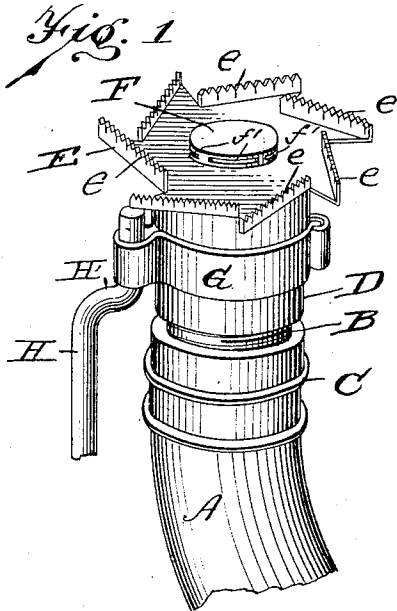
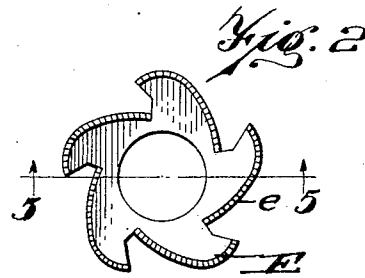
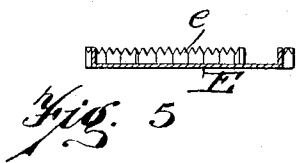
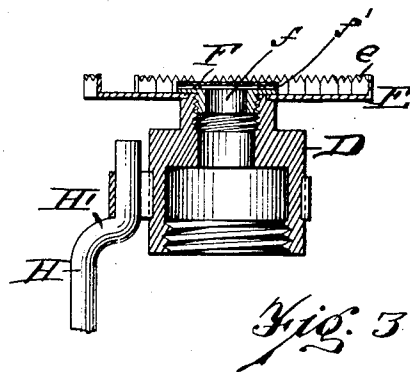
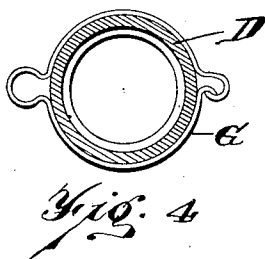


A. E. GRUENBERG.
 SPRINKLER.
 APPLICATION FILED JUNE 30, 1919.

1,331,255.

Patented Feb. 17, 1920.



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ALEXANDER E. GRUENBERG, OF DETROIT, MICHIGAN.

SPRINKLER.

1,331,255.

Specification of Letters Patent.

Patented Feb. 17, 1920.

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To all whom it may concern:

Be it known that I, ALEXANDER E. GRUENBERG, citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Sprinklers, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to sprinkling nozzles and is shown in the accompanying drawings and more particularly pointed out in the following specification and claims.

An application for patent on this invention was filed August 10, 1914, Serial No. 855,992, and allowed April 3, 1915.

One object of my invention is to simplify the construction and cost of manufacture of devices of this character adapted for various installations.

Another object is to provide a device which by the mere assembling of a suitable rotatable disk or baffle plate with the nozzle is equally well adapted for use as a lawn sprinkler, for a bath shower, as a fire extinguisher, or other like purposes; the arrangement being such that a rotatable baffle plate especially adapted for the specific purpose to which it is to be applied, may be used in connection with the body of the device.

Other advantages and improvements will hereafter appear.

Figure 1 is a perspective view showing the device in use as a lawn sprinkler mounted upon a supporting rod adapted for insertion in the lawn.

Fig. 2 is a plan view of a modification of the rotatable baffle disk, especially designed for shower bath purposes.

Fig. 3 is a sectional view of the device shown in Fig. 1.

Fig. 4 is a horizontal sectional view through the nozzle and clamp for attaching it to its supporting rod.

Fig. 5 is a cross sectional view of the baffle disk on line 5—5 of Fig. 2.

Referring now to the letters of reference placed upon the drawings:

A, denotes a section of a garden hose. B, indicates a screw threaded nipple secured in the hose by a suitable clamp C. D, denotes a nozzle engaged to the nipple. E, designates an annular rotatable disk supported

in a recess formed in the end of the nozzle and held in place by a cap nut F, having a central aperture *f*, opening into the nozzle and with a relatively narrow right angle passage *f'*, connected with the central aperture to direct the outgoing stream in a thin film toward the serrated walls *e*, of the rotatable disk E,—whereby the film of water is broken into a fine spray. H, is a rod adapted to enter the ground having an offset H', serving as a support for the collar G, lodged in a suitable recess in the nozzle to maintain the nozzle at a proper altitude above the lawn.

Having indicated the several parts by reference letters the construction and operation of the device will be readily understood.

It will be obvious that upon the film of water striking the inclined upturned walls of the rotatable disk the latter will be caused to revolve and that its serrated edge will break up the film into a plurality of fine streams or spray. It will also be apparent that the formation of the rotatable disk shown in Fig. 1 is particularly adapted for sprinkling a large area as in the case of a lawn,—if, however, it is desired to use the device for shower bath purposes, it will be advisable to confine the spray within prescribed limits, and therefore the baffle disk indicated in Fig. 2 may be employed to advantage, the peculiar inwardly directed curve of the serrated walls serving to direct the spray in a spiral manner and within a limited area. It will also be obvious that other forms of the rotatable disk may be constructed with a plurality of upturned walls having serrated edges especially adapted for the purpose to which it may be applied, without departing from the spirit of my invention. With an assortment of disks in stock adapted to be assembled with the nozzle a sprinkling device suitable for any purpose may quickly be constructed.

Having thus described my invention, what I claim is:—

1. In a device of the character described, a nozzle including a cylindrical body portion, a reduced extension projecting from the nozzle and having a central opening therein screw threaded adjacent its upper end, the upper end of said extension being recessed, a rotatable disk seated within said recess and movable therein, a cap threaded within the upper end of said reduced extension and resting upon the upper side of the

disk for retaining the same within the recess, said cap having right angular passages therein leading to the central opening thereof, whereby water will be discharged from said nozzle at right angles thereto over the upper face of the disk, said disk having its periphery notched, and walls formed upon one edge of each notch perpendicular to the disk, said walls being disposed tangential to the same arc struck from the center of the disk for engagement by the water during its passage through the nozzle and said walls having upper serrated edges substantially as and for the purposes set forth.

2. In a device of the character described, a nozzle, means for directing the stream in a relatively thin film at substantially right angles to its course through the nozzle, and a rotatable disk having a plurality of up-turned serrated angularly disposed walls adapted to intercept the stream, whereby the disk may be rotated and the stream broken up into fine spray.

3. In a device of the character described, a nozzle, a rotatable disk having a plurality of serrated walls located adjacent to the discharge end of the nozzle, a removable cap engaging the end of the nozzle having a

passage adapted to direct the stream in a relatively thin film at substantially right angles thereto and toward the several serrated walls of the rotatable disk, said walls being positioned at an angle to the nozzle—whereby the disk may be rotated and the stream broken up into spray,—upon the contact of the water therewith after its passage through the nozzle.

4. In a device of the character described, a nozzle, a rotatable disk having a plurality of walls extending laterally from the disk and located adjacent the discharge end of the nozzle, said walls having serrated upper edges and their ends spaced apart, a removable cap engaging the end of the nozzle and having a passage which is offset to direct the stream in a relatively thin film at substantially right angles thereto and toward the serrated walls of the rotatable disk whereby the disk may be rotated and the stream broken up into spray.

In testimony whereof, I sign this specification in the presence of two witnesses.

ALEXANDER E. GRUENBERG.

Witnesses:

S. E. THOMAS,

JOHN CONSIDINE, Jr.