

(No Model.)

C. BROWN.
FIRE ESCAPE.

No. 345,110.

Patented July 6, 1886.

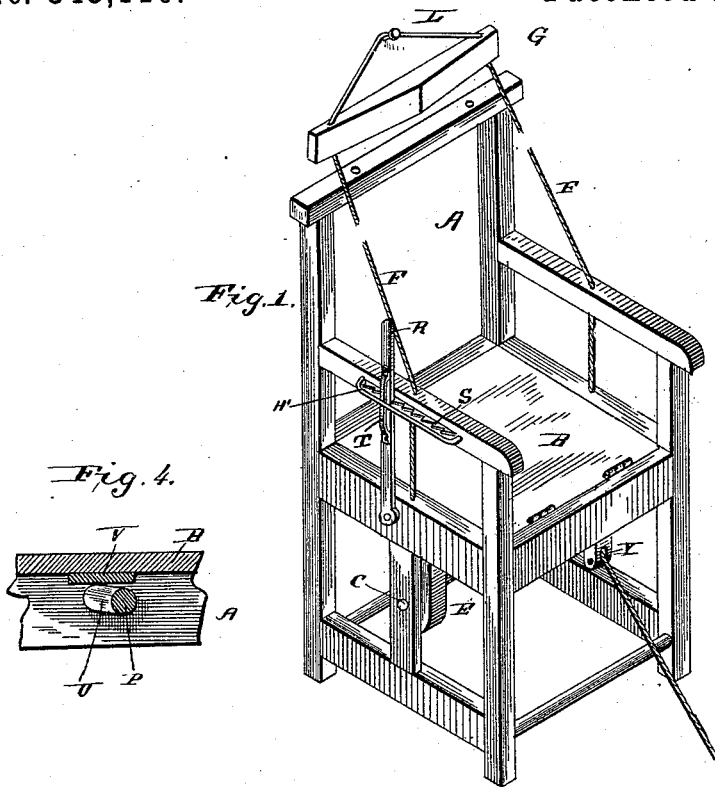


Fig. 4.

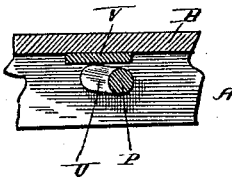


Fig. 2.

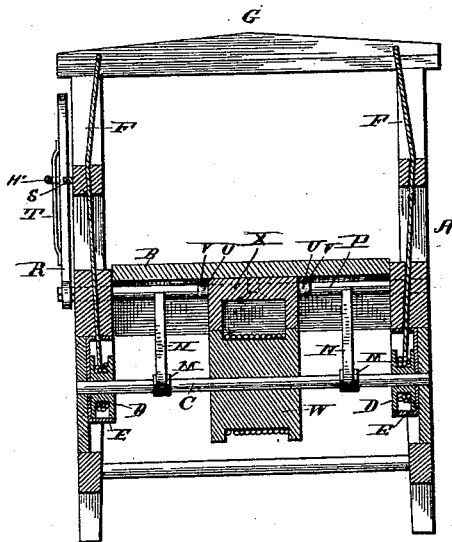
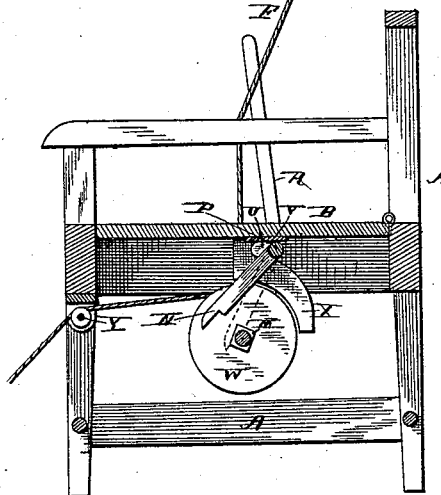


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES BROWN, OF ALBERT LEA, MINNESOTA.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 345,110, dated July 6, 1886.

Application filed February 25, 1886. Serial No. 193,089. (No model.)

To all whom it may concern:

Be it known that I, CHARLES BROWN, a citizen of the United States, residing at Albert Lea, in the county of Freeborn and State of Minnesota, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain improvements in fire-escapes; and it has for its object to provide a chair or carriage which may be placed in the upper part of a building or other structure, the said chair or carriage being provided with appliances whereby it may be secured to any convenient portion of the outside of the building or structure, and mechanism whereby the appliances may be operated to lower the said chair or carriage to the ground, the said mechanism being under the control of the occupant, as more fully hereinafter specified. These objects I attain by the means illustrated in the accompanying drawings, in which—

Figure 1 represents a perspective view of the chair or carriage with the attachments complete. Fig. 2 is a vertical sectional view taken on the line *xx* of Fig. 1; Fig. 3, a vertical sectional view taken on the line *yy* of Fig. 1, and Fig. 4 a detailed sectional view of a portion of the brake mechanism for controlling the motion of the carriage in its descent.

In the drawings, the letter A is the frame of the chair or carriage, which may be constructed of wood or other suitable material; and B, a hinged seat secured to the same. The frame at each side is provided with vertical standards, in which are journaled the ends of a transverse shaft, C, which has rigidly secured to it near each end the pulleys D. These are protected by casings E, as indicated in Fig. 2 of the drawings. From the said pulleys extend the cords F up through openings in the side bars of the seat-frame, and through similar apertures in the arms above, the cords being carried upward and secured to a cross-bar, G, which is provided with dowel-pins, by which it may be normally secured to the cross-bar at the upper part of the back of the chair. The said bar G has also attached to it a cord,

L, by which it may be secured to a pin or other support on the outer wall of the building.

The transverse shaft C is provided with rectangular projections M at equidistant points on each side from its ends, against which are adapted to engage the stop-bars N, secured to a brake-shaft, P, journaled in the side bars of the chair directly under the hinged seat. The said brake-bar on its projecting end at one side is provided with a brake-lever, R, passing upward through a guard, H', and bearing against a ratchet, S, by which it is held in any desired adjusted position. The brake-lever is pressed normally to the ratchet by means of a spring, T. The said brake-lever shaft is also provided with short lugs U, which are borne upon by the plates V, secured to the seat, so as to permit the brakes to be operated by the weight of the seat and its occupant. To the lower part of the seat, directly at its center, and extending over the flanges of a pulley, W, secured to the transverse shaft C, is a brake-shoe, X, which is adapted to bear against the pulley and arrest the revolution of the shaft and the descent of the chair or carriage. The said pulley is provided with a rope, which is wound in an opposite direction to the cords on the first-mentioned pulleys. The said cord is passed over a pulley, Y, to the ground, and serves as a guide and means of operating the apparatus from the ground.

The operation of my invention will be understood in connection with the above description, and is as follows: The device, when to be used, is hung from the upper cord to the pin or other support on the outside of the building. The escaping person then enters the chair, when his weight on the seat automatically applies the friction-brake. The action of this can be modified by the brake-lever, so as to permit the carriage or chair to descend with the proper degree of rapidity. The car may also be stopped at any point by applying the stop-levers through the medium of the brake-lever.

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

1. The combination, with the chair, of the transverse shaft, its pulleys and cords, and the

rectangular projections and stop-bars mounted on a brake-rod operated by a brake-lever under the control of the occupant of the chair or carriage, substantially as and for the purposes specified.

2. The combination, with the transverse shaft, of the brake-lever shaft located above the same, the lugs thereon, the hinged seat and brake-shoe, and the central pulley on the transverse shaft, with its reversely-wound rope to serve as a ground guide-line, substantially as specified.

3. The combination, with the transverse

shaft and its pulleys, of the brake-shaft and its lever, the brake-shoe and hinged seat, the lugs on the brake-shaft, against which the seat bears, and the cords whereby the movement of the chair or carriage is controlled, substantially as specified.

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

CHARLES BROWN.

Witnesses:

JAMES H. PARKER,
B. B. FIXEN.