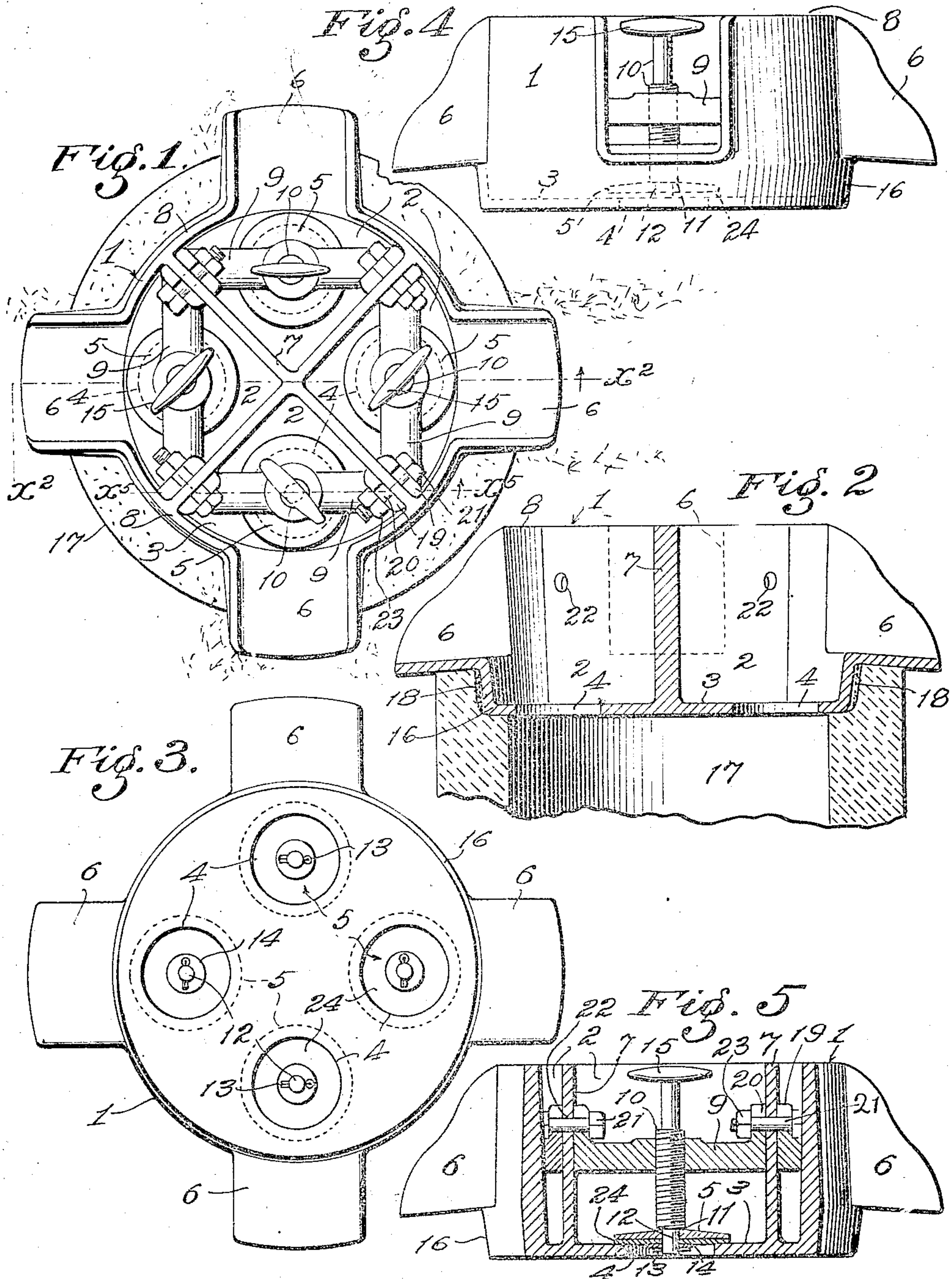


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IRRIGATING HYDRANT HEAD.  
APPLICATION FILED OCT. 12, 1907.

935,566.

Patented Sept. 28, 1909.



Witnesses  
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att'y



# UNITED STATES PATENT OFFICE.

GRACE A. TWIFORD, OF POMONA, CALIFORNIA, ADMINISTRATRIX OF NICHOLAS S. TWIFORD, DECEASED.

## IRRIGATING HYDRANT-HEAD.

935,566.

Specification of Letters Patent. Patented Sept. 28, 1909.

Application filed October 12, 1907. Serial No. 397,210.

*To all whom it may concern:*

Be it known that NICHOLAS S. TWIFORD, deceased, late a citizen of the United States, and resident of Pomona, in the county of Los Angeles and State of California, did invent a new and useful Irrigating Hydrant-Head, of which the following is a specification.

The object of this invention is to provide an improvement in hydrant-heads through which water for irrigation is discharged from stand-pipes.

It is customary in southern California to tap the irrigation mains by means of stand-pipes extending up through the ground from said mains and terminating a short distance above the surface of the ground. This hydrant-head is designed for the top of such stand-pipes.

An object of this invention is to provide a cheap, durable hydrant-head which can be readily and conveniently fastened to the top of a cement or other irrigating stand-pipe and by which the irrigator can discharge a plurality of irrigating streams to feed a plurality of irrigating ditches leading away from such stand-pipes in different directions, and to enable the irrigator to regulate the stream for each of said ditches independently of the stream for any other of said ditches.

Other advantages and objects may appear from the subjoined detail description.

The accompanying drawings illustrate the invention in the form at present deemed preferable.

Figure 1 is a plan of an irrigating hydrant constructed in accordance with this invention and installed ready for irrigating a field. Four radiating ditches are also indicated leading away from the hydrant to convey water away from four spouts with which the hydrant head shown is provided. Fig. 2 is a vertical axial section on line  $x^2-x^2$ , Fig. 1, omitting the valves, the valve stems and their supports, and showing in axial section, the upper portion of a cement stand-pipe to which the head is attached. Fig. 3 is a view of the under-side of the irrigating head detached. Fig. 4 is a front elevation of the head. Fig. 5 is a section on line  $x^5-x^5$ , Fig. 1, omitting the stand pipe.

This novel hydrant-head comprises a hollow circular body 1, its upper face or top being provided with a plurality of cups or compartments 2, the floor 3 of each of which

is provided with a perforation or valve orifice 4 for a valve 5. The outer wall of each compartment is provided with an outlet in the form of a spout 6. The body 1 of the head is constituted of a shallow circular pan forming a spigot to fit in the top of a stand-pipe and provided with the valve orifices 4 in the bottom thereof, and the upper portion of the pan is divided by a cross-shaped partition means 7, into the four compartments 2, shown in Fig. 1. Said cross-shaped partition is formed integral with the pan and with upward wall extensions 8 which are symmetrically located in diametrically opposite pairs and in alternation with the diametrically opposite spouts 6.

9 designates supports for the stems 10 of the several valves 5. Said stems screw through the valve supports 9 and are provided with shoulders 11 at their lower ends and terminate in pintles 12 which extend through the valve plates 5 and are secured by cotter-pins 13 engaging washers 14 which are between said cotter-pins and the under face of the valve 5, respectively. The upper end of each valve stem is provided with a handle 15 by which it may be rotated to raise and lower the valve plate.

The pan 16 of the head is designed to fit in the top of the cement stand-pipe 17 and may be seated in a cement bed 18 to prevent displacement and to prevent leakage of water between the stand-pipe and the head. The spouts 6 project from said pan and are adapted to rest on the top of the stand-pipe 17, thus giving a firm setting for the head on the stand-pipe. The bottoms of the spouts are all in a common plane which extend at right angles to the axis of the head for convenience in setting the head on the square end of a stand-pipe.

In practice the installation of the head on a stand-pipe is a very simple operation, and will be readily understood from the foregoing description, it simply being required that the top of the stand-pipe be approximately fitted to receive the pan 17. A bed of plastic cement will be first applied to the top of the stand-pipe to make a plastic cement bed into which the pan may be inserted sufficiently to bring the bottoms of the spouts 6 onto the top of the stand-pipe.

When the cement is well set, the hydrant is ready for use. Water may then be turned into the irrigating main and allowed to rise



in the stand-pipe and thereupon the irrigator may close and open the valves at will, to shut off the flow and to allow a requisite flow from each of the spouts as may be deemed advisable. The flow from each of the spouts may be regulated independently of that from the others.

Each of the valve supporting bars 9 is provided at each end with an upwardly projecting lug 19 having a slot 20 to receive bolts 21 inserted through holes 22 in the partition walls 7, and secured by nuts 23. Said walls slope inwardly toward the orifices 4 and the lugs have a corresponding slope so that when the ends of any bar have been seated between the partition walls of its compartment, such bar will be supported at a distance above the floor of the compartment to afford room for the necessary play of the valve 14.

24 designates a gasket or valve facing of leather or the like on the under-side of the valve plate 5 to afford a tight closure for the orifice.

I claim:—

1. A hydrant-head provided in its top with compartments separated by partition means having downwardly converging walls; valve supporting bars mounted between said walls and provided with slotted lugs, and bolts passed through the slots and walls to hold said bars in place.

2. A body for a hydrant-head provided with a circular pan, spouts at the top of the pan and means forming compartments for said spouts, said spouts being adapted to rest on the top of a stand-pipe into which said pan may be inserted.

3. A cement stand-pipe, a hydrant head of cast iron resting upon the stand-pipe and forming a close joint therewith, said hydrant head being provided in its top with compartments separated by vertical walls; valve supporting bars mounted horizontally be-

tween said walls and provided with slotted lugs, bolts extending through the slots and walls to hold the bars in place, and valves extending through the supporting bars, there being openings in the bottom of the head controlled by said valves.

4. A hydrant head comprising a flat base, an annular wall extending upwardly from the base, vertical partitions within the annular wall extending upwardly from the base, there being openings between the partitions, and spouts extending from the compartments formed by the partitions through the walls; valve supporting bars mounted between the walls and provided with slotted lugs, bolts extending through the slots and the walls to hold the bars in place, and valves mounted in the bars to close the openings in the base.

5. A hydrant head comprising a flat bottom, an annular wall extending upwardly from the bottom, partition walls extending upwardly from the bottom and connecting to the annular wall to form compartments for the valve openings, spouts extending outwardly from the compartments through the annular wall, valve-supporting bars mounted between the partitions, slotted lugs extending upwardly from the ends of the bars, bolts through the slots and through the walls to hold the bars removably in place; valves for closing the valve-openings, and valve-stems screw-seated in the bars for operating the valves.

In testimony whereof, I have hereunto set my hand at Los Angeles California this 5th day of October 1907.

GRACE A. TWIFORD,  
*Administratrix of the estate of Nicholas S. Twiford, deceased.*

In presence of—

JAMES R. TOWNSEND.  
M. BEULAH TOWNSEND.