(No Model.)

W. & J. M. HEFFNER.

COMBINED STAND PIPE AND FIRE ESCAPE.

No. 282,314. Patented July 31, 1883.

FIG. 1

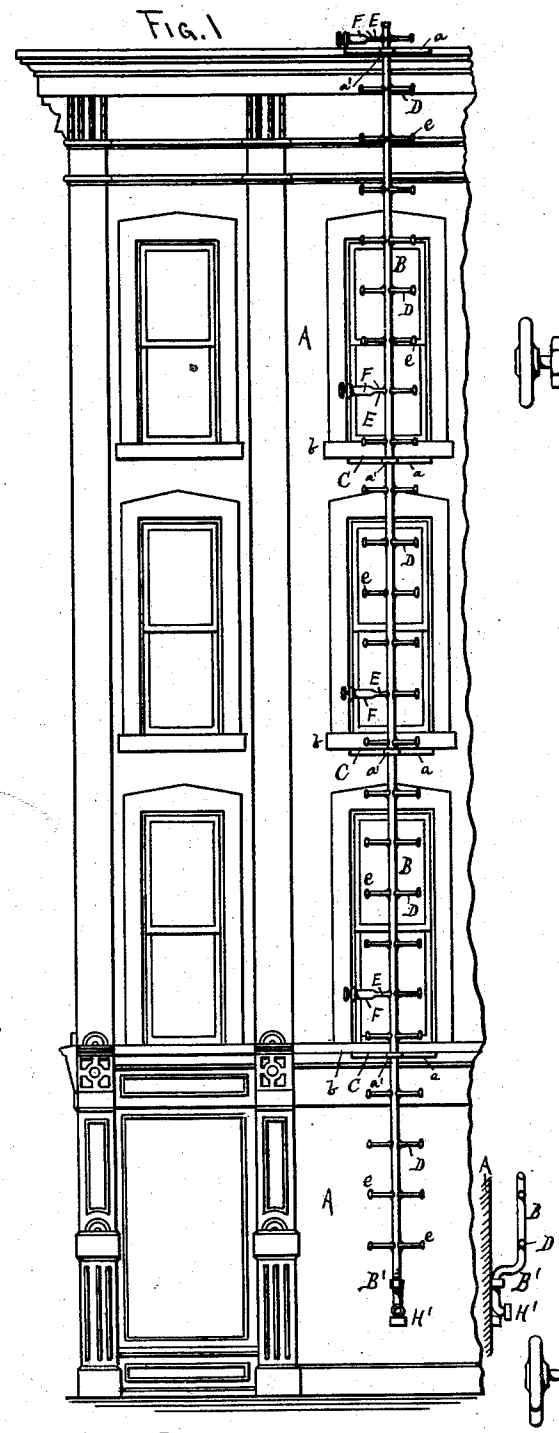


FIG. 2

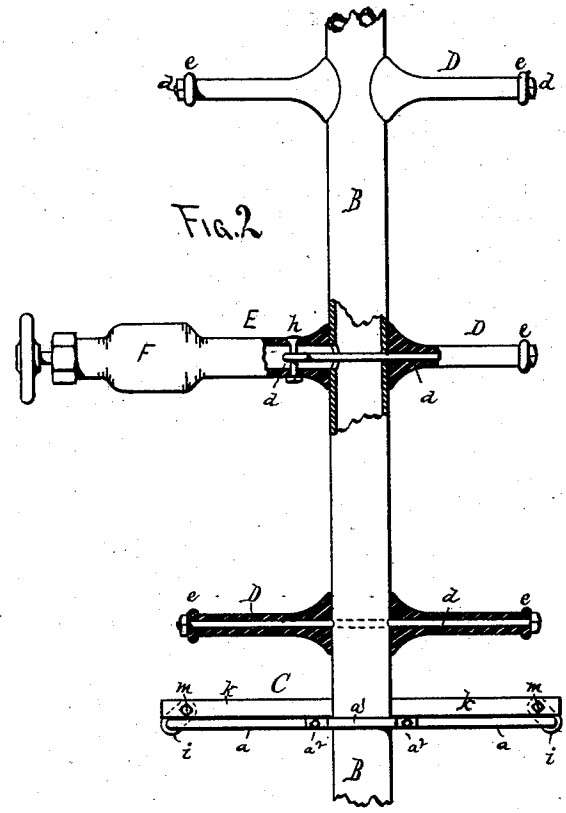
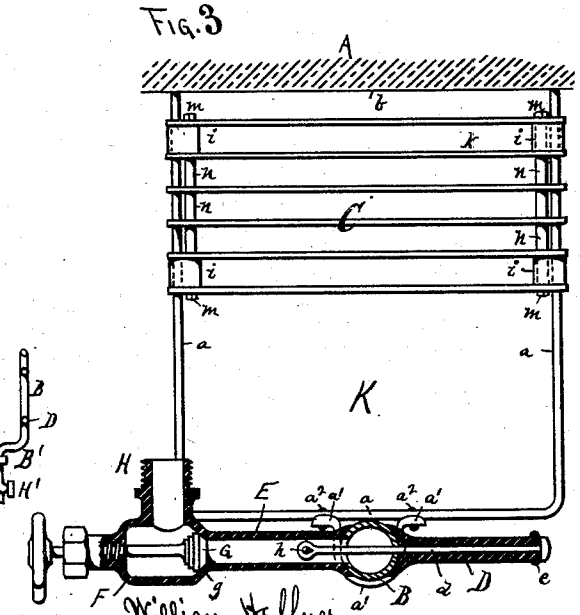


FIG. 3



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UNITED STATES PATENT OFFICE.

WILLIAM HEFFNER AND JOHN M. HEFFNER, OF MINNEAPOLIS, MINNESOTA.

COMBINED STAND-PIPE AND FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 282,314, dated July 31, 1883.

Application filed March 12, 1883. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM HEFFNER and JOHN M. HEFFNER, both citizens of the United States, and both residents of Minneapolis, in the county of Hennepin, in the State of Minnesota, have invented certain new and useful Improvements in Combined Stand-Pipes and Fire-Escapes, of which the following specification is a full, clear, and exact description, reference being also had to the accompanying drawings.

This invention relates to stand-pipes by which water is applied to buildings for fire purposes; and it consists in combining therewith the construction hereinafter described and shown, and then sought to be specifically defined by the claims.

In the drawings, Figure 1 represents an elevation of a portion of a building with our improvements arranged thereon. Fig. 2 is an enlarged semi-sectional side view of a portion of the stand-pipe and its attached parts, and Fig. 3 is a cross-sectional view of the same.

A is the building, and B an iron stand-pipe, secured in an upright position by metal bands or braces *a* at suitable intervals, and supported at the bottom, as shown at B'. These braces will be placed at points opposite the sills *b* of the windows, and may be placed at intermediate points besides, if required, and each brace that comes opposite a window will form a frame for a small platform, C, upon which persons may step when about to descend. At suitable intervals—usually about every sixteen to twenty inches—cast-iron bars or "rounds" D will be arranged, adapted to partially enclasp the pipe B on opposite sides, and secured thereto by a bolt, *d*, passing entirely through each opposite pair of the rounds lengthwise, and also through the pipe B, as shown in Fig. 2. The rounds D thus form a ladder upon the stand-pipe B, upon which persons may easily descend from any or all the windows opposite which the pipe is set.

The outer ends of the rounds D will be provided with small projecting ribs or collars *e*, to prevent the feet slipping off from their ends. At points opposite each window, and also above the roof, one of the rounds on one side of the pipe B will be replaced by an enlarged hollow round, E, communicating with the interior of the pipe, and having a valve-seat, *g*, valve-casing F, valve G, and hose-nozzle H upon its outer end, whereby streams of water from the pipe B may be conducted to any or all of the floors of the building or to the roof without interfering with the regularity of or obstructing the ladder feature of our invention. The only change required in forming the valve is in making the round E a little larger than the rounds D, the inner end of the enlarged valve-casing F serving the same purpose as the ribs *e* on the rounds D. The presence of the valve G on the outer end of the rounds E prevents the running of the bolts *d* entirely through this form of round; hence we secure them to the pipe B by the means shown in Figs. 2 and 3, consisting in forming the ends of the bolts *d* inside the rounds E with eyes, and passing small bolts *h* down through both the metal sides of the rounds, and also through these eyes, and then drawing the pipe B, round D, and valve-round E tightly together by the nuts on the opposite ends of the bolts *d*.

The ends of the rounds D and E, where they come in contact with the pipe B, are enlarged, as shown, to strengthen the rounds and form braces between them and the pipe B and remove the strain largely from the bolts *d*.

The bolts *d* and *h*, and also the inner ends of the rounds D and E, will be provided with suitable water-tight packing material between them and the pipe B, to prevent leakage.

By these arrangements, in event of fire occurring in the building to which the device is attached, it is only necessary for the occupants to step out through the windows upon the platforms C and descend by the latter upon the stand-pipe B, while at the same time, by attaching small hose to the nozzles H and connecting the fire-engines or other power for supplying water to the pipe B to its lower end at H', water may be supplied to any or all the floors or to the roof of the building.

The platforms C may be constructed of any suitable material or in any desired manner, but should be of metal, so as not to be affected by the fire. In the drawings we have shown them constructed of small parallel iron bars *k*, secured to each other by bolts *m* and sections of gas-pipe *n*, and connected to the braces *a* by clamps *i*. The pipe B may be secured to the braces *a* in any suitable manner; but we have shown straps *a'* encircling the pipe and

connected by bolts or rivets a^2 to the brace a. By this arrangement of the platforms open spaces K (see Fig. 3) are left between the platforms C and pipe B and its rounds D E, down through which openings the persons pass from story to story of the building, so that less danger exists of timid persons falling or becoming bewildered, as they always have the pipe B in front of them and the wall of the house behind them, while the platforms C occurring at short intervals give additional security. A wire-netting might also be arranged to connect the sides of the platforms to each other, and thus give a still greater security.

The device might be arranged at one side of the rows of windows, if preferred, and galleries might be arranged to connect all the windows of each floor with the window at which the pipe B is placed.

Having described our invention and set forth its merits, what we claim is—

1. The combination of the pipe B, rounds D, and bolts d, substantially as described.

2. The combination of the pipe B, platforms C, braces a, rounds D, and bolts d, substantially as shown and described.

3. The combination, with the pipe B, rounds D, and bolts d, of the tubular rounds communicating with the interior of said pipe, valve G, and nozzle H, substantially as shown and described.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

WILLIAM HEFFNER.
JOHN M. HEFFNER.

Witnesses:
FRED. ROGERS,
LOUIS HEFFNER.