Dec. 3, 1929. W. L. DEMING 1,737,832

LAWN SPRINKLER

Filed Nov. 1, 1926

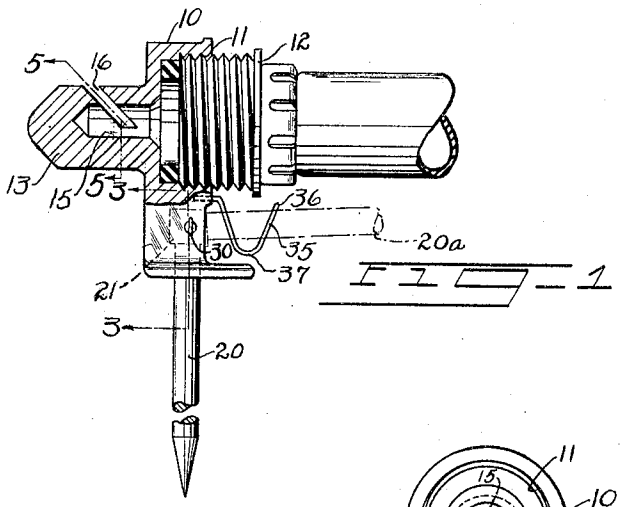


FIG. 1

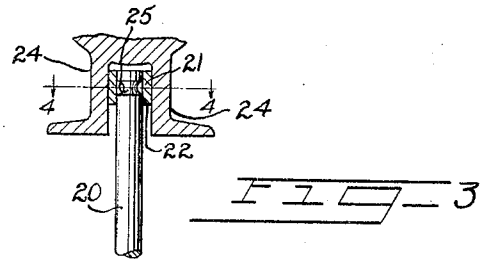


FIG. 3

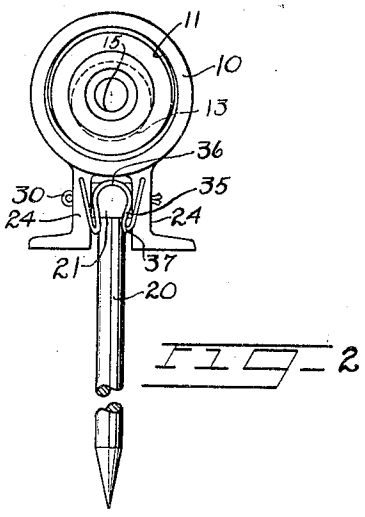


FIG. 2

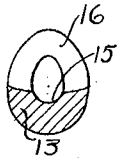


FIG. 5

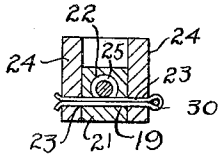


FIG. 4

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UNITED STATES PATENT OFFICE

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LAWN SPRINKLER

Application filed November 1, 1926. Serial No. 145,397.

This invention relates to lawn sprinklers and has for one of its objects the provision of a sprinkler which may be readily positioned in the ground, and yet may be easily turned to direct the spray over a comparatively large area. Another object is to make a sprinkler which will produce a fan shaped spray and which will distribute the spray uniformly and without objectionable dripping at the point of discharge. In this connection my invention contemplates the provision of a sprinkler which is simple and compact in construction, and yet may be cheaply made.

In the drawings, Fig. 1 is a side elevation partly in section of a sprinkler embodying my invention; Fig. 2 is an end view of the sprinkler from the hose connection side; Fig. 3 is a section taken through the sprinkler on a plane indicated by the line 3—3 in Fig. 1; Fig. 4 is a section taken on a plane indicated by the line 4—4 in Fig. 3; Fig. 5 is a section taken on a plane indicated by the line 5—5 in Fig. 1.

A sprinkler made in accordance with my invention has a body portion 10 which is internally threaded, as at 11, for receiving a hose coupling 12. The body portion has a nozzle in the nature of a cylindrical projection 13, the axis of which preferably is eccentric to the axis of the opening 11. The body is supported by a ground engaging spike which may be rigidly fastened to the body in any suitable way, or may be pivotally mounted on the body, as shown in the drawings.

To make a nozzle by means of which water may be uniformly distributed in a fan-shaped spray without objectionable dripping at the sprinkler, I provide a passageway 15 through the projecting portion 13, and a slot 16 which leads upwardly at an oblique angle through the projection and communicates with the passageway 15. An important feature of my invention is to make the axis of the passageway eccentric to the axis of the projection. As a result of such construction the width of the metal at all points between the passageway and the outer surface of the projection adjacent the slot is substantially the same. If the axis of the passageway were concentric with the axis of the projection, then the width of the metal across the top of the slot would be greater than that across the side of the slot, and as a result, the spray would not be uniformly distributed.

To support the sprinkler, I have shown a spike 20 which is swivelly mounted upon the body. A convenient connection between the spike and body comprises a block 21 which has a cylindrical passageway 22 through which the spike extends, and has another passageway 19 extending transversely of the axis of the passageway 22. The passageway 19 is arranged to register with openings 23 in the arms 24. These arms as illustrated, are integral with the body and extend downwardly therefrom. The spike has an annular groove 25 which is substantially in alignment with the openings 23, wherefore a single connecting member such as a cotter pin 30 may extend through the registering openings for fastening the spike and block to the body. This connection permits the block to be swung between the arms and yet allows rotation of the spike with reference to the block. Thus I provide a swivel connection by means of a single pivot pin.

To permit use of the sprinkler as a hand operated nozzle I employ a retaining device which functions to hold the spike, when it is swung from the full line position to the dotted line position shown at 20^a in Fig. 1. The preferred form of this retaining device comprises a wire which is bent in the form of a U, wherein the arms are indicated at 35 while the intermediate portion is indicated at 36. The arms are then bent downwardly to form an additional U, as indicated at 37. Thus the spike may have contact on each side at two places with the retaining device.

A sprinkler made in accordance with my invention is advantageous in that the main or body portion may be a one-piece casting which may be cheaply made, and readily attached to a ground engaging spike. In use, the sprinkler may be turned upon the axis of the spike merely by moving the hose, thereby changing the direction of the spray without necessitating removal of the spike from the ground. In addition, the sprinkler functions in a satisfactory way as a hand operated noz-

zle, whenever it is desired to direct the spray in a certain specific direction.

I claim:

1. A lawn sprinkler including a body portion adapted to be attached to a hose connection, a cylindrical extension projecting therefrom, said cylindrical extension having an eccentric bore extending thereinto, said extension having a lateral slot therein cutting into said bore, said slot being centered on the line of eccentricity and on the same side of the axis of the cylindrical member as the axis of the bore, said slot being so inclined with respect to the radii of the member and bore, and with respect to the eccentricity, that the metal forming the walls of the slot is of substantially uniform width at all parts of the slot.

2. A lawn sprinkler comprising a body portion having a threaded opening adapted to receive a hose connection and having a reduced cylindrical extension projecting therefrom, there being a cylindrical passageway extending in a longitudinal direction into the extension, said extension having a slot extending transversely of and obliquely to the axis thereof and cutting into said bore, and said passageway being of such eccentricity with respect to the axis of the extension that the width of the slot wall is substantially uniform at all points.

In testimony whereof, I hereunto affix my signature.

WILLIAM L. DEMING.