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G. H. TRAXEL.
HYDRANT.

APPLICATION FILED MAR. 30, 1907.

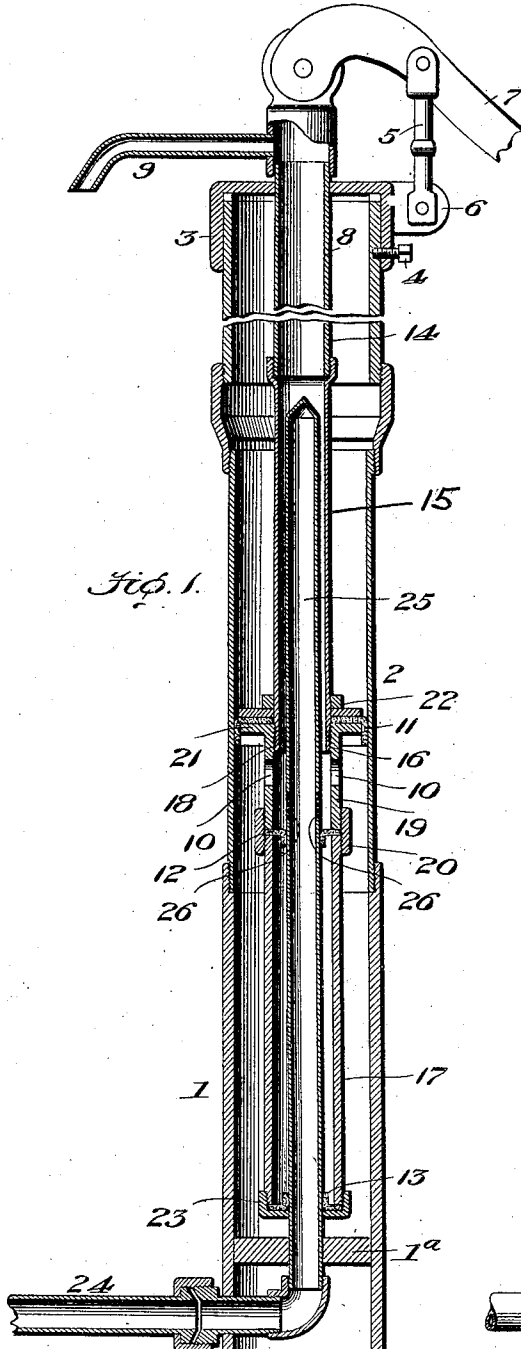


Fig. 1.

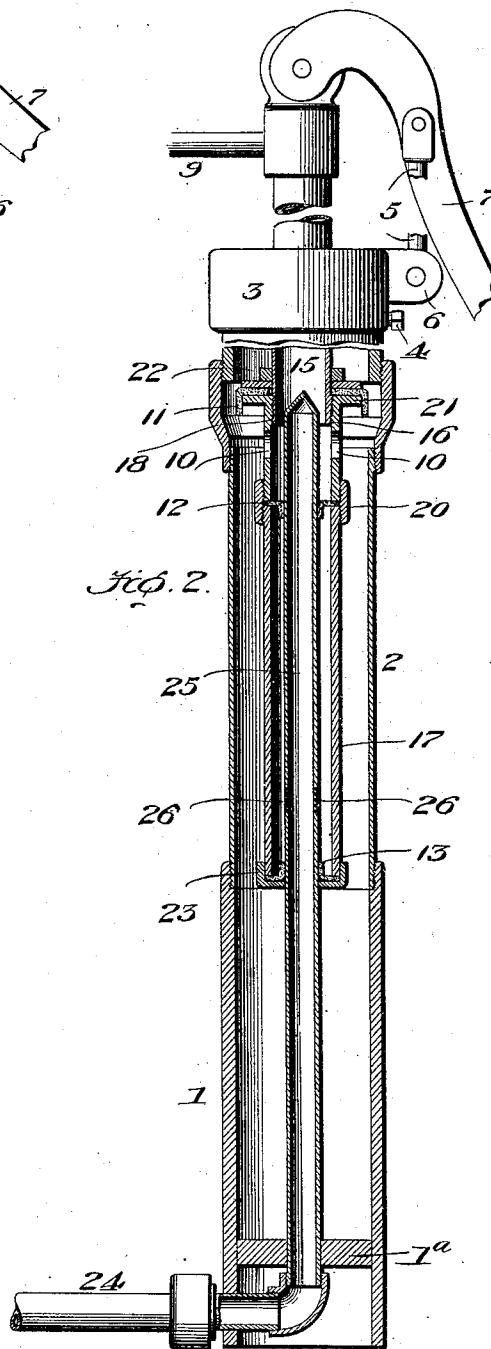


Fig. 2.

WITNESSES:

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GEORGE H. TRAXEL, OF MAYSVILLE, KENTUCKY.

HYDRANT.

No. 888,941.

Specification of Letters Patent.

Patented May 26, 1908.

Application filed March 30, 1907. Serial No. 365,447.

To all whom it may concern:

Be it known that I, GEORGE H. TRAXEL, citizen of the United States, residing at Maysville, in the county of Mason and State of Kentucky, have invented certain new and useful Improvements in Hydrants, of which the following is a specification.

My invention relates to hydrants; and it has for its object to provide a simple and easily operated hydrant, constructed with a view of assuring the outflow of water from the stand-pipe so as to prevent freezing of same, of withstanding the usage to which hydrants are ordinarily subjected for an indefinite period, and of being expeditiously and easily repaired when necessary.

To the attainment of the foregoing object, the invention consists in the peculiar construction, novel combinations, and adaptation of parts hereinafter described and particularly defined in the claims appended.

In the accompanying drawings which are made a part hereof: Figure 1 is a broken, vertical section of the best embodiment of my invention of which I am cognizant; the same being shown with the stand-pipe in position to permit of the discharge of water from the hydrant. Fig. 2 is a similar view with the stand-pipe in position to stop the flow of water from the hydrant, and assure the drain of water from said stand-pipe to the waste box or chamber.

Similar numerals designate corresponding parts in both views of the drawings, referring to which:

1 is a waste-box or chamber designed to be positioned in the ground at a considerable depth and preferably closed at its lower end, as indicated by 1^a, so as to prevent water from passing into the ground and injuring adjacent building foundations or cellars.

2 is a casing of two (more or less) sections, connected to and extending upward from the waste-box or chamber, and 3 is a cap detachably secured on the upper end of the casing 2 through the medium of a set screw 4 or any other means compatible with the purpose of my invention. The said cap 3 is preferably made removable as stated in order that the stand-pipe hereinafter described may be readily removed from the casing when it is necessary to renew the packing rings of said stand-pipe or make other repairs.

5 is a vertically swinging link pivoted to

and extending upward from lugs 6 on the cap 3.

7 is a vertically swinging hand lever fulcrumed at an intermediate point of its length on the upper portion of the link 5, and 8 is the stand-pipe which is closed at its upper end and pivotally connected to the inner arm of lever 7, and is provided adjacent to its said upper end with a lateral discharge spout 9. By virtue of the described connection of the stand-pipe 8 to the lever 7, it will be manifest that when the handle arm of the lever is raised the stand-pipe will be moved rectilinearly downward, while when said handle arm of the lever is depressed, the stand-pipe will be raised rectilinearly. I would have it understood, however, that any suitable means other than the lever 7 may be employed for lowering and raising the stand-pipe 8 without involving departure from the scope of my invention as expressed in the appended claims.

As shown in both figures of the drawings, the stand-pipe 8 is provided at an intermediate point of its height with one or more, preferably a plurality of, openings 10, and is also provided at a point slightly above the said openings 10 with an exterior packing ring 11 arranged to snugly fit within the casing 2, and below the openings 10 with an upper, interior packing ring 12 and a lower, interior packing ring 13; the said interior rings 12 and 13 being located at a considerable distance apart as shown so as to assure the ring 13 resting under the perforations of the presently described water-supply tube when the stand-pipe 8 is drawn upward as shown in Fig. 2.

In the present and preferred embodiment of my invention, the stand-pipe 8 is made up of an upper section 14, an intermediate section 15, of slightly increased diameters screwed on the lower end of the section 14 and exteriorly threaded at its lower end, as indicated by 16, a lower section 17, of further increased diameter exteriorly threaded at its upper end, as indicated by 18, a section 19 in which the openings 10 are formed, interiorly threaded at its upper end to engage the exterior thread 16 of the section 15 and exteriorly threaded at its lower end, and an interiorly threaded union 20 surrounding and connecting the meeting ends of the sections 17 and 19.

The packing ring 11 is preferably arranged on a flange 21 at the upper end of the stand-pipe section 19, and secured in position by a nut 22 turned on the exterior thread 16 of the stand-pipe section 15. The interior packing ring 12 is preferably interposed and held between the meeting ends of the stand-pipe sections 17 and 19 as shown, while the interior packing ring 13 is preferably clamped and held against the lower end of the lowermost stand-pipe section 17 by a nut 23 turned on said section. Thus it will be apparent that when the stand-pipe 8 is removed from the casing 2 in the manner before suggested any one or all of the packing rings may be expeditiously and easily removed and replaced with new packing rings.

24 is a pipe designed to be connected with a main or other source of water supply, and 25 is a stationary tube connected to the said pipe 24 and extending upward within the waste-box or chamber 1 and the casing 2, and closed at its upper end and having one or more, preferably a plurality, of apertures 26 at an intermediate point of its height. The said tube 25 is of a diameter to tightly fit in the packing rings 12 and 13 as illustrated.

In the practical operation of my novel hydrant, when the handle of the lever 7 is raised, and the stand-pipe 8 is moved downward, the exterior packing ring 11 will assume a position slightly above the apertures 26 in stationary tube 25, and the interior packing-ring 12 a position immediately below said apertures 26. In consequence of this relative arrangement of parts, the head of water will flow from the stationary tube 25 through the apertures 26 in said tube and through the stand-pipe 8 and out through the discharge pipe 9. When, on the other hand, the handle of lever 7 is depressed and the stand-pipe 8 is raised, the packing ring 12 will assume a position considerably above the apertures 26, and the packing ring 13 a position slightly below said apertures 26. With the stand-pipe and its packing rings positioned as stated, it will be apparent that communication between the interior of the stationary tube 25 and the interior of the stand-pipe 8 is interrupted, while the water in the upper portion of the stand-pipe is free to pass down and through the apertures 10 into the waste-box or chamber 1, thus eliminating liability of the hydrant freezing. It will also be apparent from the foregoing that on the down movement of the stand-pipe 8, the size of the waste-box or chamber 1 is reduced, while on the up movement of the stand-pipe the size of said waste-box or chamber 1 is increased, as is desirable.

As will be observed by reference to the drawings, the stand-pipe 8 simply sets over the stationary tube 25, and from this it follows that subsequent to the disconnection of the cap 3 from the casing 2, the stand-pipe

may be readily lifted from the stationary tube and the casing for repairs or for any other purpose.

In addition to the practical advantages hereinbefore ascribed to my novel hydrant, it will be noted that the same is simple and inexpensive in construction and embodies no delicate parts such as are liable to get out of order after a short period of use.

Having described my invention, what I claim and desire to secure by Letters Patent, is:

1. A hydrant comprising a waste-box or chamber closed at its lower end and side, a casing communicating with and extending upward from the waste-box or chamber, an apertured water-supply conduit, and a vertically movable apertured stand-pipe communicating with the casing and adapted to establish communication between the water-supply conduit and the interior of the stand-pipe when the stand-pipe is in one position and to interrupt communication between the water-supply conduit and the interior of the stand-pipe when the stand-pipe is in another position.

2. A hydrant comprising a waste-box or chamber closed at its lower end and side, a casing communicating with and extending upward from the waste-box or chamber, an apertured water-supply conduit, and a vertically movable apertured stand-pipe communicating with the casing and equipped with means for establishing communication between the water-supply conduit and the interior of the stand-pipe when the stand-pipe is in one position and for interrupting communication between the water-supply conduit and the interior of the stand-pipe when the stand-pipe is in another position; the said means on the stand-pipe being arranged to diminish the size of the waste-box or chamber on the movement of the stand-pipe to the first mentioned position, and to increase the size of the waste-box or chamber on the movement of the stand-pipe to the second mentioned position.

3. In a hydrant, the combination of a casing, a stationary tube extending upward in the casing and closed at its upper end and apertured at an intermediate point of its height; said tube being adapted to be connected with a source of water-supply, and a stand-pipe receiving the stationary tube and movable vertically on said tube and in the casing, and being apertured at an intermediate point of its height and also having an exterior packing ring located above said opening or openings and interior packing rings located below the opening or openings.

4. In a hydrant, the combination of a casing, a stationary tube extending upward in the casing and closed at its upper end and apertured at an intermediate point of its height; said tube being adapted to be con-

5 nected with a source of water-supply, a
stand-pipe receiving the stationary tube and
movable vertically on said tube and in the
casing and comprising a section exteriorly
10 threaded at its upper end, a section exteriorly threaded at its lower end, an apertured
section interiorly threaded at its upper end
to engage the threaded end of the last mentioned
section and exteriorly threaded at its
15 lower end, an interiorly threaded union connecting the adjoining threaded ends of the
first mentioned section and the apertured
section, an interior packing ring clamped between the ends of said sections, a lower interior
packing ring secured on the first mentioned
20 section, an exterior packing ring arranged on the upper end of the apertured
section, and means for clamping said exterior
packing ring against said section.

25 5. A hydrant comprising a casing, an apertured water-supply conduit, and a vertically
movable apertured stand-pipe communicating with the casing equipped with means for
establishing communication between the
water-supply conduit and the interior of the
stand-pipe when the stand-pipe is in one

position and for interrupting said communication when the stand-pipe is in another
position.

6. In a hydrant, the combination of a casing, a cap detachably secured thereon, a stationary tube extending upward in the casing
and closed at its upper end and apertured at
an intermediate point of its height; said tube
being adapted to be connected with a source
35 of water-supply, and a stand-pipe removable
through the upper end of the casing and receiving the stationary tube and movable vertically
on said tube and in the casing, and
having an opening or openings at an intermediate
40 point of its height and also having a removable,
exterior packing ring located above said opening
or openings and removable, interior packing rings
located below the opening or openings.

45 In testimony whereof I affix my signature
in presence of two witnesses.

GEORGE H. TRAXEL.

Witnesses:

A. D. COLE,
GEORGE H. WHALEY.