

No. 612,252.

Patented Oct. 11, 1898.

W. A. MADDIN.
AUTOMATIC CUT-OFF FOR WATER SPOUTS.

(Application filed Oct. 4, 1897.)

(No Model.)

FIG. 1.

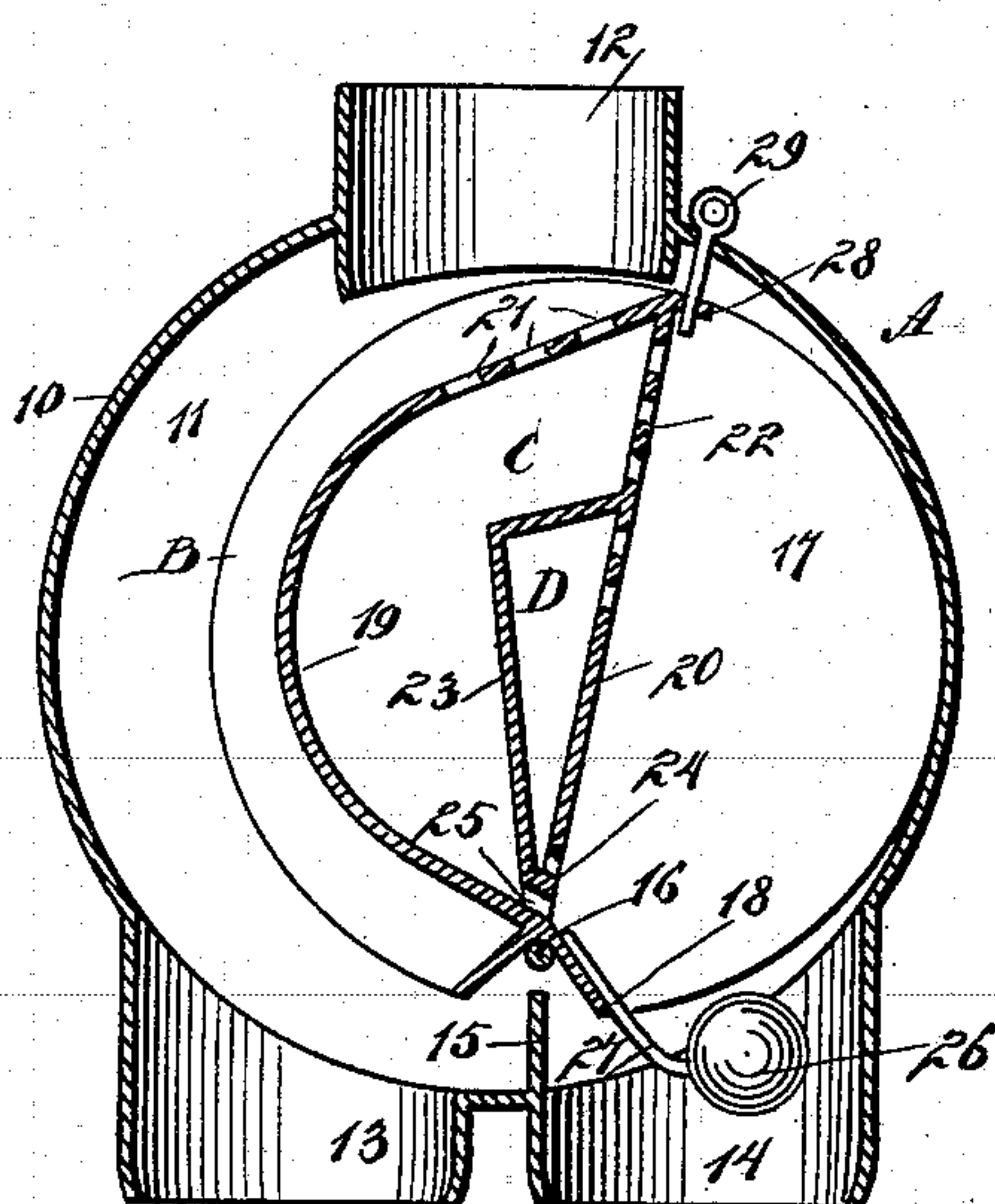


FIG. 2.

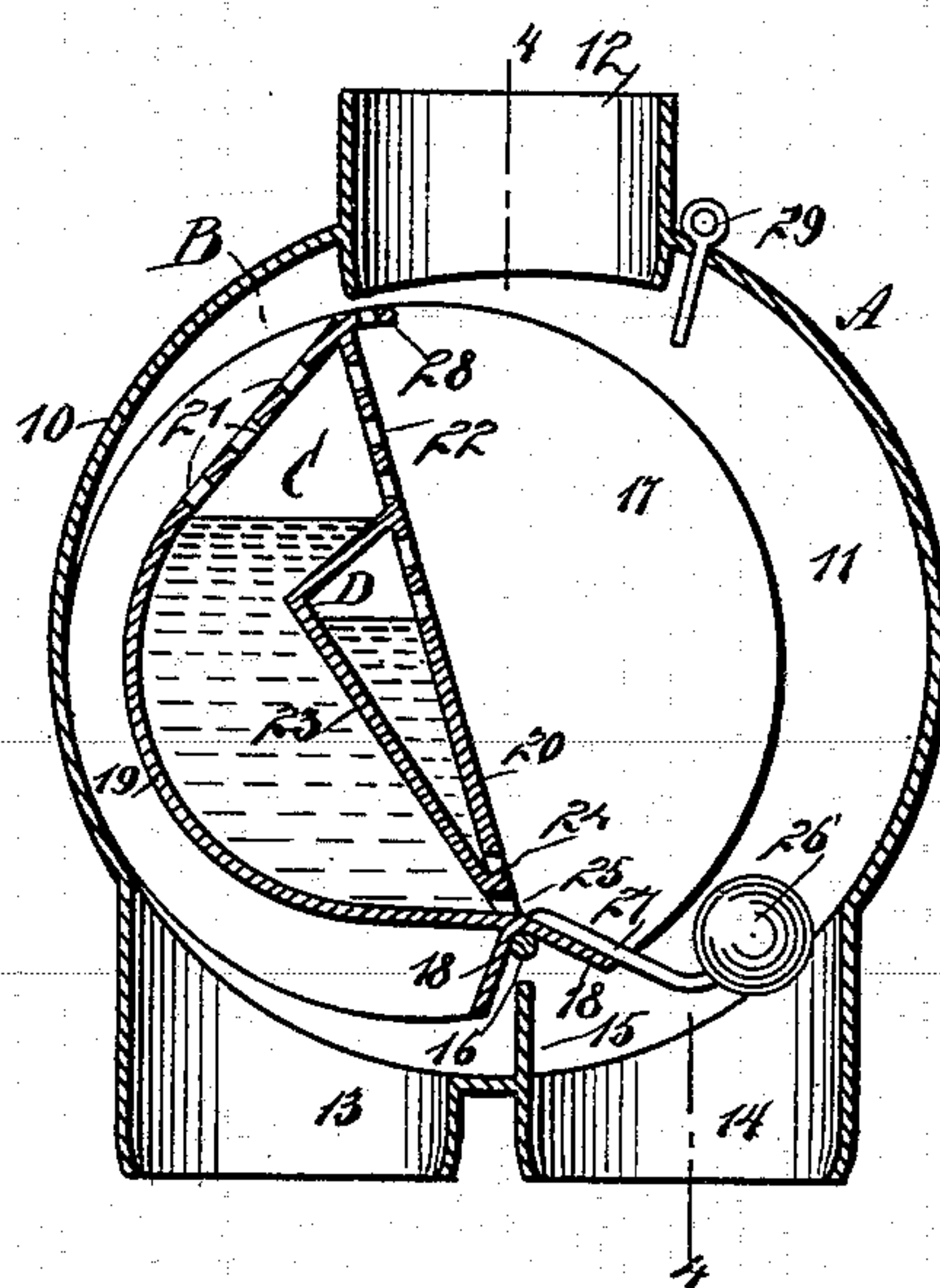


FIG. 3.

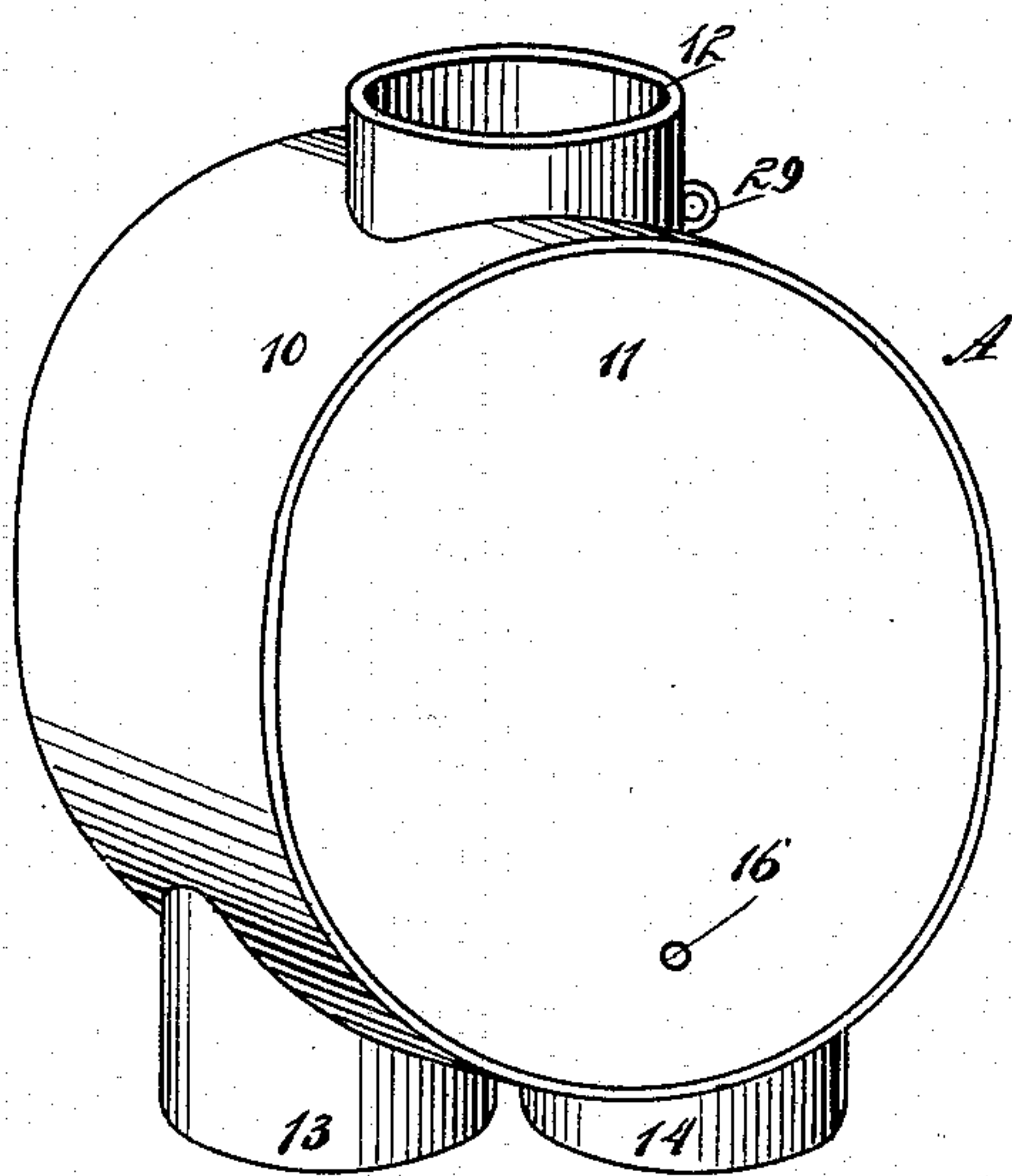
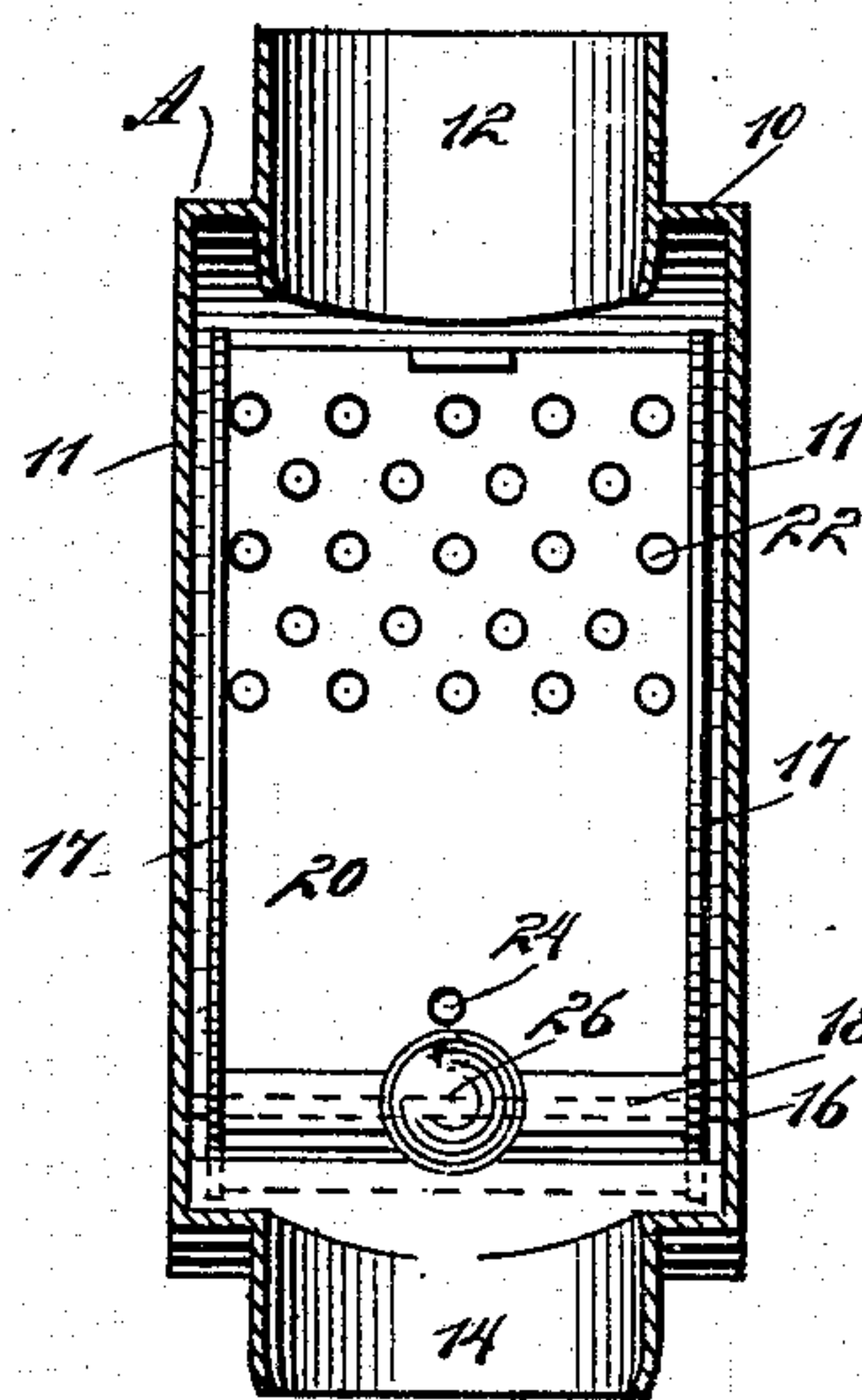


FIG. 4.



WITNESSES:

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WILLIAM A. MADDIN, OF MUSCOGEE, INDIAN TERRITORY.

AUTOMATIC CUT-OFF FOR WATER-SPOUTS.

SPECIFICATION forming part of Letters Patent No. 612,252, dated October 11, 1898.

Application filed October 4, 1897. Serial No. 653,980. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. MADDIN, of Muscogee, Creek Nation, Indian Territory, have invented a new and Improved Automatic Cut-Off for Water-Spouts, of which the following is a full, clear, and exact description.

My invention relates to an automatic cut-off adapted for connection between a cistern and waste or drain pipe and the water-supply or down-spout, the cut-off being adapted to regulate the supply of water to either the drain-pipe or to the cistern or filter connected with the cistern.

The water from roofs through the first part of a rain-storm is dirty, impure, and unfit to enter a cistern.

It is the object of the invention to provide an automatic cut-off which when in natural position will conduct the water that first falls on the roof to the waste-pipe; but after a short period and when the said roof has been washed by the first flow of water the said cut-off will automatically so change its position as to direct the flow of water from the roof to the cistern-pipe until the rain ceases, whereupon the cut-off will again return to its normal or natural position. The cut-off may be held stationary whenever so desired and the water be made to flow continuously to the waste-pipe.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar character of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical longitudinal section through the improved cut-off, illustrating the directing member as locked in its normal position. Fig. 2 is a section similar to Fig. 1, illustrating the directing member of the cut-off as having been carried automatically to a position which will serve to direct the water to the stand-pipe. Fig. 3 is a perspective view of the cut-off viewed from the outside, and Fig. 4 is a vertical transverse section taken substantially on the line 4 4 of Fig. 2.

A casing A is provided, the sides 10 whereof

are usually circular, or approximately so, the front and rear faces 11 being flat. An inlet-pipe 12 is provided at the top of the casing, connected with any source of water-supply, while at the bottom of the casing two pipes are made to enter a pipe 13, adapted to connect with a waste or drain pipe, and a pipe 14, adapted to connect with a cistern. A transverse partition 15 is formed at the bottom of the casing between the two pipes, and above the said partition a pivot-pin 16 is securely fastened in the front and back of the casing.

A directing member B is pivoted within the casing. This directing member preferably consists of two disks 17, connected at their bottom by an inverted-V-shaped partition 18, the disks 17 being cut away to conform to the outer shape of the said bottom, and the directing member B is pivoted in the casing by receiving the pin 16 between the members of the V-partition 18.

A curved partition 19 is carried from one disk 17 to the other at one side of the center, commencing from the apex of the angular or V shaped partition 18 and terminating at the upper central portion of the disks, connecting with a central vertical partition 20. These two partitions 19 and 20 form together a chamber C. The upper portion of the curved partition on the top part of the chamber is provided with apertures 21 and the upper portion of the vertical wall or partition 20 of the said chamber is provided with apertures 22. A third angular partition 23 serves to connect the disks, being located within the chamber C, the shorter leg of the partition 23 connecting with the upper portion of the vertical partition 20 and the lower and longer leg of the partition 23 connecting with the vertical and curved partitions 19 and 20, where they meet, thus forming a second chamber D of substantially triangular shape in cross-section.

One or more apertures 24 lead into the bottom portion of the chamber D and one or more apertures 25 lead into the bottom portion of the chamber C. A weight 26 is supported by an arm 27, the arm being secured to the member of the V-shaped or pivotal partition 18 in front of the chamber C, and

the weight 26 serves normally to hold the apertured upper portion of the chamber C beneath the inlet-pipe 12.

The directing member is provided at the top with an eye 28, into which a pin 29 may be passed from the outside of the casing to hold the chamber C in its normal position. Supposing the pin 29 to have been removed, when it commences to rain the water will enter the chamber C slowly through the upper apertures 21; but the bulk of the water will pass around the back of the chamber and through the pipe 13, connected with the drain. When, however, the chamber C has received sufficient water to overcome the power of the weight 26, the chamber will rock in direction of the nearest side of the casing, assuming the position shown in Fig. 2, and the water from the inlet 12 will be directed to the pipe connected with the cistern or filter for the cistern. Sufficient water will enter both chambers C and D, when the chambers are in their second position, to hold the said chambers in such position during the continuance of the rain. When the rain ceases, the water will drain off from both chambers C and D through the lower apertures 24 and 25 and the weight 26 will restore said chambers to their normal position.

The inclination of the smaller chamber D and the forming of that chamber within the larger chamber C serve to so distribute the weight of the water as to absolutely prevent the directing member B returning to its normal position while the said chambers are filled or even partially filled.

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

1. In a water cut-off, the combination, with a casing provided with an inlet and discharge openings, of a counterbalanced water-directing member pivoted within the casing and arranged to direct the supply to either of the discharge-openings, said directing member consisting of a rocking body containing a main chamber, and a supplemental chamber inclined in direction of the main chamber, both of said chambers being provided with an inlet and an outlet, for the purpose described.

2. In a water cut-off, the combination, with a casing provided with an inlet and discharge openings, of a counterbalanced, water-directing member pivoted within the casing and arranged to direct the supply to either of the discharge-openings, said directing member consisting of a rocking body containing a main chamber and a supplemental chamber inclined in direction of the main chamber, both of said chambers being provided with an inlet and an outlet, and a locking device, substantially as described, for securing the directing member in a position to deliver to a predetermined outlet, as specified.

3. In a water cut-off, a distributing or regulating member, consisting of a rocking body provided with a main chamber having one

wall substantially straight and the opposing wall curved, and a supplemental chamber contained in the main chamber, having a rearward inclination, each chamber being provided with an inlet at its upper portion and an outlet at its lower portion, and a counterbalance-weight for the said distributing member, substantially as shown and described.

4. In a water cut-off, the combination with a casing provided with an inlet and discharge openings, of a counterbalanced water-directing member pivoted within the casing and arranged to direct the supply to either of the discharge-openings, said directing member consisting of a rocking body with which the weight is connected, the rocking body being provided with a chamber having inlet-openings in its upper portion and an outlet-opening at its bottom portion, the said directing member being provided at its top with an eye adapted to receive a pin, for the purpose specified.

5. In a water cut-off, a casing provided with an inlet and separate discharge openings, and a counterbalanced water-directing member pivoted within the casing and arranged to direct the water-supply to either of said discharge-openings, the said water-directing member being provided with a chamber having one wall substantially straight and the opposite wall curved, the said chamber having an inlet and an outlet, the pivot of the said water-directing member being located at the junction of the lower ends of the straight and curved walls of the chamber, substantially as shown and described.

6. In a water cut-off, the combination with a casing having an inlet-pipe at its top and two discharge-pipes at its bottom, the said casing being provided at the bottom with a transverse partition between the two discharge-pipes, and having a pivot-pin located above and adjacent to the transverse partition and secured to the front and back of the casing, of a water-directing member consisting of two disks connected at their bottom by an inverted-V-shaped partition, the said pivot-pin being received between the members of the said partition, a curved partition connecting the disks at one side of the center and extending from the apex of the V-shaped partition to the upper central portion of the disks, a central vertical partition connecting the disks and connecting at its ends with the ends of the curved partition, the said curved and vertical partitions forming a main chamber, a supplemental chamber within the main chamber, the said chambers being each provided with an inlet and an outlet, and a weighted arm secured to one of the members of the V-shaped partition substantially as described.

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Witnesses:

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