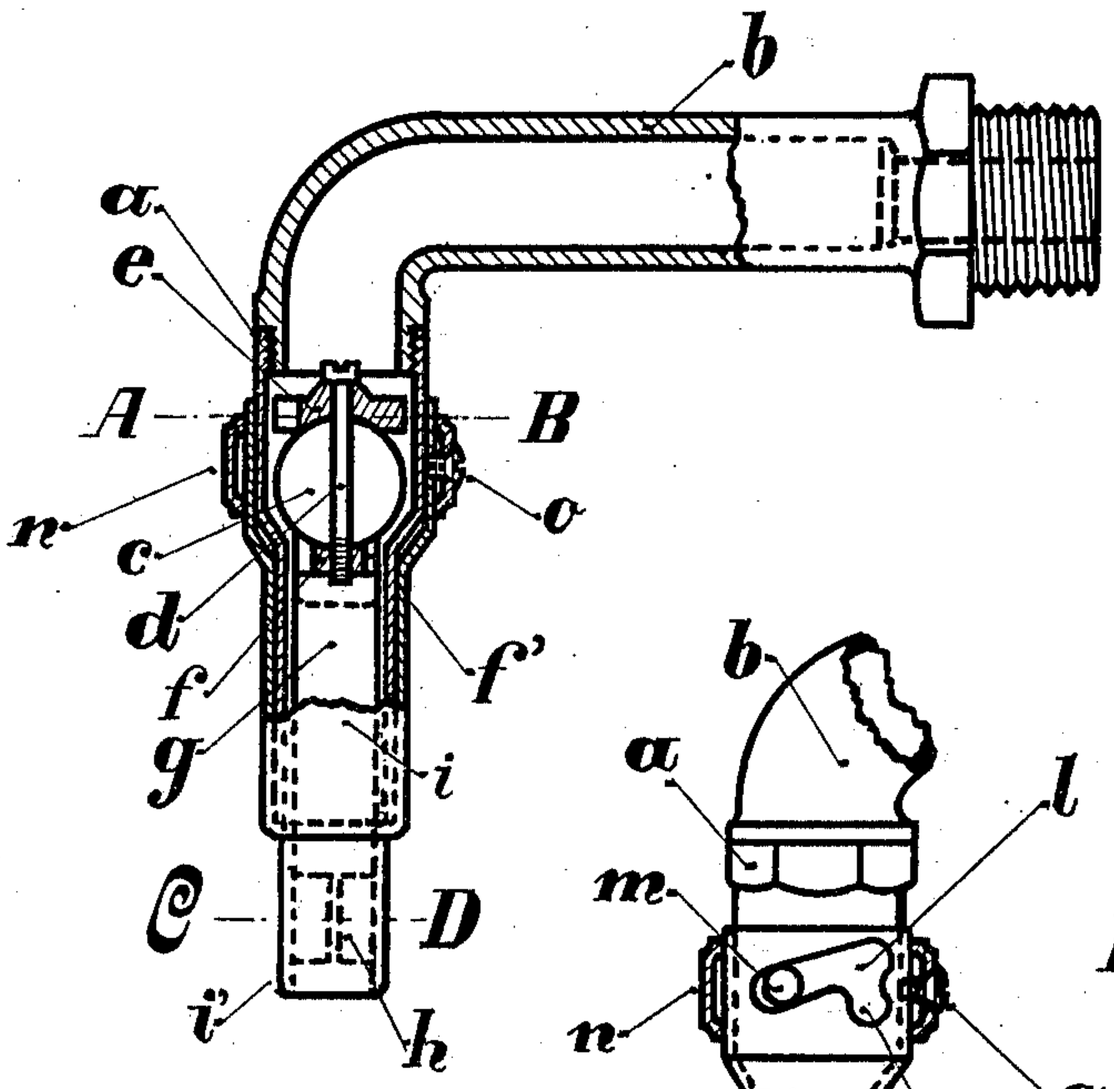
W. LENTZ.

VALVE FOR WATER TAPS.

APPLICATION FILED DEC. 3, 1909.

988,943. Patented Apr. 4, 1911.

Fig. 1.



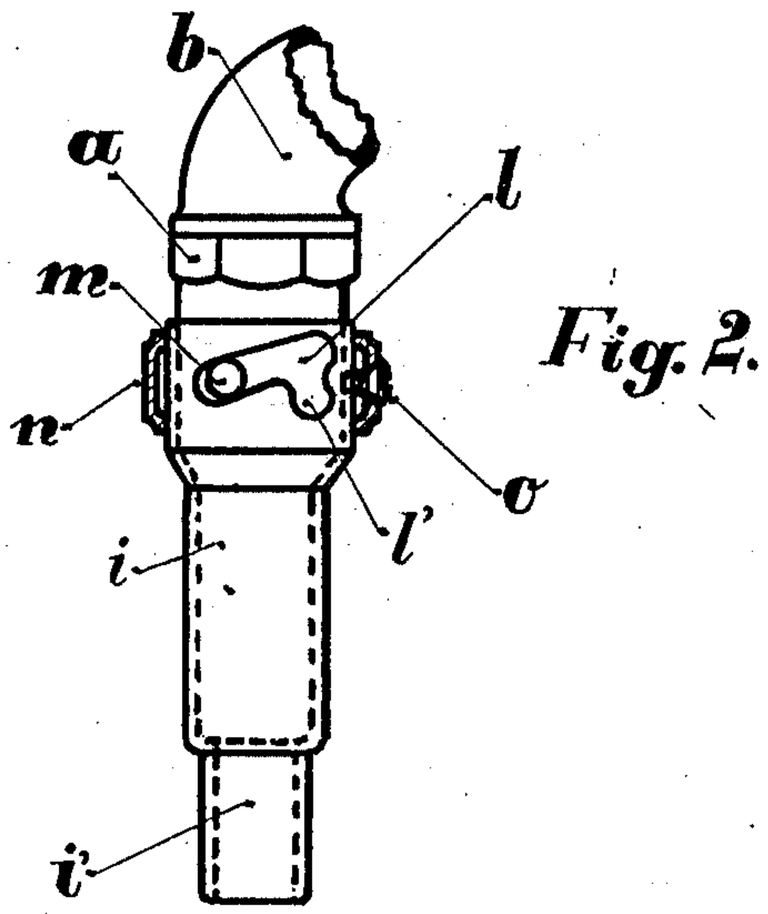


Fig. 2.

Fig. 3.

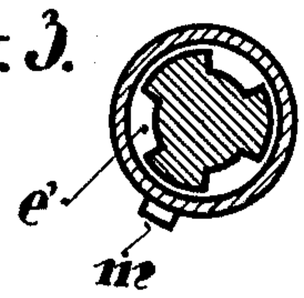
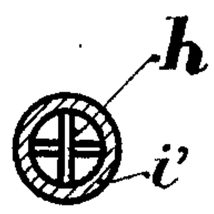


Fig. 4.



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VALVE FOR WATER-TAPS.

988,943. Specification of Letters Patent. Patented Apr. 4, 1911.

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To all whom it may concern:

Be it known that I, WILHELM LENTZ, a subject of the Emperor of Germany, residing at Frankenthal, Rheinpfalz, Germany, have invented new and useful Improvements in Valves for Water-Taps, of which the following is a specification.

My invention relates to a valve for water taps which, while being simple and easy to manipulate, does not require the ordinarily indispensable stuffing box. The absence of the latter as well as of the screw-threaded valve spindle, prevents damage of the valve-seat caused by a too tight closing of the valve, moreover, the disagreeable leaking of the packing, which is so common with ordinary taps, and the consequent loss of water, is totally obviated in the improved construction.

In the accompanying drawing the invention is illustrated.

Figure 1 representing a longitudinal section of the water tap and valve, Fig. 2, an elevation of the tap, partly in section, Fig. 3, a section of the valve casing along line A—B of Fig. 1, and Fig. 4, a section along line C—D of Fig. 1.

The valve casing *a*, which is screwed to the end *b* of the water pipe, forms a seating for the valve. The latter consists of a ball *c* which is held, by means of a screw *d*, between two disks *e* and *f*, both serving to guide the ball in the casing and to prevent the same from oscillating through the movement of the water. Both disks are provided with lateral notches, *e'* and *f'* respectively, which form passages for the water. The valve casing is covered by a sleeve *i* which is made in two halves held together by means of a ring *n* and a clamp screw *o*. On the upper part of said sleeve, one or two obliquely disposed slots *l* are provided, in which pins *m*, secured to the valve casing, are guided. The effect of this arrangement is that, by turning the sleeve on the casing, it can be raised and lowered. Downward extensions *l'* of said slots, at their higher extremities, also allow the sleeve to be raised without turning the same. A tube *g*, slidably fitted in the casing *a* and resting on the reduced lower part *i'* of the sleeve *i*, is adapted to engage the disk *f*, so as to raise the ball *c* from its seating when the tube itself is raised by means of the sleeve *i*. The part *i'* of the sleeve *i* may be provided with a strainer *h*.

The *modus operandi* is as follows:—When water is required, the sleeve *i* is either raised directly or turned by means of the ring *n* as far as the slot or slots *l* in the sleeve allow. The sleeve *i* actuates the tube *g* which raises the valve *c* from its seating by means of the disk *f*. If the valve be raised by lifting the sleeve, it will, when released, close automatically through the pressure of the water. If it be raised by turning the sleeve, it will be held open until the latter is returned to its initial position. The disks *e* and *f* guide the valve and prevent it from vibrating through the movement and pressure of the water.

I claim:—

1. A valve for water taps, comprising a casing forming a valve seat, a self-closing ball-valve mounted between two disks adapted to guide the valve and provided with lateral notches forming passages for the water, a tube loosely arranged underneath the lower disk and adapted to engage the same when raised, a sleeve loosely fitted on the casing and having a reduced lower portion adapted to support said tube, and pins on said casing adapted to engage obliquely disposed slots in said sleeve so that a turning of the latter effects a raising of the tube and a consequent opening of the valve, substantially as set forth.

2. A valve for water taps, comprising a casing forming a valve seat, a self-closing ball-valve mounted between two disks adapted to guide the valve and provided with lateral notches forming passages for the water, a tube loosely arranged underneath the lower disk and adapted to engage the same when raised, a sleeve loosely fitted on the casing and having a reduced lower portion adapted to support said tube, and pins on said casing adapted to engage vertical slots in said sleeve allowing the latter together with the tube to be raised for the opening of the valve, substantially as set forth.

WILHELM LENTZ.

Witnesses:
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