No. 877,650. PATENTED JAN. 28, 1908.

J. M. KNIGHT.

FAUCET.

APPLICATION FILED MAY 22, 1903.

Fig. 1.

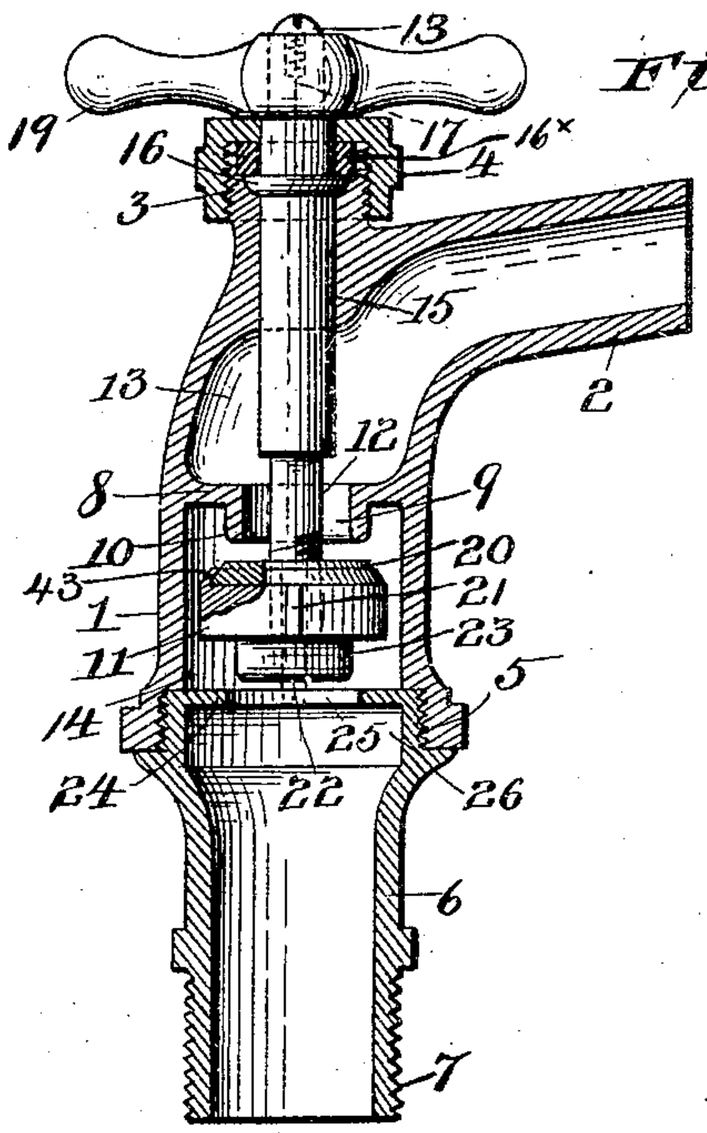
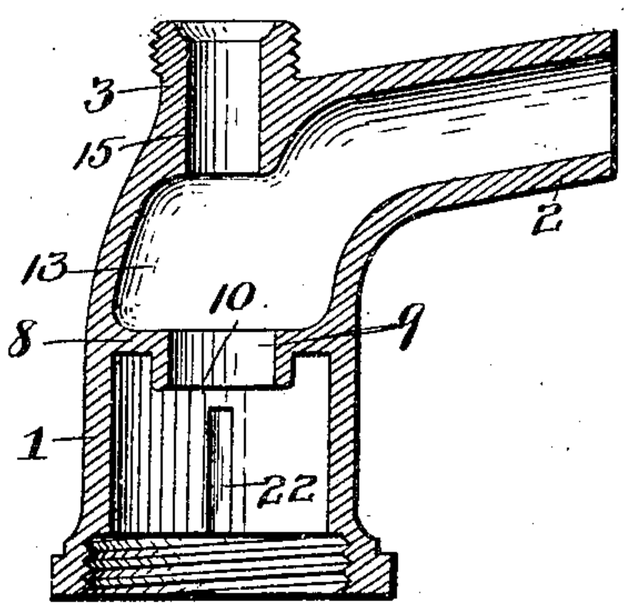


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

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FAUCET.

No. 877,650. Specification of Letters Patent. Patented Jan. 28, 1908.

Application filed May 22, 1903. Serial No. 158,268.

To all whom it may concern:

Be it known that I, JOHN M. KNIGHT, a citizen of the United States, residing at Baltimore and State of Maryland, have invented new and useful Improvements in Faucets, of which the following is a specification.

This invention relates to reciprocating valve faucets, and has for its object to provide a faucet of this type, which will be economical, effective, durable, and of such construction, as to insure a comparatively water tight joint at the valve.

The invention consists in a faucet, constructed as hereinafter set forth, and claimed.

Referring to the accompanying drawing, in which similar figures of reference indicate like parts. Figure 1 is a side view in elevation and in vertical section, showing a faucet embodying my invention. Fig. 2 is a similar view with valve removed.

In the construction of this invention, 1 is the valve casing, formed with the discharge nozzle 2; the upper screw-threaded projection 3, on which is screwed the hollow nut 4, which permits the removal of the valve stem; and the lower internally screw-threaded flaring end 5, into which is screwed the chambered attachment 6, having the threaded pipe connecting end 7. About midway between the lower end 5 of casing 1, and the discharge nozzle 2, the casing is formed with a diaphragm 8, having a circular opening 9, with a depending circumferential flange 10, the lower edge of which forms a valve seat for the valve 11, mounted on the lower end of valve-stem 12. It will thus be seen that the diaphragm 8, forms two chambers 13 and 14, and the depending flange 10, provides that the top of the lower chamber 14, will be above valve 11, so that the upward force of the flow of water will be against the top of the chamber 14, and the water will be discharged laterally past the valve 11, when the latter is opened.

The valve-stem 12 projects upward through a passage-way 15 formed in the upper end of the casing and terminates in a square end portion 17, to which is secured a handle 19, by means of a screw 13. The upper end portion 3 of the casing is provided with screw threads on its outer surface, adapted to receive a hollow nut 4 provided with a screw-threaded inner surface, said nut surrounding a washer 16^x and serving to firmly seat said washer against the upper end surface of the casing and the upper surface of the enlargement 16, which latter is formed integral with the valve-stem 12.

The valve 11, which is screwed on to the lower end of the stem 12, is provided at its top with a washer 20, of rubber, fiber, or other suitable material, which bears upwards against the depending flange 10. The valve 11 is steadied, and guided in its reciprocating vertical movement by any suitable means, and preferably by a projection 21, on each side of it, which engages a vertical groove 22, in the wall of the lower chamber 14. The bottom of the valve 11, is provided with a disk-shaped projection 23, which, when the valve 11 is moved down to its lowest point, or limit, is guided into and seated in a ring 24, of a bar 25, mounted across the chamber 26, of the chambered attachment 6. By means of this construction the valve 11 is firmly seated on the lower bar 25.

By means of this invention an effective, and durable water-tight faucet is provided, which can be easily taken apart for cleaning, or repair, and by means of which the flow of water can be easily, and uniformly regulated.

As will be seen, the valve-stem extends through the opening in the valve-seat, the valve being located on its lower end being movable longitudinally thereof. This construction permits of a positive packing being used in connection with the stem, the latter being held against longitudinal movement and thereby dispensing with the formation of the screw-threaded connection between the stem and casing, and thereby decreasing the cost of the valve. And as the connection between the valve and stem is a screw-threaded one (a structure which can be readily made before the parts are assembled), the valve can be readily secured to and removed from its stem upon the removal of the packing or of the stop. It will therefore be understood that the structure presented is one in which the parts can be readily made and assembled, which can be readily cleaned and repaired, and which is not liable to get out of order, in addition to which it can be manufactured at an extremely low cost.

I claim:—

A reciprocating valve faucet comprising a faucet casing having a smooth cylindrical opening at the upper portion thereof to receive and center a valve stem, a diaphragm forming a part of said casing and provided with a depending annular valve seat, a valve stem supported by the casing and held

against vertical movement, said valve stem being screw-threaded at and near its lower end, a valve having a screw-threaded connection with the threaded lower end of the valve stem and provided with lateral projections and a reduced depending portion, an elastic washer carried by said valve and surrounding the threaded portion of said valve stem, and a chambered attachment removably secured to the faucet casing and terminating at its upper end with an inwardly extended flange forming an opening to receive and guide said depending portion of the valve, the said inwardly extended flange forming a seat for the enlarged lower surface of said valve.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN M. KNIGHT.

Witnesses:
JOS. H. BLACKWOOD,
MAY M. PLYER.