

No. 699,554.

Patented May 6, 1902.

H. F. NEUMEYER.
HOSE NOZZLE.

(Application filed Dec. 18, 1901.)

(No Model.)

Fig. 1.

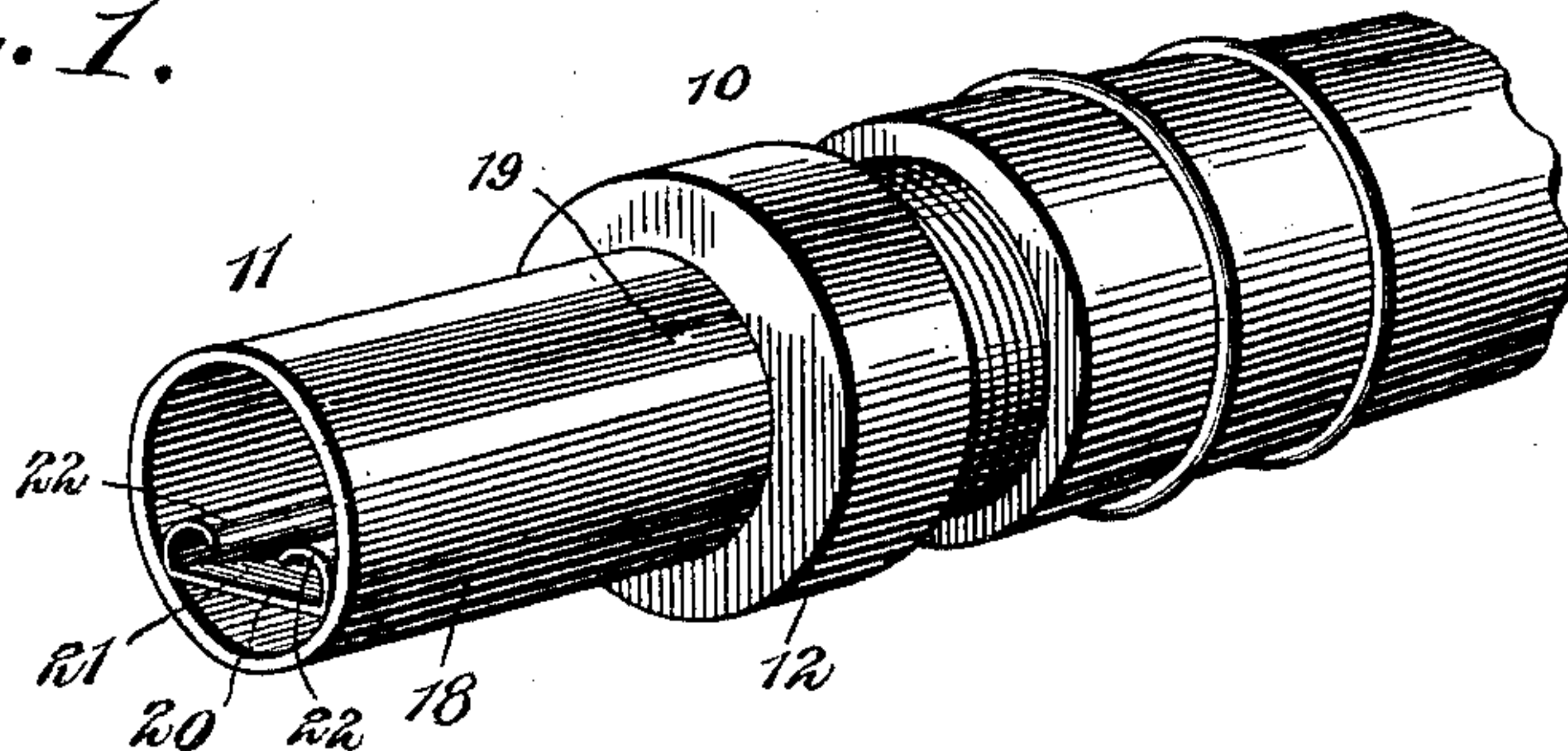


Fig. 2.

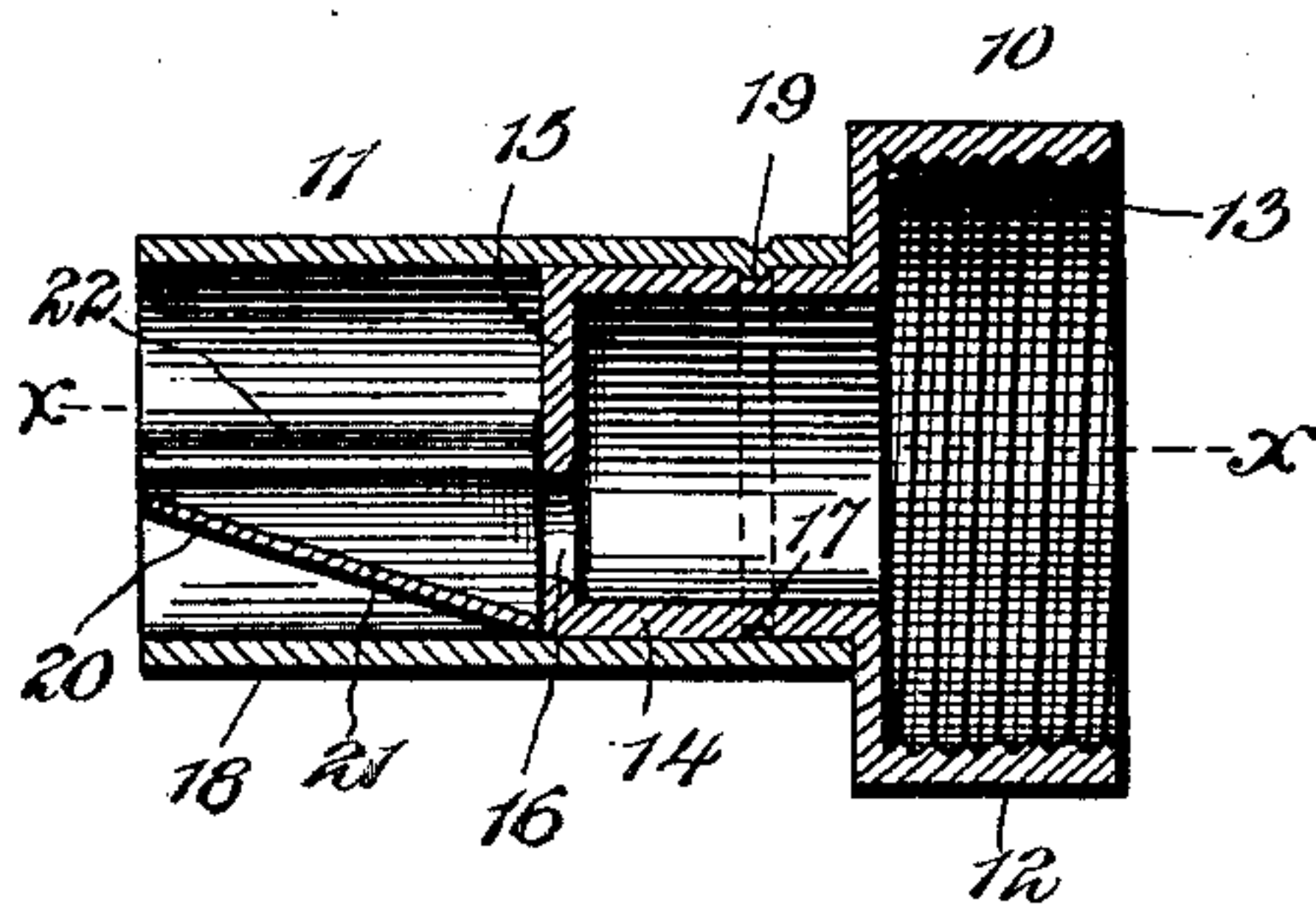


Fig. 3.

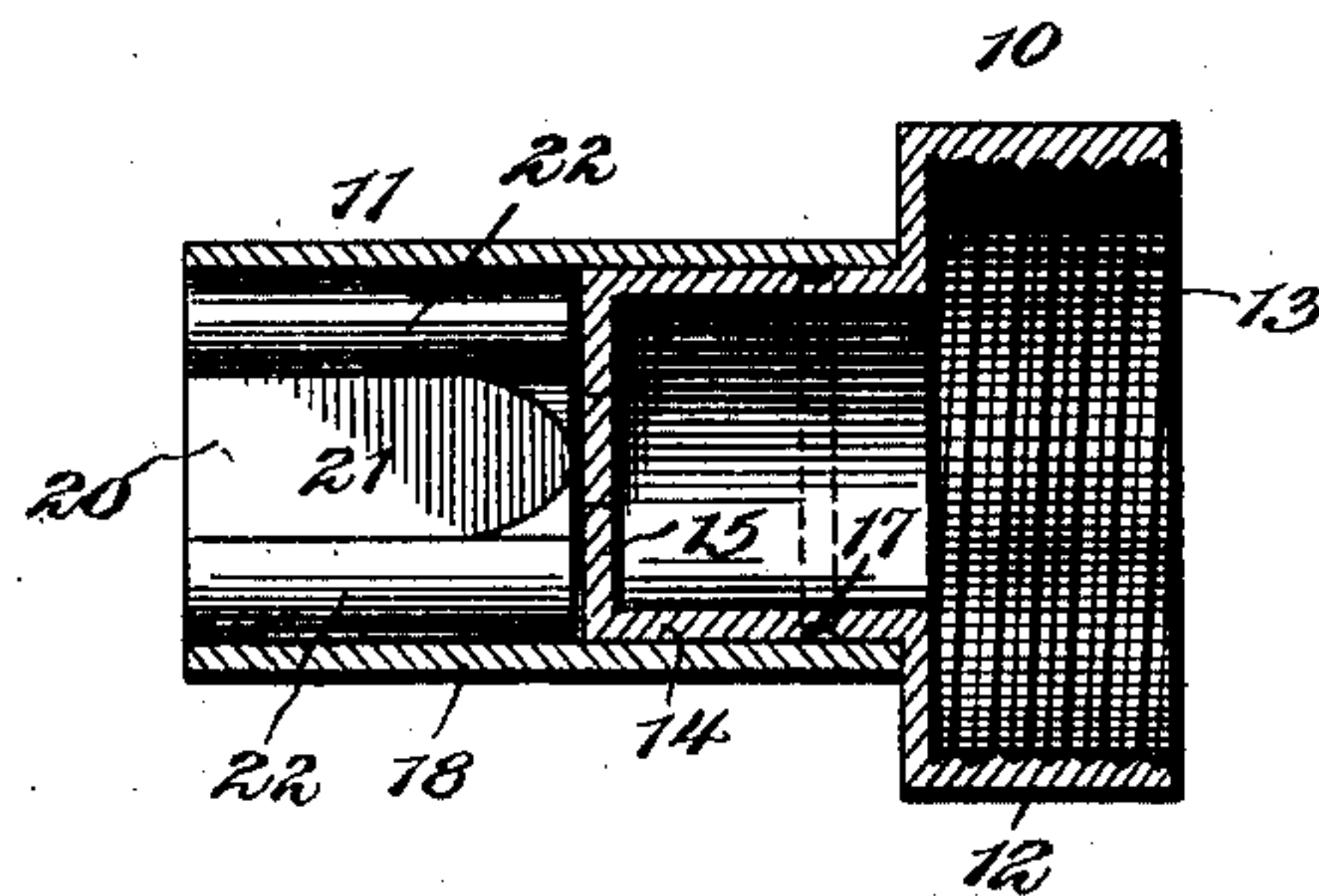


Fig. 4.

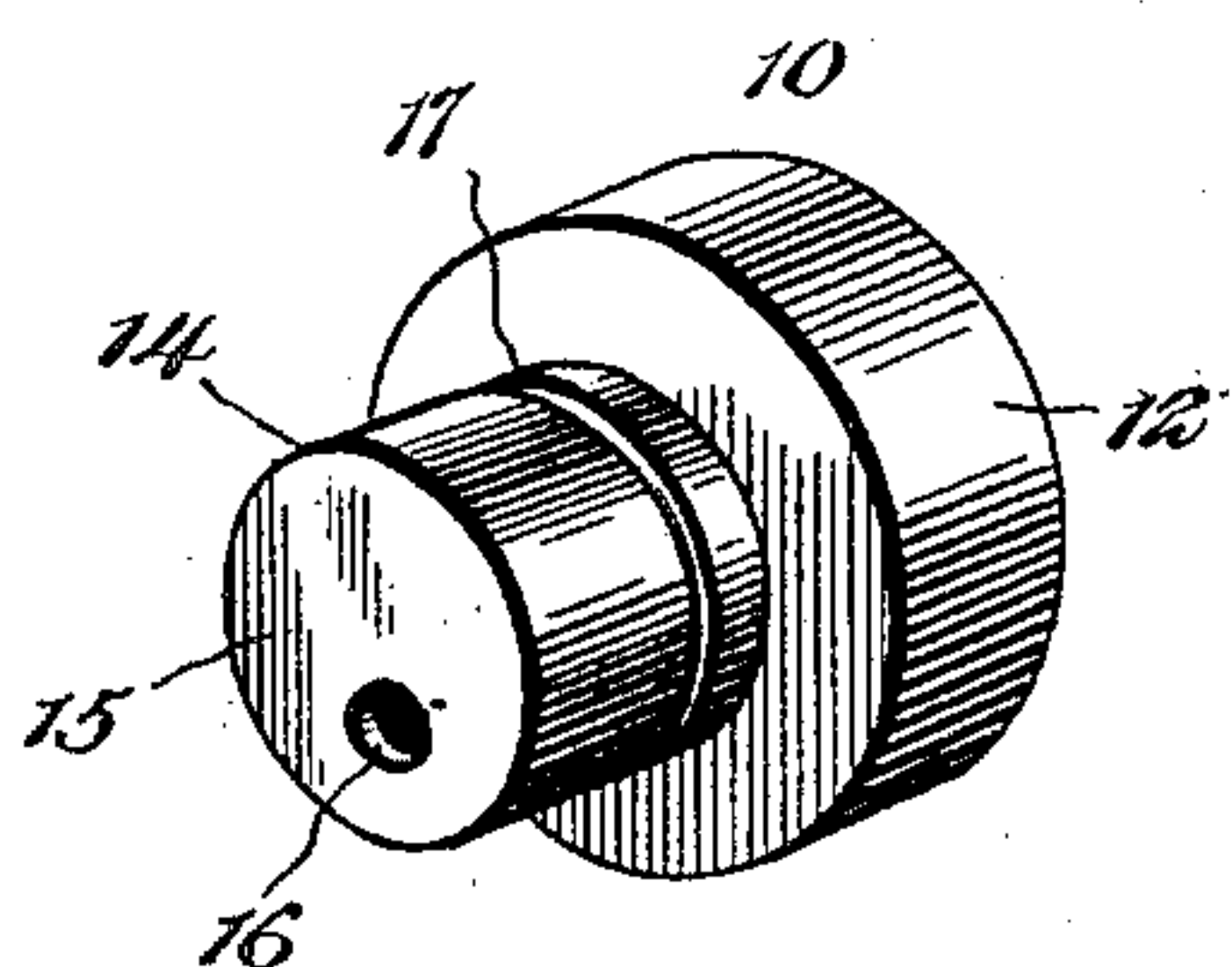
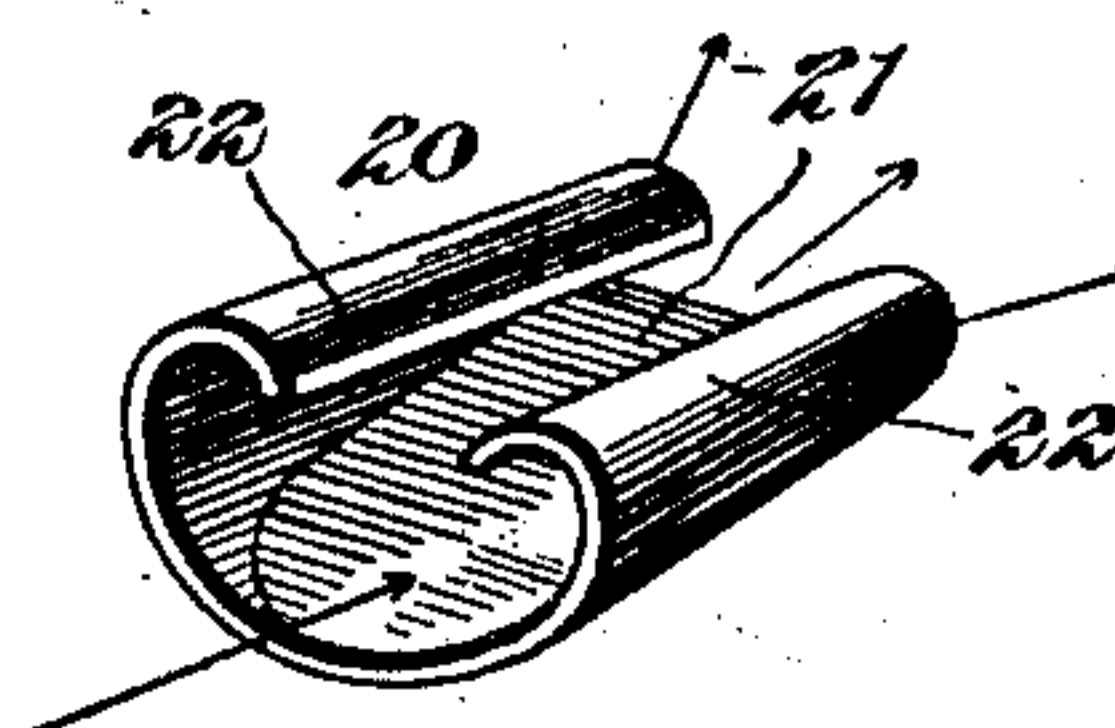


Fig. 5.



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HORACE FALK NEUMEYER, OF MACUNGIE, PENNSYLVANIA.

HOSE-NOZZLE.

SPECIFICATION forming part of Letters Patent No. 699,554, dated May 6, 1902.

Application filed December 18, 1901. Serial No. 86,401. (No model.)

To all whom it may concern:

Be it known that I, HORACE FALK NEUMEYER, a citizen of the United States, residing at Macungie, in the county of Lehigh and State of Pennsylvania, have invented a new and useful Hose-Nozzle, of which the following is a specification.

This invention relates to hose-nozzles, and particularly to that class from which a solid stream or a spray may be thrown.

The prime object of this invention is to provide an article of this character which is exceedingly inexpensive in construction, being made up of simple elements that will not readily become deranged. At the same time the necessity of efficiency in operation has not been lost sight of, and the construction is such that leakage and undesirable dripping common to many types of nozzles is obviated.

In carrying out this invention the structure illustrated in the accompanying drawings and described in the following specification is believed to be the most desirable; but it will be understood that changes may be made from this construction, provided they are within the scope of the appended claims.

In the drawings, Figure 1 is a perspective view of a hose-nozzle constructed in accordance with the invention. Fig. 2 is a longitudinal sectional view through the same. Fig. 3 is also a longitudinal sectional view taken at right angles to that shown in Fig. 2 or on the line X X of said figure. Fig. 4 is a perspective view of the nozzle-body. Fig. 5 is a perspective view of the sprayer-apron.

Similar numerals of reference designate corresponding parts in all the figures of the drawings.

The nozzle, as shown, comprises two elements, a body 10 and a sprayer 11. The body 10 comprises a collar 12, internally screw-threaded, as at 13, and having a projecting contracted cylindrical stem 14, the outer end of which is closed by a wall 15, which wall is provided with a discharge-orifice 16, that is located eccentrically to the central longitudinal axis of the body. An annular groove 17 is made in the outer face of the stem 14 contiguous to its base.

The sprayer element 11 comprises an open-ended sleeve 18, rotatably mounted upon the

stem 14 and held against longitudinal displacement by means of a lug 19, that engages in the annular groove 17 of said stem. This lug is preferably formed by upsetting the wall of the sleeve 18 and permits the free rotation of said sleeve. An inclined sprayer-apron 20 is secured within the sleeve and is mounted eccentrically to the discharge-orifice, so that by rotating the sleeve it will be seen that the apron can be moved out of or into the path of a stream discharged through said orifice. The construction of this apron is clearly shown in Fig. 5. It comprises an inclined platform 21, having incurved guide-flanges 22 at its side edges, the upper ends of said guide-flanges overhanging the platform.

The nozzle is secured to a hose-pipe or other conveyer in the usual manner—namely, by threading the collar 12 upon a suitable coupling secured to the end of the pipe. It will therefore be seen that when water is admitted to the pipe it will discharge through the orifice 16, and by rotating the sprayer element so that the apron 20 is out of alignment with the discharge-orifice or, more strictly speaking, out of the path of the discharging stream said stream will be projected in a solid form. When a spray is desired, it is only necessary to rotate the sleeve, thereby bringing the sprayer-apron into the path of the discharge-stream, and said stream striking the platform will be spread over its entire width and projected in the form of a fine spray. The side flanges prevent the water forced against the sides from following the sides of the tube, and this water is thrown by the incurved arrangement around and into the main spray. This avoids any loss and prevents irregularity and dripping. It is therefore an exceedingly important feature of the invention.

It will be seen that the construction is very simple and that a solid or spray stream may be easily obtained by rotating the sprayer element. Furthermore, the amount of water in the spray-stream is the same as in the solid and there is no leakage or dripping.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without fur-

ther description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

10 1. In a nozzle, the combination with a body having a discharge-orifice, of a sprayer-apron rotatably mounted upon the body in front of and eccentrically to the discharge-orifice, said apron being movable into and out of aline-
15 ment with the orifice upon its rotation.

2. In a nozzle, the combination with a body having an eccentrically-disposed discharge-orifice, of an inclined sprayer-apron rotatably mounted upon the body in front of and
20 eccentric to the discharge-orifice, said apron being movable into and out of alinement with the orifice upon its rotation on the body.

3. In a nozzle, the combination with a body, of a tubular casing revolubly mounted upon
25 the body, said body having a discharge-opening communicating with the interior of the casing and located eccentrically to the axis of rotation of said casing, and an inclined sprayer-apron located within the casing and
30 movable into and out of alinement with the

discharge-orifice upon the rotation of the casing.

4. In a nozzle, the combination with a body having a discharge-opening, of a tubular casing mounted upon the body and projecting
35 therefrom, and a sprayer-apron arranged within the casing in front of the discharge-opening of the body and movable into and out of the path of the stream discharging through the opening, said apron having in-
40 wardly-turned guide-flanges at its side edges.

5. In a nozzle, a body having a discharge-orifice, and a sprayer-apron mounted upon the body in front of the discharge-orifice and having guide-flanges at its side edges, the free
45 edges of said flanges overhanging the apron.

6. In a nozzle, a body having a discharge-orifice, and a sprayer-apron mounted upon the body in front of the discharge-orifice and movable into and out of the path of a stream dis-
50 charging through said orifice, said apron having guide-flanges at its side edges, the flanges curving inwardly and overhanging the apron.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in
55 the presence of two witnesses.

HORACE FALK NEUMEYER.

Witnesses:

D. J. NAGLE,
BLANCHE E. NAGLE.