June 9, 1925. 1,541,048

E. HAUEISEN

LAWN SPRINKLER.

Filed Jan. 25, 1924

Fig. 1

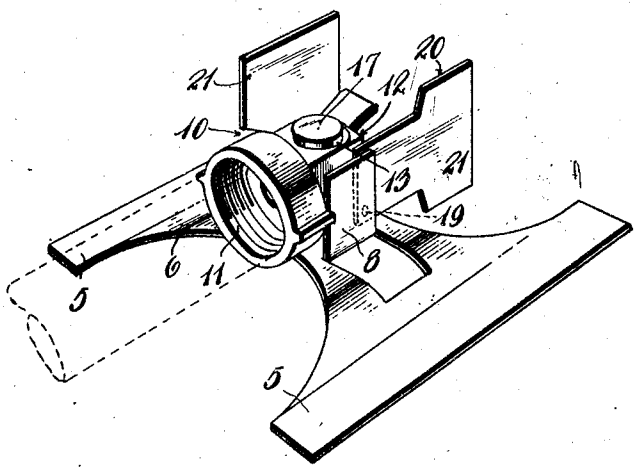


Fig. 2

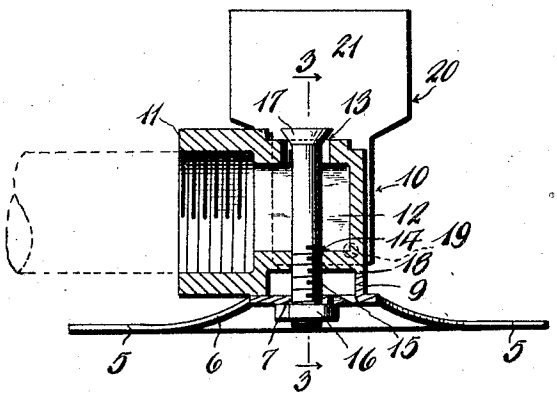


Fig. 3

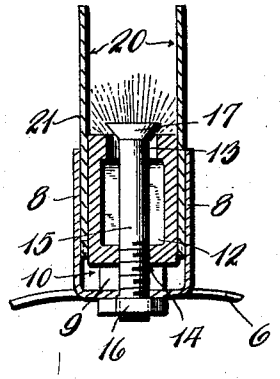
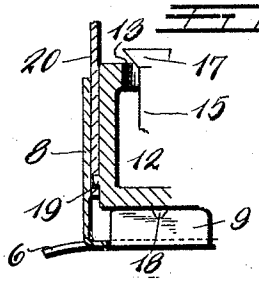


Fig. 4



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UNITED STATES PATENT OFFICE.

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LAWN SPRINKLER.

Application filed January 25, 1924. Serial No. 688,438.

To all whom it may concern:

Be it known that I, EDWARD HAUEISEN, a citizen of the United States, residing at Cleveland Heights, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Lawn Sprinklers, of which the following is a specification.

This invention relates to improvements in lawn sprinklers having for an object to provide a sprinkler which may be readily attached to an ordinary hose and which may be manipulated to permit controlling the direction of the water spray.

Another object is to provide a sprayer in which the water outlet is arranged to direct the spray substantially laterally in all directions, and in which the density may be readily varied.

It is likewise an object to provide a sprinkler in which is included a minimum number of parts of simple construction and consequently reduce the cost of manufacture and simplify assembly and operation.

Other objects will be in part obvious and in part pointed out hereinafter.

In order that the invention and its mode of operation may be readily understood by persons skilled in the art, I have in the accompanying illustrative drawings and in the following detailed description based thereon set out one possible embodiment of the same.

In these drawings:

Fig. 1 is a perspective view of the sprinkler, a hose being indicated in dotted lines.

Fig. 2 is a vertical longitudinal sectional view of the sprinkler.

Fig. 3 is a sectional view taken substantially on the line 3—3 of Figure 2.

Fig. 4 is a detail sectional view showing the manner of mounting the fenders or deflectors and associated parts.

Having more particular reference to the drawings throughout which similar characters of reference designate similar parts, this improved lawn sprinkler may be stated as comprising a support or base which includes a pair of parallel spaced foot portions 5 connected by an arched bridge 6, these portions being formed from a single piece of sheet metal. Arranged centrally in this bridge portion 6 is a vertical opening 7 whose function will be hereinafter apparent. Spaced transversely from the sides of this opening 7 is a pair of upstanding ears or fingers 8 which as shown are formed through slitting the bridge portion 6 and bending upwardly the material within the slitted area. In Figures 2 and 4 of the drawing a supporting lug 9 is shown stamped upwardly for the purpose of retaining the housing or cap member 10 in proper position with relation to the base portion.

This housing or cap member as shown includes an internally threaded circular head 11 which has communication with a reduced chamber 12, this chamber being provided with a pair of vertically alined openings, the opening 13 in the upper end being of greater diameter than the lower opening 14 and serving as a water outlet. A threaded stem or bolt 15 is engaged in the lower threaded opening 14 and extends downwardly through the opening 7 formed in the bridge portion of the base, thus serving to secure together the housing 10 and the base through positioning upon the lower end a nut 16. The upper end of this stem or bolt 15 is provided with a substantially cone shaped spreader head 17 which is spaced slightly above the outlet 13 whereby the water being sprayed is directed laterally in all directions. As shown in Figures 2 and 4 the lower edge of the chamber 12 near its outer end is provided with a depending centering finger 18 which seats itself in a notch formed in the upper edge of the upstanding bridge portion or lug 9 carried by the base. This construction provides for proper and secure positioning of the several elements. Transversely alined and extending from the lower portions of the opposite sides of the chamber 12 and adjacent the outer end is a pair of pintles or bearings 19, the function of which is to pivotally mount a pair of spaced fenders or deflectors 20. As shown in Figures 1 and 2, these fenders are each connected at the lower end to a pintle 19 and consists of a substantially T-shaped body, the widened head portion 21 being adapted for positioning slightly above the outlet 13 so as to provide a fender of sufficient area to properly function and serve its purpose.

As is shown, the mounting of each fender or deflector is such as to insure positive retention thereof in either its operative or inoperative position, this being due to the arrangement of the pintles at a point near the outer end of the chamber 12 and the pivot-

ing of the fender at a point considerably off center.

In assembling this sprinkler, the two fenders or deflectors are first mounted upon the pintles or bearings 19 after which this assembly is positioned between the ears or fingers 8 as shown in Figure 1. The bolt or stem 14 is then inserted through the outlet opening 13 and threadedly engaged with the lower opening 14 and passes on through the opening in the bridge portion of the base, at which point the nut 16 is placed in position, thereby completing the assembly.

As is obvious, vertical adjustment of this bolt or stem 14 is provided for with the result that the density of the spray may be readily controlled.

Should it be desired to use this sprinkler in a large open lawn, both deflectors may be lowered so as to offer no obstruction whatever to the spraying of water in all directions. However, should the operator wish to spray a lawn along side of a building or side-walk or the like, he may, by positioning the blades as indicated in Figure 1, confine the spray to the lawn and prevent the water from falling upon the walk or building. Often times it is desired to spray a narrow strip of lawn and in order to accomplish this, the fenders or deflectors would be positioned as shown in Figure 3, the result being that a long narrow fan-like spray will be thrown upon the lawn.

Manifestly, the construction shown is capable of considerable modification and such modification as may fall within the scope of my claims, I consider within the spirit of my invention.

I claim:

1. A lawn sprinkler comprising a cap member having an inlet and a discharge opening, a substantially cone-shaped spreader head arranged in the discharge opening, a pair of transversely alined pintles formed upon opposed vertical faces of the cap member, and a pair of vertically disposed parallel deflectors mounted upon the pintles.

2. A lawn sprinkler comprising a cap member having an inlet and a discharge opening, a substantially cone-shaped spreader head arranged in the discharge opening, a pair of transversely alined pintles formed upon opposed vertical longitudinal faces of the cap member, and a pair of vertically disposed parallel deflectors pivotally mounted off center upon the pintles whereby to positively retain them in operative or inoperative position.

3. A lawn sprinkler comprising a cap member having an inlet and a discharge opening, a substantially cone-shaped spreader head arranged in the discharge opening, a pair of transversely alined pintles formed upon opposed vertical faces of the cap member, a base, and upstanding ears carried by the base and snugly engaging portions of the deflectors to retain them upon the pintle.

4. A lawn sprinkler comprising, a base, having a pair of parallel spaced upstanding ears, a cap member arranged between and slightly spaced from the ears, and having a water inlet and a discharge opening, a spreader in the discharge opening, and a pair of parallel vertical deflectors mounted between the cap member and the ears and extending above the line of water discharge.

5. A lawn sprinkler comprising, a base, having a pair of parallel spaced upstanding ears and having a vertical bolt opening therebetween, a cap member arranged between and slightly spaced from the ears and having a water inlet and a discharge port, said cap member having a bolt opening alined with the discharge port and the first named bolt opening, a bolt threadedly engaged in said bolt openings to rigidly connect the base and cap member, a spreader head carried by the bolt and arranged in the discharge port and a pair of vertical parallel deflectors pivotally mounted between the cap member and the upstanding ears and extending above the line of water discharge.

In testimony whereof, I affix my signature.

EDWARD HAUEISEN.