

(No Model.)

W. C. OBERWALDER.
NOZZLE AND SPRAYER.

No. 579,173.

Patented Mar. 23, 1897.

FIG. 1.

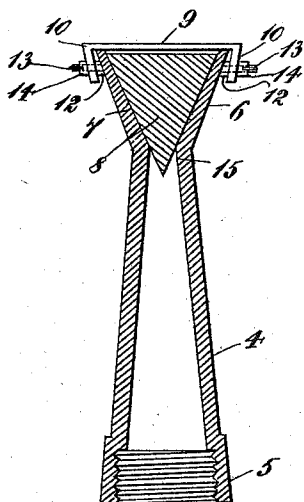


FIG. 2.

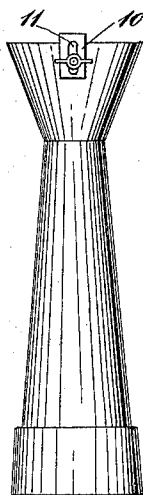
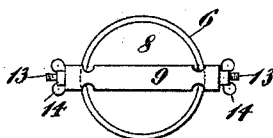


FIG. 3.



WITNESSES.

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NOZZLE AND SPRAYER.

SPECIFICATION forming part of Letters Patent No. 579,173, dated March 23, 1897.

Application filed May 12, 1896. Serial No. 591,284. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. OBERWALDER, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Nozzles and Sprayers, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar numerals of reference indicate corresponding parts.

This invention relates to sprayers and sprinklers such as are usually employed for sprinkling lawns, gardens, and for similar purposes, and also for extinguishing fires; and the object thereof is to provide an improved device of this class which may be quickly and easily attached to a water-supply pipe, and which may also be applied to stationary fire-extinguishers for sprinkling water, a further object being to provide a device of this class which is simple in construction and operation and which is well adapted to accomplish the result for which it is intended.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a central longitudinal section of my improved nozzle and sprayer; Fig. 2, a side view thereof, and Fig. 3 an end view thereof.

In the practice of my invention I provide a tubular attachment or nozzle, which is designated by the reference-numeral 4, the body portion of which is slightly conical in form, the smaller end thereof being directed outwardly, and the larger end thereof is cylindrical in form, as shown at 5, and screw-threaded at its inner side, whereby it may be readily attached to a water-pipe, and the outer end thereof is provided with a conical head 6, the base of which is directed outwardly, and in which is formed a conical cavity or recess 7, the apex of which is directed inwardly and in communication with the central bore or passage through the tubular attachment 4.

Within the conical cavity or recess 7 I place a conical sprayer 8, the sides of which are directed outwardly and the apex inwardly, and this conical sprayer may be made of brass or any preferred material, such as hard rubber, and is adapted when in its innermost position

to closely and snugly fit the walls of the conical head 6. I also provide an adjustable yoke 9, which is provided with a backwardly-directed arm 10 at each end thereof, in each of which is formed a longitudinal slot 11, and formed on or connected with the opposite sides of the conical head 6 are shoulders or projections 12, provided with bolts 13, which pass through said heads and on which are mounted set-nuts 14, and by means of this construction the yoke 9 is adjustable toward or from the base of the conical sprayer 8, and said conical sprayer is thus held in place at all times, or prevented from becoming detached from the head 6 or lost, and, as will be readily understood, the conical sprayer 8 is free to move back and forth in the head 6 within certain limits, and the extent of this movement may be regulated at any time by changing the position of the yoke 9.

In operation the water under pressure passes through the tubular attachment 4 and through the port or opening 15 and out around the sprayer 8, and the results produced will depend largely on the pressure of the water and the extent of the longitudinal movement of the sprayer.

The sprayer cannot be blown or forced from the cavity or recess in which it is placed, and this would be true if the yoke 9 were not employed, and while said sprayer may be subjected to a slight rotary motion it will remain substantially in the center of the conical head 6 and the water will pass around the same on all sides thereof.

The sprayer will also be subjected to a slight longitudinal movement, and the extent of this movement, as hereinbefore described, will be limited by the position of the yoke 9, and the amount of water discharged may thus at all times be regulated, as may also the character of the sheet or spray.

My improved nozzle and sprayer is compact in form and occupies but little space, the size thereof depending largely upon the use to which it is to be put, and it will be found to be a perfect apparatus for extinguishing fire, as an entire room or compartment may be instantly sprayed or sprinkled therewith. It will be understood that the water is thrown out in the form of a circle, the lines of which

continually diverge, and thus the entire space in front of the nozzle may be sprayed or sprinkled almost instantaneously.

This device is particularly applicable for
5 spraying lawns, gardeus, and for similar purposes, and also for fighting fire in a room or building or any form of structure, and it may also be employed as a part of a stationary fire
10 apparatus, such as are employed in factories, stores, and similar places for spraying the same in cases of fire, and it may be used in connection with any form of fire apparatus and may be substituted for the nozzles now
15 usually employed in connection with the hose attached to fire-engines.

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

1. A combined nozzle and sprayer, comprising a tubular attachment, having a conical
20 head at one end thereof, in which is formed a conical cavity or recess, the apex of which is directed inwardly, a conical sprayer which is placed in said conical cavity or recess, and
25 an adjustable attachment which is connected with said conical head, and by which the longitudinal movement of said sprayer is regulated, said attachment consisting of a yoke, having backwardly-directed arms, in which
30 slots are formed, through which pass screw-

threaded bolts connected with said head, and on which are mounted set-nuts, and said tubular attachment being slightly conical in form and the base or larger end thereof, being screw-threaded, whereby it is adapted to
35 be connected with a water-pipe, substantially as shown and described.

2. The herein-described nozzle and sprayer, consisting of a conical attachment or nozzle, one end of which is enlarged and provided
40 with interior screw-threads for attachment to the source of supply, the outer end of said attachment being funnel-shaped, said attachment having a tubular opening extending therethrough, and a conical sprayer 8 secured in said funnel-shaped orifice, an adjustable yoke having backwardly-directed arms
45 10, having longitudinal slots 11, adapted to engage shoulders or projections 12, upon the exterior of the funnel-shaped portion, and attachments for securing said arms upon said
50 projections as set forth.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 11th
55 day of May, 1896.

WILLIAM C. OBERWALDER.

Witnesses:

C. GERST,

M. A. KNOWLES.