

No. 653,080.

Patented July 3, 1900.

B. F. FARRAR.
FAUCET OR VALVE.

(Application filed Apr. 20, 1900.)

(No Model.)

Fig. 1.

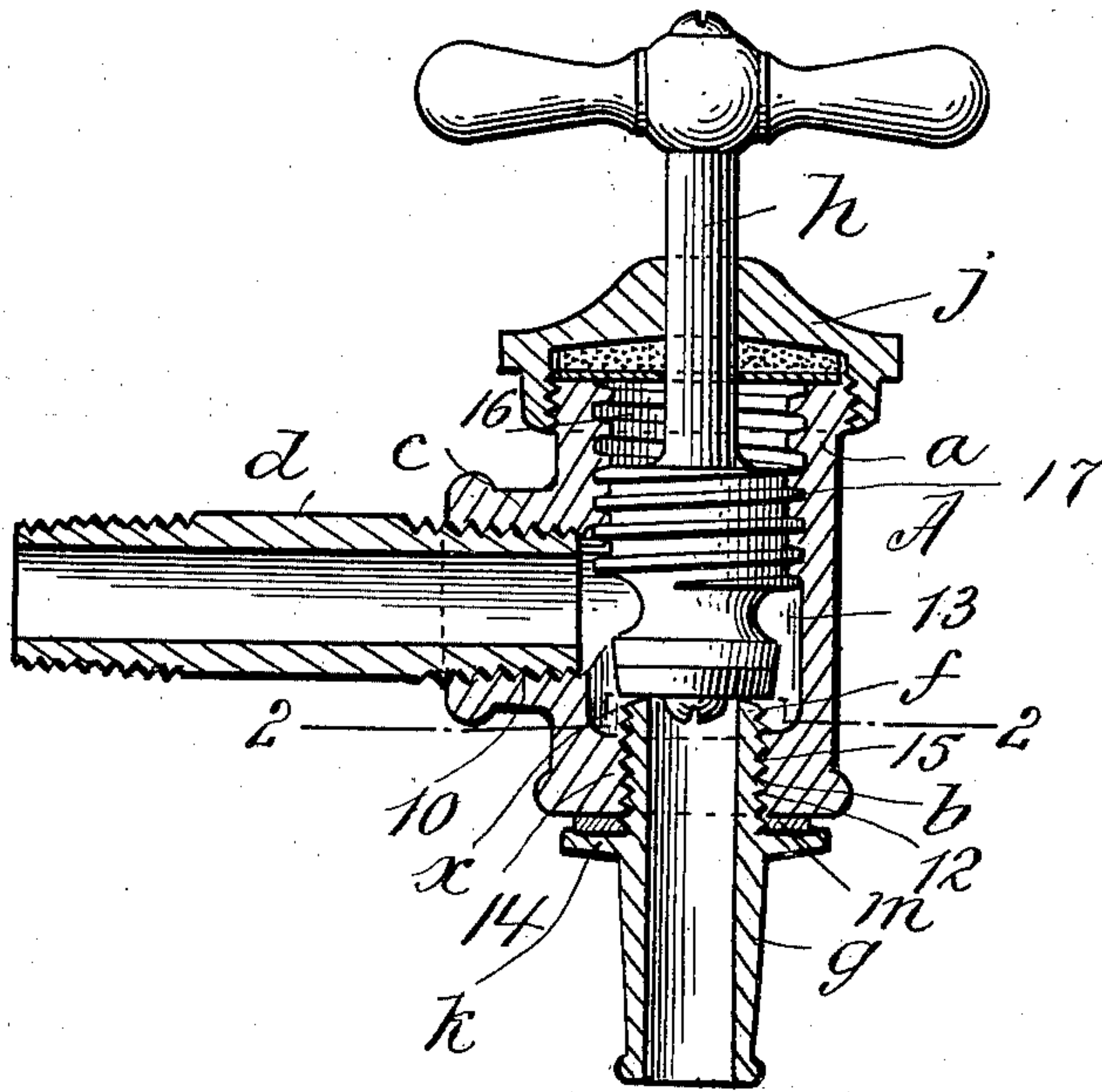
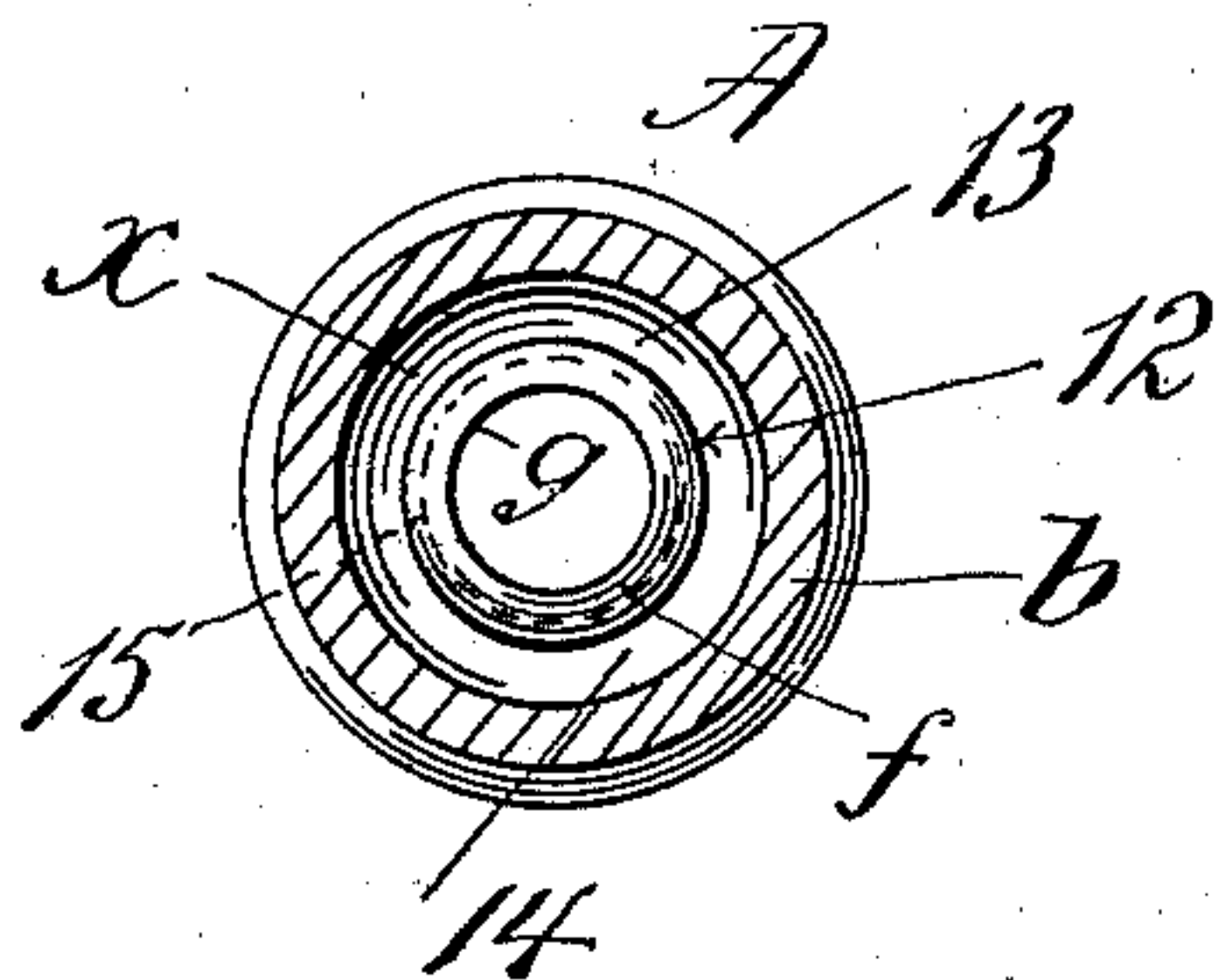


Fig. 2.



Witnesses:

J. H. Garfield

A. W. Smith

Inventor:

Benjamin F. Farrar,

by *W. F. Bellon,*
Attorney.

UNITED STATES PATENT OFFICE.

BENJAMIN F. FARRAR, OF SPRINGFIELD, MASSACHUSETTS.

FAUCET OR VALVE.

SPECIFICATION forming part of Letters Patent No. 653,080, dated July 3, 1900.

Application filed April 20, 1900. Serial No. 13,612. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. FARRAR, a citizen of the United States of America, and a resident of Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Valves or Faucets, of which the following is a full, clear, and exact description.

This invention relates to improvements in faucets or valves adaptable for utilization in the plumbing of buildings and in other situations.

The particular object of the invention is to devise such a novel construction and combination or arrangement of simple and easily-made parts as to produce a valve or faucet of the utmost efficiency at a cost which is greatly below that of ordinary faucets, bibs, or cocks as now usually constructed; and the invention consists in the construction and arrangement or combination of parts, all substantially as hereinafter fully described, and set forth in the claims.

Reference is to be had to the accompanying drawings, in which this improved faucet is illustrated, and in which—

Figure 1 is a central vertical section through the same. Fig. 2 is a horizontal section through a lower portion of the faucet, as taken on the line 2 2, Fig. 1.

In the drawings, A represents the body of the faucet, which consists of a T-coupling having the upper and lower axially-alined limbs or members *a* and *b* and the intermediate horizontal laterally-extending limb *c*. The said member *c* is internally screw-threaded at 10 for the connection therein of the screw-threaded extremity of the inlet-pipe section or tubular extension *d* of the faucet, with the opposite end of which the water-supply pipe in the water system is coupled or connected. The opening 12 through the lower limb *b* is contracted or of somewhat less diameter than the chamber 13 within the faucet-body A, as produced by the thickening of said limb internally, as indicated at 14, said annular lower portion 14 being internally screw-threaded, as indicated at 15, for the screw engagement and connection therein and therethrough of the upper externally-

screw-threaded portion *f* of the section of pipe *g*, which constitutes the outlet or discharge nozzle of the faucet.

The upper portion *f* of the pipe-section or nozzle *g* protrudes upwardly within the chamber 13 in the valve-body above the top of the internally-thickened portion 14 of the lower limb, leaving outside of and surrounding such portion *f*, which constitutes the valve-seat, the annular space *x*.

The upper limb *a* of the valve-body is internally threaded with a coarse thread 16, with which screw engages the threaded enlargement 17 of the valve-stem *h*, having at its lower end the valve-disk *i*, as usual, while the upper portion of the valve-stem plays through the usual gland *j*, which is connected by screw engagement with the upper end of the upper limb of the valve-body.

Now it is to be perceived that a departure is had in the valve-body and valve-seat provided thereto from the ordinary valve-seated body of faucets and bib-cocks, wherein a partition-wall is cast in the body by a difficult and extensive coring out, and in which the valve is seated and must be held closed upon the valve-seat against the water-pressure, for in this valve it is seen that the valve closes with the pressure and also that the valve-seat portion *f* is vertically and also rotationally adjustable. As a particular advantage of this, in addition to the valve adjusting itself to the seat, the seat may also adjust itself to the valve, it being well known that the packings of faucets or valves in houses and elsewhere after use frequently become so worn at only some part or side thereof as to cause leakage, owing perhaps to unequal bearings at all parts by the disk-supporting part around on the seat, and in this valve by simply turning the nozzle portion *g* a part of a rotation the leakage becomes for quite a while stopped and the packing need not be renewed so often as necessary in valves of the common form, wherein the valve-seat is constituted by the marginal portion surrounding an opening in a partition-wall within the valve-body.

Inasmuch as the object is to devise a construction of valve which may be very cheaply produced and without expensive machine op-

erations and a nicety of finish, and as in a somewhat roughly-constructed valve embodying the arrangements of parts described there might be slight leakage through the lower limb *b* of the coupling between the engaging screw-threads of such limb and the nozzle-section, I construct the nozzle-section just below its externally-screw-threaded portion *f* with the external flange *k*, which, if desired, may be polygonal, and interpose between the top of said flange and the bottom of the limb *b* a compressible annular packing *m*, which effectually prevents, even if the threads do not closely fit, the exudation of any of the liquid in pressure within the faucet-body.

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

1. A valve or faucet consisting of a body composed of a T-coupling the lateral and lower limbs of which are internally screw-threaded, the inlet-pipe section *d* screwing into the lateral limb, the nozzle-section *g* having its upper end portion *f* externally screw-threaded and screwing into and through the lower threaded portion of the lower limb, which said portion is internally thickened, and whereby the portion of the nozzle screwing therethrough is surrounded by an annular space *x*, and constitutes the valve-seat, the valve-stem having the usual threaded enlargement 17 and the valve, adapted to close

downwardly against said valve-seat portion *f* substantially as described.

2. A valve or faucet consisting of a body, composed of a T-coupling the lateral and lower limbs of which are internally screw-threaded, and the portion of the body next above the junction therewith of the passage 12 through said lower limb constructed with a chamber *x* of greater diameter than said passage 12, the inlet-pipe section *d*, screwing into the lateral limb, the nozzle-section, *g*, having its upper annular end portion *f* externally screw-threaded and screwing into and through the threaded portion of the lower limb, and having a clear portion thereof standing within the space or annular chamber *x*, and provided with the external flange *k*, the annular packing *m* between the flange and the lower end of the said lower limb, the valve-stem having the usual threaded enlargement 17 screw-engaging in the chamber of the said T-coupling and provided with the valve adapted to seat upon the internally-located upstanding end portion of the said nozzle-section, substantially as shown.

Signed by me at Springfield, Massachusetts, this 16th day of April, 1900.

BENJAMIN F. FARRAR.

Witnesses:

WM. S. BELLOWS,
A. W. SMITH.