No. 612,433. Patented Oct. 18, 1898.

R. ORFORD.

SPRAY ATTACHMENT FOR HOSE.

(Application filed Oct. 4, 1897.

(No Model.)

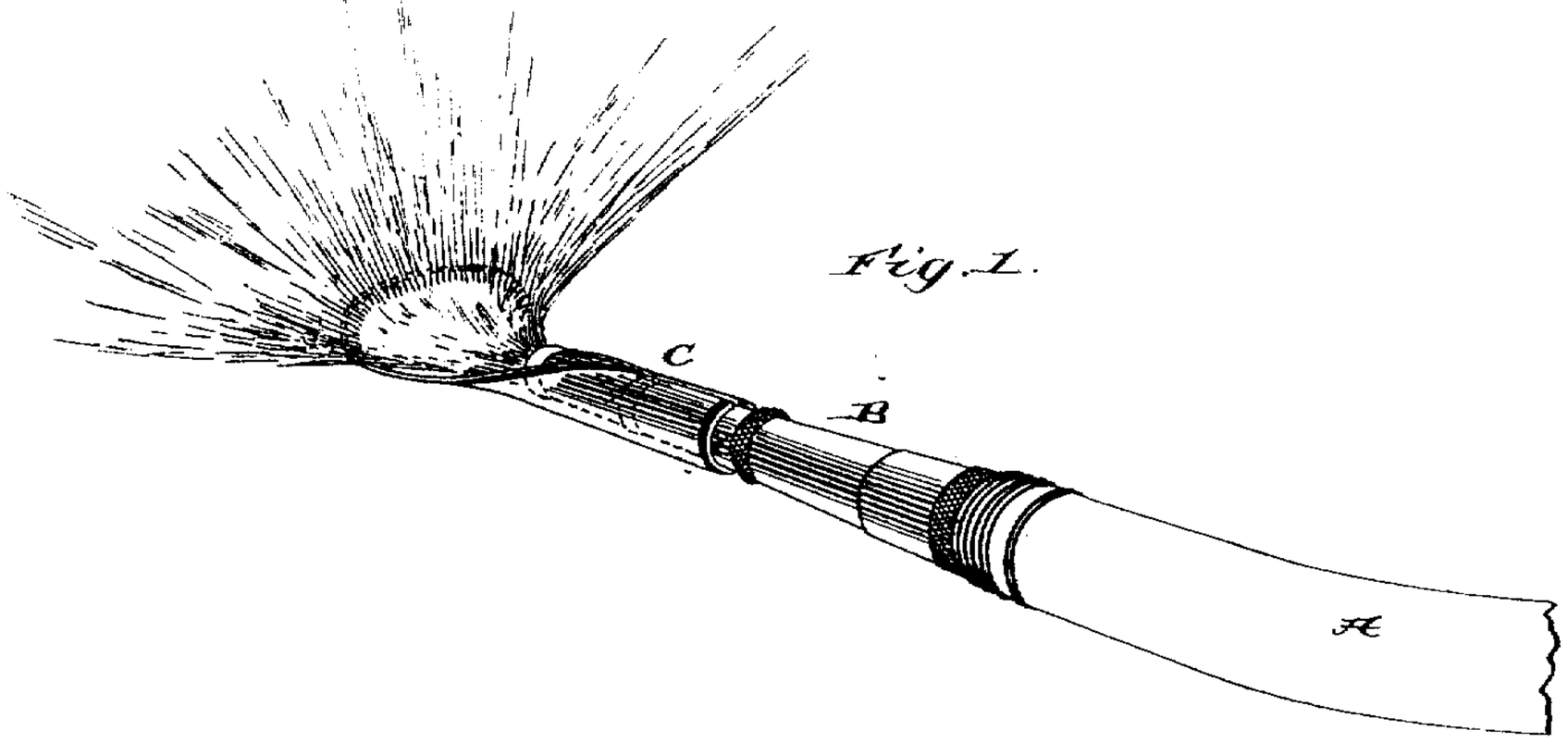

Fig. 1.

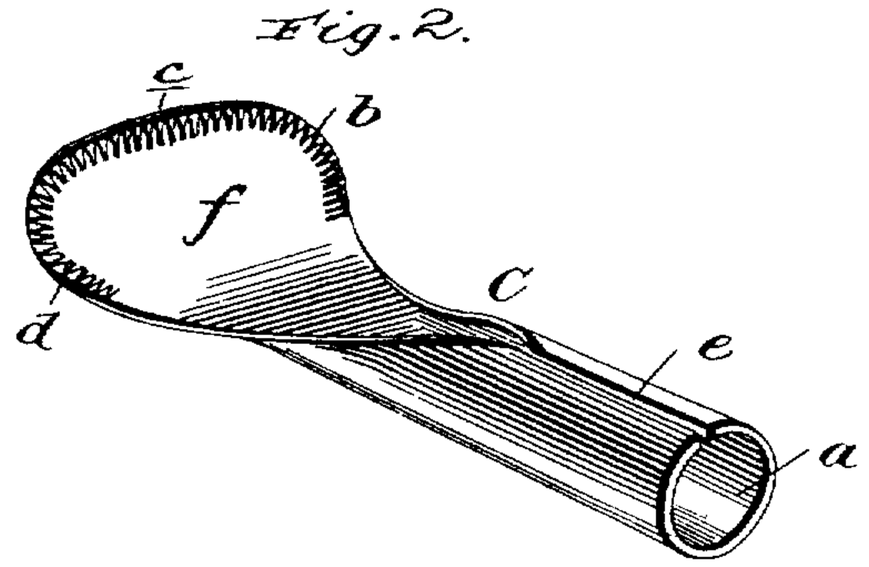

Fig. 2.

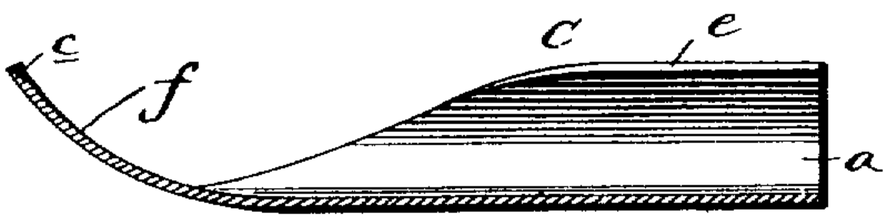

Fig. 3.

Witnesses:
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UNITED STATES PATENT OFFICE.

RICHARD ORFORD, OF ST. JOSEPH, MICHIGAN, ASSIGNOR OF ONE-HALF TO ADOLPH REICH, OF SAME PLACE.

SPRAY ATTACHMENT FOR HOSE.

SPECIFICATION forming part of Letters Patent No. 612,433, dated October 18, 1898.

Application filed October 4, 1897. Serial No. 653,987. (No model.)

To all whom it may concern:

Be it known that I, RICHARD ORFORD, a citizen of the United States, residing at St. Joseph, in the county of Berrien and State of Michigan, have invented certain new and useful Improvements in Spray Attachments for Hose; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a sprinkler attachment for hose; and it has for its object to improve such devices by rendering the same capable of attachment to the nozzle of any garden-hose or watering-pot and to so construct the deflecting-plate by providing it with grooves or ridges that the stream may be broken up into a spray either fine or coarse, according to the depth and arrangement of the grooves or ridges.

Other objects and advantages will appear from the following description and claim when taken in connection with the annexed drawings, in which—

Figure 1 is a perspective view of a nozzle and piece of hose with my improvements applied. Fig. 2 is a perspective view of my improved device removed from the nozzle, and Fig. 3 is a longitudinal central sectional view of the same.

Referring by letters to said drawings, A indicates a piece of garden-hose, and B a nozzle thereon.

C indicates my improved sprinkling device. This device is composed of a single piece of sheet metal, preferably brass or other metal, having sufficient give or elasticity to be turned at one end into a socket *a*, which may be sprung upon the discharge end of the nozzle B.

In forming my improved device I take a piece of sheet metal of a sufficient length and width and of a shape substantially as shown and provide the upper side at one end with grooves or ridges *b*, which may be disposed radially, being carried across the transverse edge *c* and well around the sides, as shown at *d*. I then turn the opposite end of the sheet into the longitudinally-disposed socket *a* and leave such socket open longitudinally, as shown at *e*, whereby the socket is rendered resilient and may be sprung over the discharge end of a nozzle, as better shown in Fig. 1 of the drawings. By reason of the socket being split or open, as described, it will be seen that it may be placed over nozzles of different diameters and secured of itself on the same. The grooved or recessed plate is curved upwardly, as better shown in Fig. 3 of the drawings, and disposed in the plane of the socket, being of a greater width than the socket, so as to receive the volume of water and deflect the same. This deflecting plate or part of the device is disposed at such a distance from the socket that it will give no back pressure on the water, so as to strain the hose. The water projected on the deflecting-plate may be thrown out in a fine or coarse spray, according to the depth of the grooves or ridges and the distance at which they are arranged with respect to each other.

It will be observed that the grooves or ridges *b*, *c*, and *d* are arranged at the edge of the deflecting part of the device and that such grooved part is turned or carried upwardly at a considerable distance from and in the plane of the discharge of the nozzle, the part *f*, intermediate of said grooved edge and socket, being plain and free from grooves or corrugations. By this construction the stream is first discharged against the curved and flat part *f*, which serves to spread or distribute it before coming in contact with the grooves or ridges at the outer edge, which would not be the case were the grooves or ridges extended into the body or flat part. By reason of this construction I am able to get a finer spray and without affording the slightest strain or back pressure on the hose. The flat part also serves to sustain the nozzle in proper position without the employment of other means, such as heretofore found necessary.

A device of this character may be manufactured at a very small expense, and as the socket is formed so as to yield or give it may be applied to a nozzle without any alteration of the latter, and it can be placed on the nozzle without reducing the force of the stream. Owing to the deflector being flat it will aid

very materially in holding the device in proper position when the nozzle has been placed on the ground.

Having thus described my invention, what I claim is—

The herein-described spray attachment formed of a single piece of resilient sheet metal and having the longitudinally-disposed socket *a* at its rear end, open longitudinally throughout its length as indicated by *c*, whereby it is rendered resilient and is adapted to be secured of itself on hose-nozzles of different diameters, the intermediate flat portion *f* adapted to bear on the ground, and the upwardly-curved forward portion arranged at a distance from the socket with its end in the same horizontal plane as the uppermost portion of the socket; the upper side of the said forward portion being grooved or notched at its transverse and side edges, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

RICHARD ORFORD.

Witnesses:
CHARLES MCLEOD,
JOHN C. ST. CLAIR.