(No Model.)

S. F. REYNOLDS.

HOSE REEL.

No. 424,501. Patented Apr. 1, 1890.

Fig. 1

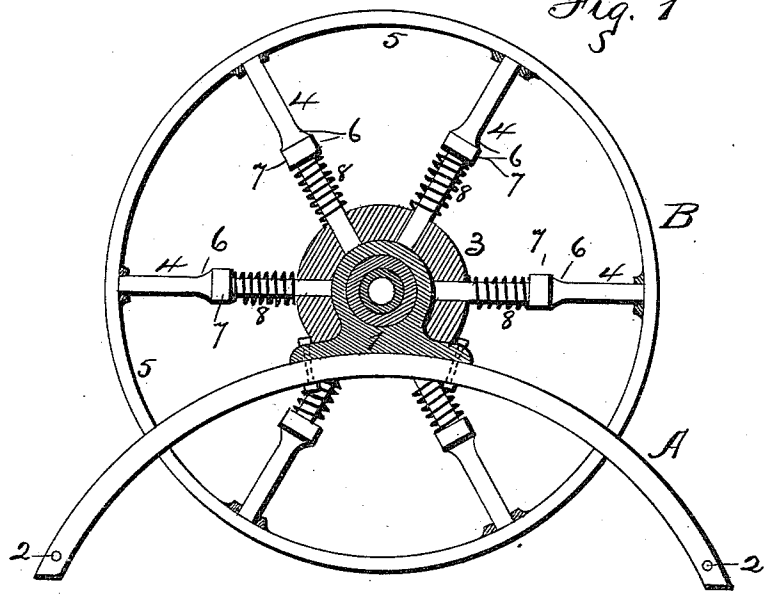


Fig. 3.

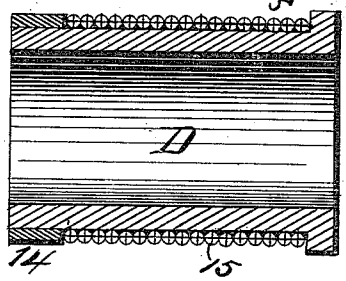
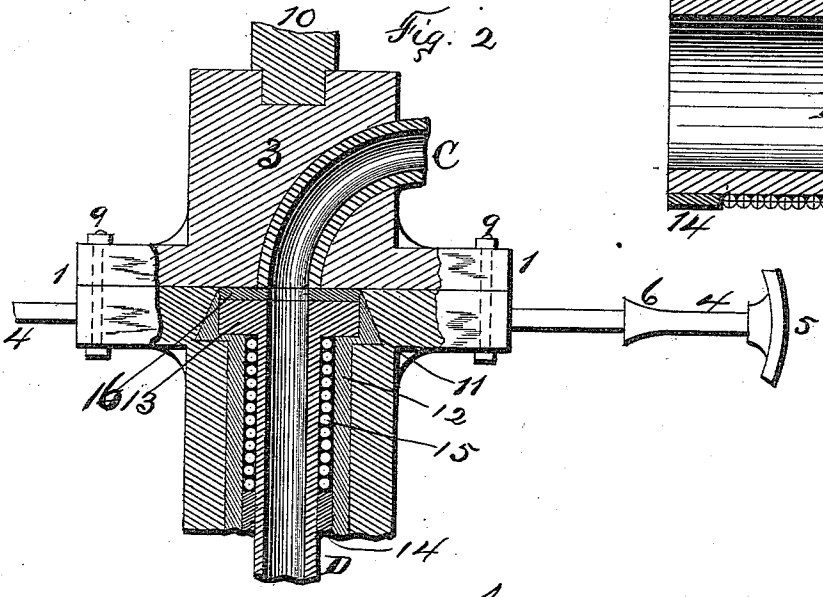


Fig. 2



Witnesses.

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UNITED STATES PATENT OFFICE.

SAMUEL F. REYNOLDS, OF AUBURN, NEW YORK.

HOSE-REEL.

SPECIFICATION forming part of Letters Patent No. 424,501, dated April 1, 1890.

Application filed May 31, 1889. Serial No. 312,676. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL F. REYNOLDS, of Auburn, county of Cayuga, in the State of New York, a citizen of the United States, have invented certain new and useful Improvements in Hose-Reels, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a sectional side elevation. Fig. 2 is an enlarged horizontal section through the box and feed-pipe and valve. Fig. 3 is an enlarged vertical section of the inner end of the feed-pipe, the flange on the inner end, the shoulder on the outer end, and the manner in which the packing is applied thereto.

My invention relates to the construction of hose-reels.

The object of my invention is to improve the construction of the reel both as to the reel proper and the mechanism by which it is supported and carried, and also as to the packing-joint between the stationary inlet-pipe and the goose-neck, to which the hose is connected, which is connected by a packing-joint with the stationary pipe, so that the goose-neck rotates with the reel, and a perfectly tight joint is created between the reel and the stationary pipe to prevent any leakage of water at that point.

My invention consists in the several novel features of construction and operation hereinafter described, and specifically set forth in the claims annexed.

It is constructed as follows:

A is the supporting-frame.

B is the reel mounted in the journal-boxes 1 1, secured to the frame A at the apex of the arch thereof. At 2, I show the ends of cross-bars connecting the side pieces of the frame.

The reel B consists of a hub 3 and spokes 4 and felly 5, the spokes being connected or secured to the hub and felly in any ordinary manner. The spokes 4 are swaged to form a shoulder 6. 7 are cross-bars fitting over the spokes loosely and thrown up against the shoulders 6 by the springs 8, interposed around the spokes between the cross-bars and the hub, these cross-bars carrying and supporting the hose when wound upon the reel, and the springs 8 being of sufficient strength to substantially hold the bars against the shoulders when the hose is wound thereon, but yielding inwardly to permit the enlargement of the hose when filled with water.

C is the curved or goose-neck pipe through the inner part of the hub 3, the outer end of which goose-neck pipe is central to the hub, while the inner end projects beyond its periphery at a point adjacent to the spoke *s*, and this end is provided with means for coupling the hose thereon. The hub proper is in three sections, which are bolted together by the bolts 9, and 10 is the solid axle secured in the inner end of the inner hub-section.

In the outer section, which fits in the journal-box 1, I first cut the dovetailing recess 11, opening out of the inner face of this section of the hub and extending cylindrically outward to the outer end of this hub-section. Within this recess I place a metallic packing-ring 12, shouldered and beveled to fit the recess closely.

D is the inlet-pipe, provided on its inner end with the enlargement forming a head 13 or collar, and adjacent to its outer end is another collar 14, creating a packing-recess between the collar and the head, in which I place or wind any suitable absorbent packing 15. The head of the inlet-pipe fits closely within the packing 12, and this pipe and head remain stationary with the revolution of the reel, while the outer section of the hub and the packing 12 are carried around as the reel rotates. At 16, I show a brass or other soft-metal packing-ring of the same size as the head 13, and adapted to fit between or within the inner end of the packing 12, so as to bring a soft-metal surface, as the wearing-surface, in contact with the outer hard metallic surface of the inner hub-section. It will be observed that by this packing-joint whenever the water is let on the back-pressure will force all of the parts tightly together—the washer 16 tightly against the head 13, the head 13 tightly against the packing 12, and the packing 12 back tightly in the recess 11—and will thus create a perfectly tight joint without the use of any bolts or equivalent means to tighten the joint or compress the packing, while the absorbent packing 15 will lubricate the joint between the pipe D and the outer hub-section, and all the time leave the outer section of the hub free to rotate upon the stationary pipe D, the end of that pipe constituting the axle on that

side of the reel. It will be further observed that when standing in the position shown in Fig. 1 the reel is free to rotate upon its bearings, and that when the pipe D is disconnected from the water-supply the reel will be turned over, so as to rest upon the fellies, and then can be trundled like a wheelbarrow to wind up the hose upon the reel and to transport the reel and hose from one place to another.

What I claim is—

1. In a hose-reel constructed with a sectional hub having a goose-neck through the inner section and outer hub-section having a dovetailed recess in its inner face, a packing fitting the dovetailed recess, a stationary inlet-pipe provided with a head 13, fitting within the outer end of the packing 12, a collar 14 upon the pipe, absorbent packing around the pipe between the collar and the head, and a washer 16 upon the face of the head of the pipe, substantially as described.

2. A hose-reel comprising an arching frame carrying journals supporting the reel, consisting of hubs, spokes, fellies, hose-bars mounted upon the spokes and abutting against shoulders thereon, and springs between the hubs and the hose-bars, and a goose-neck through one section of a hub, and a stationary inlet-pipe coinciding with one end of the goose-neck, and a dovetailing packing within the outer hub-section and around the end of the stationary pipe, substantially as described.

In witness whereof I have hereunto set my hand this 29th day of May, 1889.

SAMUEL F. REYNOLDS.

In presence of—

H. P. DENISON,

C. W. SMITH.