E. E. THOMAS.

SPRINKLING DEVICE.

APPLICATION FILED AUG. 12, 1918.

**1,368,416.** **Patented Feb. 15, 1921.**

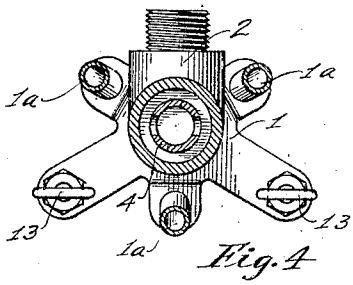



Fig. 4

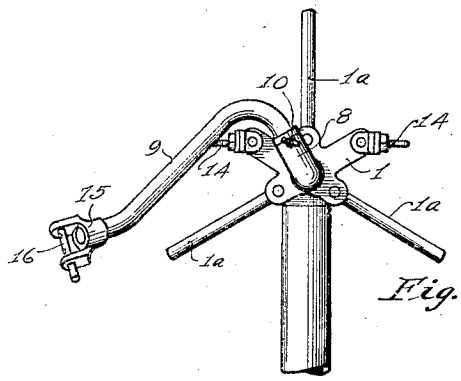



Fig. 2

Fig. 5

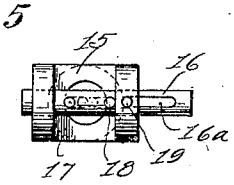
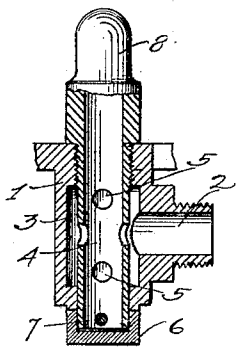



Fig. 3



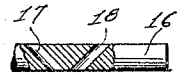
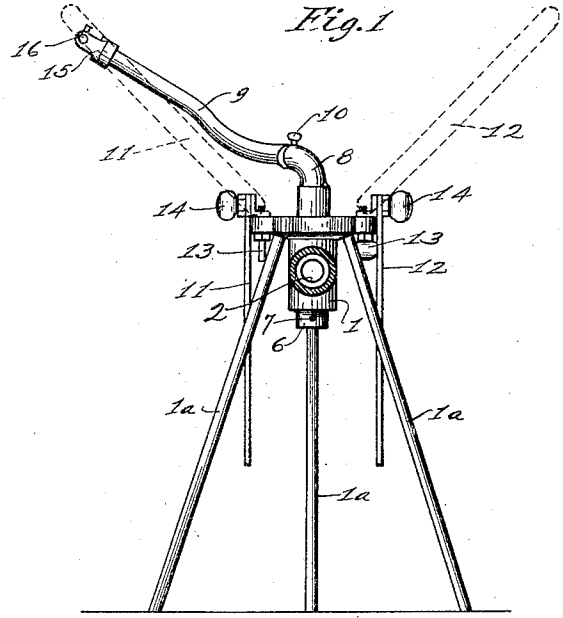




Fig. 6

Fig. 1




Inventor

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# UNITED STATES PATENT OFFICE.

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## SPRINKLING DEVICE.

1,368,416. Specification of Letters Patent. Patented Feb. 15, 1921.

Application filed August 12, 1918. Serial No. 249,705.

*To all whom it may concern:*

Be it known that I, EDWIN E. THOMAS, a citizen of the United States, residing in the city of Portland, county of Multnomah, and State of Oregon, have invented certain new and useful Improvements in Sprinkling Devices, of which the following is a specification.

My invention relates to sprinkling devices, and more particularly to a sprinkling device having a moving discharge element adapted to travel completely around its axis of rotation, at various angles of adjustment above or below the horizontal, or to move in a rotary oscillating manner for different distances less than a complete rotation, with means for automatically causing a change of the direction of movement at predetermined limits. I accomplish this change of direction by providing in the discharge member of a sprinkling device a movable deflector element positioned in the path of the discharged water, with engaging members set at the desired limits of movement and adapted to engage said deflector element and to shift the same, whereby the action of the water thereon causes said discharge member to move in the opposite direction. I prefer to provide adjustable engaging members, whereby different distances of travel can be provided, as desired, and also different angles of adjustment above or below the horizontal can be adopted for the discharge member.

Another object of the invention is to provide in the rotating bearing of a sprinkling device a balanced water action on the rotating member, whereby to avoid increased friction caused by the water pressure against the rotating member in one direction only.

Other objects and advantages of my improved sprinkling device will be apparent from the following description of one practical embodiment thereof, shown on the accompanying drawings for purposes of illustration. In the drawings—

Figure 1 is a rear elevation of my invention;

Fig. 2 is a top plan view thereof;

Fig. 3 is a detail sectional view through the body of the device;

Fig. 4 is a bottom plan view of the body, partly in section;

Fig. 5 is a detailed sectional view of the deflector element;

Fig. 6 is a detail showing the deflector member, partly in section.

Referring now more in detail to the drawings, 1 designates a body member, provided with means at 2 for attaching a hose thereto, said body member being hollowed, as at 3. Legs $1^a$, $1^a$ of any desired length can be attached to the body member, as indicated. These are preferably detachable, whereby the device can be packed in a comparatively small package for shipment.

Rotatably mounted through said body is a short pipe section 4, provided with holes 5, 5, therethrough, within the hollowed body 1. The lower end of said pipe section 4 is closed, preferably by means of a cap 6, secured thereto, as here shown, by means of a pin 7. Upon the upper end of said pipe section 4, is an elbow 8, above the body 1, and turning with the pipe section 4. Connected to said elbow to swivel therewith is a swinging neck 9, which can be turned to different adjusted positions up or down and secured by means of a set screw 10.

Adjustably secured to the body member 1, at opposite sides thereof, are two engaging members 11 and 12, adjustable about vertical axes, as by means of thumb screws 13, 13, and about horizontal axes, as by means of thumb screws 14, 14, for the purposes hereinafter again referred to.

Mounted upon the outer end of the neck 9, is a discharge element, 15, through which the water passes in a stream. Movably mounted in said discharge element 15 is a deflector element, 16, provided with diverging passageways, 17 and 18, therethrough, adapted to be moved into and out of register with the stream of water passing through said discharge element 15. Said deflector member 16, as here shown, is provided with a slot $16^a$ through which is a stop pin 19, to limit the movement of said deflector in opposite directions. Said deflector 16, it will be seen, projects through the opposite sides of the discharge member 15, in such a manner that its opposite ends will engage the engaging members, 11 and 12, as said discharge member moves to either of them. These engaging members move the deflector 16 in the discharge member 15, from one position to the other and so as to bring the

passageways 17 and 18, alternately into register with the stream of water, thus causing the discharge member to be moved by the force of the water to the opposite engaging member. Thus by shifting the deflector element from one side to the other, the force of the water acts on said deflector in such a way as to change the direction of movement of the discharge member 15, and its carrying neck 9. This is done automatically as the deflector engages one or the other of the engaging members 11 or 12.

If the engaging members 11 and 12 are dropped down out of the way, the discharge member will then be free to rotate about its axis continuously under the force of the water. These engaging members can be so adjusted that the discharge member will oscillate through just a half rotation, or less, or more, thus making it possible to pick up the sprinkler from behind while the water is being thrown therefrom without getting wet.

Attention is called to the fact that as the water enters the body 1, and the pipe section 4, therein, the pressure up and down is the same, thus providing a balanced construction and eliminating the friction which would otherwise be caused by the water pressure.

While I have shown and described one practical form of my invention for illustrative purposes, I am aware that changes can be made in the details thereof without departing from the spirit thereof, and I do not, therefore, limit the invention to the particular showing made, except as I may be limited by the hereto appended claims.

I claim:

1. In a sprinkling device, a discharge element with discharge passageway therethrough, means for directing water through said discharge element, said means being adjustable about a horizontal axis and turning about a vertical axis, a deflecting member movably mounted in said discharge element and across the passageway therethrough, and means for automatically shifting said deflecting member, substantially as described.

2. In a sprinkling device, a supporting member adapted to have attached thereto a source of water under pressure, a tubular member mounted therein to turn about a vertical axis and having a portion adjustable about a horizontal axis, a discharge element mounted on the free end of said tubular member, a deflecting element movably mounted in said discharge element, across the passageway therethrough and adapted to engage with the water passing therethrough in either of two positions, and means for automatically engaging and shifting said deflecting element intermittently in opposite directions, substantially as described.

3. In a sprinkling device, a discharge element with discharge passageway therethrough, means for directing water through said discharge element, said means being adjustable about a horizontal axis and turning about a vertical axis, a deflecting element movably mounted in said discharge element and across the passageway therethrough, and operating members adjustably mounted in the path of travel of said discharge element and adapted to engage said deflecting element for alternately moving the same in opposite directions, substantially as described.

4. In a sprinkling device, a body having a chamber therein, means for attaching a water supply thereto, a tubular member rotatably mounted in said body and having openings through its sides within said chamber, means closing the lower end of said tubular member, whereby water pressure therein is balanced in opposite directions vertically, a discharge element adjustably connected with the upper end of said tubular member and adjustable about a horizontal axis relative thereto, a deflecting element movably mounted through said discharge element in the path of its discharge opening, operating members adjustably supported at opposite sides of said device and adapted to alternately engage said deflecting element for moving it in opposite directions, substantially as described.

5. In a sprinkling device, a body, a jointed tubular member rotatably mounted in said body and adjustable at its joint about a horizontal axis, means for supplying water thereto, a discharge element carried at the end of said tubular member and moving bodily therewith, a deflecting member movably mounted in said discharge element across the discharge opening therein, and means at opposite sides of said device for alternately engaging the opposite ends of said deflecting member for alternately moving the same in opposite directions in said discharge element, substantially as and for the purpose indicated.

Signed at Portland, Multnomah county, Oregon, this 30th day of July, 1918.

EDWIN E. THOMAS.

In presence of—

WM. R. LITZENBERG,

ANTOINETTE WAGNER.