

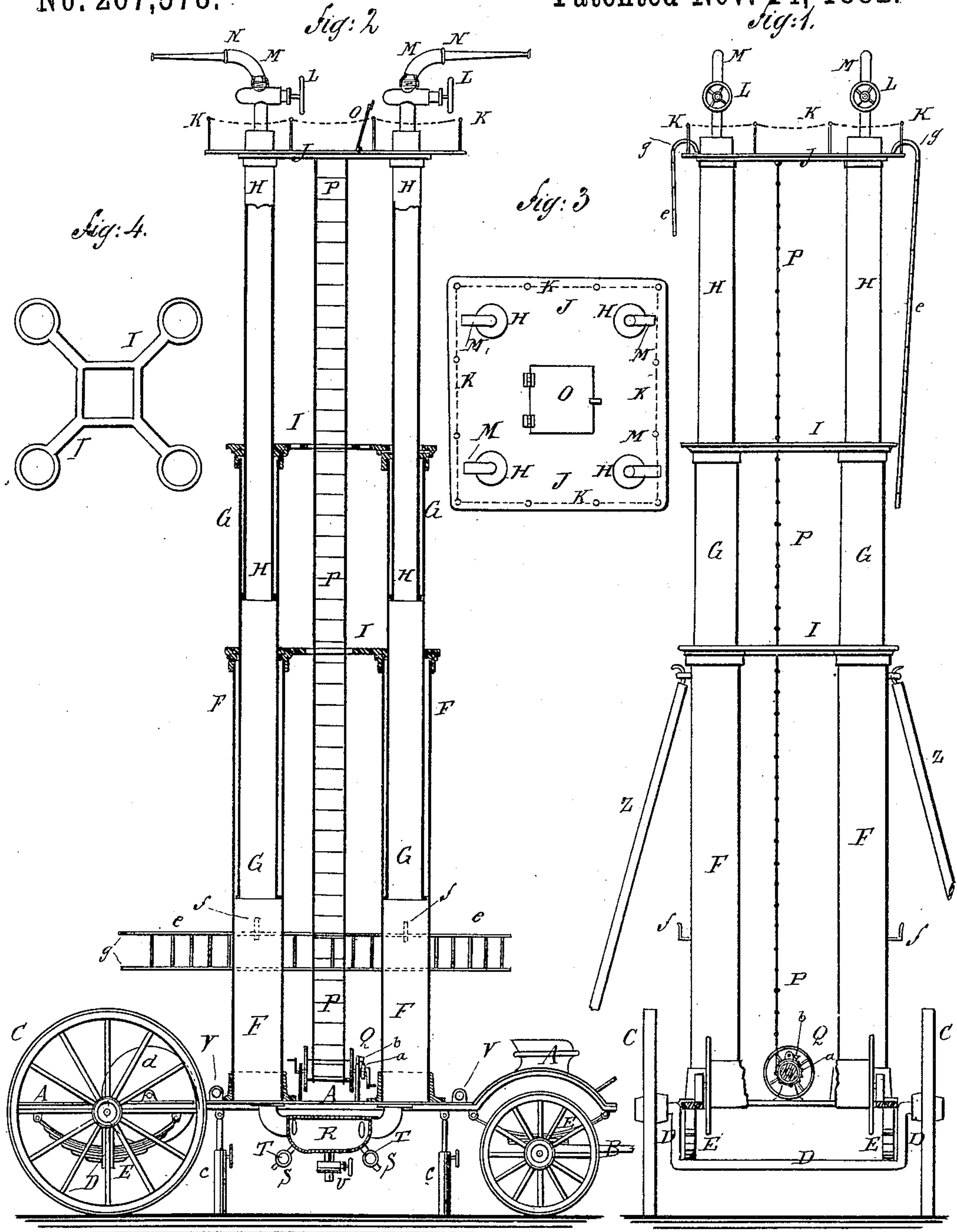
(No Model.)

R. PALLETT & F. MAHEDY.

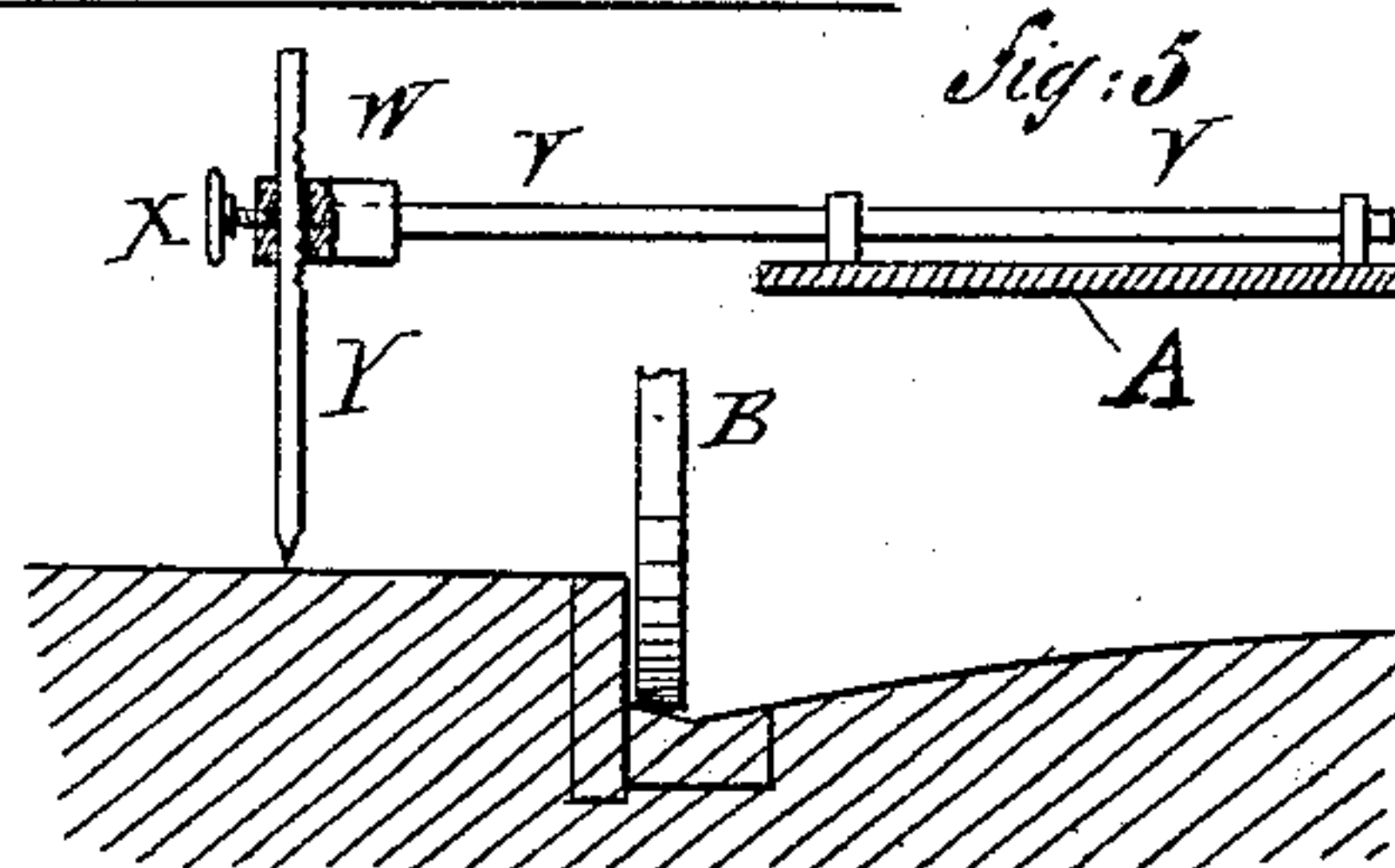
FIRE ESCAPE.

No. 267,578.

Patented Nov. 14, 1882.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

ROBERT PALLETT AND FRANCIS MAHEDY, OF NEW YORK, N. Y.

## FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 267,578, dated November 14, 1882.

Application filed May 25, 1882. (No model.)

*To all whom it may concern:*

Be it known that we, ROBERT PALLETT and FRANCIS MAHEDY, of the city, county, and State of New York, have invented a new and useful Improvement in Combined Portable Hydraulic Fire-Escapes, Water-Towers, and Hose-Reels, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of our improvement, the carriage being shown in section. Fig. 2 is a side elevation of the same, partly in section. Fig. 3 is a plan view of the top of the same. Fig. 4 is a plan view of one of the connecting-spiders. Fig. 5 is a sectional elevation of a part of the carriage, showing an outrigger in place.

The object of this invention is to facilitate the rescue of people from burning buildings, and also to promote convenience in directing a water-discharge upon the burning part of buildings.

A represents the deck of the carriage, the forward part of which is arched to allow the forward wheels, B, to pass in beneath the said deck in cramping the carriage, so that the said carriage can be readily turned in narrow streets. C are the rear wheels, the axle D of which is made with a downward offset, as shown in Fig. 1, to allow the deck A to be placed as low as possible. The deck A rests upon springs E, connected with the axles of the carriage.

To the middle part of the deck A are attached the lower ends of four pipes, F, more or less, into the upper ends of which are fitted four smaller pipes, G, more or less. The pipes G have pipes H fitted into their upper ends, so that the said pipes F G H can slide into and out of each other. Any desired number of intermediate pipes, G, can be used, as the height to which the upper pipes are to be raised may require. The interlocking ends of the pipes F G H are provided with collars to prevent them from being forced apart, and are packed to prevent leakage at the joints. The upper ends of the four pipes of each section are connected by a spider, I, to prevent the said ends from being forced apart.

To the upper ends of the top pipes, H, is attached a platform, J, which is surrounded with a guard-rail, K. The pipes H, above the platform J, are provided with valves or gates L and with short flexible pipes M, designed to receive nozzles N, so that the water-discharge can be directed as required.

If desired, one or more lengths of hose can be connected with the pipes M when it is desired to pass into or upon a building to better direct the streams of water.

In the center of the platform J is formed a trap-door, O, through which firemen and others can pass to and from a chain-ladder, P, the upper end of which is secured to the said platform. The chain-ladder P passes down through openings in the spiders I, and its lower end is attached to the reel Q, secured to the deck A, between the pipes F. The reel Q is provided with a ratchet-wheel, a, and a double or right-and-left pawl, b, to prevent the said reel from turning, and to hold the ladder P taut when the pipes have been extended to the desired height. The ladder P and reel Q are also used to limit the height to which the pipes are extended. The lower ends of the pipes F are connected with a chamber, R, secured to the lower side of the deck A, and provided with four, more or less, couplings, S, so that four, more or less, fire-engines can play into the said chamber at the same time. The couplings S are provided with valves T, opening inward, and held closed by the pressure of the water within the chamber R, and which are forced open by the pressure of water from the engines, so that if any of the engines should become disabled and stop playing or be detached the valve T will prevent the escape of any water from the chamber R. The chamber R is also provided with a safety-valve, U, which may be set to resist any desired pressure, so that, should the water-pressure exceed the point at which the said valve is set, the valve will open and allow water to escape, relieving the pressure and preventing the apparatus from being broken.

To the deck A, in front and rear of the pipes F, are secured by keepers and set-screws or other suitable means bars V, which project at the opposite sides of the carriage, and which are provided at their outer ends with sockets W and set-screws X, to receive and fasten the



upright bars Y, which serve as feet to rest upon the ground, and hold the carriage firmly in place, the sockets W and set-screws X allowing the feet Y to be adjusted as the surface of the ground may require.

The telescopic pipes F G H are further secured against lateral movement by the braces Z, the upper ends of which are provided with hooks to hook into eyes attached to the upper parts of the pipes F. The braces Z are made of such a length that their lower ends will rest upon the ground.

Beneath the middle part of the carriage-deck A are placed ordinary hydraulic jacks, *c*, when the machine is in use to support the weight of the pipes F G H and the columns of water contained in them.

The rear part of the deck A is provided with a hose-reel, *d*, as shown in Fig. 2, so that the improvement, in addition to its special uses, can serve as a hose-cart or engine-tender.

*e* are scaling-ladders, which are carried upon hooks *f*, attached to the lower pipes, F, and have hooks *g* attached to their ends, so that when the pipes F G H are to be extended the said ladders can be hung upon the platform J and carried up with the said platform, ready to be used by the firemen to enter a window or pass upon the roof of a building, or to rescue people from a building.

In using the improvement the machine is taken from the engine-house with the pipes F G H closed, the scaling-ladders *e* hanging upon the pipes F, and the outriggers V Y and braces Z packed upon the deck A.

At the place where the machine is to be used the carriage is arranged in a suitable position, the outriggers V Y and braces Z are arranged to hold the machine steady, and the scaling-ladders *e* are hung upon the edges of the platform J.

One or more fire-engines are connected with the chamber R, and water is forced into the said chamber. As the water rises in the pipes F G H it presses against the closed upper ends

of the upper pipes and extends the series of pipes, raising the platform J and the firemen standing upon it. When the platform J has been raised to the desired height the further upward movement of the pipes is checked by the pawl and ratchet connected with the ladder-reel Q, and which prevents the ladder P from being unwound any further, while the water-pressure holds the pipes F G H firmly in position. The firemen can then direct one or more streams of water upon the fire from the platform J; or, by interposing one or more lengths of hose between the flexible pipe M and the nozzle and by using the scaling-ladders, the firemen can pass into or upon the building to get into the most favorable position for playing upon the fire.

The ladders *e* can also be used for rescuing people from burning buildings, which people can climb down the ladder P or can remain upon the platform J until the said platform is lowered, which is done by allowing the water to flow out of the pipes F G H.

We are aware that it is not new to use a double series of extensible pipes and an interposed flexible ladder; but

What we do claim as new and of our invention is—

A combined portable hydraulic fire-escape, water-tower, and hose-reel, constructed substantially as herein shown and described, and consisting of the carriage A B C, the telescopic pipes F G H, connected at their joints by spiders I, at the top by the platform J, and at the bottom by the chamber R, having valved couplings S and safety-valve U, the gates L and the flexible pipes M at the upper end of the telescopic-pipes, the flexible ladder P, and the ladder-reel Q, provided with ratchet-wheel *a* and pawl *b*, as set forth.

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Witnesses:

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