Dec. 8, 1925. 1,564,587

J. KREIZIGER

SPRINKLER HEAD

Filed Nov. 26, 1924

Fig. 1.

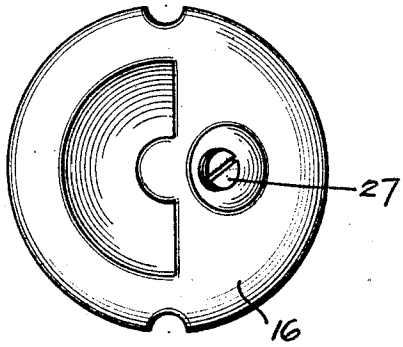
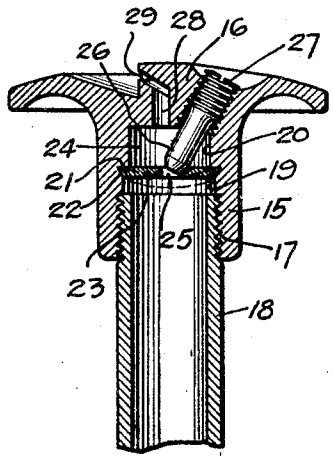


Fig. 2.



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UNITED STATES PATENT OFFICE.

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SPRINKLER HEAD.

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To all whom it may concern:

Be it known that I, JOSEPH KREIZIGER, a citizen of the United States, and a resident of Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Sprinkler Heads, of which the following is a specification.

My invention relates to lawn sprinkler heads of the type which is adjustable for the purpose of varying the area of lawn sprinkled and it is a purpose of my invention to provide a sprinkler head which is adjustable to control the pressure of the water discharged therefrom whereby the trajectory of the spray and, consequently, the area of the lawn sprinkled can be varied at will.

I will describe only one form of sprinkler head embodying my invention and will then point out the novel features thereof in claims.

In the drawings,

Figure 1 is a view showing in top plan one form of sprinkler head embodying my invention;

Figure 2 is a vertical sectional view of the sprinkler head shown in Figure 1 in applied position to one of the pipes of a sprinkler system.

Referring specifically to the drawings, in which similar reference characters refer to similar parts in each of the views, my invention, in its present embodiment, is shown as comprising a body formed of metal or other suitable material and including a tubular portion 15 closed at its upper end by a head or top portion 16 preferably formed integral with the tubular portion. The portion 15 is provided with a threaded bore 17 which receives the threaded end of a pipe 18 constituting one of the pipes of the sprinkler system through which water under pressure is supplied to the head. Above the bore 17 is a smooth bore 19 of the same diameter as threaded bore 17, while above the former is a bore 20 of a reduced diameter so as to provide at the junction of the bores 19 and 20 an annular shoulder 21. This shoulder 21 is widened by the formation of a groove 22 in the bore 19, such groove being of a contour to receive a plate or disk 23.

As illustrated in dash lines in Figure 2, the plate 23 is normally of concavo-convex form when inserted into the tubular portion and of such diameter as to engage the shoulder 21 so that by inserting a suitable instrument into the tubular portion and hammering the same the plate will be flattened to the position illustrated in solid lines wherein its beveled periphery is forced into the groove 22, thus locking the plate in spanning position within the tubular portion.

This plate 23 co-operates with the head or top portion 16 to provide a chamber 24 to which water from the pipe 18 is admitted through a port 25 controlled by a valve 26 formed in the lower end of a screw 27 threadedly fitted in the head 16 so as to move vertically when rotated and thus open or close the port 25.

Water from the chamber 24 is discharged from the sprinkler head through a port 28 formed in the head 18 and including a lateral passage 29 designed to set up a fan-shaped spray of the water emanating therefrom. The head 17 is recessed to facilitate manipulation of the screw 27 and free passage of the water from the passage 29.

In practice, the volume of water supplied to the chamber 24 can be readily controlled by an adjustment of the valve 26, and it will be understood that because of the relatively large capacity of the chamber 24 with respect to the discharge port 28 that any variance of the volume of water supplied to the chamber will operate to vary the pressure of water discharged from passage 29 and, as a consequence, the trajectory of the spray will be changed accordingly. That is to say, by increasing or decreasing the volume of water supplied to the chamber 24 the pressure of water discharged through the passage 29 is increased or decreased accordingly, so that the trajectory of the spray is likewise increased or decreased.

From the foregoing operation, it will be manifest that through an adjustment of the valve 26 the trajectory of the spray can be varied at will so as to sprinkle a predetermined area of lawn.

Although I have herein shown and described only one form of sprinkler head embodying my invention, it is to be understood that various changes and modifications may be made without departing from the spirit of the invention and the spirit and scope of the appended claims.

I claim as my invention:

1. A sprinkler head comprising a body formed to provide a chamber, one wall of

the chamber having an inlet port through which water under pressure from a source of supply enters the chamber, a discharge port communicating with the chamber and formed to project a fan shaped spray to one side of the head, and valved means adjustable in the body to control the passage of water through the inlet port in such manner that the water will be caused to strike the roof of the chamber and completely fill the latter before entering the discharge port, whereby the latter will be completely filled and project an evenly distributed spray.

2. A sprinkler head comprising a body formed to provide a chamber, one wall of the chamber having an inlet port through which water under pressure from a source of supply enters the chamber, a discharge port communicating with the chamber and formed to project a fan shaped spray to one side of the head, and valved means adjustable in the body to control the passage of water through the inlet port in such manner that the water will be caused to strike the roof of the chamber and completely fill the latter before entering the discharge port, whereby the latter will be completely filled and project an evenly distributed spray, said chamber being relatively large with respect to said inlet and discharge ports.

3. A sprinkler head comprising a hollow body formed to provide a chamber having an inlet port, a head on the body formed centrally with a discharge port communicating with said chamber and adapted to project a fan shaped spray of water to one side of the head, a valved member adjustably mounted in the opposite side of the head extending downwardly at an angle into said chamber and adapted to control the passage of water through said inlet port, whereby the adjustment of the sprinkler head can be effected from above and while it is in operation.

4. A sprinkler head as embodied in claim 3 wherein said valved member comprises a screw threadedly engaging the head and provided with a valve at its lower end for the purpose described.

5. A sprinkler head of the character described including a substantially flat head divided to form a spray section having a discharge port for projecting a fan shaped spray of water to one side of the head, and an adjusting section and valved means in said adjusting section operable from the top side of the head for controlling the discharge of water through said port so that the trajectory of the spray can be varied at will from the top side of the head while the sprinkler head is in operation.

6. A sprinkler head comprising a tubular body closed at one end to form a head integral with the body, a member insertable into the body and secured in spaced relation to said head to provide a chamber between the two, said member being formed with an inlet port, said head having a discharge port communicating with the chamber and an opening extending to the top side of the head adapted to receive a valve operable from the top side of the head for controlling said inlet port, whereby the discharge of water from the discharge port can be varied at will from the top side of the head.

JOSEPH KREIZIGER.