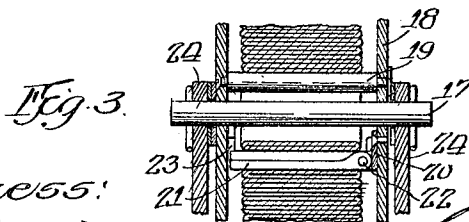
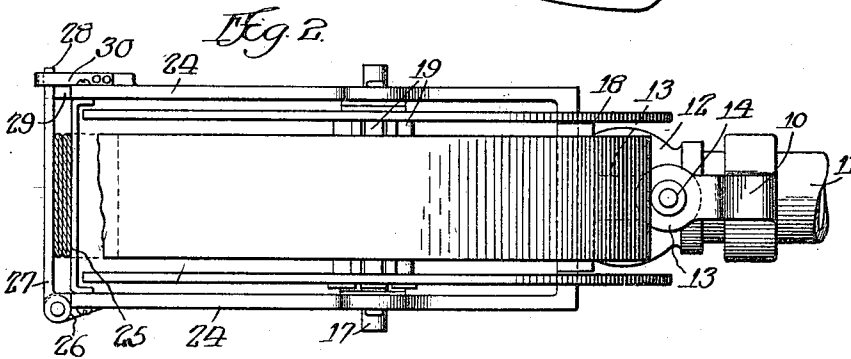
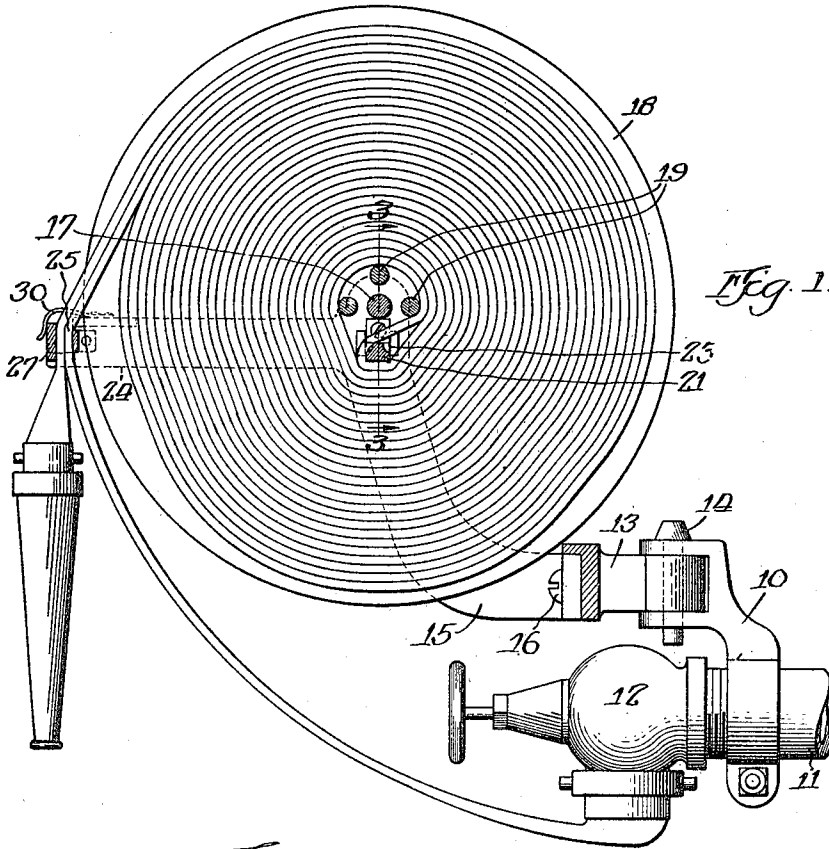


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HOSE REEL.

APPLICATION FILED OCT. 8, 1917.

1,322,604.

Patented Nov. 25, 1919.



Witness:

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CHARLES NUHRING, OF CINCINNATI, OHIO.

HOSE-REEL.

1,322,604.

Specification of Letters Patent.

Patented Nov. 25, 1919.

Application filed October 8, 1917. Serial No. 195,279.

To all whom it may concern:

Be it known that I, CHARLES NUHRING, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Hose-Reels, of which the following is a specification.

This invention relates to improvements in hose reels for supporting fire-extinguishing and similar hose in convenient position for instant use in the event of the outburst of a fire, or other occasion for employment of the hose arising.

In reeling hose it is customary to place the same upon the reel so that it may be wound in double folds thereon. This requires the looping of the innermost portion of the hose upon the reel, and usually it is a fixed pin or spacer about which the looping is done. Therefore, in unreeling the hose, particularly if the speed of rotation of the reel is rapid, the hose is likely to become fouled, and difficulty experienced in releasing the hose completely from the reel. The present invention aims to avoid this by the provision of novel and efficient means which will afford secure anchorage for the folds but which will readily and expeditiously shed the folds when the hose is removed.

A further object of the invention is to provide a hose reel involving in its structure novel and efficient means for choking the hose against passage of the water, notwithstanding the controlling valve may be opened before the removal of the hose from the reel, thereby permitting the flow of the water to be turned on immediately on discovery of a fire or when other occasion for use of the hose may arise, and thus be available for use as soon as the choking action is relieved.

With these general objects in view, and others which will appear as the nature of the improvements is better understood, the invention consists substantially in the novel construction, combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and finally pointed out in the appended claims. In the drawings, wherein a preferred embodiment of the invention is disclosed;

Figure 1 is a vertical longitudinal sec-

tional view of a hose reel constructed in accordance with the present invention, the hose being illustrated as coiled thereon;

Fig. 2 is a top plan view thereof; and

Fig. 3 is a fragmentary transverse sectional view on the line 3-3 of Fig. 1.

Referring now in detail to the accompanying drawings, the numeral 10 designates a supporting bracket designed to be clamped about a water supply pipe 11 provided with the usual controlling valve 12. A head 13 is pivotally mounted in said bracket 10 as by means of a bolt 14 or its equivalent, and to said head 13 a pair of adjustable curved supporting arms 15 are connected, as by screws 16, or their equivalent. By this connection, it is possible for the arms 15 to be adjusted relatively to each other to accommodate variations in widths of reel.

Pivotally supported between the arms 15, as by a shaft 17, is a reel 18, and arranged at the central portion or hub of the reel 18 is a plurality of spacers or pins 19 about which the hose may be coiled.

It has been stated that one of the objects of the present invention is the provision of novel means for anchoring the folds of the hose at the central portion of the reel, which means shall permit instant shedding of the hose when the latter has been unreeled to a sufficient point to require the shedding of the looped part. To this end a lug 20 is suitably connected to one of the flanges of the reel, and a swinging pin 21 is pivotally connected to said lug 20, as at 22 so that it may be swung across the space between the flanges of the reel, or moved into a position which is parallel with the flange to which it is connected, thus permitting the hose to be readily displaced from the pin 21 when sufficient pressure is exerted thereon. The position in which the hose is shed from said pin is that which the pin occupies at right angles to what is disclosed in Fig. 3, the manner of looping the hose being illustrated in Fig. 1, in which view it will be seen that the hose is wound about the pin 21 so that double coils of the hose will be built up from the hub portion of the reel to the peripheral portion thereof as the hose is placed on the reel. The free end of the

pin 21 is received by a socket 23 arranged on the opposite flange of the reel to that on which the lug 20 which supports the pin 21 is mounted.

5 By reason of the pivoted pin 21 it will be readily seen that as the hose is drawn from the reel it will easily unwind until the fold about the pin 21 is reached, whereupon pull on the hose will swing the pin 21 to a position at right angles to that illustrated in Fig. 3, and the folds of the hose will thereby be shed. This precludes fouling of the hose, and enables the entire length of the hose to be displaced from the reel when occasion
10 for use of the hose arises.

It has also been pointed out that a further novel feature of the present invention is the provision of means for choking the hose to prevent flow of the water therethrough notwithstanding the fact that the controlling valve 12 may be opened. The use of such choking means is also desirable to prevent passage of the water induced by the tendency of the reel to rotate when the pressure of the water is present in the hose. To the attainment of the end mentioned, it is contemplated that the arms 15 shall be provided with forwardly extending projections 24, to the outer ends of which projections a connecting bridge 25 is suitably attached. Piv-
20 otally mounted on one of said projections 24, as by means of a lug 26, is a clamping lever 27, the free end of said lever being provided with a finger 28 which fits on to the rabbeted end 29 of the other projection 24, and is held thereon by a leaf spring detent 30 arranged above said rabbeted end 29. Between the bridge 25 and the clamping lever 27 the outer layers of the hose are held, and by the engagement of the spring detent 30 with the finger 28 of said lever 27 the latter exerts sufficient compressive strain on the hose or layers of the hose to preclude passage of the water therethrough. As illustrated in Fig. 1, the layers of the hose which are connected to the nozzle and of that portion coupled to the controlling valve 12 are positioned between the spring 25 and the clamping lever 27. The pressure of the spring 30, of course, is only sufficient to maintain this clamped relation, and upon pressure being applied to the nozzle to pull the same from the reel it will be seen that the lever 27 will be freed from engagement with the detent 30, by being swung outwardly on its pivotal lug 26, whereupon the hose may be readily unreeled and the nozzle taken to the point of discharge of the water where the same may be required.

60 In using the hereindescribed invention the middle portion of the hose is looped about the swinging pin 21, and the pin 21 is then moved to the position shown in Fig. 3, or transversely of the space between the flanges

of the reel 18. By now rotating the reel the hose will be coiled thereon until the full length thereof has been taken up, whereupon the outermost layers, which are trained over the bridge 25 may be compressed together by swinging the clamping lever 27 to the position shown in Fig. 2, in which position the finger 28 of said lever is engaged by the detent 30, thereby choking the hose against passage of the water. Should occasion now arise for use of the hose the nozzle is grasped and a pull exerted thereon, this being effective to swing the clamping lever 27 from under the spring detent 30, and now by continuing the pull on the nozzle the hose will readily unroll to its full length, being assisted by the pressure of water therein if the controlling valve 12 has been opened prior to the disengagement of the nozzle with the clamping member 27. Until however, a pull is exerted on the nozzle, the outermost layers of the hose will remain in compressed relation.

I claim:

1. In a hose reel, the combination with a pair of supporting arms, of a connecting bridge interposed therebetween, a reel journaled between said arms and adapted to receive the hose, a clamping lever associated with said connecting bridge and cooperating therewith to compress the layers of the hose when the same are placed between said lever and said bridge, and means coacting with said clamping lever to hold the same in locked relation to said connecting bridge.

2. In a hose reel, the combination with a pair of supporting arms, and the reel, of a connecting bridge interposed between said arms, a clamping lever pivotally connected in juxtaposition to said connecting bridge, said clamping lever cooperating with said bridge to clamp layers of the hose therebetween, and means for locking said clamping lever in such relation to said connecting bridge as to exert choking action on the hose.

3. In a hose reel, the combination with a pair of supporting arms, and a reel journaled therebetween, of a connecting bridge interposed between the free ends of said arms, a clamping lever pivotally connected to one of said arms and adapted to swing in relation to said connecting bridge, said clamping lever cooperating with said bridge to compress layers of the hose therebetween and exert a choking action thereon, and a detent carried by the other of said arms and cooperating with said clamping lever to hold the same in clamping relation to said connecting bridge.

4. In a hose rack, the combination with a pair of supporting arms, and a hose reel journaled therebetween, of a connecting bridge interposed between the free ends of

said arms, a pivoted clamping lever mounted on one of said arms and capable of swinging movement with respect to said connecting bridge, the free end of said clamping lever being provided with a finger, the other of said supporting arms having a rabbeted portion with which said finger coöperates and interfits, and a spring detent arranged

adjacent to said rabbeted portion and co-operating with the finger of said clamping lever to hold the latter in clamping relation to the connecting bridge. 10

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Witnesses:

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