No. 654,810. Patented July 31, 1900.

C. H. SHULTZ.

FAUCET.

(Application filed Dec. 19, 1899.)

(No Model.)

Fig. 1.

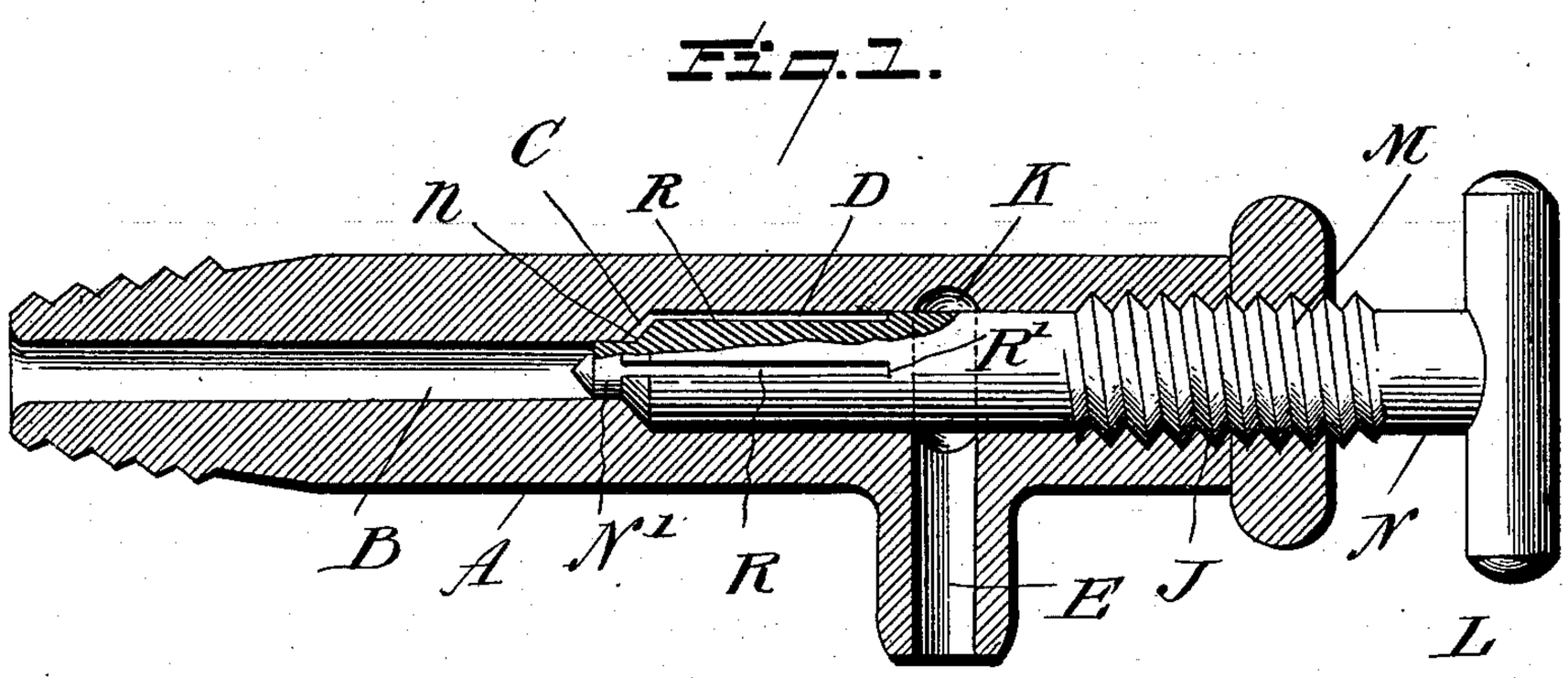


Fig. 2.

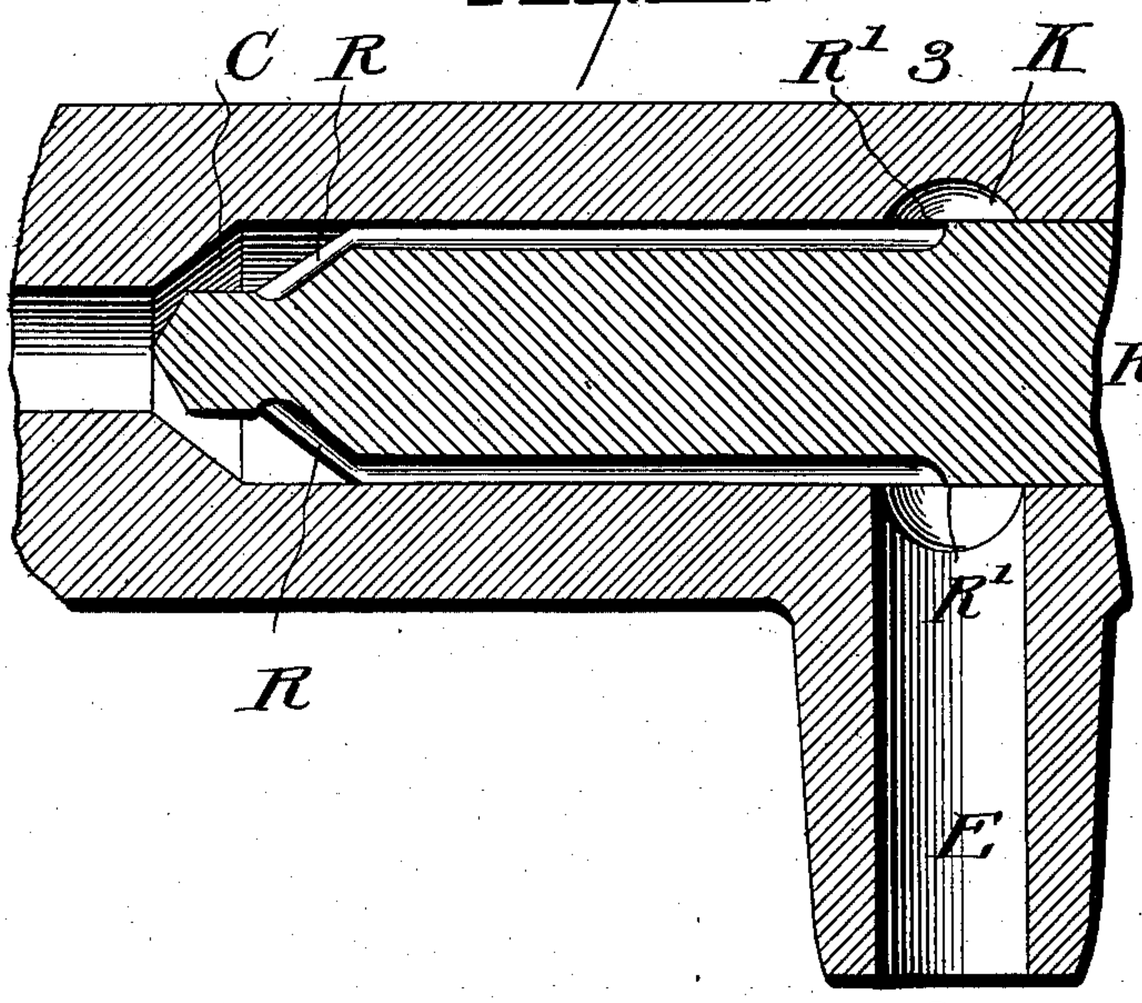
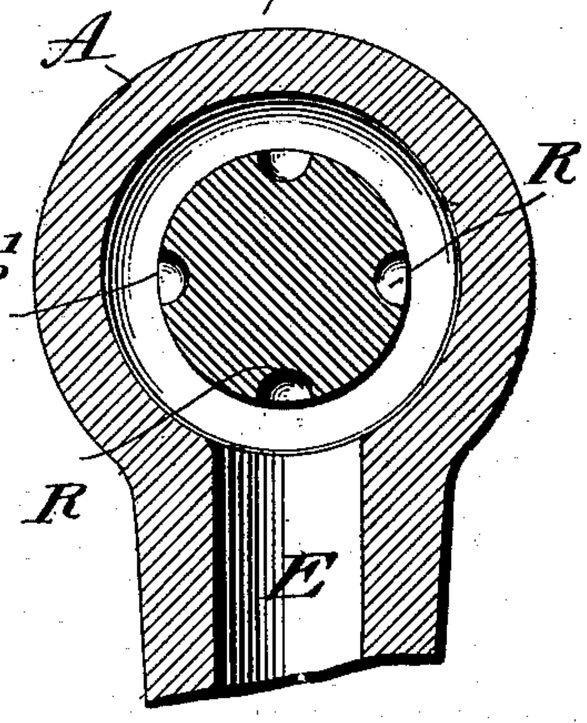


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES HENRY SHULTZ, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF TO PERCY DONALDSON, OF SAME PLACE.

FAUCET.

SPECIFICATION forming part of Letters Patent No. 654,810, dated July 31, 1900.

Application filed December 19, 1899. Serial No. 740,869. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HENRY SHULTZ, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Faucets; 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 faucets or barrel-taps; and the object of the invention is to produce a device of this character which may be used for dispensing liquids of acid nature and which will effectually prevent any dripping after a quantity of the liquid has been drawn off. It has been determined from experiment that vinegar, for instance, will so act upon the contact-walls of a faucet and valve thereto as to cause the faucet to leak by the action of the acid on the wood or metal.

In carrying out the present invention it is my purpose to construct the faucet and valve-stem of a hard or vulcanized rubber or other suitable material and taper the stem of the valve, which tapering portion is adapted to be seated against a beveled shoulder on the inner walls of the faucet, whereby in case of wear upon the circumference of the valve-stem the beveled surfaces of the faucet and stem may be brought together, the important feature of the invention residing, however, in having a tight fit between the circumference of the valve-stem and the inner wall of the faucet and also a tight fit between the circumference of the contracted end of the valve-stem and the wall of the contracted portion of the faucet, while the beveled surfaces are separated, suitable channels in the circumference of the valve-stem being provided, through which the liquid is allowed to flow without the necessity of unscrewing the valve-stem a sufficient distance to bring the beveled portion of the stem beyond the outlet passage-way to the faucet. By this provision it will be necessary only to make a small number of revolutions to the valve-stem, sufficient only to separate the contracted end of the stem from the contracted portion of the bore, so as to allow the liquid to pass from the barrel or cask through the faucet, the channels in the stem, and out through the outlet passage-way. In connection with the foregoing it will be noted that the channels in the circumference of the valve-stem, which run longitudinally with the stem, extend down the tapering or beveled portion of the stem and terminate at the contracted portion of the stem. In the drawings I have shown four of these channels. The number, however, may vary, as may be desired.

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

Figure 1 is a central longitudinal section through a faucet and valve-stem, showing the valve seated. Fig. 2 is an enlarged detail, in longitudinal section, showing the valve opened. Fig. 3 is a cross-sectional view through the faucet and stem, the section being taken on line 3 3 of Fig. 2.

Reference now being had to the details of the drawings by letter, A designates the faucet, threaded, as at A′, to be secured to the barrel or other receptacle. This faucet has a central bore which is contracted, as at B, a portion of its length and at a point midway its length flares outward, forming a beveled shoulder C, thence continues with an enlarged diameter the remainder of the length of the faucet, said enlarged portion of the faucet being designated in the drawings by letter D. At any suitable location in the faucet is an outlet passage-way E, leading away from the bore of the faucet at right angles. The inner end of this passage-way opens into an annular recessed portion in the wall of the bore, as at K. The outer end of the faucet has the wall of its bore threaded, as at J, in which threads the threads M of the stem or valve N work, whereby the stem is moved longitudinally in the faucet to open or close the valve. The outer end of the valve-stem is provided with an operating

hand-wheel L, and the inner end of the stem is contracted, as at N', and has a beveled shoulder *n*, which flares outward and toward the outer end of the faucet. Radiating out from the base of said contracted portion of the valve-stem is a series of channels R, which are continued longitudinally on the circumference of the enlarged portion of the valve-stem, said channels terminating at the points R'. The enlarged portion of the stem is of such a diameter as to snugly fit into the enlarged portion of the bore of the faucet, while the circumference of the contracted portion of the stem fits snugly into the contracted portion of the bore, so that when the stem is screwed into the position illustrated in Fig. 1 of the drawings both the circumferences of the enlarged portion of the stem and its contracted portion snugly bear against the adjacent wall of the bore and provide an efficient stoppage to the flow of the liquid through the faucet. When it is desired to draw off the liquid, the operator turns the hand-wheel, and with it the stem, sufficiently so that the circumference of the contracted portion of the stem will clear the contracted portion of the bore of the faucet, after which the liquid is allowed to flow into and through the channels into the annular recessed portion of the faucet and out through the outlet passage-way, as will be noted. By this provision of faucet having the two valve-seating surfaces and the channels, as described and shown, the liquid may be easily drawn by making only a few revolutions of the stem without withdrawing the stem sufficiently to bring the beveled shoulder of the stem opposite the passage-way. A faucet is also produced, which will effectually prevent any drippings. In case the valve-surfaces become worn the two beveled surfaces may be brought into close contact, which will serve to offer further prevention of leakage.

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

1. A faucet, made of vulcanized rubber or other suitable material, having a central longitudinal bore which is contracted a portion of its length, an outlet passage-way leading into said bore, combined with a screw-threaded valve-stem the circumference of the enlarged portion of which fits snugly against the inner wall of the enlarged portion of the bore, the end of said valve-stem being contracted, and the circumference of said contracted portion fitting snugly against the wall of the contracted portion of the bore, and beveled shoulders in the bore and on the valve-stem, as set forth.

2. A faucet, made of vulcanized rubber or other suitable material, and having a central longitudinal bore which is contracted a portion of its length, an outlet-passage leading into an annular recess in the inner wall of the faucet, combined with a threaded valve-stem having a contracted end the circumference of which snugly fits the inner wall of the contracted portion of the bore, the circumference of the enlarged portion of the valve-stem snugly fitting the inner wall of the enlarged portion of the bore, a beveled shoulder in the wall of the bore between the contracted and enlarged portion thereof, a beveled shoulder on the valve-stem, and radiating channels, in the shoulder of the stem, leading from the base of the contracted portion of the latter, said channels extending longitudinally in the surface of the enlarged portion of the valve-stem, and extending a suitable distance, as shown and for the purpose set forth.

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

CHARLES HENRY SHULTZ.

Witnesses:
ENOCH HARLAN,
CHARLES H. MILLIKIN.