Feb. 3, 1942. C. HUNDERTMARK 2,271,823

LAWN SPRINKLER

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Fig. 1

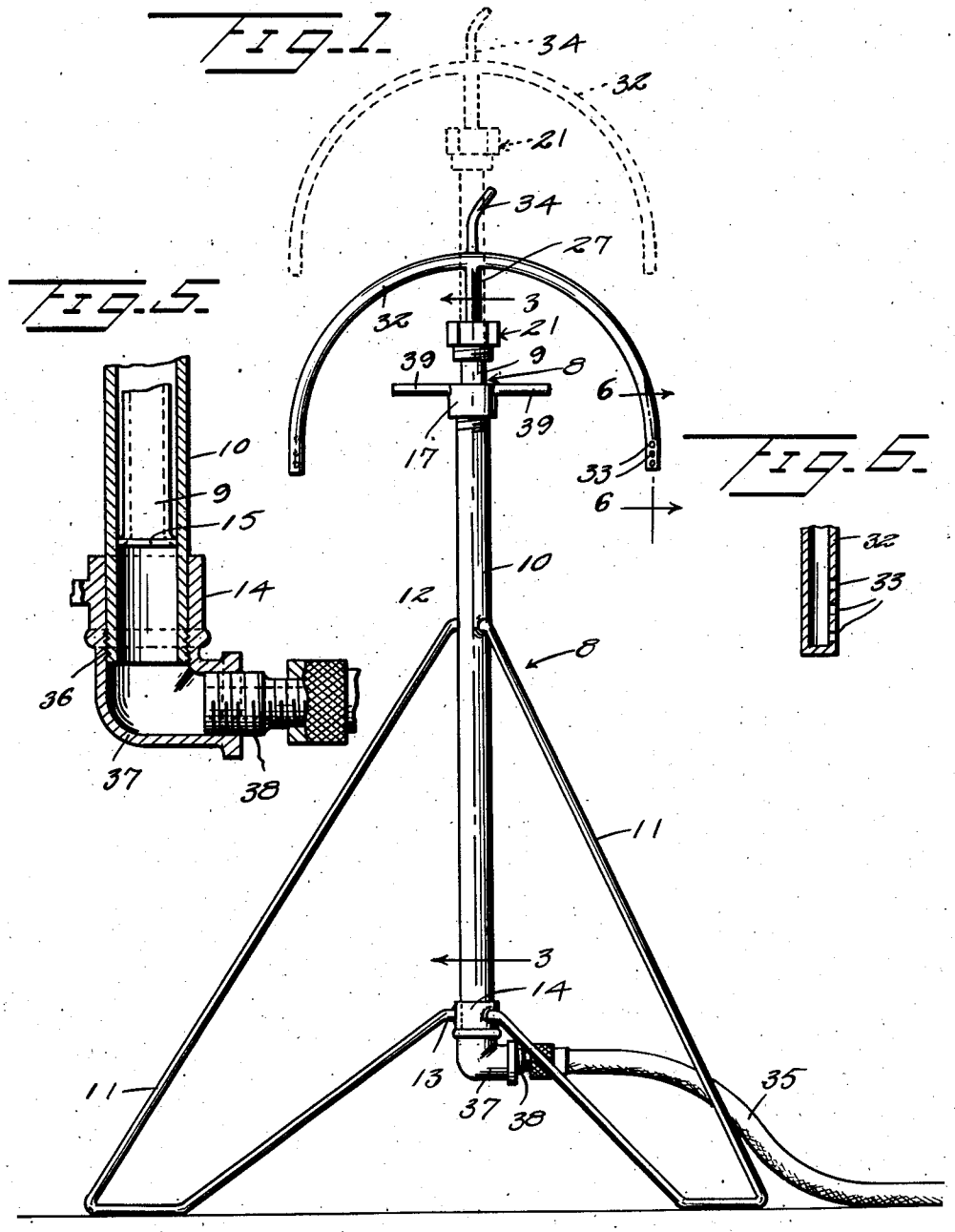


Fig. 5

Fig. 6

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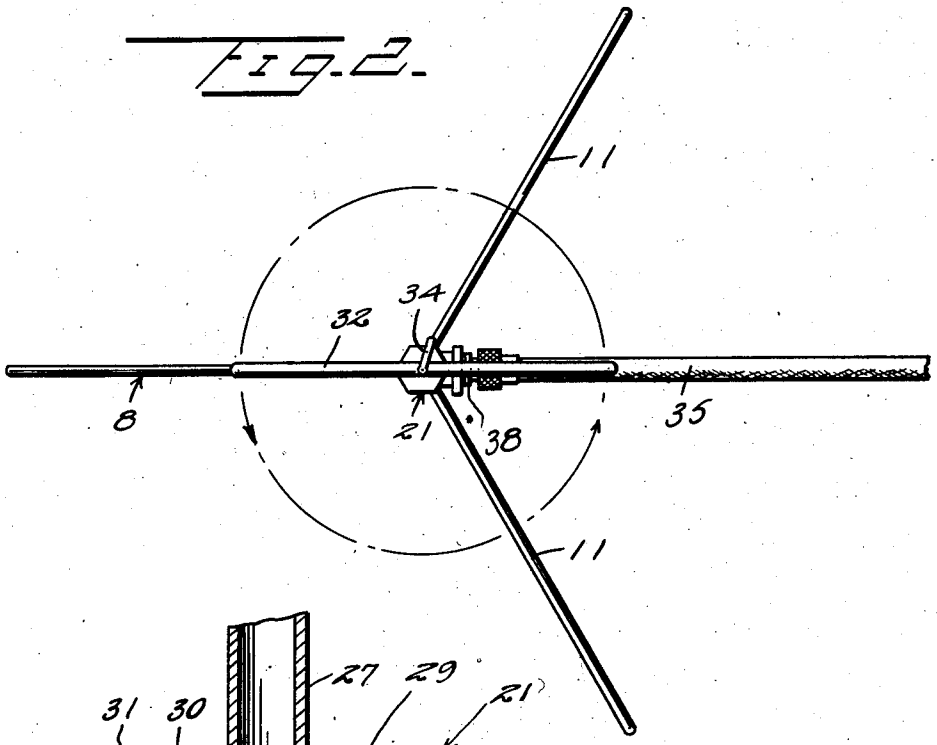
WITNESS

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Fig. 2.



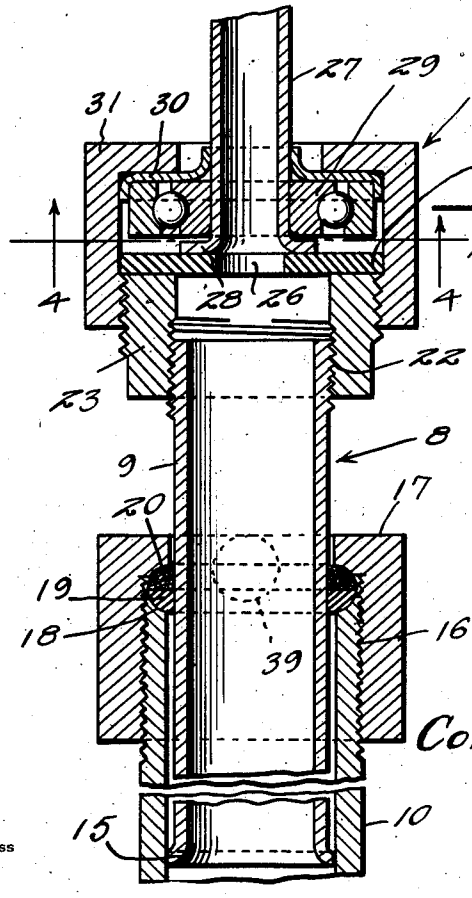
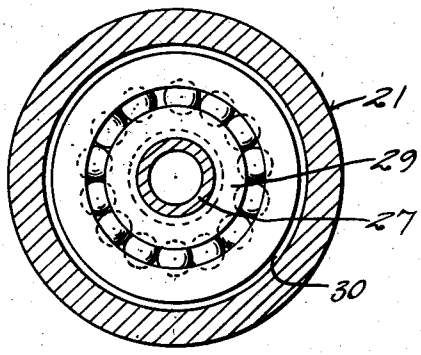


Fig. 3.

Fig. 4.



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LAWN SPRINKLER

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Application March 24, 1941, Serial No. 384,972

2 Claims. (Cl. 299—69)

The present invention relates to new and useful improvements in lawn sprinklers.

The primary object of the invention is to provide a sprinkler best adapted for use in spraying lawns that can be readily moved from place to place, as desired, and which is adjustable vertically for increasing or decreasing the distribution of water therefrom.

Another object of the invention is to provide a lawn sprinkler including a sprinkler head which will be operated or rotated by the force of the water, said sprinkler head being mounted in suitable bearings that are practically unexposed to the flow of water through the sprinkler head.

The invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a side elevational view of a lawn sprinkler embodying the features of the present invention.

Figure 2 is a top plan view thereof.

Figure 3 is a vertical sectional view taken substantially on the line 3—3 of Figure 1.

Figure 4 is a horizontal sectional view taken substantially on the line 4—4 of Figure 3.

Figure 5 is a detailed sectional view of the lower end of the sprinkler illustrating the connection with the nozzle of a hose.

Figure 6 is a detailed sectional view of one of the sprinkler arms taken substantially on the line 6—6 of Figure 1.

Referring to the drawings for a more detailed description thereof, the improved sprinkler which is generally designated by the reference numeral 8 comprises upper and lower tubular members 9 and 10, respectively arranged in telescoping relation. The sprinkler is supported on legs 11 which are secured to the tube 10, as indicated at 12, the opposed ends of which are connected, as indicated at 13, to a coupling 14 mounted on the lower end of the tube 10. The legs 11 present substantially the shape of a tripod and are of such form that the sprinkler may be readily moved over a lawn, as desired.

As I have indicated, the tubular section 9 telescopes within the section 10 and is readily extensible for increasing or decreasing the height of the sprinkler. In accordance with the present invention, a means has been provided for locking the upper section 9 in its adjusted position and referring more particularly to Figure 3 of the drawings, it will be observed that the lower end of the tube 9 flares outwardly, as indicated at 15, for contactual engagement with the wall of the interior of the tube 10. The upper end of the tube 10 is provided with exteriorly formed threads 16 which receive a cap nut 17, said nut adapted to lock the tube 9 in its adjusted position, as will hereinafter appear. The upper end of the tube 10 on the interior thereof is formed with a convexed seat, as indicated at 18, on which is supported a leather, or the like, washer 19. Directly above the washer 19 is positioned a flexible packing member 20 which is retained in place by means of the cap nut 17. When desiring to raise or lower the tubular member 9 within the tubular member 10, the packing nut 17 is first released and the tubular member 9 moved to its desired position. Tightening the packing nut will then securely retain the tubular member 9 in its adjusted position. Use of the washer 18 and packing 19 will provide a water tight connection within the cap nut 17.

The sprinkler head generally deposited by the reference numeral 21 is rotatably mounted on the upper end of the tubular member 9. The upper end of the tubular member 9 is provided with exteriorly formed threads 22 which receive an extension collar 23, the latter being also provided with exteriorly formed threads 24. Adjustment of the head 21 is accomplished by loosening or tightening the extension collar 23. A disk-shaped washer 25 is held on the upper end of the collar 23, said washer being formed with a central opening 26 which communicates with the pipe 27. The lower end of the pipe 24 is flanged outwardly, as indicated at 28, and rests upon the washer 25, said pipe revolving within roller bearings 29. A relatively thin metal retaining member 30 surrounds the pipe 27 and is disposed over the roller bearings 29 for protecting the same from water, dirt, dust, and the like, and the entire assembly including the roller bearings 29 and retainer 30 are held in position by means of the cap nut 31, said nut being interiorly threaded for engagement with the threads 24 of the collar 23. By this construction the discharge of water through the sections 9 and 10 and into the pipe 27 and its sprinkler arms attached thereto, will cause the pipe 27 to rotate within the bearings 29. Provision of the washer 25 and retaining member 30 will protect the bearings

from the water being discharged through the pipe.

A substantially semi-circular shaped pipe 32 communicates with and is connected intermediate its ends to the pipe 27, the ends of the pipe 32 being formed with a multiplicity of openings 33 through which the water is discharged. The upper end of the pipe 27 is formed with an angular section of tubing 34 which extends upwardly and laterally therefrom, said section being also formed with a series of openings through which water is discharged. The action of the water passing upwardly through the sections 9, 10 and pipe 27 and outwardly through the arms 32 will effect a rotary motion to the entire head 21 in a manner well known in the art, and as I have indicated water will also be discharged through the end of the section 34 which will be revolving with the pipe 27. The construction of the head 21 is such that the leakage of water is substantially precluded.

The sprinkler 8 is adapted to be connected with a water outlet through a section of hose 35, such as is shown in Figure 1 of the drawings. For attaching the hose to the sprinkler, the lower end of the tubular section 10 is provided with exteriorly formed threads 36 by means of which an elbow coupling 37 may be attached thereto. The end 38 of the hose 35 threadedly engages the coupling 37 thus providing a free passage of water from the hose 35.

If desired, the cap nut 17 may be formed with a pair of laterally extending arms 39 adapted to be engaged for tightening and loosening said nut in the adjustment of the sprinkler.

It is thought that the operation and advantages of the sprinkler are readily apparent from the above description when taken in connection with the accompanying drawings.

Also it will be understood, of course, by those skilled in the art that variations in the hereinabove-described device involving the substitution of substantial equivalents for the devices described are intended to be comprehended within the spirit of the present invention and that the invention is capable of extended application and is not confined to the exact showing of the drawings nor to the precise construction described and, therefore, such changes and modifications may be made therein as do not affect the spirit of the invention nor exceed the scope thereof as expressed in the appended claims.

What is claimed is:

1. In a lawn sprinkling device, a tubular head of approximately semicircular formation having the ends closed, the said head having its end portions depending and provided with a plurality of longitudinally spaced discharge apertures at one side thereof, a vertically depending pipe having communicative connection with the center of the said head and adapted for connection with a supply conduit, and an angular discharge tube projecting upwardly from the center portion of the head.

2. In a sprinkling device, a vertically supported tube, a tubular section slidably mounted in the first mentioned tube for vertical adjustment, a cap nut mounted on the upwardly projecting end of the adjustable tube section, an upstanding feed pipe having its lower portion rotatably mounted within the cap nut, a tubular sprinkler head of approximately semicircular curvature having communicative connection with the upper end of the said pipe and having its ends closed and depending with relation to its center portion, the said depending end portions of the head having a plurality of longitudinally spaced discharge apertures therein, and a tubular projection having communicative connection with the center portion of the head and extending upwardly therefrom.

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