

(No Model.)

L. H. SHOLDER.
LAWN SPRINKLER.

No. 569,243.

Patented Oct. 13, 1896.

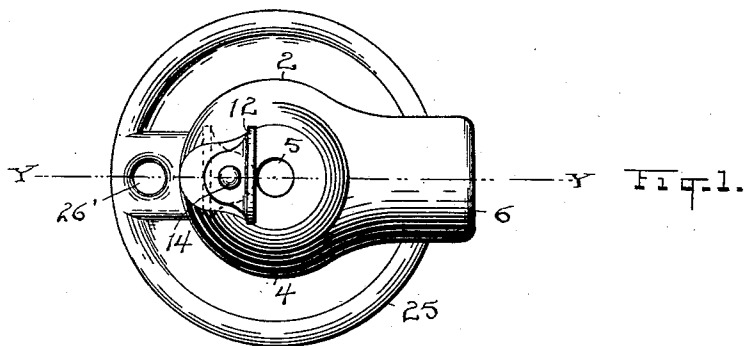


Fig. 1.



Fig. 2.

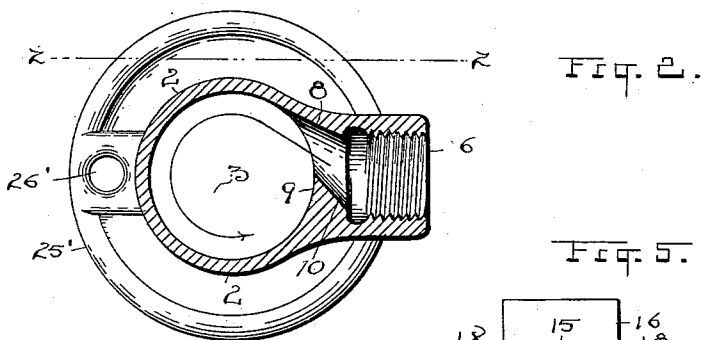


Fig. 3.

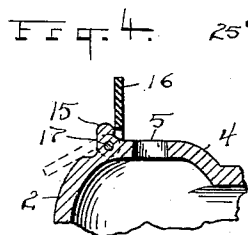


Fig. 4.

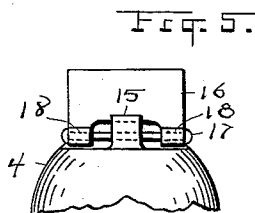


Fig. 5.

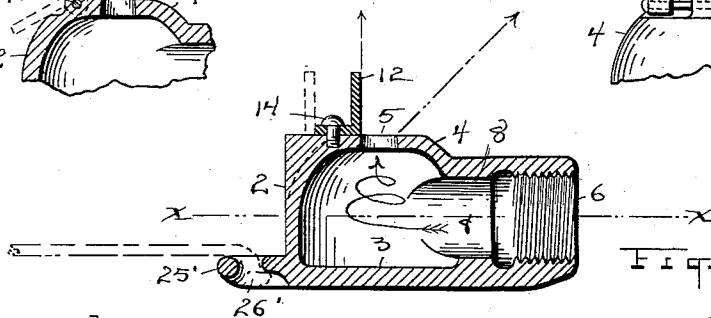


Fig. 6.

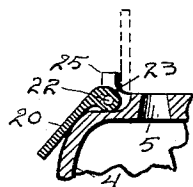


Fig. 7.

Fig. 8.

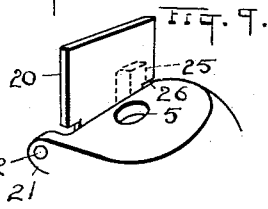
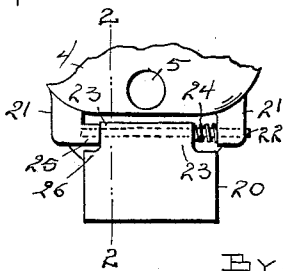


Fig. 9.

ATTEST

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UNITED STATES PATENT OFFICE.

LOUIS H. SHOLDER, OF CLEVELAND, OHIO.

LAWN-SPRINKLER.

SPECIFICATION forming part of Letters Patent No. 569,243, dated October 13, 1896.

Application filed August 2, 1895. Serial No. 557,953. (No model.)

To all whom it may concern:

Be it known that I, LOUIS H. SHOLDER, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Lawn-Sprinklers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention has reference to lawn-sprinklers; and the invention consists in a sprinkler constructed substantially as shown and described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of my novel construction of sprinkler with one form of deflector or fender. Fig. 2 is a plan view of the lower half thereof looking down on a horizontal line corresponding to $x x$, Fig. 3. Fig. 3 is a vertical sectional elevation of the sprinkler on line $y y$, Fig. 1. Fig. 4 is a sectional elevation, and Fig. 5 an edge elevation, of a modified form of deflector, and showing also a portion of the shell to which the deflector is attached. Fig. 6 is a plan view of still another modification of deflector and of a portion of the shell carrying the same, the deflector being down out of use. Fig. 7 is a cross-section on line 2 2, Fig. 6. Fig. 8 is a cross-section of the base of the sprinkler on line $z z$, Fig. 2. Fig. 9 is a perspective view of the parts shown in Figs. 6 and 7, but with the deflector raised, as in use.

The invention relates to a lawn-sprinkler preferably cast in metal in a single piece and adapted to be attached to hose, though of course it may be made in parts and of any suitable material.

As here shown, the invention comprises the shell 2, having a chamber circular in horizontal section and formed, in this instance, with a flat base or floor 3 and a convex dome 4. Centrally in the top of the dome is the outlet 5, and at one side is the internally-threaded neck 6 to attach the hose or pipe. Between the inside of the shell and this neck is what may be termed the "throat" 8, which is somewhat contracted to reduce the area as compared with the passage through the neck. This contraction is produced in this instance

by a projection, offset, or shoulder 9, with an inclined surface 10, calculated to deflect the water out of a direct line to the side of the shell and thus cause it at once to take a rotary direction and swirl about within the shell in a spiral turn and make its exit through hole 5 under the impetus and with the rotary upward direction it obtains within. The direction of the throat is to the side of the chamber, so as to facilitate the spiral action of the water.

A further element of novelty and improvement is found in the deflector or guard 12, one form of which is shown in Figs. 1 to 3. It frequently is desirable to place the sprinkler near a walk or residence or other place where for the time sprinkling is not wanted. Thus in the first three views I show a right-angled guard or deflector 12, secured on the shell 2 by the side of the hole 5 by means of a vertical pivot screw or pin 14, on which the deflector may be turned into or out of working position by horizontally rotating the same. The full lines, Fig. 1, show it in working position and the dotted lines out of working position. In this way the water is positively cut off on the side of the guard and the sprinkler can be placed close to a walk and yet leave the same perfectly dry, while in the other directions it is doing the same work as if no guard were used.

Figs. 4 and 5 show a modification of guard in which a central post 15 is formed on the shell 2, and the guard 16 is pivoted thereon by spring hinge-rod 17 passing through said post and the ears 18 in the said guard. The post 15 is rounded on top, and the guard is recessed centrally to ride frictionally over the post and stand upright, as in full lines, Figs. 4 and 5, when in use or to lie down, as in dotted lines, Fig. 4, when out of use. The rod 17 has just flexibility enough to allow the guard-plate to ride over post 15.

In Figs. 6, 7, and 9 is still another modification. Here the deflector or guard 20 is hinged on two lugs or ears 21 on the case 2 by rod 22 passing through said ears and the bottom of said guard, and a short spring 24 on the rod 22 bears constantly against the guard and when the guard is raised presses it in behind the projection 25 on the outer ear 21, and thus the guard is held in upright

position, the shoulder or heel 26 of the guard preventing it from going inward beyond an upright position. A reverse movement brings the guard back, as in Fig. 7, full lines. The
 5 said guard fits closely along its lower edge on the shell 2, so as to prevent spraying of the water through at this point, and all the constructions should make like provision.

The sprinkler thus constructed is designed
 10 to be drawn over the lawn from place to place without cutting off the water or raising it from the ground, and to this end has a wide flange 25' about its base having its edge turned up, as plainly seen in Fig. 8, and at one side
 15 is a hole 26' or like means to secure a rope for drawing the sprinkler about.

Obviously there might be a swell or rise on the floor 3 of the chamber below outlet 5 without interfering with the rotary action of the
 20 water or the spraying effect above, and any such swell or projection at the center is understood to be allowable and not work a departure from my invention.

Obviously the guard might be made removable and attachable, and so, also, might it be
 25 made to rotate about the outlet 5 to any position desired.

What I claim is—

1. A lawn-sprinkler having a suitable spraying-discharge opening, in combination with a
 30 water-guard pivoted at one side of said opening and adapted to swing toward and from it, and to be moved laterally, and a locking projection at one side of the guard with which
 35 it is adapted to be brought into engagement by said lateral movement, whereby the guard

may be adjusted in position relatively to the stream and locked in adjusted position, substantially as described.

2. A lawn-sprinkler having a suitable spraying-discharge opening and pivot-bearings at
 40 one side thereof, in combination with a water-guard pivoted between said bearings and adapted to swing toward and from the discharge-opening and to be moved laterally and
 45 locked in working position by being brought into engagement with one of said bearings, substantially as described.

3. A lawn-sprinkler having a suitable spraying-discharge opening, and pivot-bearings at
 50 one side thereof with a rod mounted therein, in combination with a water-guard adapted to swing and slide laterally on said rod, and a spring adapted to bring said guard into engagement with one of said pivot-bearings,
 55 substantially as described.

4. A slidable sprinkler of the variety shown, having a single spraying-discharge at its center, a connection for the hose at one side, and
 60 a hole opposite said hose connection to attach a cord for the purpose of drawing the sprinkler over the lawn, and a pivoted upwardly-extending spray-guard supported on top of
 said sprinkler, and at one side of the single central spraying-discharge, substantially as
 65 described.

Witness my hand to the foregoing specification this 1st day of April, 1895.

LOUIS H. SHOLDER.

Witnesses:

H. T. FISHER,
 A. ROBERTSON.