

W. STOREY.

SPRINKLER.

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963,089.

Patented July 5, 1910.

Fig. 2.

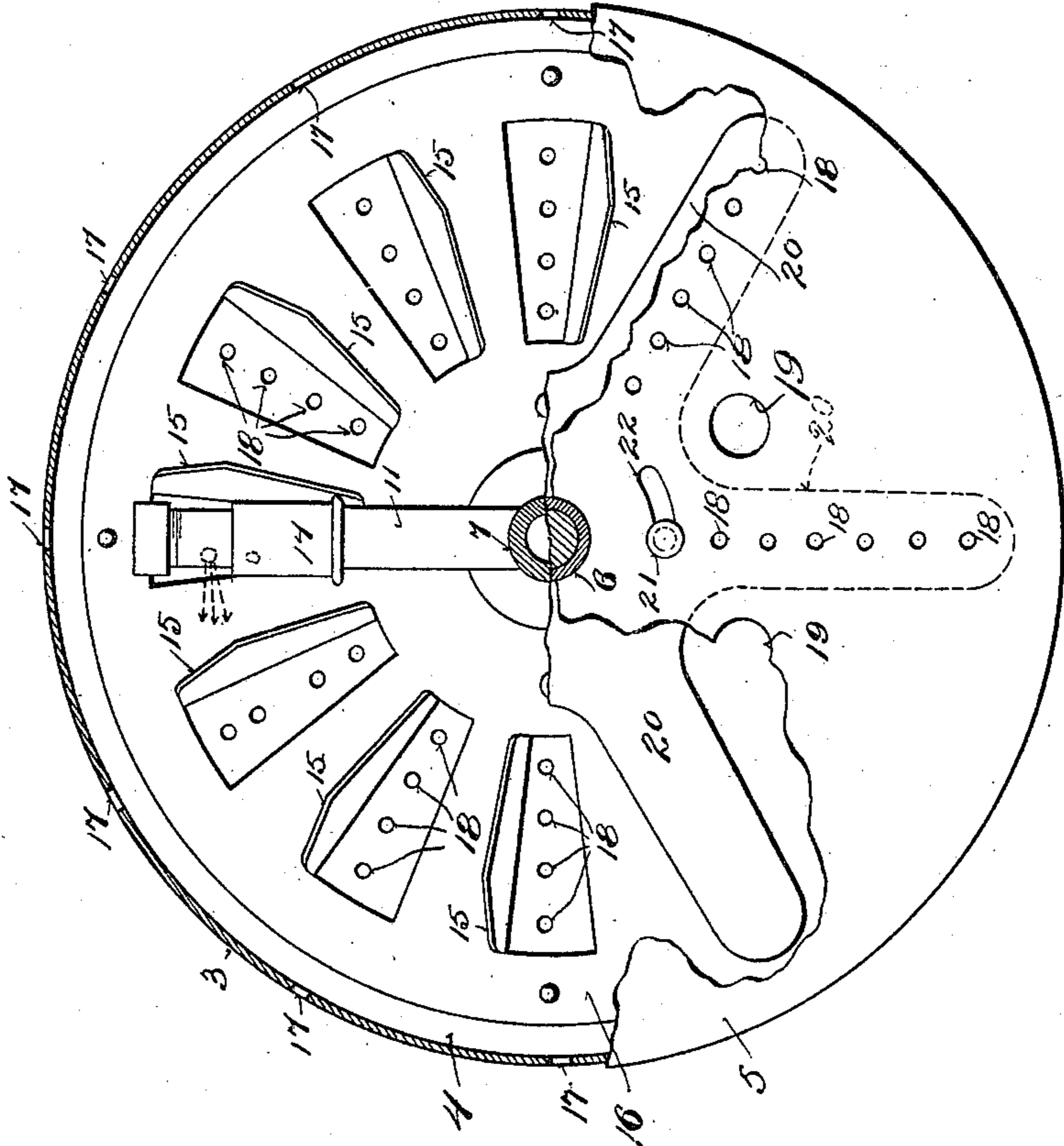
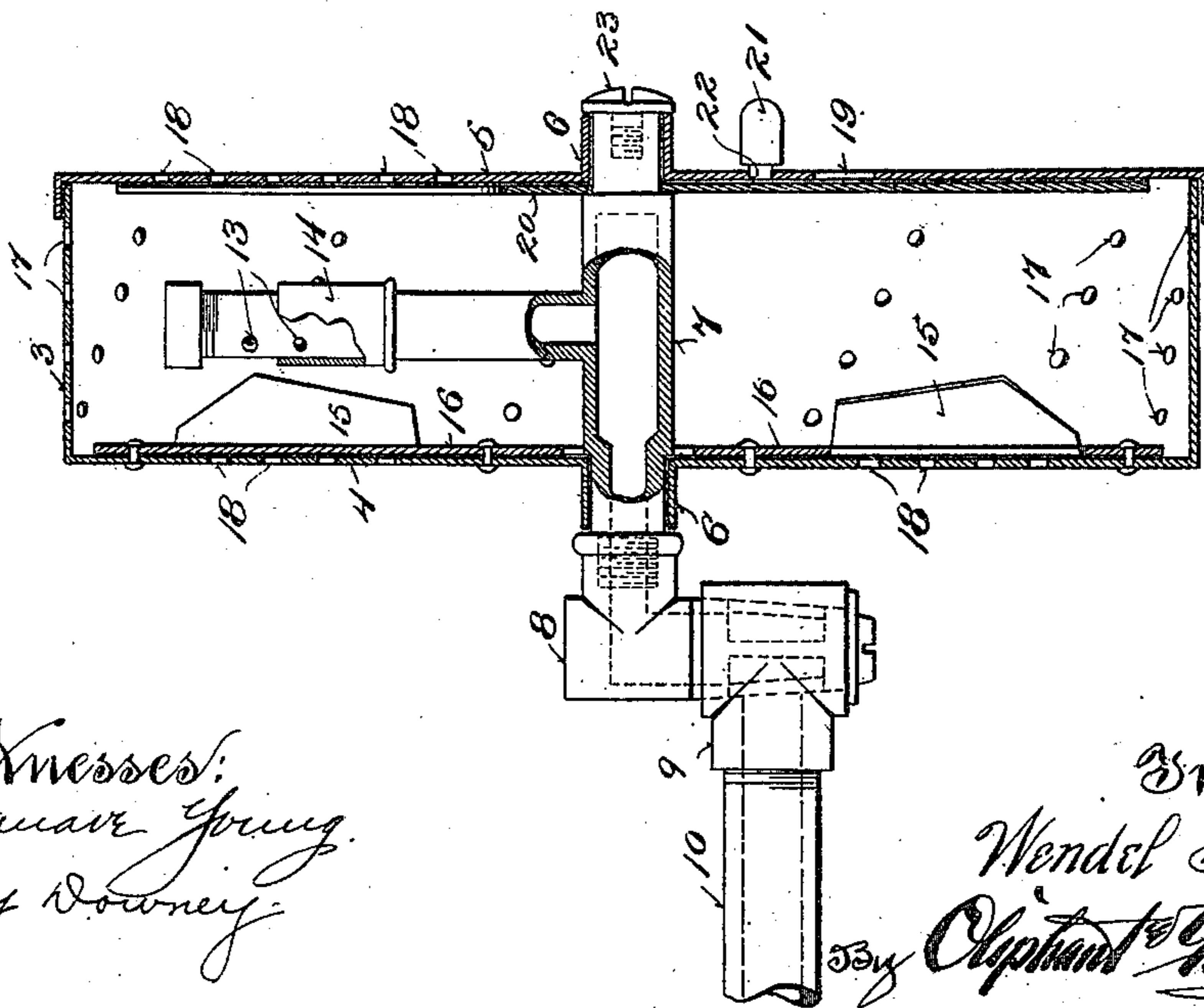


Fig. 1.



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UNITED STATES PATENT OFFICE.

WENDEL STOREY, OF MILWAUKEE, WISCONSIN.

SPRINKLER.

963,089.

Specification of Letters Patent.

Patented July 5, 1910.

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To all whom it may concern:

Be it known that I, WENDEL STOREY, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Sprinklers; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention consists in what is herein particularly set forth with reference to the accompanying drawings and pointed out in claims, its object being to provide simple, economical and efficient sprinklers especially designed for distribution of water upon lawns and gardens, each of said sprinklers being preferably organized for adjustable connection with a water service pipe.

Figure 1 of the drawings represents a vertical transverse sectional view of one of my improved sprinklers adjustably connected to a water service pipe, and Fig. 2, a plan view of said sprinkler partly in horizontal section.

Referring by numeral to the drawings, 3 indicates the wall, 4 the permanent head and 5 the removable cover-head of a preferably sheet-metal circular chamber. The chamber-heads are provided with bearings 6 that turn on a shouldered head of a T-fitting attachable to a water-service pipe or an adjustable connection of same. As herein shown, the head of the T-fitting is attached to a pivotally adjustable plug portion 8 of a coupling 9 in connection with a water-service pipe 10. One end of the head 7 and the free end of the stem 11 of the T-fitting is capped or otherwise closed and provided with apertures 13 for which a cut-off sleeve 14 is provided on said stem, this sleeve being adjusted longitudinally of the aforesaid stem to permit discharge of water through one or more of said apertures into the sprinkler-chamber against radial blades 15 of a turbine-type of water-wheel 16 riveted or otherwise fastened to the permanent head 4 of said chamber.

The wall 3 of the sprinkler-chamber is provided with water-jet openings 17 in series at regular intervals and preferably disposed in a direction diagonally of said wall, and the heads 4 and 5 of said chamber are provided with radial series of water-jet openings 18. Vent apertures 19 of considerably greater diameter than the water-jet openings are provided in the cover-head 5 of the

sprinkler-chamber, and these vent-apertures and the radially disposed water-jet openings of said cover-head are controlled by radial arms of a cut-off gate 20 that has its bearing on the head of the T-fitting, a handle 21 of the gate being extended through a slot 22 in the aforesaid head concentric with the axis of said chamber.

To hold the cover-head of the sprinkler-chamber in place against accidental displacement, a screw 23 is employed in engagement with the adjacent end of the head of the T-fitting, the head of the screw being in opposition to the bearing of said cover-head.

In practice, the sprinkler-chamber is put into rotary motion by impact of water from the T-fitting against the blades of the water-wheel in rigid connection with said chamber inside the same, the speed depending upon the volume of water under pressure discharged through one or more of the apertures in the stem of said fitting. The water accumulating in the sprinkler is discharged through jet-openings of same in various directions.

If the sprinkler-head be disposed so as to turn on a vertical axis, the gate 20 should be adjusted to close the water-jet openings and open the vent-apertures in the cover-head of said chamber, whereby the escape of water is only through the jet-openings of the permanent head and wall of the aforesaid chamber. If the sprinkling-chamber be disposed so as to turn upon a horizontal axis, the gate may be adjusted as aforesaid to compel the discharge of water through the jet-openings in the wall and permanent head of said chamber, and in case it is desirable to sprinkle from the wall and the cover-head side of the aforesaid chamber, while this chamber is turning on a horizontal axis, the gate aforesaid will be adjusted to close the vents and clear the jet-openings in said cover-head, the venting being then had through the jet-openings in the opposite head.

The sprinkler is particularly adapted to the watering of flower-beds and borders along the sides of same without wasting water that is at all times economically delivered to the best advantage.

I claim:

1. A sprinkler comprising a T-fitting for connection with a water-service pipe and which is closed at one end of its head and at the free end of its stem, a circular cham-

ber having perforated heads provided with bearings that turn on the head of said fitting, and a turbine-type water-wheel secured to the chamber inside the same to be acted upon by water delivered through an aperture provided in said stem of the aforesaid fitting.

2. A sprinkler comprising a T-fitting for connection with a water-service pipe and which is closed at one end of its head and at the free end of its stem, a circular chamber having a perforated wall and provided with heads having bearings that turn on the head of said fitting, and a turbine-type water-wheel secured to the chamber inside the same to be acted upon by water delivered through an aperture provided in said stem of the aforesaid fitting.

3. A sprinkler comprising a T-fitting for connection with a water-service pipe and which is closed at one end of its head and at the free end of its stem, a circular chamber having a perforated wall and heads, these heads being provided with bearings that turn on the head of said fitting, and a turbine-type water-wheel secured to the chamber inside the same to be acted upon by water delivered through an aperture provided in said stem of the aforesaid fitting.

4. A sprinkler comprising a T-fitting closed at one end of its head and at the free end of its stem, a coupling attachable to a water-service pipe and provided with a pivotally adjustable plug in connection with the head of the fitting, a perforated circular chamber the heads of which are provided with bearing that turn on the head of said fitting, and a turbine-type water-wheel secured to the chamber inside the same to be acted upon by water delivered through an

aperture provided in said stem of the aforesaid fitting.

5. A sprinkler comprising a T-fitting for connection with a water-service pipe and which is closed at one end of its head and at the free end of its stem, a circular chamber having perforated heads provided with bearings that turn on the head of said fitting, a gate in pivotally adjustable connection with one of the heads to control the perforations of same and vent openings with which said head is provided, and a turbine-type water-wheel secured to the chamber inside the same to be acted upon by water delivered through an aperture provided in said stem of the aforesaid fitting.

6. A sprinkler comprising a T-fitting for connection with a water-service pipe and which is closed at one end of its head and at the free end of its stem, said stem being provided with a plurality of apertures, a cut-off sleeve adjustable on the fitting-stem to regulate opening of said apertures therein, a perforated circular chamber having heads thereof provided with bearings that turn on the head of said fitting, and a turbine-type water-wheel secured to the chamber inside the same to be acted upon by water delivered through one or more of the apertures in said stem of the aforesaid fitting.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee, in the county of Milwaukee and State of Wisconsin in the presence of two witnesses.

WENDEL STOREY.

Witnesses:

N. E. OLIPHANT,
MAY DOWNEY.