

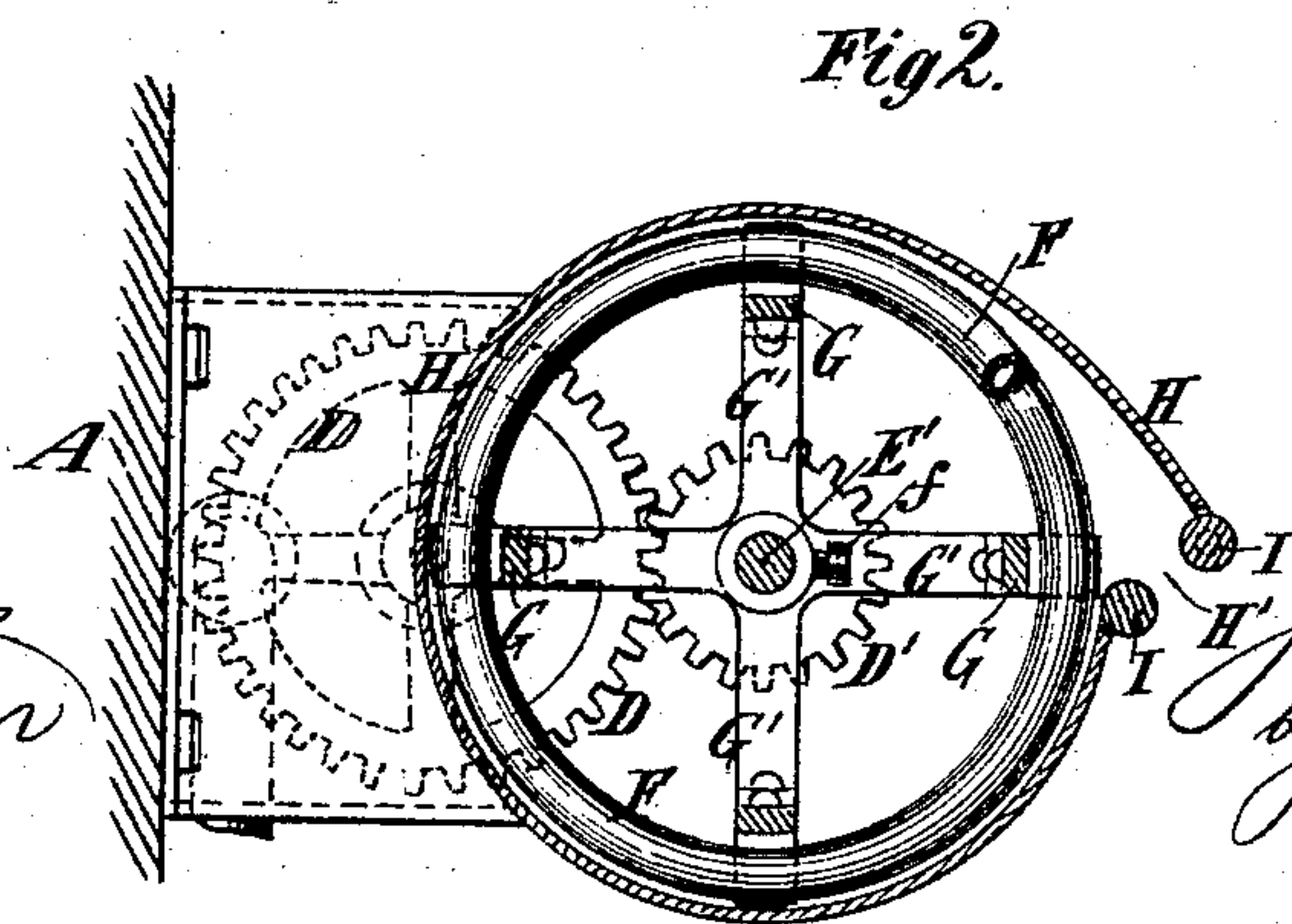
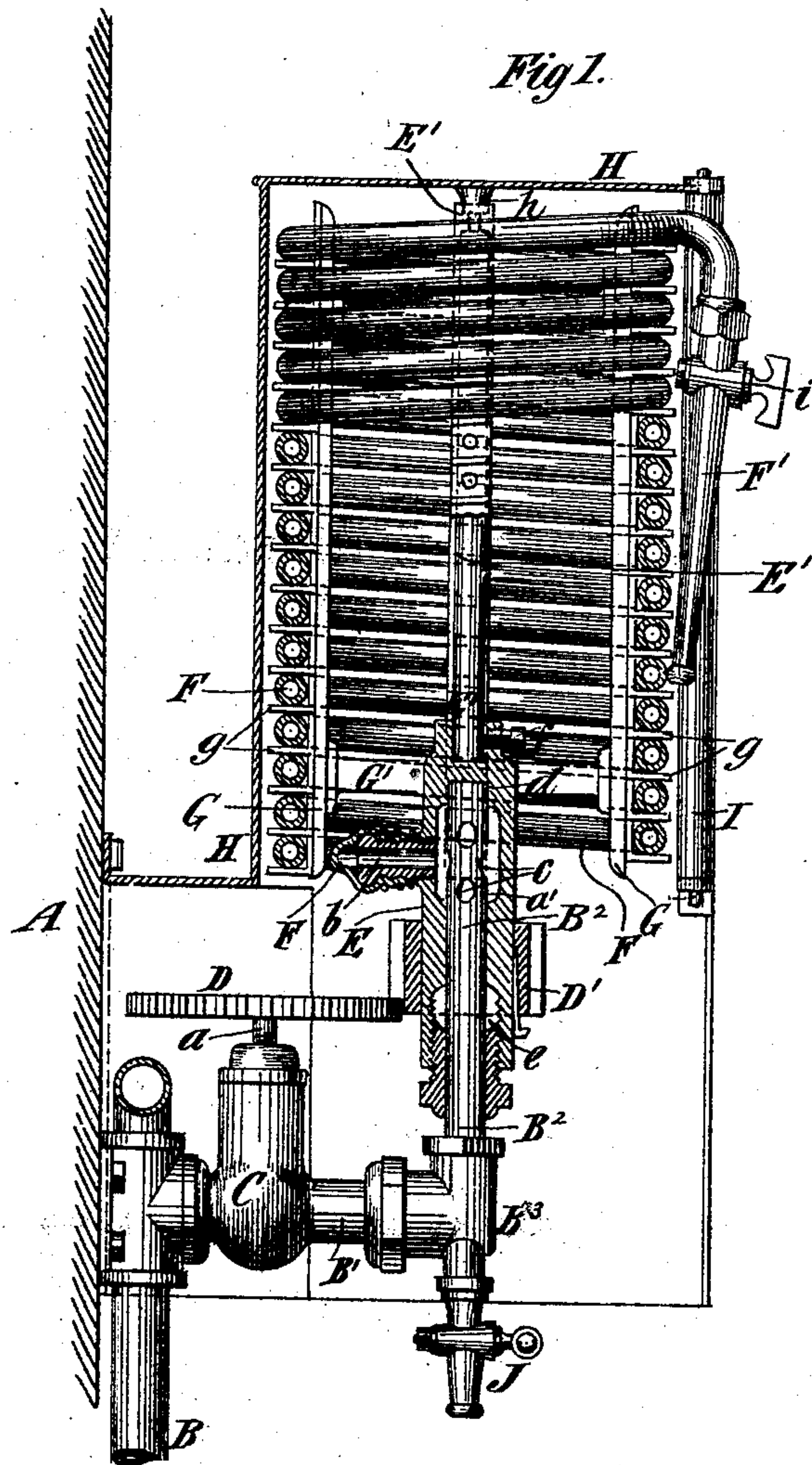
(No Model.)

J. E. GILLESPIE.

HOSE REEL.

No. 275,637.

Patented Apr. 10, 1883.



Witnesses
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JAMES E. GILLESPIE, OF WARWICK, NEW YORK.

HOSE-REEL.

SPECIFICATION forming part of Letters Patent No. 275,637, dated April 10, 1883.

Application filed July 12, 1882. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. GILLESPIE, of Warwick, in the county of Orange and State of New York, have invented a new and useful Improvement in Hose-Reels, of which the following is a specification.

My invention relates more particularly to hose-reels which carry hose permanently attached to a supply-pipe, and which are so constructed that the valve in the supply-pipe will be opened automatically by the rotation of the reel in unreeling the hose, so as to turn on the water.

The invention consists in the combination, with a supply-pipe, of a hose-reel having an upright shaft, a valve in said pipe having its stem approximately parallel with said reel-shaft, and spur-wheels upon the reel-shaft and valve-stem, through which the rotation of the reel-shaft turns the valve-stem. The supply-pipe preferably terminates in a hollow journal or stand-pipe, while the shaft of the reel comprises a hollow portion or sleeve fitting outside the journal or stand-pipe and adapted to turn thereon and receive water therefrom, as hereinafter more fully described. I preferably provide a cock at the lower end of the stand-pipe, whereby I am enabled to draw off all water from the hose and stand-pipe after the reel has been wound up after use.

The invention also consists in the combination, with a hose-reel, of a stationary hood or casing inclosing the same, and having an opening in the side for the passage of the hose, and guard-rollers at the opposite sides of the opening to enable the hose to be more readily unreeling or drawn out in various directions.

The invention also consists in details of construction and combinations of parts, to be hereinafter described.

In the accompanying drawings, Figure 1 represents a partly-sectional elevation of a reel and supply-pipe embodying my invention, and Fig. 2 represents a horizontal section thereof.

Similar letters of reference designate corresponding parts in both figures.

A designates a wall or an upright support, and B designates a water-supply pipe secured thereto, and comprising a horizontally-extending portion, B', and a vertical portion, B²,

which forms a stand-pipe, and is connected with the horizontal portion B' by an elbow, B³. In the horizontal portion B' of the pipe is a valve, C, which has a spur-wheel, D, upon its stem *a*, and controls the passage of water through the pipes B' and B²; and this valve may be so constructed that the stem may continue turning even after the valve is open. The stand-pipe B² is turned off upon its exterior, and upon the outside thereof is fitted a tube or sleeve, E, which is recessed or chambered out at *a'*, and is provided with a nipple, *b*, extending from such recess or chamber, to which the hose F is attached permanently. The stand-pipe B² is provided with holes *c* opposite the recess or chamber *a'*, and when the valve C is open water can flow freely from the pipe B through the stand-pipe B², and therefrom through the chamber *a'* into the hose. The sleeve E is provided with a bearing, *d*, which receives the end of the stand-pipe B² and forms a step for supporting the sleeve, so that it is free to rotate, and the lower end of said sleeve is provided with a stuffing-box, *e*, which prevents leakage between the stand-pipe and said sleeve.

E' designates a shaft attached to the upper end of the sleeve E, so that it may turn therewith, and the two together constitute the shaft of the reel. In the present example of my invention the shaft E' is inserted in a socket in the sleeve and secured therein by a set-screw, *f*. The reel is here represented as composed of longitudinal bars G, attached to the radial arms G', projecting from the shaft E' and sleeve E, and the whole reel is supported through its shaft on the stand-pipe B². The bars G are here represented as provided with projections or lugs *g*, which are arranged spirally, so that they hold the hose F in proper form on the reel; but these projections or legs may be dispensed with.

H designates a hood or case, which may be secured to the wall or support A, and which is provided with a bearing, *h*, for the upper end of the shaft E'. This hood or case incloses the reel, and has at its outer side a vertical opening, H', through which the hose may pass as it is reeled up or unreeling; and to guide the hose F so that it may be drawn out through said opening in various directions, I provide

guard-rollers I at the sides of said opening, as best shown in Fig. 2.

Upon the sleeve E is secured a pinion, D', which engages with the wheel D on the stem a of the valve C. It will be seen, therefore, that when the reel is turned by the act of drawing off or unreeling the hose the rotary motion will be transmitted to the valve-stem a for opening the valve. The valve will be opened gradually, and hence the hose will not be strained by the pressure being suddenly exerted upon it. When the hose has been drawn out to the distance required the cock i in the nozzle F' has only to be opened to enable a stream of water to be brought to bear on the fire.

The wheel D and the wheel or spindle D' might be secured upon the stem a and the sleeve E, so as to be capable of ready removal and other wheels of different sizes substituted, to adapt the valve to be opened by the unwinding of the whole of the hose; but if the valve-stem a is adapted to be turned sufficiently beyond a point necessary to open the valve the wheels need not be changed.

The elbow B³ may be turned on the horizontal part B' of the supply-pipe to bring the sleeve E and stem a to the required distance apart if the wheels are changed.

J designates a waste-cock, which is inserted in the elbow B³, so as to provide for drawing off the water contained in the hose and pipe B' B² after the valve C is closed.

My reel is very advantageous for many reasons. By arranging it with its shaft upright I am enabled to support it entirely on the stand-pipe without the necessity for any other bearings, and can drain all the water out of the hose and stand-pipe after the hose has been used and reeled up. By making the reel-shaft and the stem of the valve parallel I am enabled to use spur-gear wheels, and one wheel can move longitudinally on the other as the valve opens; hence the valve-wheel can be fast on the stem.

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

1. The combination, with a supply-pipe, of a hose-reel having an upright shaft, a valve in said pipe having its stem approximately parallel with said reel-shaft, and spur-wheels upon the reel-shaft and valve-stem, through which the rotation of said shaft turns the valve-stem, substantially as specified.

2. The combination, with a supply-pipe provided with a valve and an approximately vertical stand-pipe, of a reel-shaft comprising a sleeve or hollow portion fitting outside the stand-pipe and having a long bearing thereon, and spur-wheels connecting the said sleeve or hollow portion and the stem of the valve, substantially as specified.

3. The combination, with a supply-pipe and an approximately vertical stand-pipe, of a hose-reel mounted upon said stand-pipe and carrying a hose which is in communication therewith, and a waste-cock at the lower end of said stand-pipe for draining the stand-pipe and hose, substantially as specified.

4. In combination with the supply-pipe B B', the valve C, the stand-pipe B², provided with holes C, the reel-shaft, comprising the sleeve E, having the bearing d, fitting the end of the stand-pipe, and the wheels D D', substantially as specified.

5. The combination, with a hose-reel, of a hood or casing inclosing the same and provided with a longitudinal opening for the passage of the hose, and guard rollers at the sides of said opening over which the hose may be drawn, substantially as specified.

6. The combination of the reel-shaft E E', the stand-pipe B², forming a step-bearing for the part E, the hood H, forming a bearing for the part E' and provided with the opening H', and the guard-rollers I, substantially as specified.

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Witnesses:

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