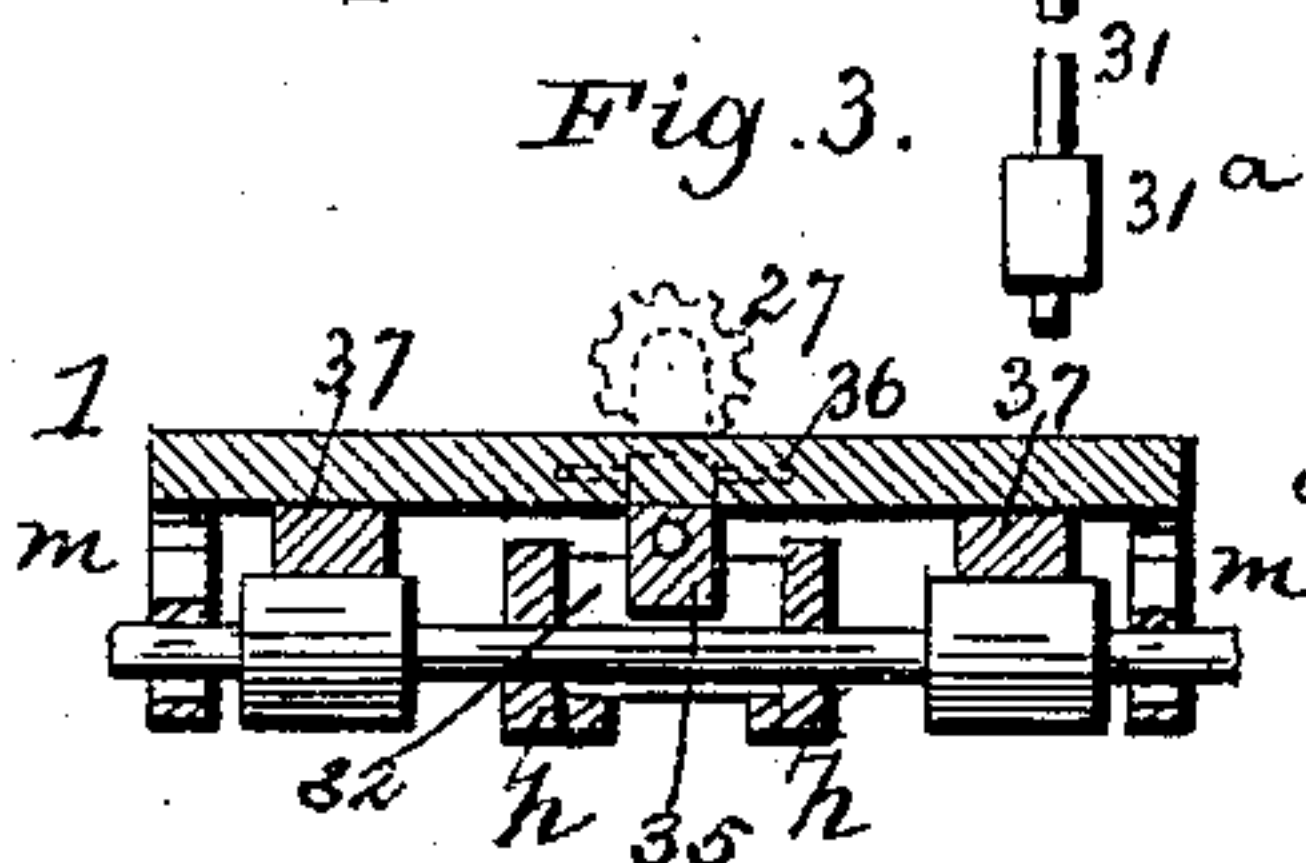
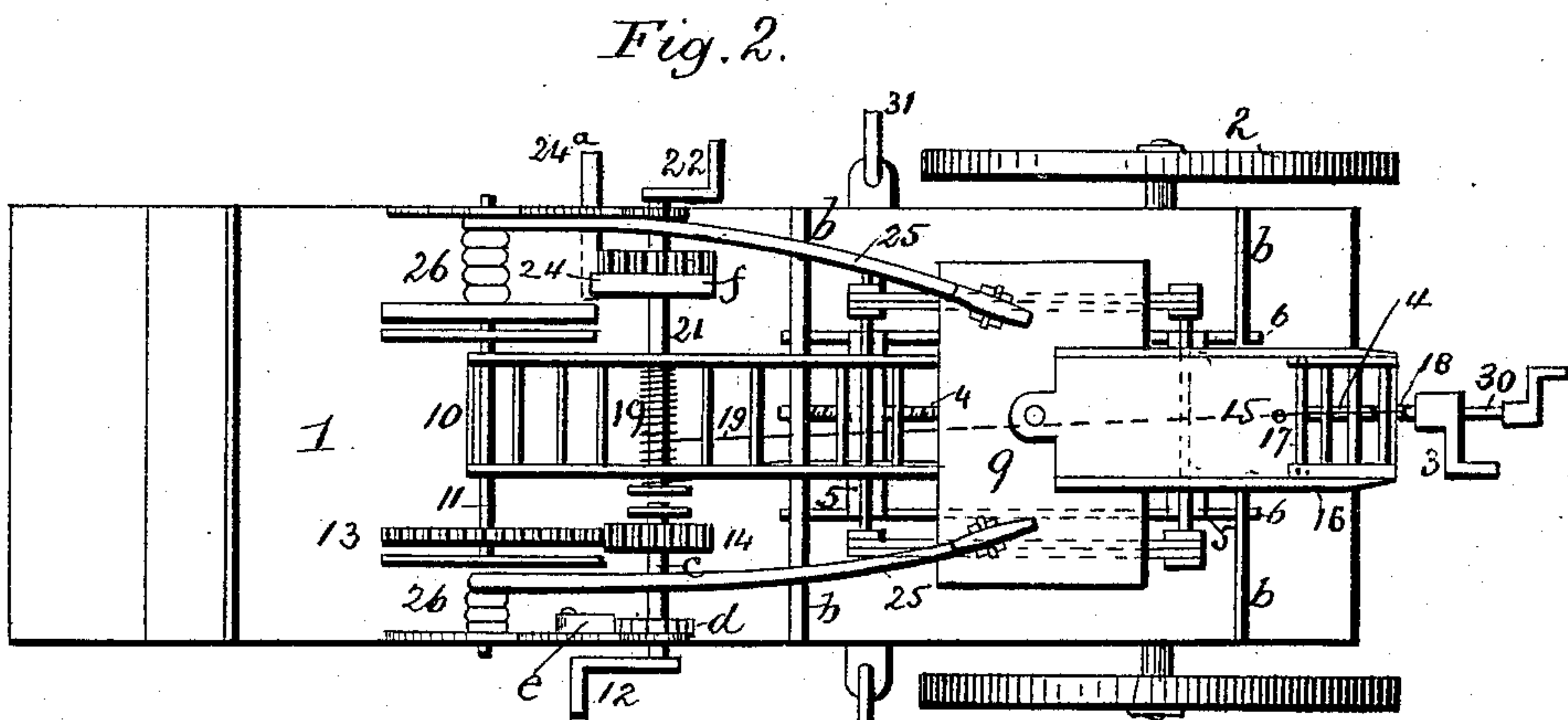
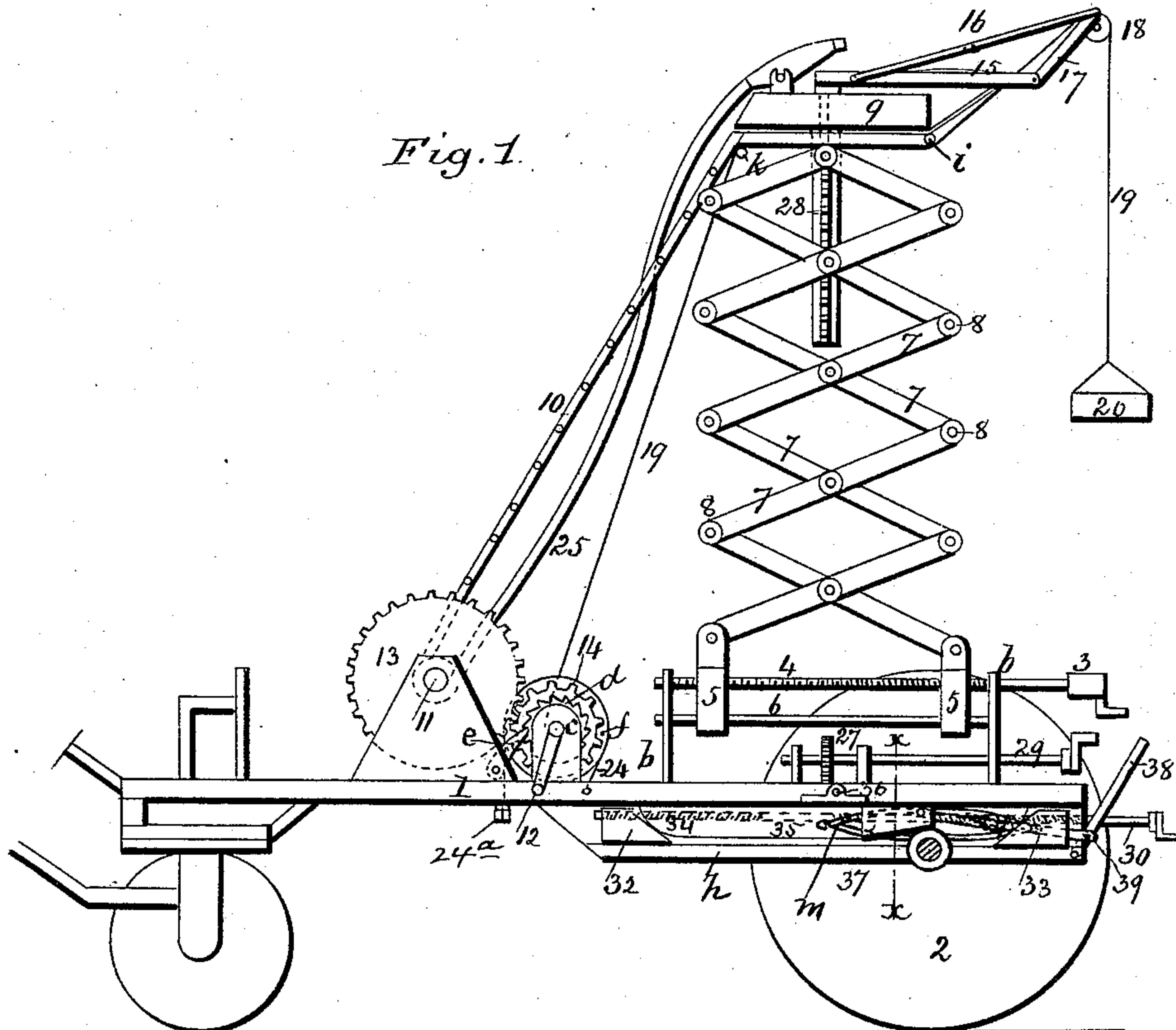


(No Model.)

J. F. CHAZOTTE.  
FIRE ESCAPE LADDER.

No. 572,244.

Patented Dec. 1, 1896.



WITNESSES

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# UNITED STATES PATENT OFFICE.

JEAN F. CHAZOTTE, OF MONTREAL, CANADA.

## FIRE-ESCAPE LADDER.

SPECIFICATION forming part of Letters Patent No. 572,244, dated December 1, 1896.

Application filed July 9, 1895. Serial No. 555,384. (No model.) Patented in Canada October 3, 1895, No. 50,156.

*To all whom it may concern:*

Be it known that I, JEAN FRANÇOIS CHAZOTTE, a citizen of Canada, residing at Montreal, in the Province of Quebec, Canada, have invented new and useful Improvements in Fire-Escape Ladders, (patented in Canada October 3, 1895, No. 50,156,) of which the following is a specification.

My invention relates to improvements in fire-escape ladders in which a platform to carry men and the nozzle ends of two hose and also a folding ladder and the main support for a salvage-basket are raised vertically by means of lazy-tongs levers operated by a double-screw and crank-handles; and the objects of my improvement are to provide means for slightly tilting the body of the wagon carrying said ladder, and also to steady it upon its rear axle, as hereinafter described, and pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of the machine with the upper platform and ladder partly elevated. Fig. 2 is a top view of the same. Fig. 3 is a transverse section of the body of the machine on line *x x* of Fig. 1.

The body 1 and wheels 2 of the wagon constitute the supports of the machine. Centrally over said body and parallel therewith is placed a right and left hand screw 4, provided with a crank 3 on its rear end. Said screw has its ends supported in standards *b*, secured on the top of the wagon transversely thereof. Said standards are united together by two rods 6, that serve as guides for the lower portions of two blocks 5, adapted to slide thereon. The upper portions of said blocks are screw-tapped to receive the screw 4, by which the blocks are moved apart or toward each other, said movement causing the bars 7 of the lazy-tongs to assume different angles from their joints 8 and thus elevate the platform 9, which has hinged thereto the nozzles on the ends of hose 25, and also men who may be on the platform. To one end of said platform is secured the upper end of a folding ladder 10, which has its lower end wound around a drum mounted centrally upon the shaft 11, by which it is held under tension, said drum carrying a gear-wheel 13, that is operated by a gear-wheel 14, mounted upon a shaft *c*, that carries a ratchet-wheel *d* for

engagement with a retaining-pawl *e*. Said shaft is operated by a crank 12 on the end thereof.

To the top of the platform 9 is pivoted a bridge 15, that has hinged to its end a ladder 17, the upper end of which is connected to the sides of the bridge 15 by folding braces 16. Upon a bolt secured to the upper end of the ladder 17 is mounted a pulley 18, over which passes a wire rope 19, having a salvage-basket 20 at one end. The opposite end of the rope 19 passes under the guide-pulley *i* and over the guide-pulley *k* and is coiled around a shaft 21, that is operated by a crank 22 on its outer end. Upon the shaft 21 is mounted a drum *f*, that carries around its periphery a brake-strap 24, one end of which is fastened to the body of the wagon and the other end is secured to a lever 24<sup>a</sup>, by which it is tightened to regulate the descent of the basket 20 or to stop it at any point opposite windows or other points of a building.

Each hose 25, the ends of which are retained by the platform 9, can be rolled on drums 26, mounted on the ends of the shaft 11.

To help the screw 4 in raising the tower at the beginning of the operation, a gear-wheel 27 is mounted on a shaft 29, supported in bearings mounted centrally on top of the body of the wagon. Said gear 27 meshes with a rack 28, that has its upper end secured to the bottom of the platform 9.

The tower can be slightly tilted toward a building by means of a right and left hand screw 30, located under the body of the wagon, said screw being in engagement with screw-tapped wedge-like blocks 32 and 33, the inclined faces of which bear against the under side of the curved ends 34 of a rib 35, which is hung from the body of the wagon on the transverse rod 36. The wedges 32 and 33 are supported on cleats projecting from sills *h*, secured to the rear axle of the wagon.

To add to the stability of the machine when standing on ground that is somewhat inclined, said machine is provided with counterbalancing-arms 31, pivoted to the sides of the frame and carrying weights 31<sup>a</sup> on their outer ends. Said arms can be opened at right angles with the sides of the wagon, but when not in use they are closed alongside of the frame of the wagon.



To prevent any oscillation of the tower that may be caused by the yielding nature of the springs *m* of the wagon, (if springs are used,) the weight of the wagon and tower is removed  
5 from the springs by means of wedges 37, which are pulled between the bottom of the frame of the wagon and its back axle by means of the lever 38, having its lower end pivoted to the frame, and a rod 39, connecting said le-  
10 ver to the wedges.

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. In a fire-escape ladder the combination of the wagon-frame 1, the rib 35 thereunder  
15 having curved ends, wedges 32 and 33 under said ends and the screw 30 in engagement with said wedges, substantially as described.

2. The combination of the wagon-frame 1 and a lazy-tongs ladder thereon, wheels and  
20 axles supporting said frame, wedges between the bottom of the frame 1 and the rear supporting-axle, the lever 38 pivoted to said frame, the connecting-rod 39 uniting said lever and wedges, substantially as described.

3. The combination of the wagon-frame 1, 25 a lazy-tongs ladder having screw-blocks 5 at the foot thereof, a right and left hand screw passing through said blocks, the platform 9 on top of the ladder, the rack 28 pendent  
30 from said platform, the horizontal crank-shaft 29 mounted upon the wagon-frame, and the pinion 27 upon said shaft for engagement with the rack, substantially as described.

4. The combination of the wagon-frame 1, a lazy-tongs ladder thereon, the top platform 35 9, hose-nozzles secured to said platform, the drums 26 carrying the hose, a bridge revolvable on the platform 9, a ladder upwardly inclined on the end of the bridge, a pulley 18 upon said ladder, a wire rope over said pulley, 40 a crank-shaft retaining one end of said rope, and a friction-strap and a drum upon said shaft, substantially as described.

Montreal, May 9, 1895.

J. F. CHAZOTTE.

Witnesses:

VICTOR DUFRESNE,  
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