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2,530,779

PATTERN SPRINKLER

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Fig. 1

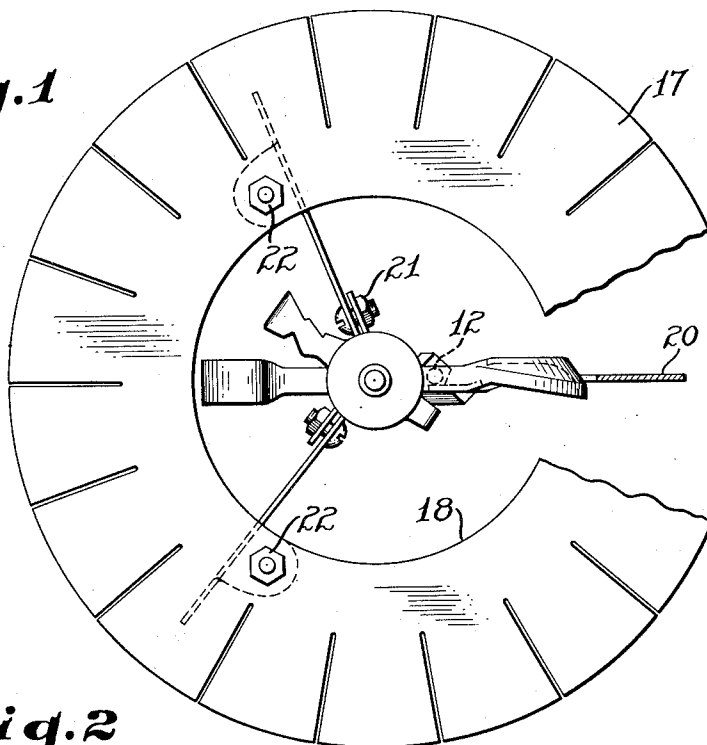
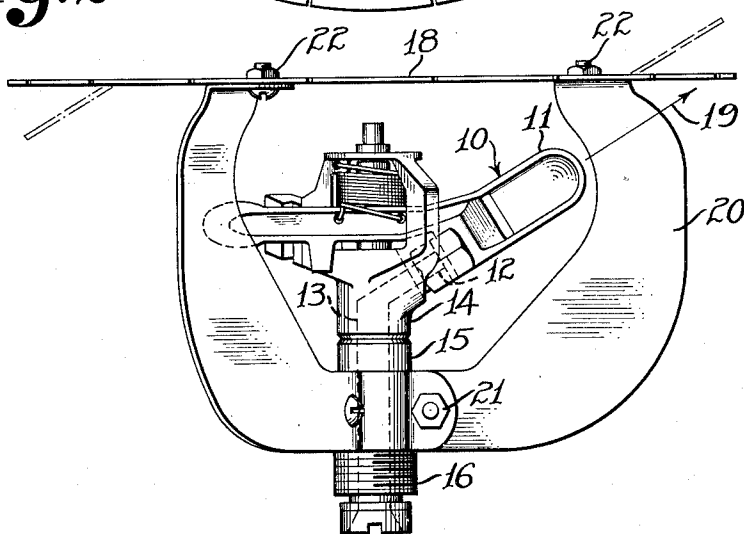


Fig. 2



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UNITED STATES PATENT OFFICE

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PATTERN SPRINKLER

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4 Claims. (Cl. 299-18)

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This invention relates to a rotary sprinkler such as is commonly used for watering lawns, shrubbery, golf courses and the like. It is particularly directed to an improvement of the device shown in the Englehart Patent No. 2,256,737, issued September 23, 1941.

The preferred form of device embodying this invention differs from the Englehart construction in that it rotates continuously in one direction and does not reverse its direction of rotation.

The principal object of this invention is to provide a rotary sprinkler for covering a non-circular area.

Another object is to provide a rotary sprinkler assembly having means for restricting the maximum area which the sprinkler normally covers.

Another object is to provide a device of this type having means for controlling the stream of water leaving the sprinkler nozzle so that the distance which the stream will travel from the device may be varied to suit the shape of the area to be watered.

Another object is to provide an attachment for a rotary sprinkler having a series of distortable elements which may be independently positioned to restrict the range of the water stream in any direction desired.

In the drawings:

Fig. 1 is a top plan view showing a preferred embodiment of my invention.

Fig. 2 is a side elevation thereof.

Referring to the drawings, a rotary sprinkler generally designated 10, which may be of the type shown in the Englehart Patent No. 2,256,737, above referred to, is provided with a reaction element 11 which directs the stream of water from a lateral port 12, which communicates with a center bore 13 in a rotatable slot 14. A stationary housing 15 having threads 16 on its lower end is adapted to be secured to a source of water pressure (not shown). Water entering the bore 13 in the rotary sleeve 14 is directed outwardly through the port 12 and serves to rotate reaction element 11 in an intermittent fashion as will be understood from a consideration of the Englehart construction. For purposes of this invention the rotary sprinkler head may be of any conventional style and the particular construction shown is merely a preferred design.

With the sprinkler element 10 rotating in the customary manner the area covered by the water is a circular area. In order to cover an area of another shape such as a rectangle, square, rhombus or any other irregular plane figure, this in-

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vention contemplates the use of a series of distortable segments 17 which are formed integrally around the outer edge of an annular disc 18. The disk 18 is mounted concentrically with respect to the rotary sprinkler 10 and is positioned above the reaction element 11 so that the water leaving the element 11 in the direction of the arrow 19 passes adjacent the outer edges of the segments 17. A plurality of vanes 20 are provided for supporting the annular plate 18 in operative position and the lower ends of the vanes 20 are secured to the stationary housing 15. Bolted connections 21 and 22 may be provided for securing the annular plate 18 to the vanes and for securing the lower ends of the vanes together.

In the operation of this device the assembly is first secured to a source of water under pressure by means of the threaded connections 16. The sprinkler 10 then rotates to discharge water over a circular area. The individual segments 17 on the annular disc 18 then may be normally deformed to restrict the range of the stream of water in any desired direction. The maximum range in all directions is obtained by tilting each of the segments 17 upwardly and the minimum range in any particular direction is obtained by bending the particular segments 17 downwardly normal to the direction of the flow of the stream of water.

By this device embodying my invention I am able to water a square lawn or to water a desired area while maintaining another area such as a side walk contiguous thereto substantially dry.

Experience has shown that a very nice adjustment of the individual blades or segments 17 results in spraying an entire square or rectangular lawn. For example, without wetting the side walk or driveway adjacent thereto.

Having fully described my invention, it is to be understood that I do not wish to be limited to the details herein set forth, but my invention is of the full scope of the appended claims.

I claim:

1. In a device of the class described, the combination of a water sprinkler assembly having a turnable element adapted to direct a stream of water upwardly and outwardly while the element turns, and a stationary disk member mounted coaxially of said element having a plurality of deflectors mounted in the path of the water stream as it turns, each of said deflectors being individually adjustable in a direction toward said path to restrict the range of said water stream as desired or away from said path to an inoperative position, whereby an area

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bounded by a non-circular perimeter may be watered.

2. In a device of the class described, the combination of a rotary water sprinkler assembly having a rotatable element adapted to direct a stream of water upwardly and outwardly while the element rotates, and a stationary flat disk member mounted coaxially of said element having a plurality of deflectors mounted in the path of the water stream as it rotates, each of said deflectors being individually adjustable in a direction toward said path to restrict the range of said water stream as desired or away from said path to an inoperative position, whereby an area bounded by a non-circular perimeter may be watered.

3. In a device of the class described, the combination of a water sprinkler assembly having an element rotatable about a substantially vertical axis and adapted to direct a stream of water upwardly and away from said axis, a stationary annular plate mounted concentrically of said axis in a plane normal thereto, a series of substantially radial slots extending inwardly from the outer periphery of the annular plate to define a plurality of deflectors therebetween, the deflectors being positioned in the path of the water stream as it rotates, the deflectors being individually distortable with respect to the said plane in a direction toward said path to restrict the range of the water stream as desired or away from said path to an inoperative position, whereby an area bounded by a non-circular perimeter may be watered.

4. In a device of the class described, the com-

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5 combination of a water sprinkler assembly having an element rotatable about a substantially vertical axis and adapted to direct a stream of water upwardly and away from said axis, a stationary annular plate mounted concentrically of said axis in a plane normal thereto, a series of substantially radial slots extending inwardly from the outer periphery of the annular plate and terminating short of the inner circumference thereof, the inner un-slotted portion of the plate forming a support ring and the outer slotted portion serving as a plurality of individually distortable deflectors, stationary means secured to the support ring adapted to support said annular plate, said deflectors being normally positioned in the path of the water stream as it rotates, and each being distortable downwardly with respect to the un-slotted support ring to restrict the range of the water stream, or upwardly away from said path to avoid contact with the water stream.

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REFERENCES CITED

25 The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
545,656	Lewis -----	Sept. 3, 1895
1,235,813	Kelso -----	Aug. 7, 1917
2,025,063	Loepsinger -----	Dec. 24, 1935
2,135,138	Kendall -----	Nov. 1, 1938
2,256,737	Englehart -----	Sept. 3, 1941

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