(No Model.)

J. KAISER.

HYDRANT.

No. 601,378. Patented Mar. 29, 1898.

Fig. 1.

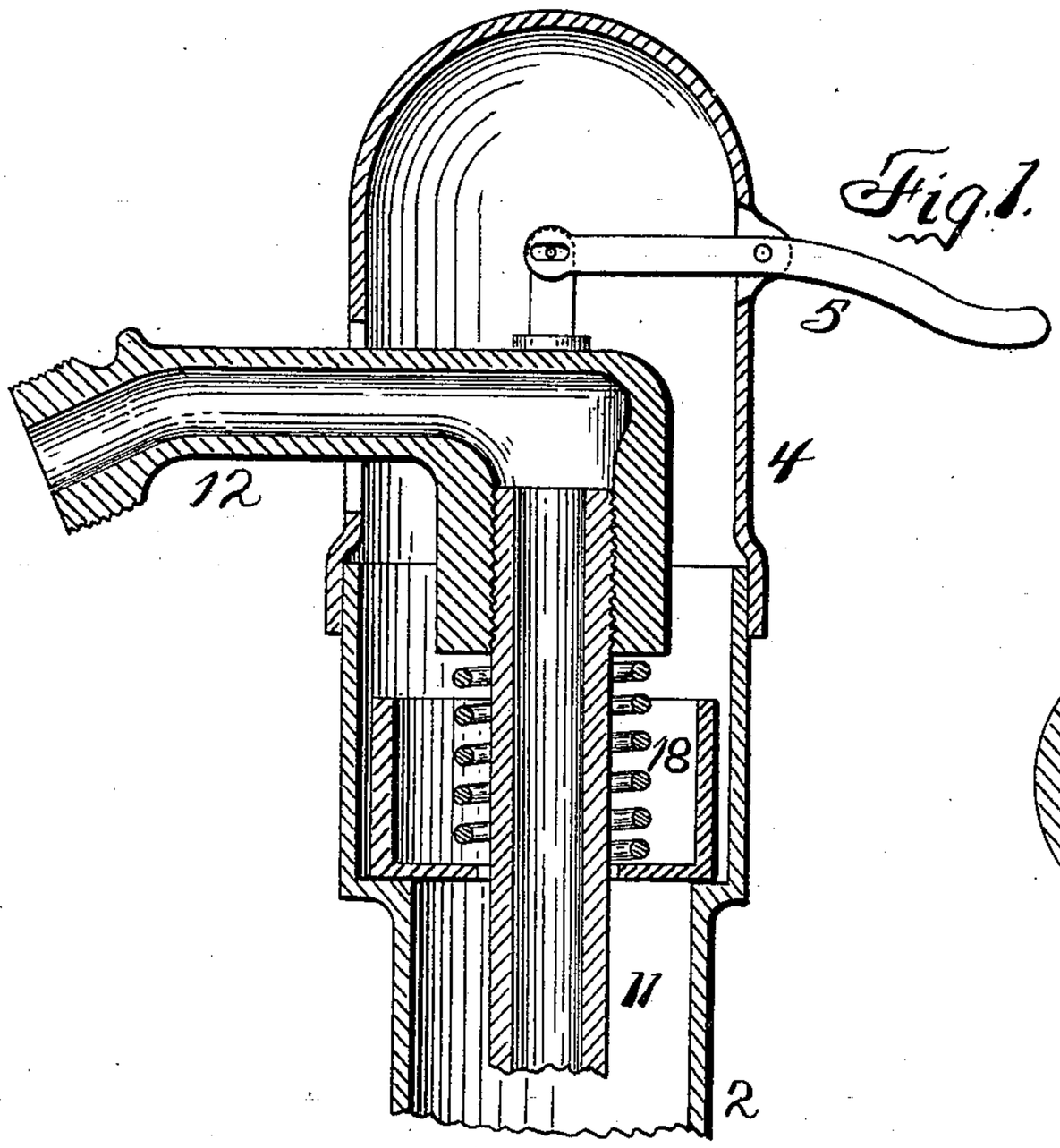


Fig. 2.

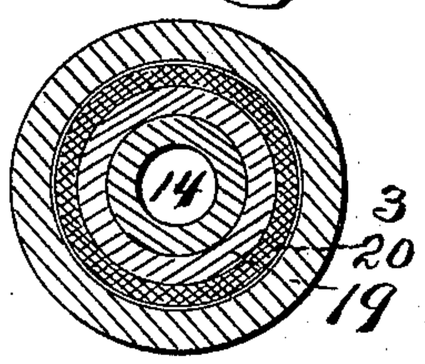


Fig. 3.

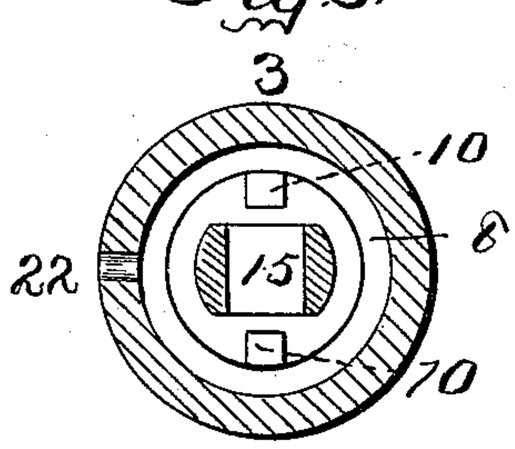
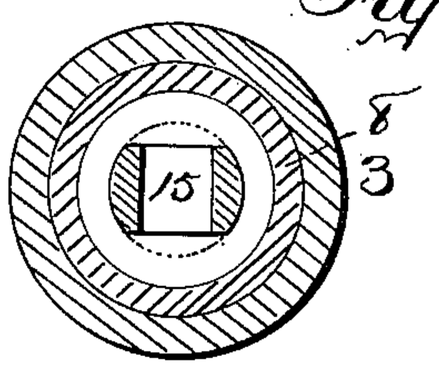
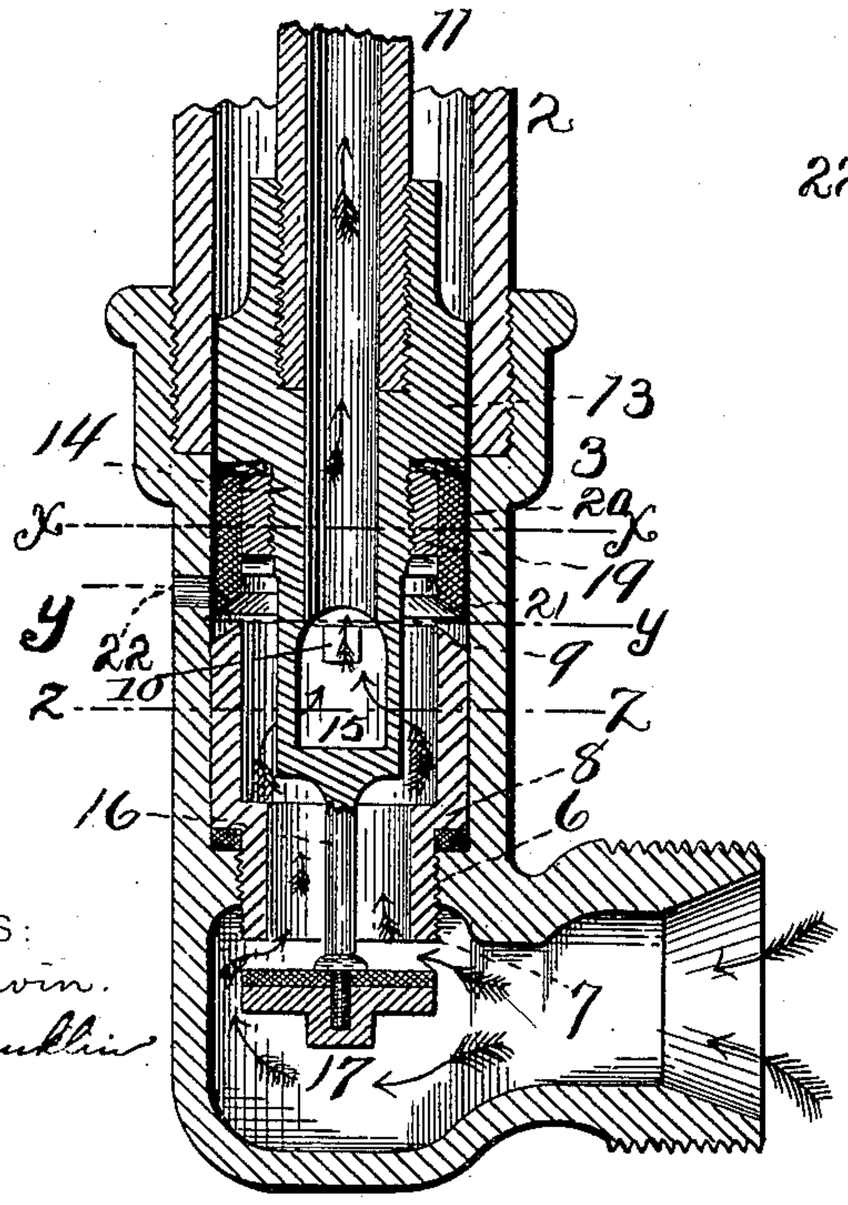


Fig. 4.





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UNITED STATES PATENT OFFICE.

JOHN KAISER, OF SENECA FALLS, NEW YORK.

HYDRANT.

SPECIFICATION forming part of Letters Patent No. 601,378, dated March 29, 1898.

Application filed September 27, 1897. Serial No. 653,103. (No model.)

To all whom it may concern:

Be it known that I, JOHN KAISER, of Seneca Falls, in the county of Seneca, in the State of New York, have invented new and useful Improvements in Hydrants, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to hydrants.

Heretofore it has been very difficult to obtain access to the valve-shut-off mechanism, especially when the valve is set in the ground below frost, which has required the excavation of the earth and the uncoupling and removal of the hydrant, and the uncoupling of the L to reach the valve or valve-seat, or both, or packing. It is to remedy this that this invention is made, the prime feature of which lies in the fact that the valve, valve-seat, and all of the packings are mounted upon the water-pipe, and by the rotation of said pipe all of these parts are released from the L and are removed together, and are restored to place by the reverse rotation of said pipe, said pipe being also adapted to be reciprocated to let on or shut off the flow of liquid, the valve being then reciprocated with reference to the valve-seat, which is part of the valve-body and mounted upon the water-pipe and screwing into the L.

It is constructed as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical section of a hydrant ready to be connected to a main. Fig. 2 is a transverse section on ilne *x x*. Fig. 3 is a like view on line *y y*. Fig. 4 is a like view on line *z z*.

The hydrant-body consists of a cylinder 2, suitably seated in or connected to the tubular L 3, and a cap 4, in which a handle or lever 5 is suitably mounted. This L is provided with a threaded throat 6, which receives the threaded neck 7 of the tubular valve-body 8. This body is outwardly beveled, as at 9, and is provided with inwardly-projecting lugs 10 on opposite sides. A suitable water-pipe 11 is provided with a suitable discharge-nozzle 12 and connected to said lever, and its lower end is suitably secured to a tubular slide 13, having a threaded neck 14, scarfed on opposite sides to create ports 15. A valve-stem 16 is suitably connected to said slide, and 17 is a suitable valve upon said stem, normally shutting off the flow of the water or other liquid, being aided therein by a spring 18.

Upon the neck 14 a nut 19 is screwed, operating to retain the packing 20 in place. This packing is beveled inwardly, as at 21, so that when the lever is operated to open the valve the slide carries the packing 20 down into engagement with the valve-body, and it is thereby expanded to make a tight joint with the inner wall of the L to prevent any leakage upward.

A suitable vent 22 operates to drain off in the ordinary manner and is closed by the descent of the cup-packing 20.

It will be seen that the several parts are assembled, as shown, inserted into the casing and L, and screwed down into position by the engagement of the lugs 10 with the slide adjacent to the ports 15, and then the valve is opened by raising the lever 5, and that by unscrewing the neck 7 from the throat 6 the entire valve mechanism can be removed for repairs without requiring any excavation of earth, as is usually necessary, or any uncoupling of any joint between the hydrant and main or in the hydrant-body. As here shown, the nozzle can be used as a lever to aid in uncoupling or rotating the cap, and this will rotate the water-pipe and unscrew said neck. The valve-seat is not in the L, but in or upon the end of the neck 7.

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

In a hydrant, the combination with a casing, of a reciprocatory water-pipe, a slide secured thereon, and provided with ports, a valve-stem connected to said slide, a valve upon said stem, a valve-body outwardly beveled upon its upper end and mounted upon said pipe and adapted to be screwed into said casing by the rotation of said pipe and form a stationary valve-seat upon its lower end, and a cup-valve upon said slide interiorly beveled and adapted to be brought into engagement with the valve-body by the reciprocation of said water-pipe.

In witness whereof I have hereunto set my hand this 20th day of September, 1897.

JOHN KAISER.

In presence of—
THOMAS W. POLLARD,
WILMOT P. ELWELL.