

Feb. 17, 1953

T. P. DUNCAN, JR
FLEXIBLE SPRINKLER UNIT

2,628,865

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FIG. 1.

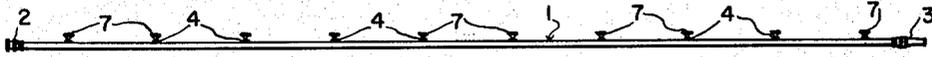


FIG. 2.

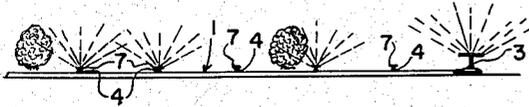


FIG. 3.

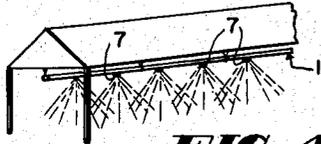


FIG. 4.

FIG. 5.

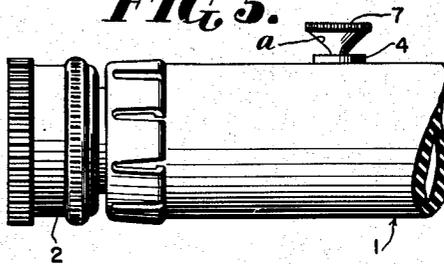


FIG. 6.

FIG. 8.

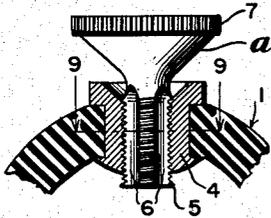


FIG. 7.

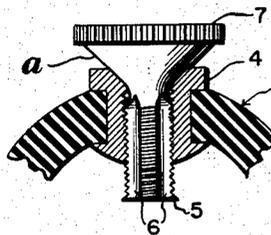
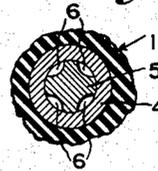


FIG. 9.



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UNITED STATES PATENT OFFICE

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FLEXIBLE SPRINKLER UNIT

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Application December 20, 1949; Serial No. 134,102

1 Claim. (Cl. 299-106)

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This invention relates to a flexible sprinkler hose and it is an object of the invention to provide a hose of this kind provided at spaced points therealong with regulatable sprinkling elements whereby is provided an article which can be advantageously used straight ahead or flexed as desired to meet every condition.

It is also an object of the invention to provide an article of this kind including a sprinkling element so constructed as to be readily shut off or regulated to provide a spray ranging from free to coarse.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved flexible sprinkler hose, whereby certain advantages are attained, as will be hereinafter more fully set forth.

In order that my invention may be better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein:

Figure 1 is a view in side elevation of a sprinkler hose constructed in accordance with an embodiment of the invention and disposed straight and showing a conventional nozzle coupled thereto;

Figure 2 is a fragmentary view in side elevation of the hose as herein comprised and coupled to a conventional lawn sprinkler;

Figure 3 is a fragmentary view in perspective illustrating the hose as herein embodied but disposed along an irregular path;

Figure 4 is a diagrammatic view in perspective showing the hose as herein comprised in use within a flower house or the like;

Figure 5 is an enlarged fragmentary view in side elevation of the receiving end portion of the hose as shown in Figure 1;

Figure 6 is an enlarged fragmentary view in top plan showing one of the sprinkling elements herein comprised;

Figure 7 is a fragmentary detail sectional view taken substantially on the line 7-7 of Figure 6;

Figure 8 is a view similar to Figure 7, but showing the spray head in a second position; and

Figure 9 is a sectional view taken substantially on the line 9-9 of Figure 8.

The invention as herein embodied comprising a flexible hose 1 of desired length and preferably of about fifty feet. The opposite extremities of the hose 1 are provided with the usual coupling fixtures 2 one of which being adapted for communication with a supply of water under pressure and the other with a conventional lawn sprinkler 3 or otherwise as may be preferred.

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At spaced points therealong, the wall of the hose 1 has disposed therethrough and firmly held thereby the bushings 4 of metal or other material having the desired strength.

Threading from without into each of the bushings 4 is a stem or shank 5 provided therearound with the spaced grooves or channels 6 disposed lengthwise thereof and open at the inserted end of the stem or shank 5. The outer end of the stem or shank 5 carries a relatively large head 7 having its inner portion *a* tapered from the periphery of the head 7 to the shank or stem 5.

When the stem or shank 5 is at the limit of its inward movement, the tapered portion *a* of the head 7 seats in a correspondingly tapered depression encircling the outer end of the bore through the bushing to cut off flow of water outwardly therethrough. Upon a slight turn of the stem or shank 5 to move the same outwardly, the head 7 will be moved away from the depression sufficiently to allow discharge of water out through the bore of the bushing 4 in a fine spray. Upon further outward movement of the head 7 the spray discharged will be correspondingly coarser.

The bushings 4 are so spaced along the hose 1 to assure overlapping of the sprays from adjacent sleeve 4 and which spacing will be between seven to ten feet.

It is believed to be obvious that the sprinkler hose as herein comprised may be readily flexed to meet varying conditions and that any spray may be cut out by closing flow out through the required sleeve 4. The hose can be laid out straight ahead when desired as when irrigating a lawn or vegetable garden or may be conveniently laid along a border for sprinkling therealong. The hose may also be easily coiled around a plant of any kind which is especially desired for a soaking operation. The device may also be flexed along or around irregularly spaced plants or along curved walks or curved borders.

The bushings 4 along the hose 1 are coplanar and are to be upwardly closed when the device is laid out on the ground. The device, however, may be suspended in an orchid house, green house, or the like above the plants, when so used, the bushings 4 will of course, be downwardly disposed.

From the foregoing description it is thought to be obvious that a flexible sprinkler hose constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated.

I claim:

In a flexible sprinkler unit, a length of hose, a plurality of metal bushings secured in equidistantly spaced relation in and along the hose wall, said bushings having screw threaded axial bores extending through the same and the outer ends of the bores outwardly flared to form annular valve seats, a stem in screw threaded engagement with the bore of each of said bushings and having channels extending longitudinally thereof in equidistantly spaced relation about the same, and substantially conical heads on the outer ends of said stems normally engaged with said seats to close off flow outwardly through the bushings, the edges of the outer ends of said heads being knurled to facilitate manipulation of the same and the stems to open and close the said bores.

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