(No Model.)

J. R. WILSON.

HOSE REEL.

No. 250,619. Patented Dec. 6, 1881.

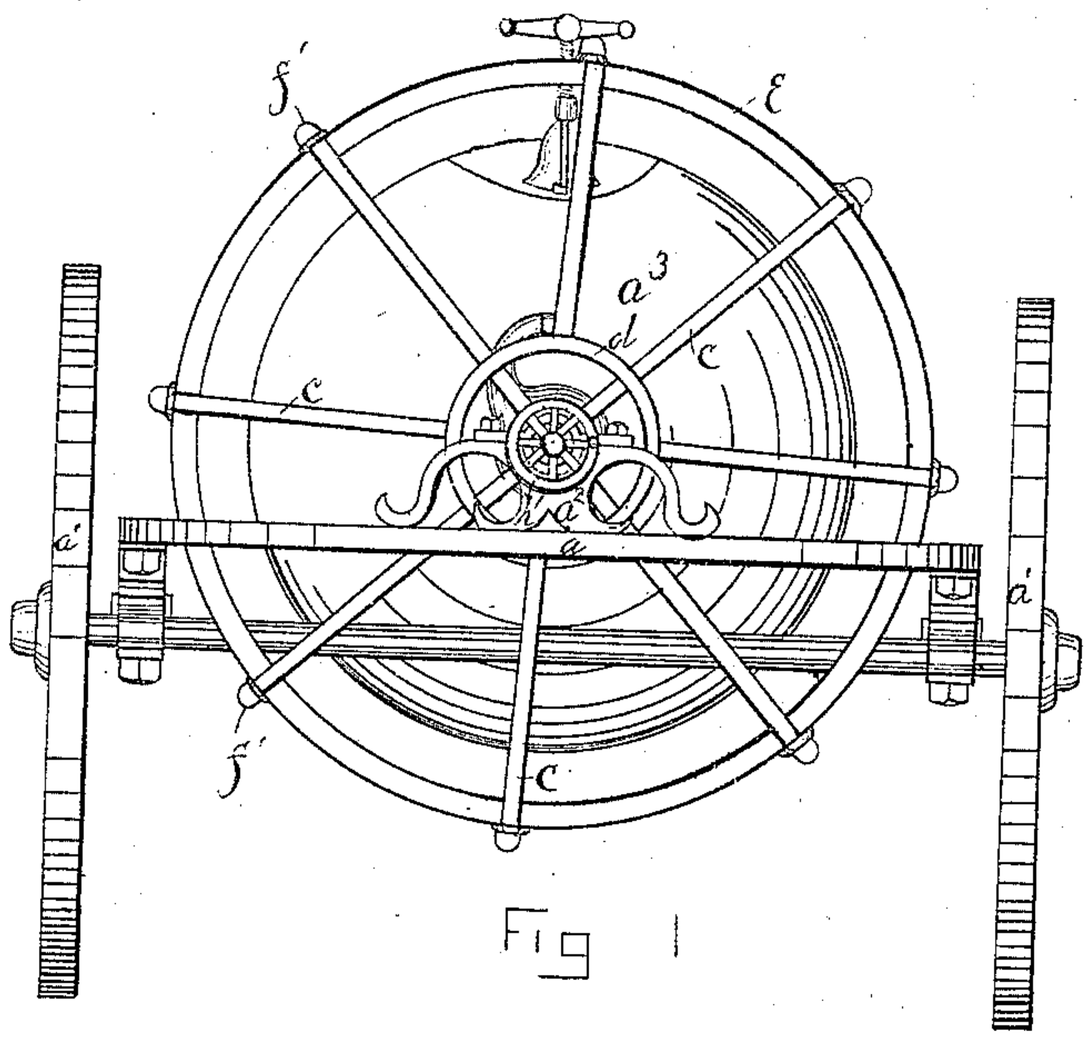

Fig 1

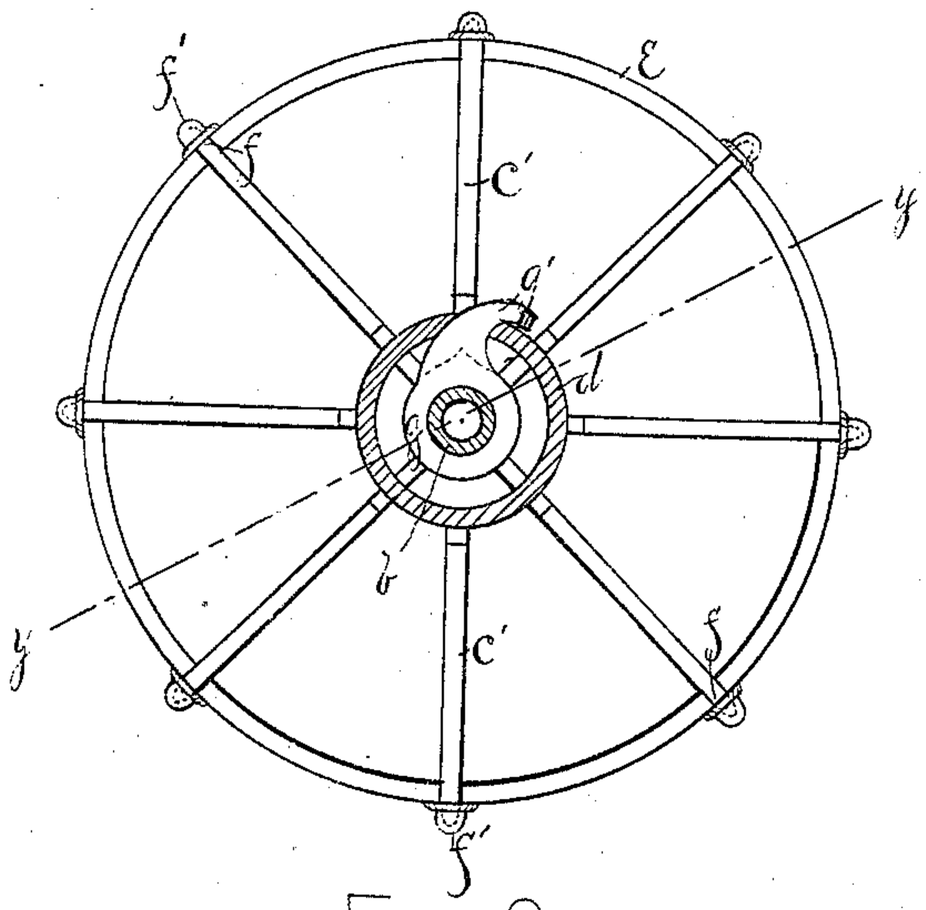

Fig 2

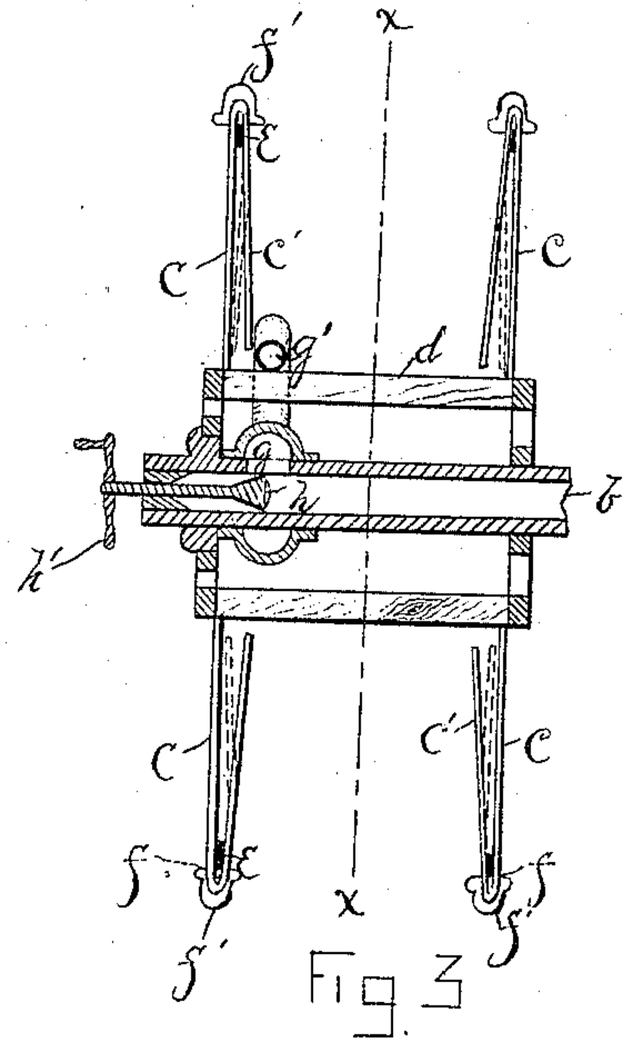

Fig 3

WITNESSES:

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JAMES R. WILSON, OF BUFFALO, NEW YORK, ASSIGNOR TO THE WILSON CHEMICAL FIRE EXTINGUISHER COMPANY, OF SAME PLACE.

HOSE-REEL.

SPECIFICATION forming part of Letters Patent No. 250,619, dated December 6, 1881.

Application filed October 11, 1881. (No model.)

To all whom it may concern:

Be it known that I, JAMES R. WILSON, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Hose-Reels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention has for its object to provide a reel which will allow for the expansion of hose, when wound thereon and subjected to pressure, without any undue straining of parts; and to this end it consists, substantially, of a drum mounted upon an axle, and having secured to its ends a number of light metallic bars, arranged radially thereon and bent inwardly to form spring-arms, against which the coils of hose rest, and which give sufficiently when the hose expands to allow for the extra space required without exerting any straining force against the main parts of the sides of the reel.

In the drawings, Figure 1 is a rear view of a chemical fire-extinguisher with my improved hose-reel mounted thereon. Fig. 2 is a section of the hose-reel detached, taken on the line *x x*, Fig. 3; and Fig. 3 is a section of the hose-reel detached, taken on the line *y y*, Fig. 2.

Referring to the drawings, *a* is the frame of the fire-extinguisher, mounted upon wheels *a'* *a'*. In a bracket, a^2, on the frame *a* rests one end of a hollow axle, upon which both my improved hose-reel and the generator a^3 revolve. Connection is made between the interior of the generator and the discharge-pipe in the reel in the usual manner.

The reel, as shown in the drawings, is mounted upon the hollow axle *b*, upon which it revolves. The sides of the reel, which serve to hold the hose wound thereon, are formed of light metallic bars *c*, of sufficient rigidity for the purpose required. These bars *c* are arranged radially upon the ends of the drum *d*, and have a portion, *c'*, of their length bent inwardly in such a manner as to form springs, against which the coils of hose rest. These springs *c'* remain in their normal position, as shown in the drawings in full lines, when the hose wound upon the reel is not subjected to pressure; but when the hose is under pressure, during the operation of the fire-extinguisher, it expands, pressing the springs *c'* in upon the sides *c* of the reel, as shown in dotted lines in Fig. 3, thus relieving the sides *c* of the pressure thereon, (which would otherwise occur were it not for this provision,) and thereby obviating any undue straining of the permanent parts of the reel.

To give additional stability to the sides of the reel, without materially increasing their weight, I employ a light circular rim, *e*, of metal, which I secure by rivets or otherwise to each of the sides of the reel, between the parts *c* and *c'*, at or near the point *f* of bending. These circular rims *e* not only give additional stability to the sides of the reel, but also serve to keep the inner ends of the springs *c'* in their normal position when the expansive pressure of the hose is not exerted thereon. Over the points *f* of bending I place the metallic caps *f'*, which serve to hold the springs *c'* more securely in position. These springs *c'* might be made of bars separate from the radial arms *c* and secured to the circular rims *e*, their ends entering the caps *f'*; but I have found it preferable to make them integral with the radial arms *c*, thereby insuring greater stability of parts and more perfect spring action.

The annular chamber *g* and curved opening *g'*, to which the hose is attached, together with plunger *h* and hand-wheel *h'*, operating in connection with the hollow axle *b*, leading into the generator a^3, form no part of my invention, and only serve to illustrate the application of my improved reel to a chemical fire-extinguisher.

It is obvious that my reel is equally well adapted to other devices in which it is found necessary to provide for the expansion of hose under pressure.

The operation of my improved reel is too apparent, from the drawings and foregoing description to need any further detailed explanation thereof.

I claim—

1. A reel for hose, the sides of which consist of radial arms bent over upon themselves to

form springs, against which the outer coils of hose rest when wound thereon, and which are adapted to yield and allow for the expansion of the hose under pressure, thereby relieving the main sides of the reel of undue strain, substantially as shown and described.

2. A reel for hose, consisting of the drum *d*, adapted to revolve upon a suitable axle, and having secured at its ends the radial arms *c*, forming the main sides of the reel, the springs *c'*, formed by bending inwardly the ends of arms *c*, the circular rims *e*, secured between the radial arms *c* and springs *c'*, and the cap, *f'*, substantially as shown and described.

3. In a reel for hose, the combination of the drum *d* with the radial arms *c* and springs *c'*, substantially as shown and described.

4. In a reel for hose, the combination of the drum *d* with the radial arms *c*, springs *c'*, circular rims *e*, and caps *f'*, substantially as shown and described.

JAMES R. WILSON.

Witnesses:
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