W. A. TIDBALL & A. E. SPENCER.

Adjustable Stand Pipe and Ladder.

No. 212,871. Patented Mar. 4, 1879.

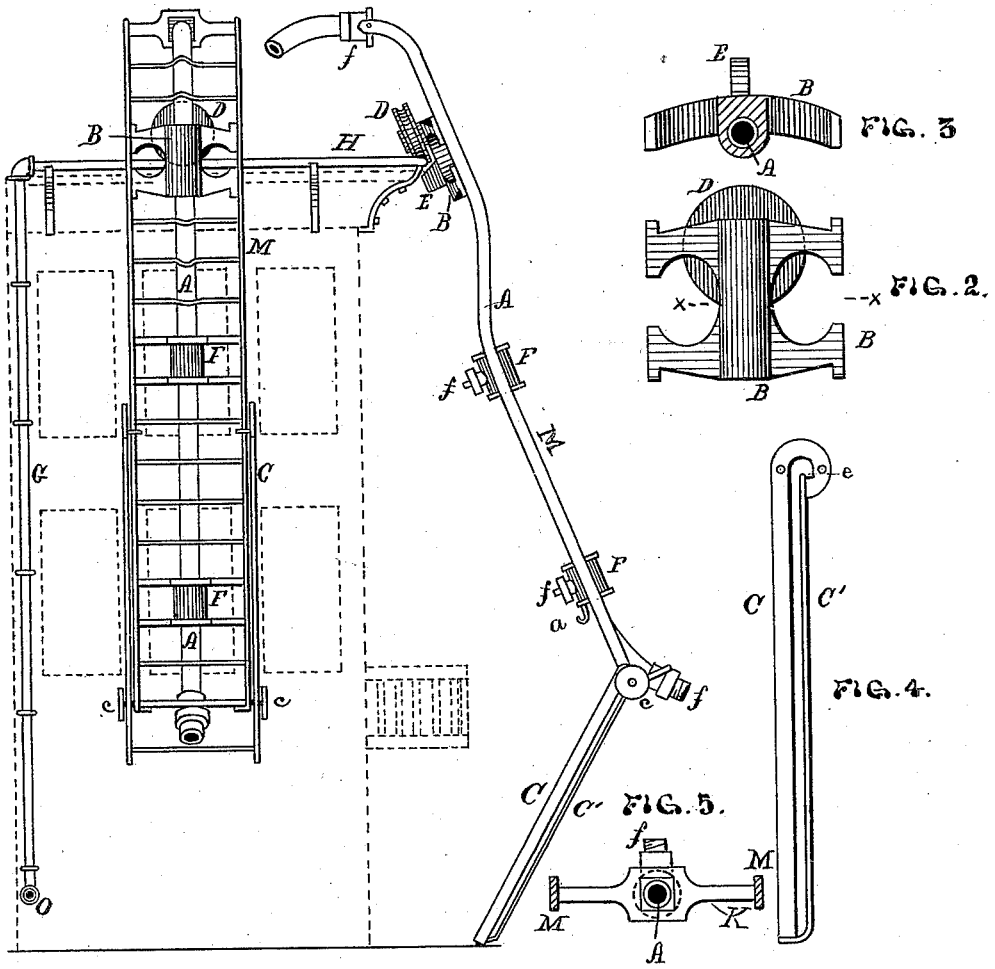


FIG. 3

FIG. 2.

FIG. 4.

FIG. 6.

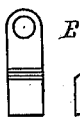
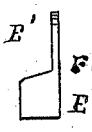


FIG. 7.



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UNITED STATES PATENT OFFICE.

WILLIAM A. TIDBALL AND ARCHELAUS E. SPENCER, OF CHICAGO, ILL.

IMPROVEMENT IN ADJUSTABLE STAND-PIPE AND LADDER.

Specification forming part of Letters Patent No. **212,871**, dated March 4, 1879; application filed February 9, 1878.

To all whom it may concern:

Be it known that we, WILLIAM A. TIDBALL and ARCHELAUS E. SPENCER, of the city of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Adjustable Stand-Pipe and Fire-Ladder, which is fully described in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a front elevation of a building with our improved stand-pipe attached; also a side view of stand-pipe with extension-ladder lowered and being used as a brace or prop when using the stand-pipe at an angle. Fig. 2 represents that portion of the stand-pipe which is cast with braces and bearing for wheel. Fig. 3 is a view of section of the same, taken on line *x x* of Fig. 2. Fig. 4 is an enlarged view of side rails of extension-ladder. Fig. 5 is an enlarged view of end rounds of section of main ladder, showing the manner of securing ladder to stand-pipe at the couplings. Figs. 6 and 7 are enlarged views of guard for wheel when made separate.

The object of our invention is to provide an adjustable stand-pipe with a ladder attached, which will also serve as a means of escaping from a fire of or gaining access to a fire with more ease, expedition, and safety than by methods heretofore in use; also, to provide a ladder that can be swung and held at an angle with the wall of a building, to enable firemen or others to ascend with more ease and safety, and that can be moved while persons are on it without their having to come down or leave it at all.

The invention consists in providing stand-pipes with a wheel or wheels so attached as to run upon a track either on the roof or at the edge of the roof, in order that the stand-pipes may be moved easily to any desired point, and having a ladder attached for the purpose of enabling persons to escape from or gain access to a fire.

In the drawings, the stand-pipe A, Fig. 1, is so constructed that the portion B, Fig. 1, opposite the track H, Fig. 1, being cast of malleable iron or other suitable metal, and heavy, affords a bearing for the wheel D, Fig. 1, also a guard, E, Fig. 1, for preventing the wheel, which is grooved, from leaving the track; or the guard E, Figs. 6 and 7, may be made separate and attached to the bearing for wheel.

The stand-pipe should be constructed of such length as to extend down to the second floor—that is, to the top of the first story; and a short ladder, C, is attached to lower end of main ladder M, attached to stand-pipe A, long enough to reach down to the ground, being made a little longer than the height of the first story, so that it will stand in an inclined position when let down. This ladder is so constructed that it can be drawn up and secured by the hook *a* when not in use, the rail C′, Fig. 4, and guards *c*, Fig. 1, preventing it from becoming detached. By means of the notch *e*, Fig. 4, the stand-pipe is held firmly when being used in an inclined position.

The stand-pipe is supplied with hose-couplings *f*, as in ordinary stand-pipes.

The main ladder M is constructed as in common iron ladders, having the rounds riveted into the side rails, and havings the end rounds of each section made broad, with a square hole in the center, as K, Fig. 5.

The track H, Fig. 1, on which the wheel D runs, is perforated on the side next to the building, and a section, G, Fig. 1, is brought down to the ground and supplied with a hose-coupling, O, Fig. 1.

The stand-pipe couplings F, Fig. 1, are made square to fit into the end rounds, K, Fig. 5, of the main ladder M, Fig. 1.

The advantages of this combination of devices are many and evident. It is a permanent arrangement, always ready, and can be run from point to point and around from side to side of the building. Yet at the same time, if it is desired to have it firmly fixed at any one point, it can be so fixed by forcing the extension-ladder against the ground. In case of assisting persons from the building or firemen entering the building, the stand-pipe and ladder can be brought directly in front of a window, and as it extends the full height of the building, when it is brought in front of the window on any one floor it is in front of the windows parallel with this window on all the floors.

The stand-pipe and ladder, being detached at the bottom, enables persons to swing it out so as to pass any obstructions, such as veran-

das, awnings, &c., and also that it may stand at such an angle as to enable firemen or others to mount it easily and safely, thus having a great advantage over the stationary stand-pipe ladders, especially at that point where the ladder bends outward from the side of the building to pass over the cornice to the roof.

In cases where the buildings in a block are all of the same height, the track can be extended along on them all, thereby reducing the expense of separate stand-pipes and ladders, and giving to the occupants of the different buildings protection to life and property in the one stand-pipe and ladder.

We do not limit ourselves in this arrangement to the use of but one stand-pipe, but may attach more to the same wheel or wheels.

By means of the extension-ladder being raised when not in use all communication from the ground to the main ladder is cut off, thus preventing thieves from using the ladder to enter the building.

By forming the track of pipe and perforating it on the side next to the building the roof and sides of the building may be so flooded as to protect them much better than by other means.

The stand-pipe can be moved from point to point by persons either on the roof by means of that portion projecting above the wheel, or on the ladder itself, or on the ground; and in cases where persons are in the upper stories of a building which is burning in the lower stories, this ladder, on account of its being metal, can be run through the fire and brought to the point where the persons are, and after they have gotten on it it can be run to a part of the building away from the fire, where they may descend in safety.

We do not claim the mode of conveying water through stand-pipes as being new; neither do we claim the throwing of water onto a building by means of a perforated pipe as being new, nor the fixing of a track to a building for a ladder to run on as being new.

What we claim as our invention, and desire to secure by Letters Patent, is—

A stand-pipe with a wheel attached thereto, arranged to run upon a track at the top of a building, in combination with a ladder for the purpose of saving life and property, formed substantially as described.

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In presence of—
F. W. YOUNG,
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