D. FITZGERALD.

Self Acting Fireman's Ladder.

No. 23,669. Patented April 19, 1859.

Fig. 1,

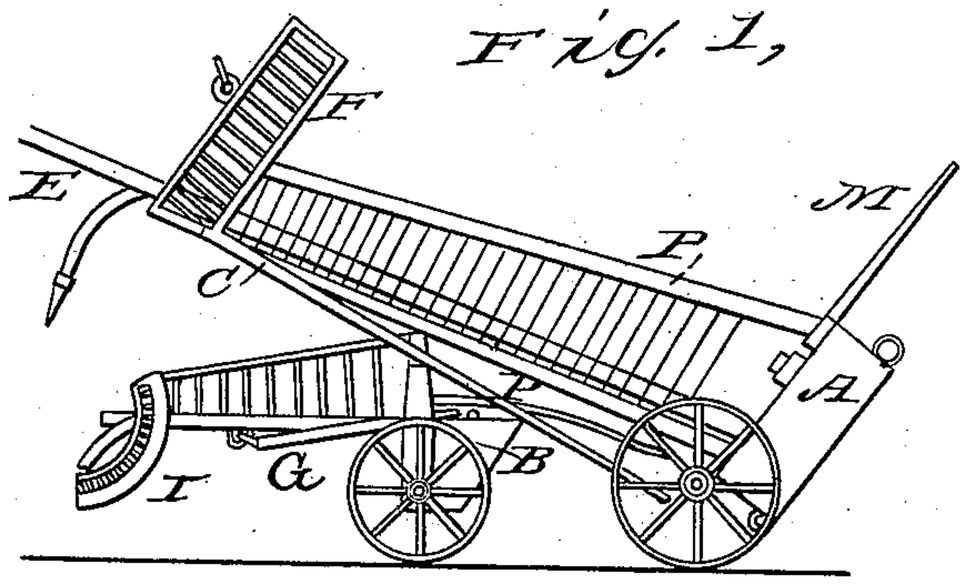


Fig. 2,

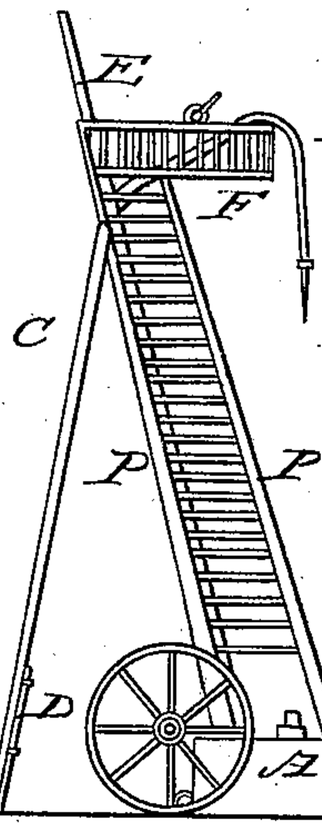


Fig. 4,

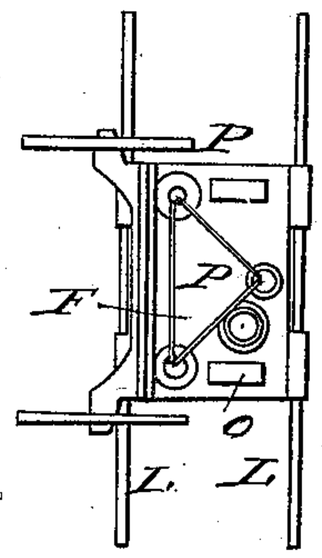


Fig. 4,

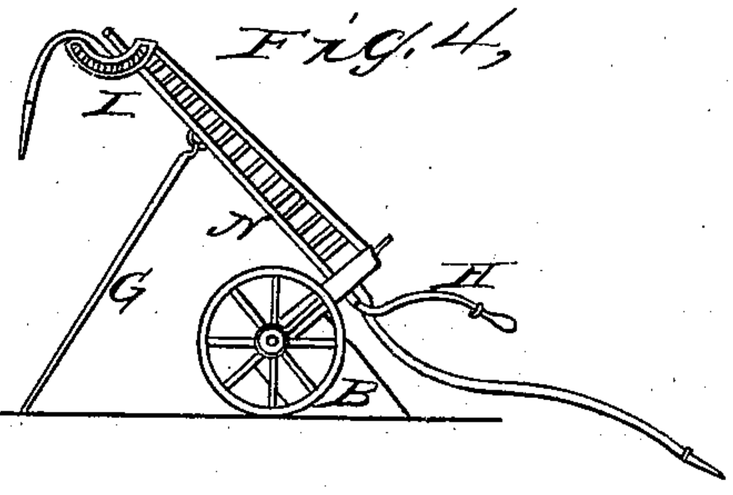


Fig. 5,

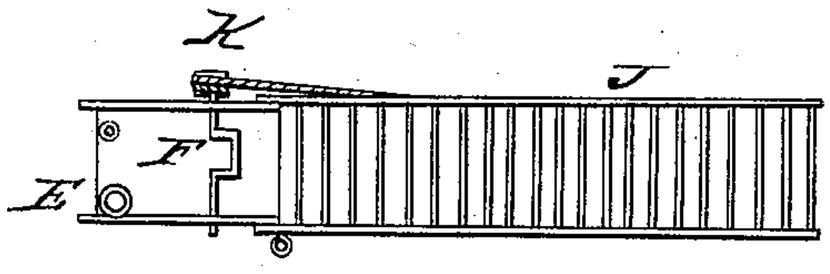
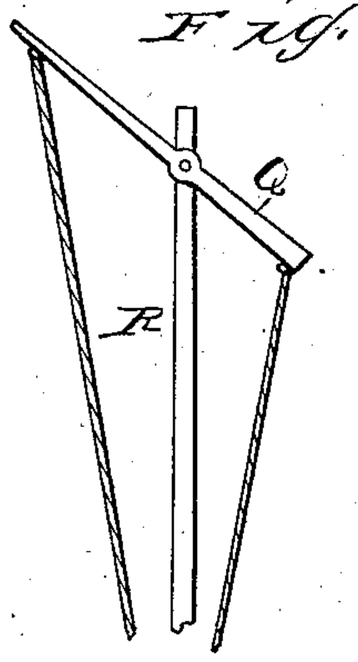


Fig. 6,



Witnesses:

Chas. G. Warren

Harry G. Whitaker.

Inventor:

Daniel Fitzgerald.

UNITED STATES PATENT OFFICE.

DANIEL FITZGERALD, OF NEW YORK, N. Y.

FIREMAN'S LADDER.

Specification of Letters Patent No. 23,669, dated April 19, 1859.

To all whom it may concern:

Be it known that I, DANIEL FITZGERALD, of the city, county, and State of New York, have invented a new and useful Self-Acting Fireman's Ladder; and I hereby declare that the following is a full and exact description thereof.

To enable others to make and use my invention I proceed to describe the construction and operation of it, reference being had to the annexed drawings and to the letters of reference marked thereon, making part of this specification.

Figure 1. side elevation of the ladders large and small ready for use. Fig. 2. side elevation of the larger ladder erected. Fig. 3. side elevation of the smaller one erected. Fig. 4. ground plan of the larger one as it stands erected. Fig. 5. plan of the platform at top. Fig. 6. the jointed pipe.

The same letters refer to the same things in all the figures.

A is the water reservoir for balancing the large ladder. B, tank for the same purpose attached to the smaller one. C, the props for supporting the large ladder. E, a pipe set up within the triangular ladder (P, P, Fig. 2). F, a platform. G, props for supporting the smaller ladder. H, handle or crank by which a pipe is managed at top without the fireman's mounting the ladder. I, platform of the smaller ladder. J, horizontal ladder. K, the windlass. L, ground levers for sustaining the ladder. M, lever for elevating it. N, pipes forming part of the small ladder. O, sockets for levers. P, three studs for the large ladder. Q arm of pipe. R, the pipe—Fig. 6.

The two ladders when put together constitute a carriage that can be drawn along the street by the firemen. They can be disconnected in a moment, as seen Figs. 2 and 3, and each be elevated in the street in front of the burning building. To render them steady there are supports or props, C and G, to brace them and ground levers, L, to give them a wider base. When erected, they are ready for the firemen who can ascend to the platforms and then use the pipes—or remain below and direct them by means of the handle or crank, H. If water is ready at a hydrant, with a sufficient head, it requires but to connect the hose of the ladder with the hydrant and then the firemen can proceed to operate upon the fire.

To elevate the ladders and balance them at the same time the hydrant hose is turned into the tanks, A and B, and when the weight is sufficient the tanks will fall to the ground elevating the ladders. Thus one fireman could erect them however heavy.

There are several hose or pipes large and small, E, permanently set in the ladder, with discharging pipes at top, so that several engines could be worked and water thrown through them all at the same time. The hose connected with this ladder, and which would generally be metallic, are intended to convey the water to a considerable height, before its issuing upon the fire, and they are intended, by their great length, to convey the water to positions from which it could be discharged into upper windows or scuttles, as may be desired, when, from the height of the building it might not be possible to throw the water far enough from an ordinary hose pipe to reach the seat of the fire.

When it is desired to operate the discharging pipes below, the handle, H, is turned for the purpose and, being connected with the curved pipe, it will throw it in any direction. A variation of this pipe is seen at Fig. 6, where instead of a curve there is a joint in the pipe. The arm, Q, is connected by a pivot (through which the water flows) to the main pipe, R, and the arm, Q, is elevated or depressed by cords attached—at the same time the pipe, R, can be turned in any direction by the use of the lever, H, below. As this arm, Q, may be of any practical length, it is evident that water could be conveyed over and beyond a house, if desired, to discharge water in the rear. The permanent hose can also be extended above the ladders so as to bear the water to the height of the spire of an ordinary church.

This facility of carrying water by my apparatus to a great height or a great distance, before discharging it, and yet having the pipe perfectly manageable I deem important, and scarcely to be attained by any other apparatus, as economical.

What I claim as my invention and desire to secure by Letters Patent is:

1. The applying the tanks, A, B, or their

equivalent to ladders, with or without water, to elevate and hold said ladders substantially as above described.

2. Conveying the water through a long distance by an elongated pipe, E, or its equivalent connected with the apparatus substantially as described.

3. Managing the curved or jointed pipes, Q, R, by means of the lever, H, or its equivalent in the manner above described.

DANIEL FITZGERALD.

Witnesses:

OWEN G. WARREN,

MARY G. WARREN.