No. 627,073. Patented June 13, 1899.

E. CLIFF.

HOSE NOZZLE.

(Application filed Apr. 30, 1898.)

(No Model.)

Fig. 1.

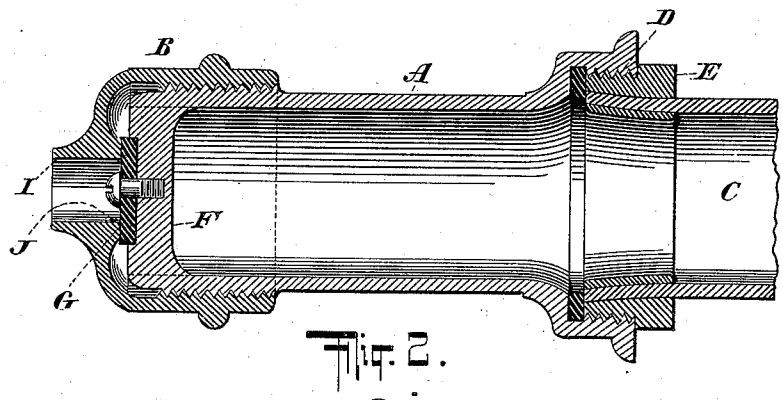


Fig. 2.

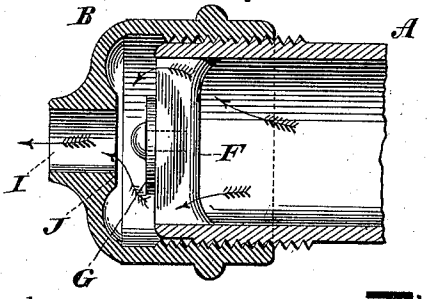


Fig. 3.

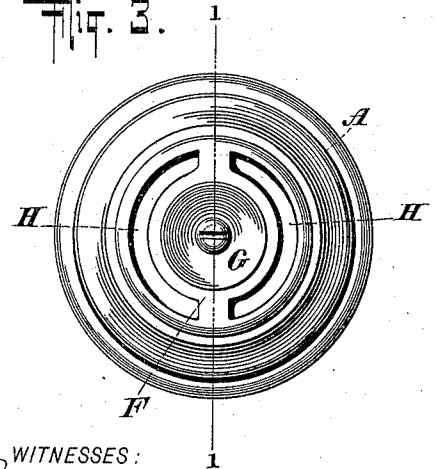
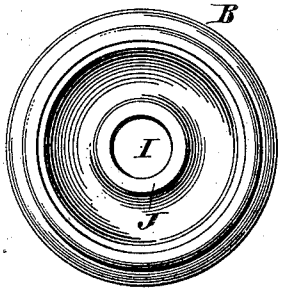


Fig. 4.



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EDWARD CLIFF, OF NEWARK, NEW JERSEY, ASSIGNOR TO THE CLIFF & GUIBERT COMPANY, OF NEW YORK, N. Y.

HOSE-NOZZLE.

SPECIFICATION forming part of Letters Patent No. 627,073, dated June 13, 1899.

Application filed April 30, 1898. Serial No. 679,284. (No model.)

To all whom it may concern:

Be it known that I, EDWARD CLIFF, a citizen of the United States, and a resident of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Hose-Nozzles, of which the following is a specification.

The invention relates to improvements in hose-nozzles; and it consists in the novel features and combinations of parts hereinafter described and claimed.

The hose-nozzle made the subject hereof is intended more especially for use in connection with the hose applied to the automatic hose-reels and valves of the character described and claimed in Letters Patent of the United States granted to me on July 6, 1897, and numbered 581,861. The pulling of the hose from off the reels of the character referred to results in the automatic opening of the water-supply valve and the discharge of the water through the hose and its nozzle.

The purpose of the present invention is to provide a valved nozzle which will remain normally closed and which will prevent any discharge of the water from the hose in all instances in which from curiosity merely the hose has been pulled by a passer-by and the reel has thereby been turned sufficiently to open the water-supply valve, but which nozzle may be relied upon on proper occasion for permitting the discharge of the water from the hose.

The hose-nozzle presented herein is formed of a main body portion secured to the hose, an axially-revoluble cap applied to the outer end of said body portion, and a valve mechanism which will close the passage through the nozzle when the cap is turned in one direction and open said passage when the cap is turned in the opposite direction, and thus when the hose of the automatic reel is provided with a discharge-nozzle of the character herein described and claimed it will be necessary in use to not only pull the hose to unwind the latter, and thereby turn the reel to open the valve, but also to axially turn the cap on the end of the discharge-nozzle in order that the passage through the latter may be opened.

The special construction of nozzle herein presented is of importance as involving convenience in use, durability in construction, a liquid-tight valve or seal mechanism, and attractiveness in appearance.

The hose-nozzle made the subject hereof will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is a central vertical longitudinal section of a hose-nozzle constructed in accordance with and embodying the invention, the cap being shown in its closed position and the section being on the dotted line 1 1 of Fig. 3. Fig. 2 is a like sectional view of a portion of same, the cap being shown in its open position. Fig. 3 is an elevation of the outer end of the body of the nozzle, the end cap being omitted; and Fig. 4 is an elevation of the inner end of the cap removed from the body of the nozzle.

In the drawings, A designates the body of the nozzle, B the end cap thereon, and C a section of hose to which the nozzle by the usual means is secured.

The main body portion A of the nozzle is tubular in outline, as illustrated, and of substantially uniform diameter throughout, except at its inner end, where it is provided with the threaded flange D to receive the threaded hose-coupling E of usual construction. The outer end of the body portion A is provided with the exterior screw-threads and receives the cap B, which is internally threaded to engage the thread on the body A, as shown in Figs. 1 and 2.

The body A at its outer end is formed integrally with the transverse frame F, which extends across the outer end of the body A and is at its central portion in the form of a disk, as shown in Figs. 2 and 3, to receive the soft washer or disk G, the latter being held in place by means of a screw, as shown. The ends of the frame F merge into the walls of the body A and are in the form of arms, as shown in Fig. 3, to support the disk comprising the central portion of said frame. The inner surface of the frame F is rounded, as shown in Fig. 2, in order to form the least possible obstruction to the outflow of water through the nozzle, and at opposite sides of the frame F are formed, between said frame

and the inner walls of the body A, the semicircular outlet-ports H H, through which the water at the proper time will pass on its way to and through the cap B.

The cap B throughout its body portion has parallel sides, as shown in Fig. 1, to correspond with the sides of the body A, and at its outer end the said cap B is formed with the restricted tubular discharge-section I, whose inner edges project inwardly and form the annular valve J of a size adapting it to engage the outer surface of the disk G, carried by the frame F, as shown in Fig. 1. The cap B is axially revoluble upon the end of the body A and is retained in position by the engagement of the interior threads on said cap with the exterior threads on said body. When the cap B is turned or screwed toward the left, its valve edges J will come into firm and sealing contact with the outer face of the soft washer G and effectually prevent any water escaping into the tubular discharge I of said cap B. When, however, the cap B is screwed or turned toward the right, the said cap will travel outward upon the body A and carry its valve edges J from the soft dish G, as shown in Fig. 2, and when the parts are in this condition the openings or ports H at opposite sides of the frame F will be entirely uncovered, and the water may find a free passage from the body A into the cap B.

When the nozzle is applied to a hose and the latter wound upon the automatic reel, the cap B will be screwed inward to the position in which it is shown in Fig. 1 in order that should, through curiosity merely, a passer-by pull the hose from the reel and thereby open the water-valve the water will be prevented from escaping by reason of the closure of the passage through the nozzle. In case of fire, however, the person pulling the hose from the reel will also turn the cap B to the right sufficiently to relieve the valve edges J from the disk G in order that the water may freely escape through the nozzle. The size of the disk G and of the valve J is such that with a very few turns of the cap B to the right a full exit-opening will be provided for the water. It is not intended that the cap B shall be removed entirely from the body A, but that in case of need the cap B will simply be given a few turns to the right in order to open the valve and permit of a ready passage of the water through the nozzle. The frame F is of very durable construction, and since it is integral with the body A it is obvious that said frame will not be distorted or broken by any ordinary movement of the valve J against the disk G.

The construction of the nozzle and its parts combine simplicity and durability, together with efficiency in action.

What I claim as my invention, and desire to secure by Letters Patent, is—

The hose-nozzle comprising the main body portion A threaded at its outer end and at said end having the transverse frame F which extends across said end of said body, without closing said end, and is formed with the central disk carrying the washer G, at the sides of which are the permanent outlet-ports H, the latter being directly in the end of said body A and in line with the length of said body, combined with the cap B engaging the threaded end of said body and having the central tubular discharge I, whose inner edges project inwardly and form the annular valve J adapted to engage said washer G; substantially as set forth.

Signed at New York, in the county of New York and State of New York, this 29th day of April, A. D. 1898.

EDWARD CLIFF.

Witnesses:

CHAS. C. GILL,

E. JAS. BELKNAP.