

B. F. CATHCART.
LAWN SPRINKLER.
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1,058,549.

Patented Apr. 8, 1913.

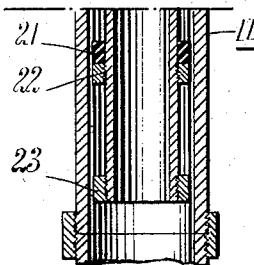
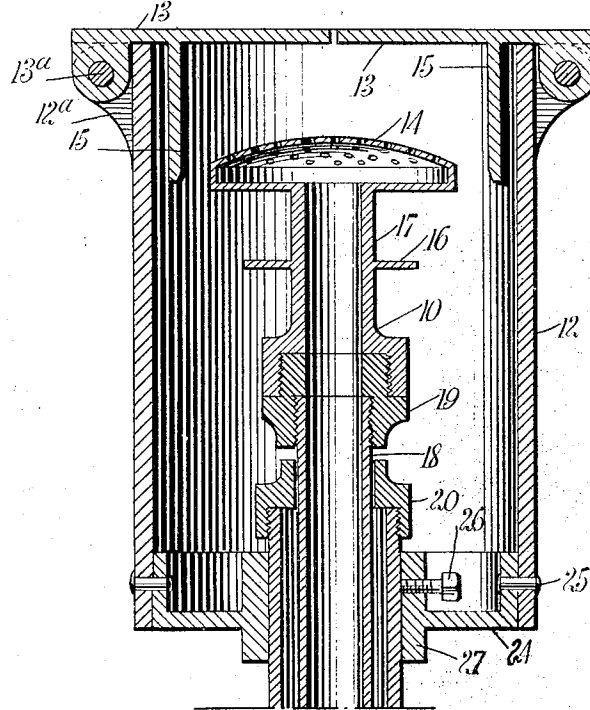
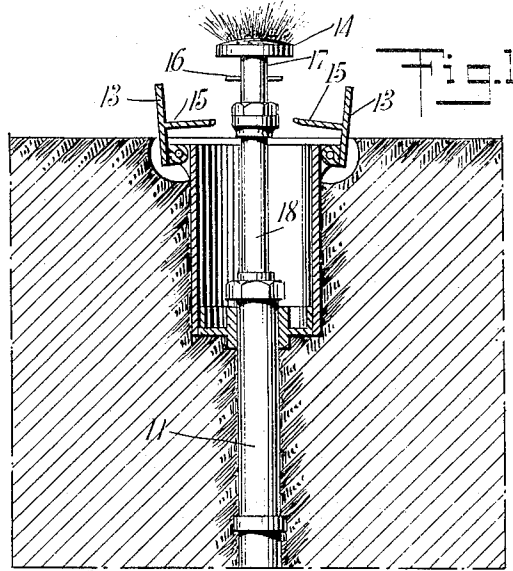


Fig. 2

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LAWN-SPRINKLER.

1,058,549.

Specification of Letters Patent.

Patented Apr. 8, 1913.

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To all whom it may concern:

Be it known that I, BENJAMIN F. CATHCART, a citizen of the United States, and a resident of Fresno, in the county of Fresno and State of California, have invented a new and Improved Lawn-Sprinkler, of which the following is a full, clear, and exact description.

The invention relates to a lawn sprinkler having a rose nozzle, or the like, and mounted to be raised and lowered in a box or housing adapted to be set in the lawn level with the ground.

In my invention the sprinkler is so attached to the service pipe and to the box or housing that the water pressure will raise the sprinkler automatically, there being a novel form of closure, comprising two vertically rocking cover sections which are engaged by the sprinkler head or nozzle in its upward movement to open the closure, the arrangement being such that upon the withdrawal of the pressure and the consequent dropping of the nozzle or sprinkler, the cover sections will be automatically closed.

The invention will be specifically described in connection with the structural form illustrated as one example of a practical embodiment of my invention.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in both views.

Figure 1 is an elevation of my improved sprinkler in raised position, the box or housing being shown in section, with the cover sections thereof in open position; and Fig. 2 is a vertical section on an enlarged scale, showing the cover closed and the sprinkler in the lower position.

In constructing my improved device in the form illustrated, the sprinkler is mounted to slide at its lower end within the upper end of the service pipe 11, to which is secured the box or housing 12, the latter being in practice set in the ground level with the surface. The upper end of the housing 12 is provided with a closure preferably consisting of two hinged cover sections or flaps 13, meeting at about the center of the housing, and pivoted to the latter at the outside as by brackets 12^a and hinge pins 13^a

passing through lugs on said cover sections and through said brackets.

The rose nozzle or other sprinkler head 14 is adapted in moving upward to contact with the cover sections 13, which will raise the latter on their hinges. These cover sections are provided on the under side with depending pins or equivalent members 15, so positioned and proportioned as to swing inward and upward as the cover sections rise, said depending pins being adapted to be struck by a flange 16 or its equivalent on the stem 17 of the sprinkler. Thus the cover sections comprise members that are struck in succession by the sprinkler head and by members below said head, whereby the cover sections will be fully raised. Upon the pressure of the water being withdrawn, the sprinkler will gravitate to the lower position, and in this instance, the under side of the sprinkler head will contact with the pins 15 and draw the cover sections inward to close over the sprinkler.

The stem 17 of the sprinkler in the preferred form consists of a short section which is connected in any suitable manner to a second elongated tubular member 18, as by any suitable union or coupling 19, the tubular member 18 telescoping in the upper end of the service pipe 11, and being limited as to its outer movement by a cap or bonnet 20 on the upper end of the service pipe within the housing 12. The lower section 18 of the sprinkler is further preferably provided with a packing ring or gasket 21, held in place by a threaded collar 22 which is adjustable on the section 18 so as to regulate the height to which the nozzle may ascend under the action of the water pressure and to form a water-tight closure between the stem 18 and the cap 20. Since the packing ring or gasket 21 forms a water-tight joint against the cap 20, the stem may be fitted with comparative looseness in the service pipe 11, so as to readily respond to the water pressure. On the extreme lower end of the section 18 a further exterior ring 23 is fitted to move between said section and the service pipe to guide the section 18 in its longitudinal movement and steady it under the strain of the water pressure.

The box or housing 12 may be secured in any suitable manner to the service pipe; as by securing the bottom 24 to the housing by

rivets 25, the said bottom being provided with a central opening to receive the end of the service pipe, a set screw 26 being provided in the wall 27 of the opening to bind
5 against the exterior of the service pipe 11.

By the construction shown, the nozzle is automatically projected by simply turning on the water, and the opening of the cover sections is automatically and positively effected. Moreover, the turning off of the
10 water pressure results in the automatic lowering of the sprinkler and the closing of the cover, leaving the lawn without obstruction.

It will be understood that the details
15 specified may be varied without departing from the essential features characterizing my improved sprinkler and its appurtenances.

Having thus described my invention, I
20 claim as new and desire to secure by Letters Patent:

1. The combination of a sprinkler and a housing in which the sprinkler is mounted to project beyond the housing, said housing
25 having a movable cover part provided with separate elements against which the sprinkler contacts in succession to open the closure.

2. The combination of a sprinkler and a
30 housing in which the sprinkler is movable under the influence of water pressure to project beyond the housing, said housing having a swinging cover part provided with separate elements against which the sprinkler
35 contacts in succession in its upward movement to open the closure, the sprinkler tending to drop by gravity and contacting in its downward movement with said cover part to close the same.

3. The combination of a sprinkler, and a
40 housing in which the sprinkler is movable to project beyond the housing and to recede within the latter by gravity, said housing having a cover part, and the sprinkler hav-
45 ing a plurality of members movable in suc-

cession into contact with the cover part to raise the latter.

4. The combination with a housing having a swinging cover provided with a depending member, of a sprinkler movably
50 connected with the housing to project beyond the same and to recede within the housing, the upper end of said sprinkler being movable against the cover said sprinkler having a member below its upper end for
55 engaging the depending member on the cover in the outward movement of the sprinkler.

5. The combination of a housing provided with a cover part presenting two members
60 at approximately right angles to each other, and a sprinkler movable in the housing to project therefrom and to recede within the same, the head of said sprinkler being movable against one of said members in the out-
65 ward movement of the sprinkler and having a second member movable against the second member of the cover in said outward movement, the sprinkler head in its receding movement contacting with the second mem-
70 ber of the cover to close the latter.

6. The combination with a housing having a swinging cover formed with a member inward from the edge thereof and disposed
75 at an angle thereto, and a nozzle movable to project beyond the housing or to recede thereinto, said nozzle having a member to contact with the said member on the housing, when the nozzle moves outward, said
80 nozzle having a second member in addition to the first-mentioned member, to contact with the mentioned member on the cover in the receding movement of the nozzle.

In testimony whereof I have signed my name to this specification in the presence of
85 two subscribing witnesses.

BENJAMIN FRANKLIN CATHCART.

Witnesses:

CATHRINE A. CATHCART,
Mrs. LESLIE M. DREW.