

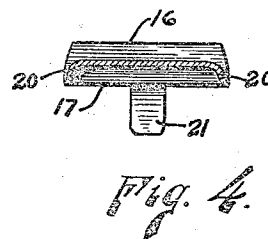
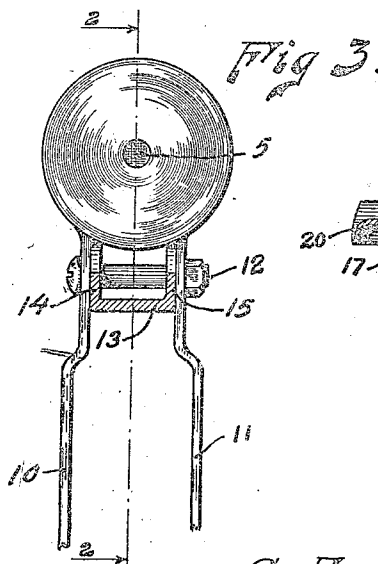
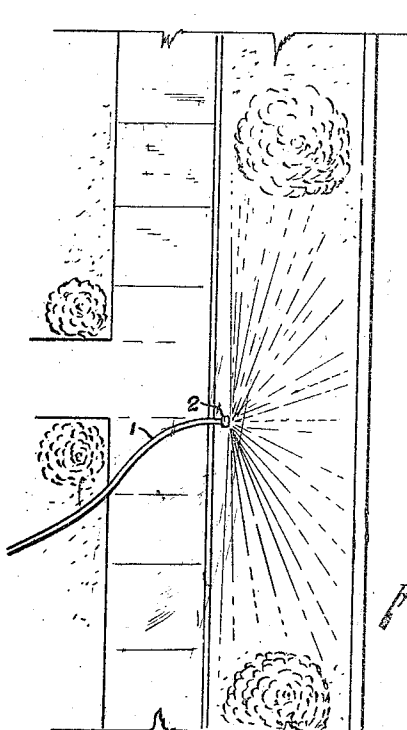
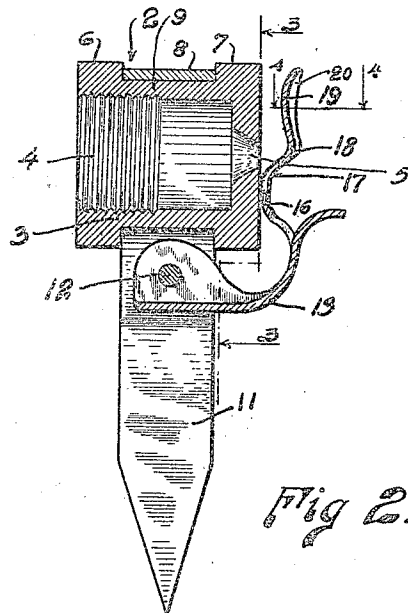
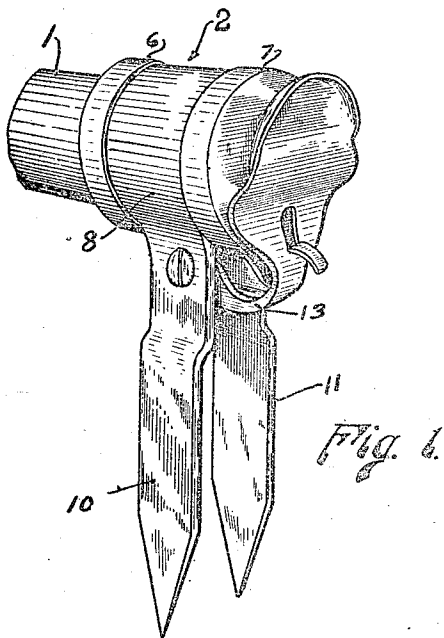
July 29, 1924.

C. E. HILL

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SPRAY NOZZLE

Filed March 13, 1922



C. E. Hill. ^{Inventor}

By A. J. O'Brien Attorney

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UNITED STATES PATENT OFFICE.

CLYDE E. HILL, OF FORT LOGAN, COLORADO.

SPRAY NOZZLE.

Application filed March 13, 1922. Serial No. 543,399.

To all whom it may concern:

Be it known that I, CLYDE E. HILL, a citizen of the United States, residing at Fort Logan, county of Arapahoe, and State of Colorado, have invented certain new and useful Improvements in Spray Nozzles; 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, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

This invention relates to spray nozzles, and has special reference to a nozzle adapted to be used for spraying parkings.

It is well known that more or less difficulty is always experienced in properly sprinkling parkings and parts of lawns which lie adjacent to a sidewalk, for the reason that most sprays do not throw the spray along a straight line but rather in curved lines, with the result that if the entire strip of grass along the sidewalk is to be covered with water, the water will also have to be sprayed upon and over the sidewalk, which is objectionable to pedestrians and besides results in a waste of water.

It is the object of this invention to produce a nozzle that is so designed and constructed that it will throw the spray over a substantially rectangular area, one side of which is straight, so that the lawn or parking can be sprinkled up to the line of the sidewalk without the necessity of wetting the latter.

It is a further object of this invention to produce a spray nozzle of substantial and simple construction, which can be easily and cheaply made and which can be readily adjusted.

In order to more clearly describe my invention, I shall have reference to the attached drawing in which—

Fig. 1 is a perspective view of my improved nozzle;

Fig. 2 is a vertical longitudinal section taken on line 2—2, Fig. 3;

Fig. 3 is a section taken on line 3—3, Fig. 2;

Fig. 4 is a section taken on line 4—4, Fig. 2; and

Fig. 5 is a plan view, showing my nozzle employed for sprinkling a parking between the sidewalk and the curb.

The same reference numerals will be used to designate the same parts throughout the several views.

Numerals 1 represents an ordinary garden hose and 2 my improved nozzle as a whole. My improved nozzle consists of a member 3 which is made in the general shape of a screw cap, whose inner surface 4 is threaded so as to adapt it to be applied to the usual threaded hose coupling. The end of member 3 has a suitable opening 5 through which the stream of water emerges. Near each end of nozzle 2 are outwardly projecting flanges 6 and 7 which serve as abutments or guides for holding the strap 8 in place. Strap 8 consists of a strip of metal which is bent intermediate its ends into an arcuate shape, whose diameter is such that it will properly fit the portion 9 of the nozzle which lies intermediate flanges 6 and 7, and permit rotation of the nozzle with respect thereto. The ends 10 and 11 of strap 8 are spaced apart and pointed so that they may be easily inserted into the surface of the ground and hold the nozzle in place. Secured between the sides of strap 8 by means of a suitable bolt 12, is an adjustable deflector plate 13 which I will now describe.

The lower end of plate 13 is provided with a pair of ears 14 and 15 whose outside surfaces have frictional engagement with the inner surfaces of strap 8, and are provided with openings for the reception of bolt 12. Plate 13 is curved upwardly and rearwardly to a point indicated by numeral 16, and thence extends substantially vertically for a short distance to the point marked 17 which is about on a level with the lower edge of opening 5. From point 17 the plate is inclined upwardly and forwardly for a short distance, and at 18 it is bent rearwardly and upwardly to point 19, from which it curves upwardly and forwardly, all as shown in Fig. 2. The edges of the plate above point 18 are curved forwardly as indicated at 20. The operation of my nozzle is as follows: The water emerging from opening 5 impinges on the inclined surface between 17 and 18 and is given an upward direction. At 18 the water encounters the reverse curve and this causes a portion thereof to be forced out to the sides and to emerge from the nozzle in a line substantially at right angles to the axis of the opening 5. The remaining portion of the water will be forced upwardly

and to the sides of the plate, forming a fine spray which strikes the ground over a substantially rectangular area, in the manner shown in Fig. 5. A tongue 21 is cut from the plate 13 and bent outwardly to form a handle by means of which the plate may be adjusted. By tilting the plate 13 on the bolt 12, different effects may be produced, and the plate is to be adjusted so as to obtain the most desirable results.

From the above it will appear that I have provided a simple spray nozzle that can be cheaply made and easily assembled, and which is so constructed that it will throw the water along a substantially straight line along one side of the area sprayed; thus making it especially well adapted for use in spraying parkings and other parts of lawns adjacent to sidewalks.

Having now described my invention, what I claim as new is

1. A spray nozzle, comprising in combination, a body member adapted to be secured to the end of a hose and provided with an

opening in one end thereof, a deflector plate hingedly secured thereto and extending upwardly in front of said opening, the portion of said plate directly in front of the opening being upwardly and forwardly inclined, the portion directly above said inclined portion being upwardly and rearwardly inclined, and the remaining portion being upwardly and forwardly inclined.

2. A spray nozzle, comprising in combination, a nozzle having a substantially plane end, an opening in said end, and a plate projecting upwardly in front of said opening, said plate being transversely bent, and having an upwardly and forwardly inclined portion directly in front of said opening, an upwardly and rearwardly inclined portion directly over said first named inclined portion, and an upwardly and forwardly inclined portion above the second mentioned inclined portion.

In testimony whereof I affix my signature.

CLYDE E. HILL.