E. C. DELENE.

HOSE NOZZLE.

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927,837. Patented July 13, 1909.

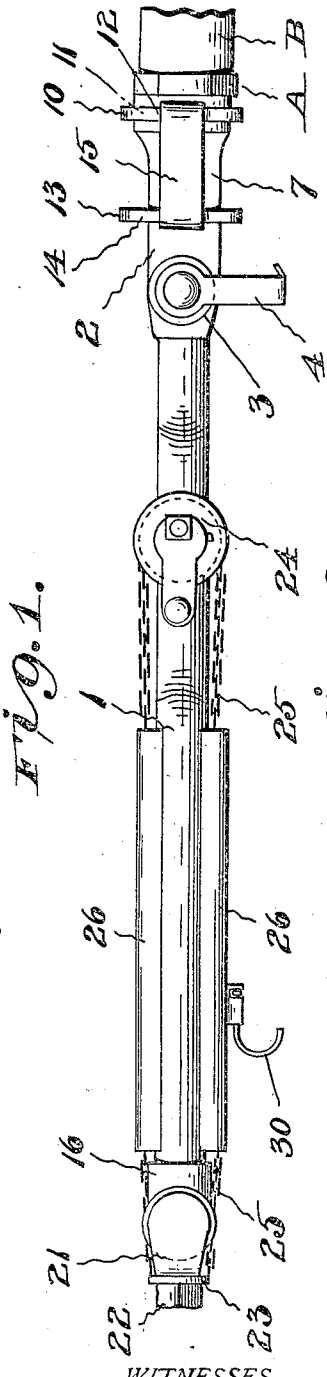

Fig. 1.

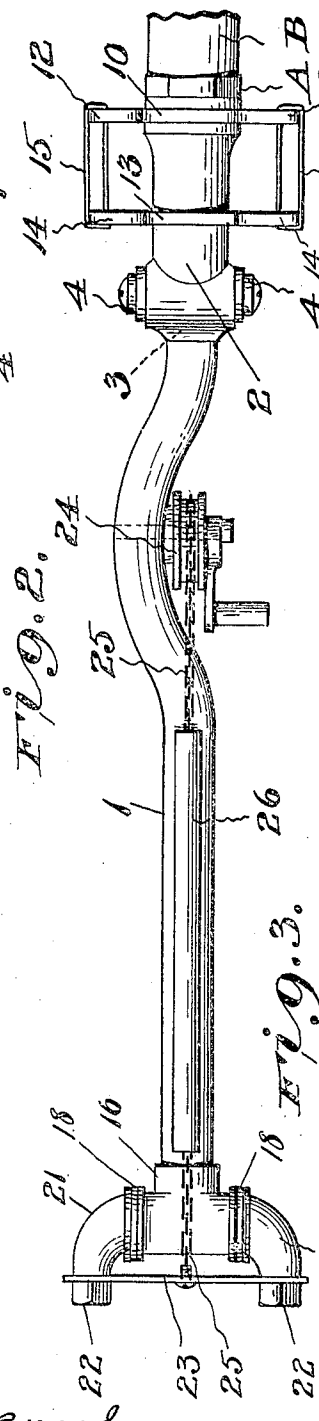

Fig. 2.

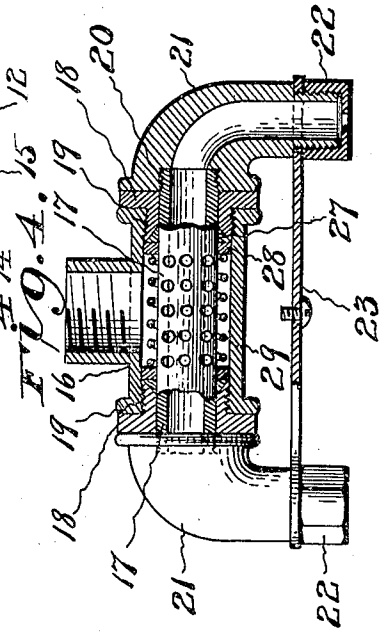

Fig. 4.

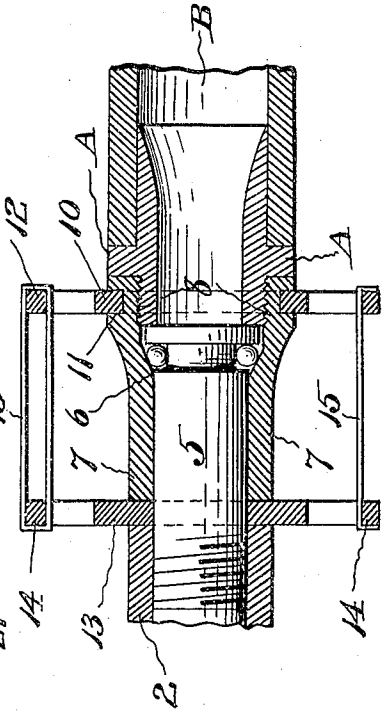

Fig. 3.

WITNESSES

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# UNITED STATES PATENT OFFICE.

EDWARD C. DELENE, OF MOLINE, ILLINOIS.

## HOSE-NOZZLE.

No. 927,837. Specification of Letters Patent. Patented July 13, 1909.

Application filed March 25, 1909. Serial No. 485,659.

*To all whom it may concern:*

Be it known that I, EDWARD C. DELENE, a citizen of the United States, and a resident of Moline, in the county of Rock Island and State of Illinois, have invented certain new and useful Improvements in Hose-Nozzles, of which the following is a specification.

My invention relates to hose-nozzles, and has for its object the provision of a nozzle having a ball-bearing joint to be attached to the hose so that the shank of the nozzle may be rotated without necessitating twisting the hose and having a T-head on the end of the shank with a perforated sleeve therein, on each end of which is secured a nozzle, the sleeve being rotatable in said head by means of a hand-wheel mounted on the shank and connected by means of chains with a cross-bar secured to the nozzle. By this construction, as will be hereinafter explained, in detail, the water can be directed in any direction desired without exposing the fireman to the heat and smoke of the fire.

My invention also contemplates a novel construction of packing in the head to prevent leakage in the joint around the sleeve and consisting of washers in each end of the T-head engaged by a coil-spring to normally hold the washers in position, the pressure of the water in the nozzle serving to press the washers into position to make a tight joint.

The details of the construction and operation of my improved nozzle will be described hereinafter and illustrated in the accompanying drawings, in which—

Figure 1 is a side view of my improved nozzle; Fig. 2, a top plan view; Fig. 3, a longitudinal sectional view of the joint; and Fig. 4, a longitudinal sectional view of the head.

In the drawings similar reference characters indicate corresponding parts in the several views.

My improved nozzle consists of the shank 1, having a section 2 secured thereto, having a valve 3 therein, operated by handle 4. The joint secured to section 2 consists of a length of tube 5, having a ball-raceway 6 therein, on which is mounted a sleeve 7, having its rear end provided with screw-threads 8, to be secured to the nipple A of the hose B.

10 indicates a ring mounted in a groove 11 at the rear end of the sleeve 7 and having strap-loops 12 thereon, and 13 another ring mounted on the length of tube 5, between the section 2 and sleeve 7, and having other strap-loops 14.

15 indicates the straps secured in loops 12 and 14 to serve as handles in operating the nozzle.

At the front end of shank 1 is secured a T-shaped head 16, having a perforated sleeve 17 mounted therein and secured by means of threaded bushings 18, engaging threads 19 in each end of the head 16. The ends of the sleeve 17 are threaded, as shown at 20, to receive elbow connections 21, to which are secured the tips 22.

23 indicates a cross-bar secured to elbow-connections 21, 24 a hand-wheel eccentrically mounted on the shank 1, and 25 a chain secured to hand-wheel 24 and cross-bar 23, said chains being covered by casings 26, secured to the shank to prevent them from being broken or their operation interfered with when the nozzle is in use. By mounting the hand-wheel 24 eccentrically, as stated, the longer radii of the wheel takes up the slack of the end of the chain secured to the sides of the nozzles turned toward the operator, the shorter radii letting out the chain secured to the other side, so that the nozzles may be turned rapidly.

27 indicates soft washers bearing against the bushings 18, 28 wheel-washers behind the soft washers, and 29 a coil-spring mounted on sleeve 17 and bearing against said metal washers 28 to hold the washers 27 in position against the bushings. By this construction it will be understood that the washers are held in position so that when the water is turned into the nozzle its pressure against the washers will insure a tight joint around the bushings and prevent leakage.

30 indicates a hook secured to one of the casings 26 to be used in holding the nozzle and to enable it to be hung on a ladder or other support.

Having thus described my invention, what I claim is—

1. In a hose-nozzle, a shank, the delivery end of the nozzle revolubly mounted in the shank, a hand-wheel journaled eccentrically on the shank, and a flexible member secured to said hand-wheel and to the delivery end aforesaid, substantially as shown and described.

2. In a hose-nozzle, a shank, a T-shaped head secured to the shank, a perforated sleeve rotatably mounted in said head, a tip secured to each end of the sleeve, and means to rotate said sleeve and tips, substantially as shown and described.

3. In a hose-nozzle, a shank, a T-shaped head secured to the shank, a perforated sleeve rotatably mounted in said head, a tip secured to each end of the sleeve, a hand-wheel journaled on said shank, and a flexible member secured to said hand-wheel and to the tips, substantially as shown and described.

4. In a hose-nozzle, a shank, a T-shaped head secured to the shank, a perforated sleeve rotatably mounted in said head, a tip secured to each end of the sleeve, a cross-bar connecting said tips, a hand-wheel journaled on said shank, and a flexible member secured to said hand-wheel and the cross-bar, substantially as shown and described.

5. In a hose-nozzle, a shank, a T-shaped head secured to the shank, a perforated sleeve rotatably mounted in said head, a tip secured to each end of the sleeve, a hand-wheel journaled eccentrically on said shank, and a flexible member secured to said hand-wheel and to said tips, substantially as shown and described.

6. In a hose-nozzle, a shank, a T-shaped head, secured to the shank, a perforated sleeve rotatably mounted in said head, a tip secured to each end of the sleeve, a cross-bar connecting said tips, a hand-wheel journaled eccentrically on said shank, and a flexible member secured to said hand-wheel and the cross-bar, substantially as shown and described.

7. In a hose-nozzle, a T-shaped head, a sleeve in said head, bushings secured to said head and engaging the sleeve, washers engaging said bushings, and a coil-spring mounted on said sleeve and engaging said washers, substantially as shown and described.

In witness whereof, I have hereunto set my hand in presence of two subscribing witnesses.

EDWARD C. DELENE.

Witnesses:
EMIL JOHNSON,
THEODOR TIETGEN.