

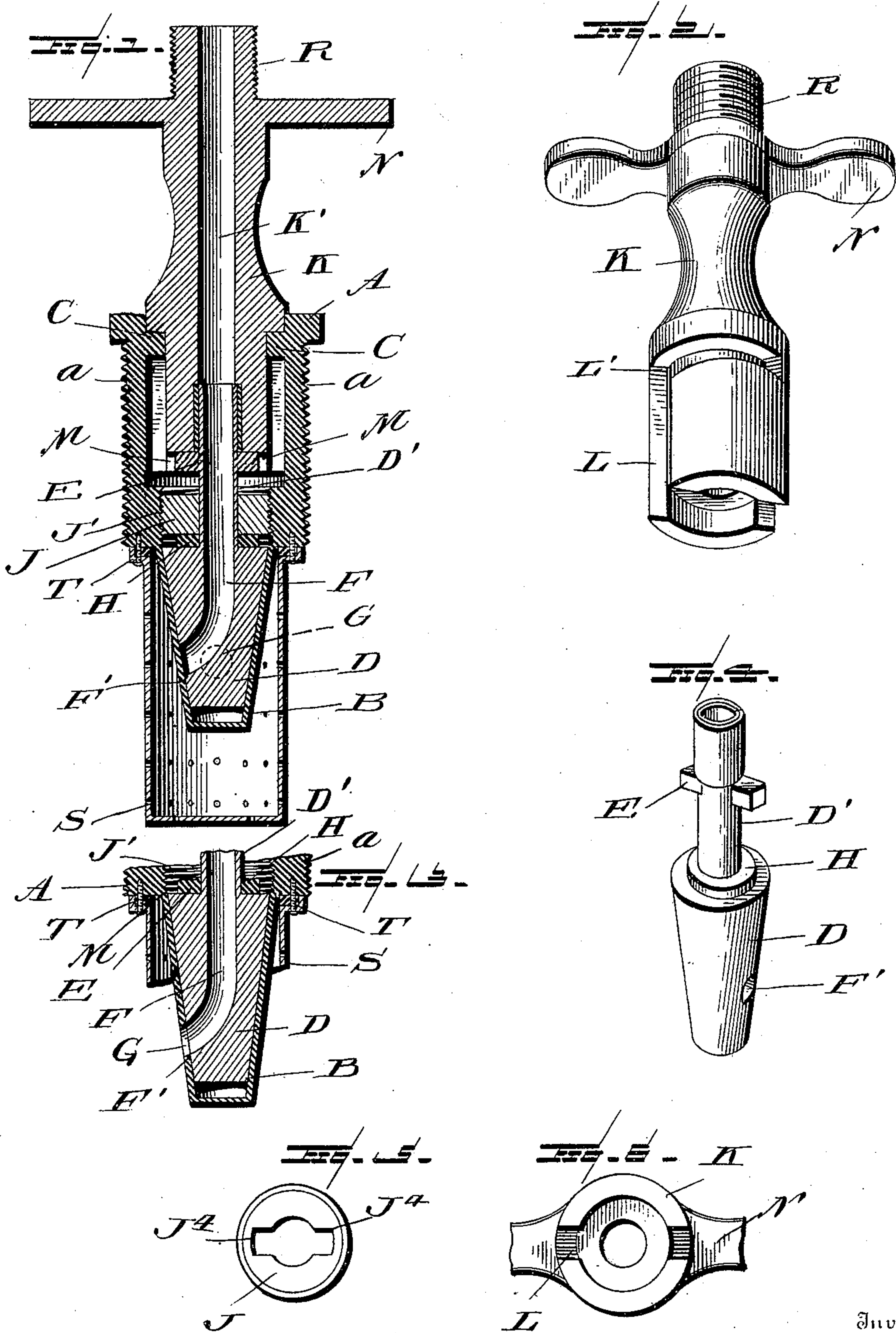
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Patented Feb. 27, 1900.

G. R. CHEESMAN.
BARREL TAP.

(Application filed Oct. 7, 1889.)

(No Model.)



Witnesses

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GEORGE R. CHEESMAN, OF AUBURN, NEW YORK.

BARREL-TAP.

SPECIFICATION forming part of Letters Patent No. 644,195, dated February 27, 1900.

Application filed October 7, 1899. Serial No. 732,885. (No model.)

To all whom it may concern:

Be it known that I, GEORGE R. CHEESMAN, a citizen of the United States, residing at Auburn, in the county of Cayuga and State of New York, have invented certain new and useful Improvements in Barrel-Taps; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in barrel-taps, and in carrying out the invention it is my purpose to generally improve upon this class of inventions, and particularly upon the invention for which I have been granted Letters Patent in the United States, No. 629,152.

The essential features of the present invention reside in the provision of a bushing with integral conical end apertured about its circumference and adapted to register with the outlet end of a duct in plug-valve, which latter is seated on the inner conical wall of the bushing, a hollow key and stem of the valve communicating with the duct in the valve and lugs on the inner wall of the bushing engaged by said key.

To these ends and to such others as the invention may pertain the same consists, further, in the novel construction, combination, and adaptation of parts, as will be hereinafter more fully described, and then specifically defined in the appended claims.

My invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of the present application, and in which drawings similar letters of reference indicate like parts throughout the several views, in which—

Figure 1 is a central longitudinal sectional view through my improved barrel-tap and key connected thereto. Fig. 2 is an enlarged detail view of the key. Fig. 3 is a detail view of the conical and hollow valve. Fig. 4 is a perspective view of the valve plug and stem. Fig. 5 is a detail view of the nut for retaining the valve in place on its seat in the bushing. Fig. 6 is a detail view of the under face of the handle.

Reference now being had to the details of the drawings by letter, A designates the bushing, which is exteriorly threaded, as at *a*, and provided with an integral and conical bottom B. On the inner wall of the bushing, near the upper end of same and diametrically opposite to each other, are the lugs C, which are provided for a purpose which will hereinafter appear. Seated within the conical bottom portion of the bushing is the hollow conical valve D, having a stem D'. On diametrically-opposite sides of the stem are the lugs E E. The duct F in the valve opens on the tapering surface of the valve, as at F', and when said valve is turned a partial revolution upon its seat the opening F' will come into registration with an aperture G in the conical bottom of the bushing, in which position the liquid contained within a barrel or other receptacle to which the tap is secured will flow through the tap.

On the enlarged end of the valve D and about the stem D' is a collar H, against which a nut J rests when screwed down against same. This nut engages with threads J' on the enlarged shouldered portion of the bushing, as clearly illustrated in the drawings. In order to allow the nut to be passed down over the lugs E on the stem, diametrically-opposite recesses J⁴ are provided.

The key for operating the valve consists of the shank portion K, which has a central longitudinal aperture K', the inner end of said key being recessed longitudinally for a short distance, as at L, in diametrically-opposite locations on the surface to allow the shank portion of the key to pass down over the outer end of the stem and beyond the lugs C. The inner end of each of these recesses L turns at a right angle, as seen at L', whereby after the key has been pushed in over the end of the stem said key may be partially rotated, which will cause the latter to be securely locked to the tap, making it impossible for the key to be forced out by any excessive pressure that may be upon the liquid.

In the wall of the bore leading into the inner end of the key are diametrically oppositely disposed recesses M, in which are seated the lugs E when the key has been attached to the tap, whereby the valve is turned on its seat as the key is caused to make par-

tial revolutions back and forward. A suitable handle N is secured to the key for operating the same, and the extreme end of the key is exteriorly threaded, as at R, to which
5 threads a pipe may be connected.

To prevent sediment and foreign matter entering the valve, I provide a screen S, which is secured over the conical bottom of the bushing, being held to a shouldered portion of the latter by means of the lugs T.
10

In order to make a liquid-tight connection between the outer end of the stem D' and the duct leading through the key, I slightly increase the diameter of the duct leading into
15 the key and insert a rubber gasket or packing, which is forced snugly against the wall of the bore when the tapering surface of the stem is inserted into the end of the key.

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

1. A barrel-tap consisting of a bushing with an integral conical projection at its lower end, the bottom of said projection being im-
25 perforate, and having an aperture in its conical wall, lugs on the inner wall of the bushing, combined with a rotary hollow valve seated on the inner conical wall of said projection, a hollow key and stem to valve communicating with the valve, said key engaging the
30 lugs on the inner wall of the bushing, as shown and described.

2. A barrel-tap consisting of a bushing with integral conical bottom, diametrically oppo-
35 sitely disposed lugs on the inner wall of the bushing, a conical valve with a single duct opening on the circumference of the valve and leading through a stem at the end of the latter, a recessed key having a duct commu-
40 nicating with the duct in said valve, and means for holding the latter to its seat, as set forth.

3. A barrel-tap consisting of a bushing with conical bottom with aperture in its wall, lugs on the inner wall of the bushing, combined
45 with a rotary conical valve with a duct with an opening thereto through the tapering wall of the valve, a stem to the valve, diametrically oppositely disposed lugs on the stem, a nut having threaded connection with a should-
50 er of the bushing, the key having longitudinal and radial recesses, and a duct communicating with the duct in the valve, as set forth.

4. In a barrel-tap, the combination with the
55 bushing the valve with duct as described seated in the conical portion of the bushing, the retaining-nut, the stem of the valve having lugs thereon, the key with longitudinal duct therein, radial recesses in the end of the
60 key, diametrically oppositely disposed longitudinal recesses with angled ends, the lugs on the inner wall of the bushing designed to be seated in the latter, as set forth.

5. In combination with the bushing, the
65 valve and nut for retaining same on its seat, the stem, of the valve, having its upper end tapering, the key with central longitudinal duct, radial recesses in the end of said key, and the packing interposed between said ta-
70 pering portion of the stem and the enlarged portion of the duct in the key, as set forth.

6. In combination with the bushing with key and valve therein, the screen having a flange, the screws passing through the latter
75 and engaging in threaded apertures in the lower end of the bushing, as shown and described.

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

GEORGE R. CHEESMAN.

Witnesses:

FRED M. HOSMER,
CICERO J. WARNE.