

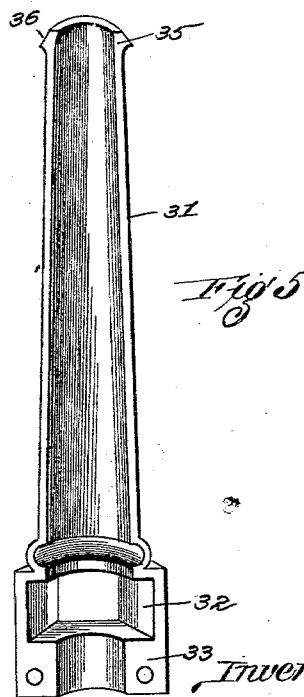
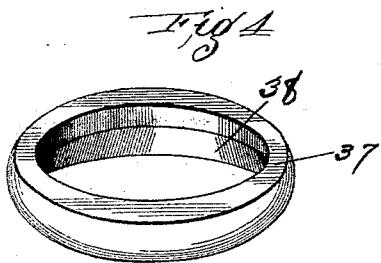
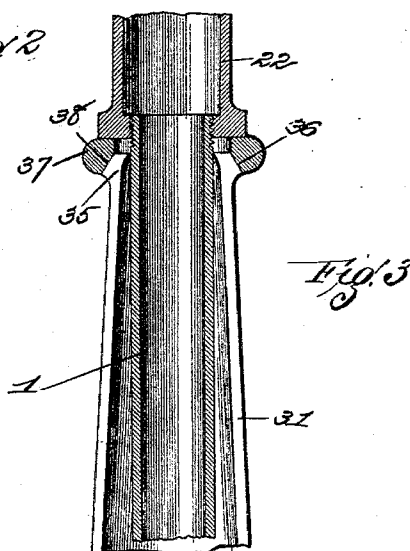
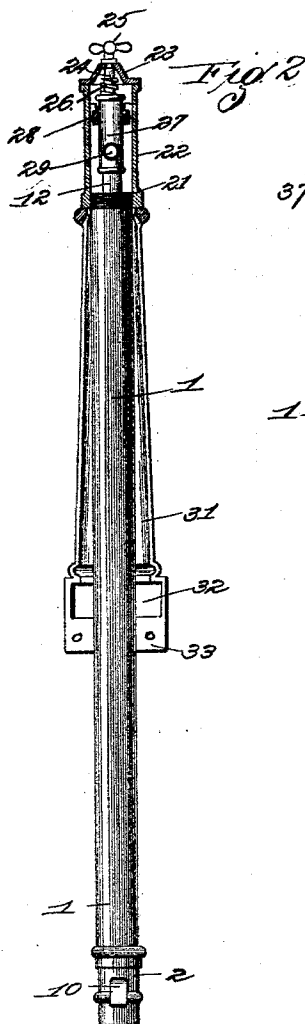
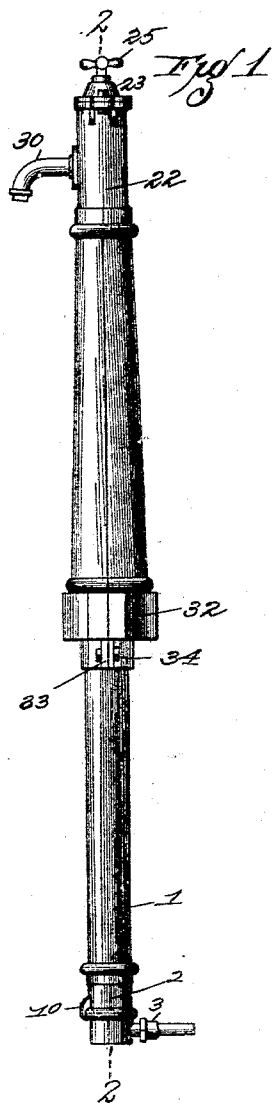
(No Model.)

2 Sheets—Sheet 1.

C. T. JENNEMANN.
HYDRANT.

No. 556,677.

Patented Mar. 17, 1896.



Attest
John L. Smith.
W. R. Smith.

INVENTOR.
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BY Higdon & Higdon & Longan, ATTYS.

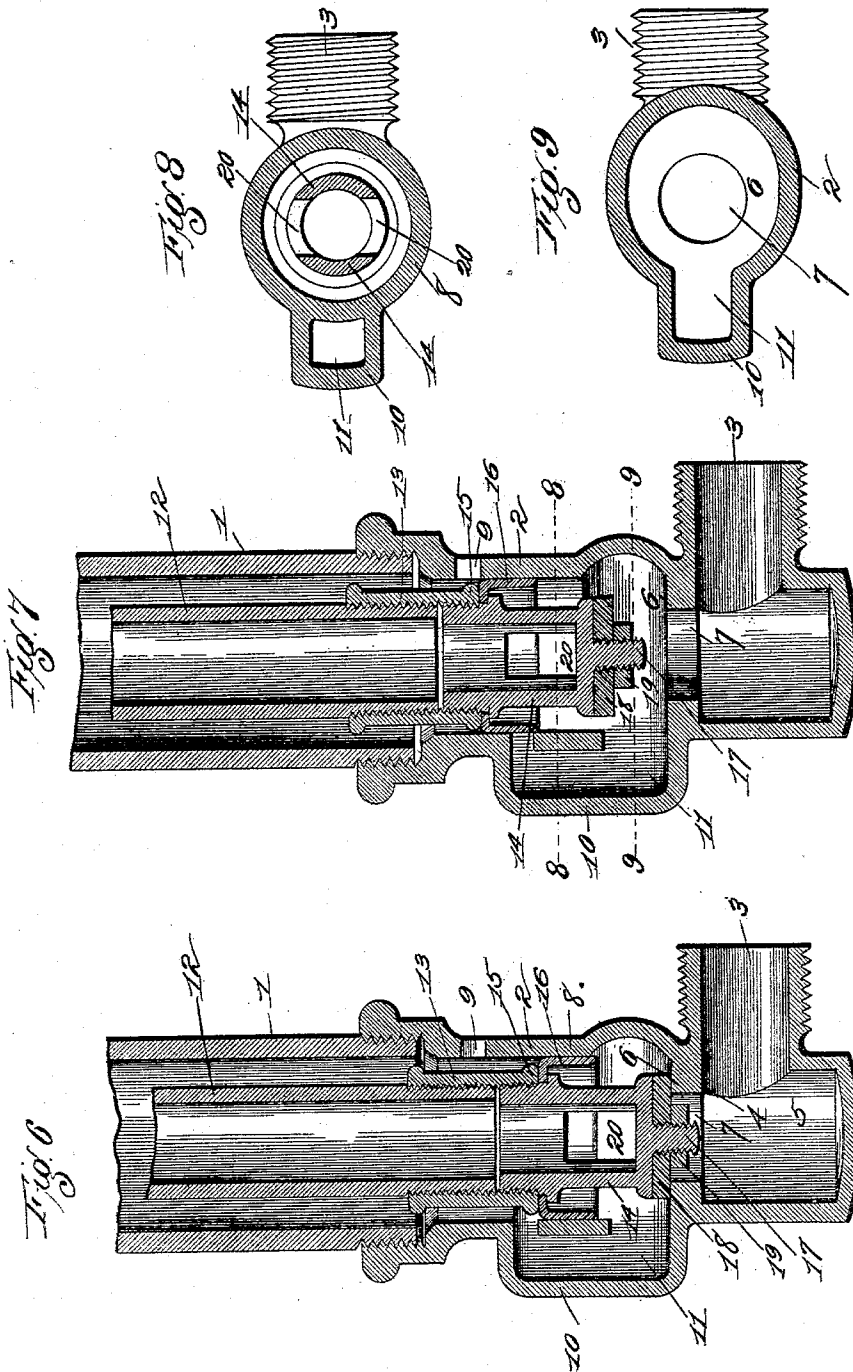
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2 Sheets—Sheet 2.

C. T. JENNEMANN.
HYDRANT.

No. 556,677.

Patented Mar. 17, 1896.



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Inventor
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UNITED STATES PATENT OFFICE.

CHARLES T. JENNEMANN, OF ST. LOUIS, MISSOURI.

HYDRANT.

SPECIFICATION forming part of Letters Patent No. 556,677, dated March 17, 1896.

Application filed September 30, 1895. Serial No. 564,092. (No model.)

To all whom it may concern:

Be it known that I, CHARLES T. JENNEMANN, of the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Hydrants, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to an improved hydrant; and it consists in the novel construction, combination, and arrangement of parts hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of my improved hydrant. Fig. 2 is a vertical sectional view taken approximately on the indicated line 2 2 of Fig. 1. Fig. 3 is an enlarged vertical sectional view of the upper end of the hydrant-casing. Fig. 4 is a view in perspective of the ring of which I make use in carrying out my invention. Fig. 5 is a view in perspective of one of the mating portions of the hydrant-casing. Fig. 6 is a vertical sectional view of the valve used in my improved hydrant, said valve being shown in a closed position. Fig. 7 is a vertical sectional view of said valve, the same being shown in an open position. Fig. 8 is a horizontal sectional view taken approximately on the indicated line 8 8 of Fig. 7. Fig. 9 is a horizontal sectional view taken approximately on the indicated line 9 9 of Fig. 7.

Referring by numerals to the accompanying drawings, 1 indicates the outer stationary shell, the lower end of which is threaded into the upper end of a valve-casing 2 and the upper end of which may be of any common construction.

3 indicates the inlet connection, which is preferably threaded upon its exterior and arranged to be connected to the water-main.

4 indicates a partition or fixed diaphragm which extends horizontally across the fixed casing 2 at a point about midway of its length. Formed in the casing below this partition is a chamber 5, which is in communication with the interior of the inlet connection 3. Formed upon the upper side of the partition 4 is a circular valve-seat 6.

7 indicates a vertical passage formed in said partition and connecting the lower chamber 5 with the space above said partition. The space above said partition is preferably in

the form of a cylinder or barrel 8, which is circular in cross-section.

9 indicates a waste or drain opening formed in the wall of the cylinder 8, adjacent the upper end thereof. Formed upon the side of the cylinder 8 is a single hollow lateral projection 10, in which is formed a vertical waste port or passage 11, the upper end of which opens upon the interior of said cylinder at a point just beneath said waste-opening, and the lower end of which opens upon the interior of said cylinder at a point beneath the said upper end.

12 indicates the inner movable tube or pipe, the upper end of which may be of any common construction, whereby the same may be moved longitudinally within said casing 1 to open or close the valve of the hydrant. Threaded upon the lower end of said inner tube 12 is a clamping-thimble 13, and threaded within the lower end of this thimble is a clamping-head 14. The lower end of said thimble is provided with a clamping-flange 15, and the head 14 is provided at a point intermediate of its ends with an annular clamping flange or shoulder.

16 indicates a cup, preferably made of leather or analogous flexible material, securely clamped at its upper end between the clamping-flange 15 of said thimble and the clamping flange or shoulder of said head, and said cup is located in said cylinder to slide therein whenever said inner tube is moved. The lower end of said head is provided with a threaded vertical stem 17, on which is located a valve 18, and this valve is secured in position by means of a nut 19 engaging said threaded stem and said valve. The head 14 is hollow and its interior communicates with the interior of the inner pipe or tube 12.

20 indicates opposite vertical water-openings formed in said hollow head at a point intermediate of the point at which the cup 16 is attached and the point at which the valve 18 is located.

The upper end of the shell or casing 1 is screw-threaded, as indicated by 21, and said screw-threaded end is located in a short tubular casing 22, the upper end of which is closed by a removable cap 23. A stem 24 passes vertically through the cap 23 and is provided with an operating-handle 25 on its upper end.

Upon the lower end of said stem is formed a screw-thread 26 that operates in the upper end of a short tube 27, the same being screwed onto the upper end of the removable tube or pipe 12. The short tube 27 operates vertically in guides 28, formed integral with the interior of the casing 22. Formed in the short tube 27 adjacent its lower end is an aperture 29.

Protruding from the exterior of the casing 22 is a discharge-nozzle 30. The hydrant-casing of which I make use is constructed in two mating semicircular shells 31, the same having formed integral with their lower ends mating base portions 32, from which depend flanges 33, that meet and are held together by bolts 34. The upper end of the casing is slightly smaller in diameter than is the lower end, and formed integral with said upper end is a bead 35 having a beveled face 36. A ring 37 is constructed with an interiorly-beveled face 38, that engages directly upon the beveled face 36, formed on the upper ends of the mating portions of the casing when the various parts are properly put together.

When the upper end of the shell 1 is screwed into the lower end of the casing 22, said lower end of the casing rests directly upon the top face of the ring 37 and causes the same to bear on the beveled faces formed on the upper ends of the mating portions of the hydrant-casing, thus firmly holding said mating portions together and doing away with the necessity of bolting the upper ends of the semicircular portions of the casing together.

The operation is as follows: The normal position of the parts is that shown in Figs. 1 and 6, in which the valve 18 is closed upon its seat and the nut 19 is located in the passage 7 and with the pipe 12 and all parts carried thereby at the limit of their downward movement. When the parts are in this position, the cup 16 engages the interior of the cylinder 8 at a point beneath the upper end of the waste-port 11 and above the lower end of said port, so that said valve 18 prevents inlet of liquid by way of the supply connection 3, and the waste liquid from the pipe 12 gravitates downward therein, passes out through the water-passage 20 and enters the cylinder at a point below said cup, thence passes into the waste-port 11, thence out of the upper end of said port into the cylinder at a point above said cup, and thence makes

its exit by way of the waste-opening 9, so that all possible injury to the hydrant by freezing is obviated.

In Fig. 7 I have shown the valve in an open position, and when the same is in said position there is a free passage for fluid from the inlet connection 3 upward through the passage 7 to the interior of the cylinder 8, through the water-passage 20 in the head 14 and to the interior of the pipe 12. From the pipe 12 the water passes into the short tube 27, located on the upper end thereof, and from thence makes its exit through the apertures 29, and from thence through the discharge-nozzle 30, extending laterally from the casing 22.

When the valve is opened, which is brought about by simply turning the handle 25 a number of times to the left, it will be observed that the head 14 and all parts carried thereby simultaneously move upward with said pipe and the cup 16 slides over and covers the upper end of the outlet 11, preventing outflow of liquid therefrom. Said cup forming a tight joint with the interior of said cylinder also prevents passage of any liquid upward into the annular space surrounding said pipe 12.

By constructing the hydrant-casing in mating portions the same is very easily and expeditiously put together or taken apart, and by providing the form of ring shown in Fig. 4 and hereinbefore described the necessity of bolting the mating portions of said casing together at the top is obviated.

A hydrant of my improved construction possesses superior advantages in point of simplicity, durability and general efficiency, is easily constructed and put together, and may be quickly taken apart when in need of repairs.

I claim—

In combination with a tubular hydrant, a casing constructed in mating portions arranged to inclose that portion of said hydrant that is aboveground, bolts securing the lower ends of the mating portions together, and a ring that is engaged by a portion of the hydrant-tube to securely lock the upper ends of the mating portions of the casing together.

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

CHAS. T. JENNEMANN.

Witnesses:

ALEXANDER E. HOWLAND,
ALONZO W. SUMNER.