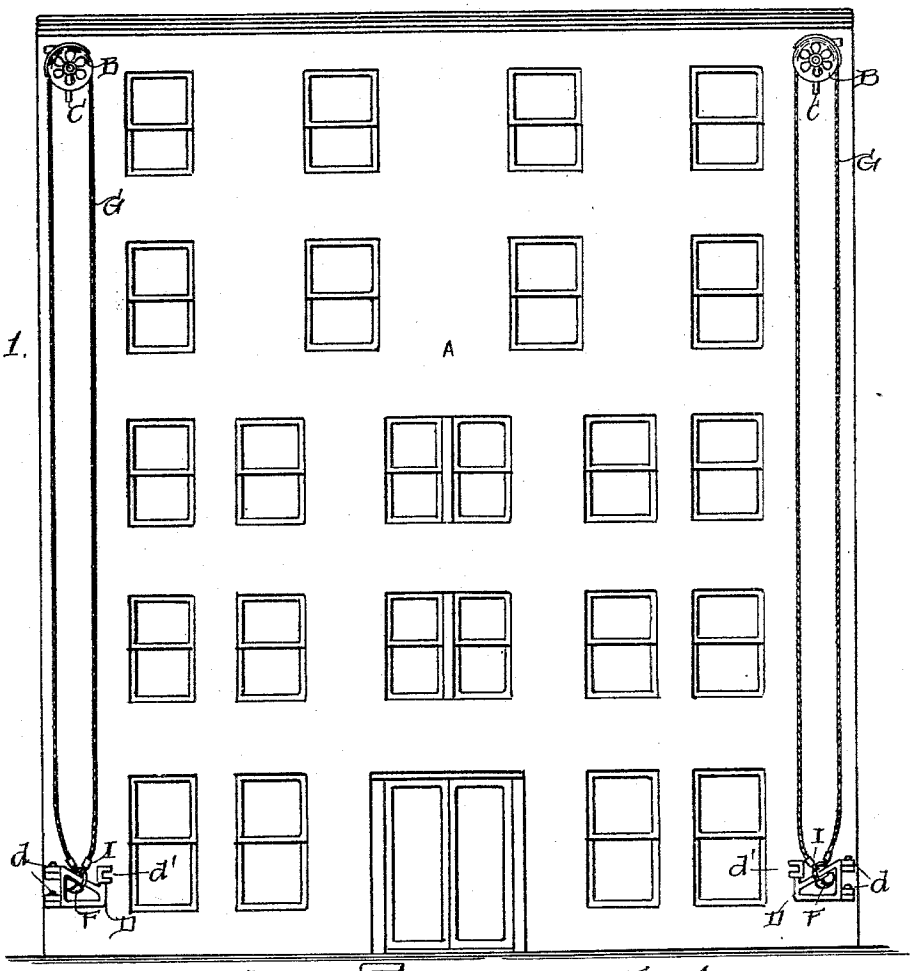


Fig. 3.

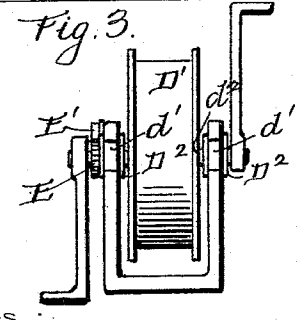
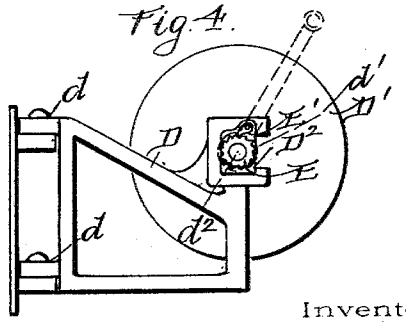


Fig. 4.



Witnesses.

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(No Model.) 2 Sheets—Sheet 2.

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No. 597,022. Patented Jan. 11, 1898.

Fig. 2.

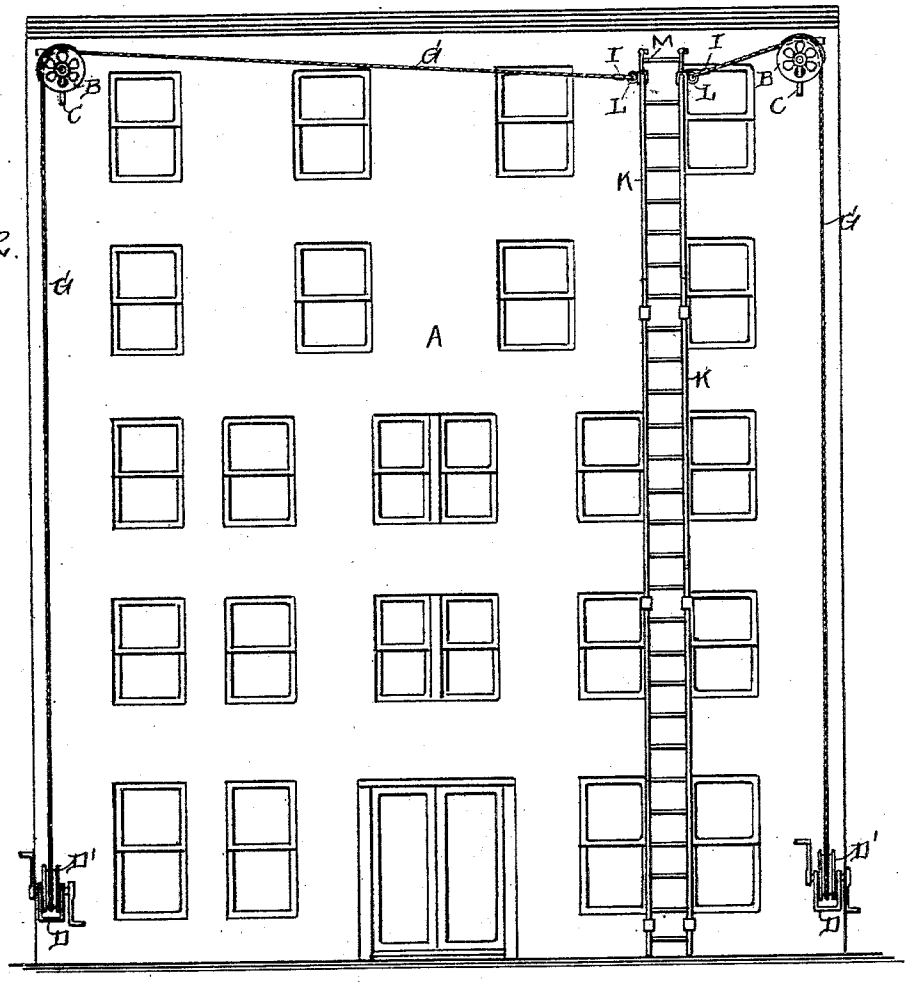
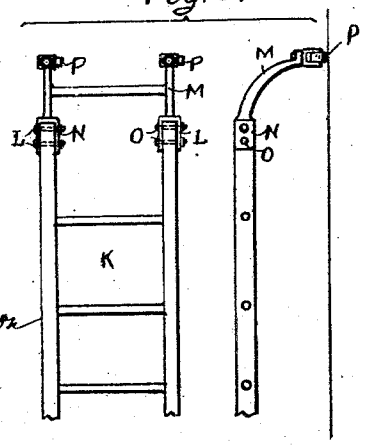


Fig. 5.



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UNITED STATES PATENT OFFICE.

CHARLES E. RICE, OF LITTLE ROCK, ARKANSAS.

FIREMAN'S APPARATUS FOR HANDLING LADDERS AT FIRES.

SPECIFICATION forming part of Letters Patent No. 597,022, dated January 11, 1898.

Application filed February 1, 1897. Serial No. 621,498. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. RICE, a citizen of the United States, and a resident of Little Rock, in the county of Pulaski and State of Arkansas, have invented certain new and useful Improvements in Firemen's Apparatus for Handling Ladders at Fires; and I do declare the following to be a full, clear, and exact description of the invention, 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, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is an elevation of a building, showing my invention applied thereto and not in use. Fig. 2 is a similar view of the same in use. Figs. 3 and 4 are detail views of one of the drums and its bracket, and Fig. 5 is a detail view showing the cap and bearing at the upper end of the ladder.

This invention is designed to provide means of improved character for hoisting ladders upon buildings in case of fire and for holding and staying the same after they are hoisted in such a manner that they may be readily moved along the side of the building from window to window or to any desired point, while at the same time it is impossible for them to move or slip accidentally.

It is also designed to provide means of this character which can be used in connection with the fire-ladders now in general use without material change therein.

It is also designed to provide means which will not disfigure the buildings to which they are applied by reason of their unsightly character.

With these objects in view the invention consists in the novel construction and combination of parts, all as hereinafter described, and pointed out in the appended claims.

Referring to the accompanying drawings, the letter A designates the side of a building to which I have shown my invention applied.

B B designate two sheaves or pulleys which are journaled, respectively, in brackets C C, permanently secured to the building, one near each side thereof and a short distance below the cornice.

D D designate two brackets which are fastened to the lower portion of the building, one below and substantially in line with each of the said sheaves or pulleys. These brackets may be of any suitable form or construction—such, for instance, as that shown in the drawings, wherein they consist each of a bifurcated casting hinged to the wall of the building at d and provided at each side with a slot d', extending into the front edge.

D' D' designate two similar drums whose shafts d^2 are in the construction shown provided with bearing-blocks D^2, which are fitted to slide in the said slots d'. Each of said drums or its shaft is provided with a ratchet-wheel E, which is arranged to be engaged by a pawl E' to prevent backward rotation.

G G designate two cables which are passed up and over the respective pulleys B B, and whose ends when not in use are secured to the brackets D, being fastened by means of padlocks F or other suitable locks, for the purpose of preventing them from being tampered with by boys or others. One end of each cable also has a snap-hook I, or other suitable fastening device.

K designates a ladder, which in practice may be of any suitable character or construction, such as those now in use by hook-and-ladder companies, with the addition thereto at its upper end portion of two eyes or rings L or their equivalent, one at each side. I prefer, however, that these eyes or rings instead of being secured in the ladder proper shall be carried by a metal cap M, such as shown in Fig. 5. This cap is of curved form to hold the ladder properly away from the wall of the building and is formed with socket portions N, which fit over the upper end portion of the ladder proper and are secured by a bolt O or other suitable fastening device. That end of the cap which bears against the wall of the building has journaled therein two caster-wheels P.

The sheaves B, the brackets C and D, and the ropes or cables G G constitute the permanent equipment of the building. The ladder, together with the drums, is furnished by the fire or hook-and-ladder companies, it being intended that all the brackets D used in one city or two shall be of standard character, so that the same drums will fit any of them.

In case of fire as soon as the ladder-truck arrives the ropes or cables G are loosened from the brackets D, the drums D′ are placed in the said brackets, and one end of each cable is made fast to its drum. The other ends of the cables are snapped into the eyes or rings L of the ladder which is placed in position to be hoisted. One or more men then man each of the drums and quickly raise the ladder into the desired position. Said ladder, being held or stayed by the two cables, cannot slip in any direction, and the firemen can work thereon with perfect safety. By slacking the cable on one drum and winding on the opposite one the ladder may be moved from window to window or to any desired point to enable the firemen to rescue the inmates or to fight the fire to better advantage. The caster-wheels P facilitate to a considerable extent the moving of the ladder both vertically and transversely.

By the arrangement above described I overcome an objection which is frequently urged against those fire-escapes and ladders wherein all the parts used, including the ladders proper or the escape baskets or cars, are a permanent fixture on the building—viz., the unsightliness thereof and the consequent disfiguration of the building. The present invention does not disfigure the building to an objectionable extent, since the only parts which are permanently fixed thereto are the sheaves at the upper corners, the brackets at the lower corners, (these, being hinged, may be swung back against the building when not in use,) and the cables. Furthermore, the remaining parts, being in the possession of the companies, are protected from injury from exposure to the weather and may be kept in good condition for use.

In point of expense it will be readily seen that the cost is but slight, comparatively speaking, either to the fire department or to the owner of the building.

I would also remark that the apparatus may be used to great advantage in painting the building to which it is applied and in washing the windows thereof. It can also be used for hoisting other apparatus besides ladders, such as escape baskets or carriages.

Another important feature of the invention is that it does not afford means whereby burglars may enter the building.

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

1. The herein-described fireman's apparatus, comprising the two upper sheaves or pulleys applied to the upper portion of one side of a building at points near opposite corners thereof, a pair of winding-drums journaled to the building at corresponding points near the ground, a pair of ropes or cables, one of which is passed up and over each of the said sheaves or pulleys and thence back to the respective winding-drum, and an extensible ladder having means whereby the free ends of said ropes or cables may be attached thereto, and provided also at its upper end with a swiveled antifriction-bearing, substantially as and for the purpose described.

2. The herein-described fireman's apparatus, the same comprising a pair of sheaves or pulleys applied to the upper portion of a building near the cornice and also near opposite sides thereof, a pair of cables passed respectively over the said sheaves or pulleys, a pair of brackets secured to the building near the ground, drums adapted to be journaled in the said brackets, means for securing and locking the ends of said cables when not in use, and means whereby one end of each cable may be attached to a ladder or other escape device or carrier, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES E. RICE.

Witnesses:
PHILIP C. MASI,
GEORGE H. PARMELEE.