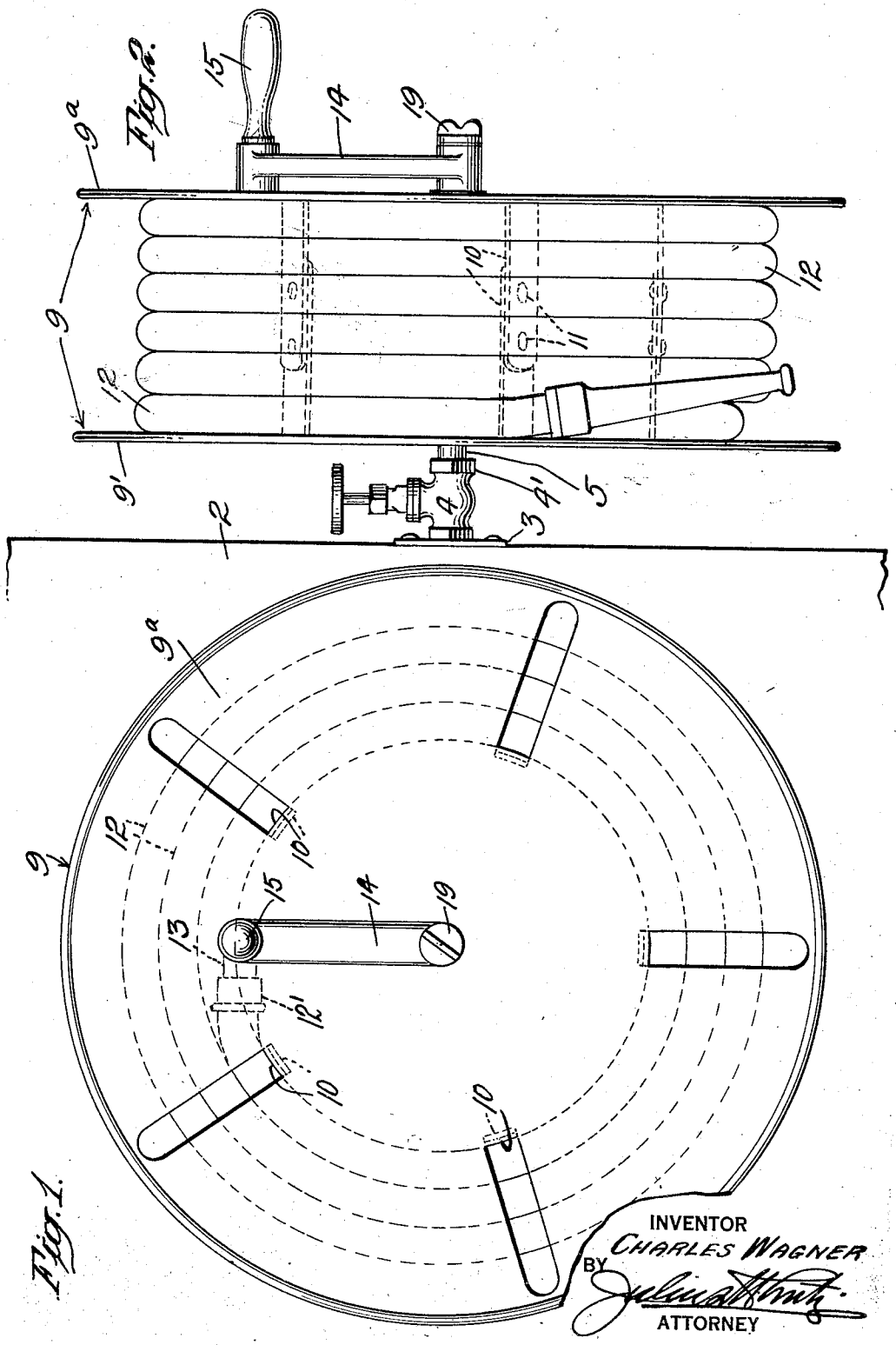
July 14, 1931. C. WAGNER 1,814,872

HOSE REEL

Filed Sept. 16, 1929 2 Sheets-Sheet 1



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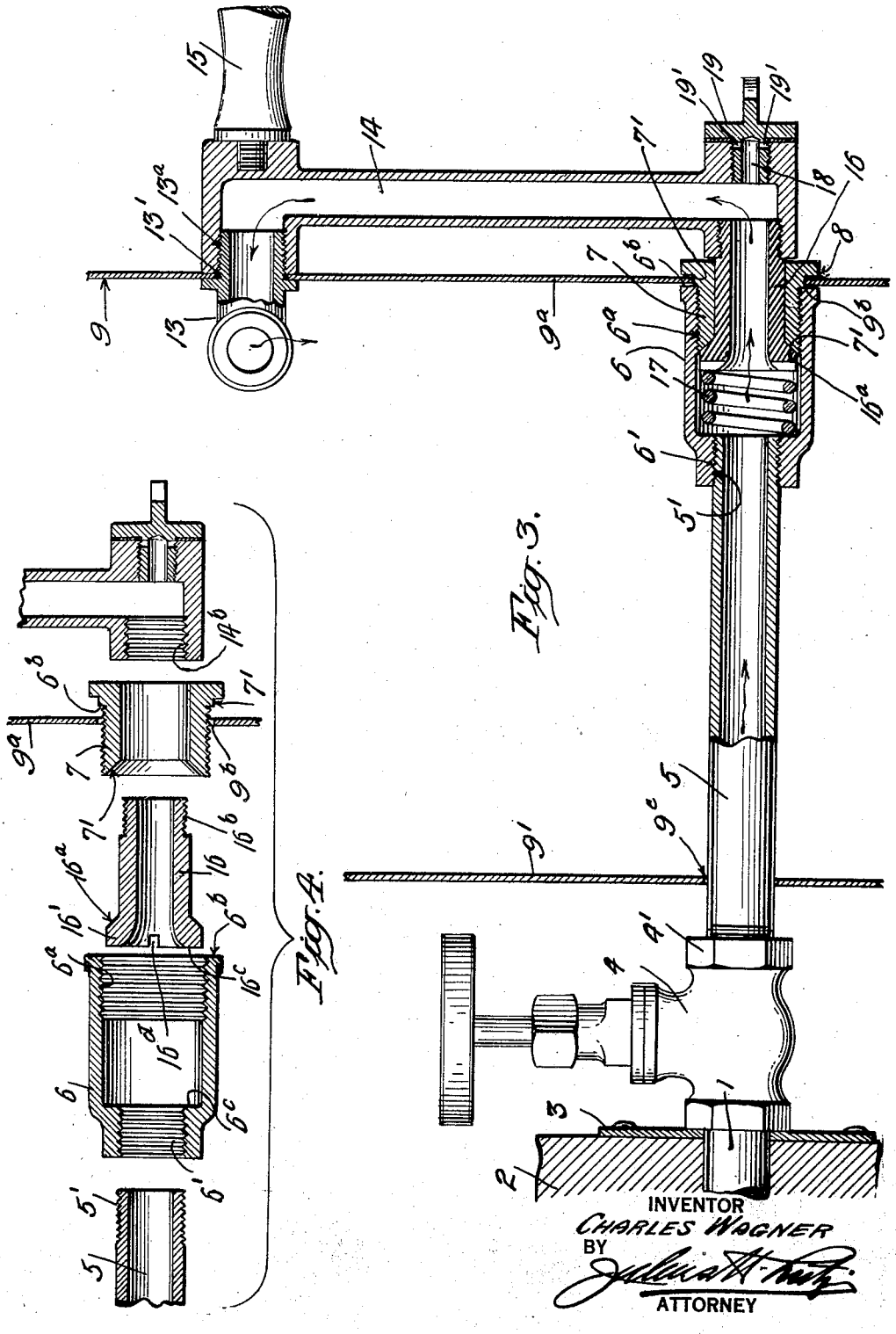


Fig. 3.

Fig. 4.

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HOSE REEL

Application filed September 16, 1929. Serial No. 392,797.

This invention relates to improvements in hose reels.

One of the objects of this invention is to produce a simple, practical and efficient hose reel of the type in which water passes from the source of supply through the hose on the reel and is then distributed through a conventional hose nozzle.

Another object of the invention is to provide a coupling between the hose reel and the source of supply in which one of the parts will be rotatable with the hose reel and will be so mounted as to cause the maintenance of a water-tight and leak-proof joint with a stationary or non-rotatable part connected with the water supply.

Still another object of my invention is, in a device of the character specified, to provide a coupling construction in which the rotatable part will be resiliently forced to its seat by spring pressure to enable the maintenance of a liquid-tight joint while at the same time permitting relatively facile rotation of the rotatable part.

Still another object of my invention is to provide, in a device of the character described, simple means for draining the hose during the winding operation thereof.

Another object of my invention is to provide a simple and efficient bearing for a hose reel of the type hereinabove described by means of which the reel may be permanently mounted by the user adjacent to the source of supply.

With these and other objects in view, the invention comprises the combination of members and arrangement of parts so combined as to co-act and cooperate with each other in the performance of the functions and the accomplishment of the results herein contemplated, and comprises in one of its adaptations the species or preferred form illustrated in the accompanying drawings, in which:—

Fig. 1 is a side elevation of a hose reel embodying my invention;

Fig. 2 is an end elevation of the reel shown in Fig. 1;

Fig. 3 is a vertical central section through a fragment of the reel and the mounting and water-conducting mechanism therefor;

Fig. 4 is a disassembled view of the connection or coupling means between the rotating reel and water supply.

Referring now to these drawings, which illustrates a preferred embodiment of my invention, 1 indicates a water-supply pipe projecting from a building wall 2 on which, as shown, is mounted a metallic facing plate 3. The water-supply pipe 1 has connected thereto a conventional shut-off valve 4.

In accordance with my invention, I thread into the outlet 4′ of the valve 4 a combined water conduit and bearing comprising a pipe 5 having a screw-thread 5′ at its outer end and I screw on to this pipe 5 a combined water-tight coupling and locking bearing for a hose reel 9 comprising a coupling casing 6 having at one end threads 6′ cooperating with threads 5′ at the outer end of the pipe 5 and said casing is also provided at its opposite end with internal screw-threads 6^a adapted to mesh with a hollow nut 7 and thus to provide a coupling casing 6 through which water may be passed. The hollow nut 7 is provided with a shoulder 7′ which when screwed home against the outer edge 6^b the casing 6 will provide a mounting and locking groove 8 and, in the preferred form of my invention, a hose reel 9 comprising plates or disks 9′, 9^a suitably connected together is locked in place within the groove 8. As illustrated, the hose reel disk 9^a is provided with a mounting aperture 9^b which fits over the shoulder 7′ and which, when the nut is screwed home, provides a bearing therefor. Another disk 9′ having a bearing aperture 9^c in axial registration with the aperture 9^b is adapted to fit over the pipe 5 which forms a bearing therefor.

As illustrated, the disks or plates of the

reel are provided with a series of tongues 10 which are riveted together at 11 to provide a support for a hose 12 which is wound thereon and has its inner terminal 12′ connected with a nipple or elbow 13 passing through an eccentric aperture 13′ in the wall 9^a of the hose reel. Said nipple or elbow 13 has by screw-threads 13^a a water-tight connection with a water conduit carried by the reel and comprising a hollow crank-arm 14 having at one end threaded thereon a knob or handle 15. This hollow crank-arm when properly connected with the source of supply will form a passage way for the water between the source of supply and the inner terminal of the hose and the provision of a water-tight connection between this revolvable conduit or hollow crank-arm 14 constitutes an important element of my invention. As illustrated, the crank-arm 14 is connected at its opposite end with the source of water-supply which, as hereinabove stated, constitutes the bearing about which the reel turns and, consequently, is located at the axis of the reel, and, in the preferred embodiment of my invention, the nut 7 is provided at its inner end with an inclined surface 7′ and a hollow coupling element 16 connected to and rotatable with the arm or conduit 14 is mounted in said casing and provided with a shoulder 16′ having an undercut-inclined surface 16^a which abuts against the inclined surface 7′ of the hollow nut 7. This rotatable coupling element 16 is, as shown, provided at its outer end with screw-threads 16^b which mesh with screw-threads 14^b on the crank-arm 14 so as to produce a water-tight joint therebetween. The inclined abutting surfaces 16^a and 7′ if closely held in abutment, will provide a water-tight joint. As the coupling element 16 is rotatable with the crank-arm 14, it is impossible to provide a fixed joint between these surfaces and I, therefore, provide means for resiliently forcing these surfaces into engagement.

In the preferred embodiment of my invention, I provide for this purpose a spring 17 which abuts at one end against an internal shoulder 6^c and at the opposite end abuts against the inner face 16^c of the rotatable element 16.

It will be seen that when the parts are assembled in the construction shown particularly in Fig. 3, the element 16 will be rotatable with relative freedom when the crank-arm 14 is manually rotated through the handle 15, the spring 17 having sufficient pressure to maintain a water-tight joint between the contacting surface of this rotatable element and the contacting surface of the nut 7, while at the same time permitting rotation of the parts with sufficient facility and freedom to enable a rotation of the reel through said crank-arm 14 and handle 15.

In the preferred embodiment of my invention, the parts are assembled by passing the nut 7 through the mounting 9^b in the disk 9^a, then passing through the hollow nut 7 from the inner side thereof the rotatable element 16 and screwing said element into the internally-threaded aperture 14^a in the crank-arm, a kerf 16^d being, as shown, provided on the end of the element 16 to permit use of a screw-driver in screwing the same into the crank-arm. Thereafter, the casing 6 with the spring mounted therein may be screwed into place over the rotatable coupling member 16 and the coupling casing may be then fastened to the pipe 5.

Obviously, the reel will be sold in assembled condition and it will only be necessary for the user to mount the pipe 5 on the conventional valve 4 of the water supply.

In the preferred embodiment of my invention, I also provide at the axis of the device a drip channel 18 which is normally closed by a plug 19 having drip apertures 19′ which are openable to permit release of water from the hose which will pass through the crank-arm 14 to the drip apertures 19′ and thence out of the reel, thus avoiding possibility of rotting or fouling of the hose.

Having described my invention, I claim:—

1. A hose reel embodying, in combination, a rotatable hose reel comprising a pair of side members having a hose support extending between the same, a hose mounted on said support, a water conduit mounted radially on one side member at the outer side thereof, and revolvable about the axis thereof, a fixed connection between one end of said water conduit and a terminal of said hose, a supply pipe extending axially through said hose reel and forming a support for both side members, a water-tight connection between the revolving opposite end of said water conduit and the said source of water supply, said last-mentioned connection embodying a coupling casing having a contact surface and a rotatable coupling member having a contact surface abutting against the contact surface of the casing, and a spring for forcing said two surfaces together to provide a water-tight joint therebetween.

2. A hose reel embodying, in combination, a rotatable hose reel comprising a pair of side members having a hose support extending between the same, a hose mounted on said support, a water conduit mounted radially on one side member and the outer side thereof, a handle at the end of said water conduit arranged to cause said conduit to form a crank for turning said reel, and revolvable about the axis thereof, a fixed connection between one end of said water conduit and a terminal of said hose, a supply pipe extending axially through said hose reel and forming a support for both side members, a water-tight connection between the revolving opposite end of said water conduit

and the said source of water supply, said last-mentioned connection embodying a coupling casing having a contact surface and a rotatable coupling member having a contact surface abutting against the contact surface of the casing, and a spring for forcing said two surfaces together to provide a water-tight joint therebetween.

In witness whereof, I have signed my name to the foregoing specification.

CHARLES WAGNER.