

(No Model.)

2 Sheets—Sheet 1.

K. KIEFER.
FAUCET.

No. 487,866.

Patented Dec. 13, 1892.

Fig. I—

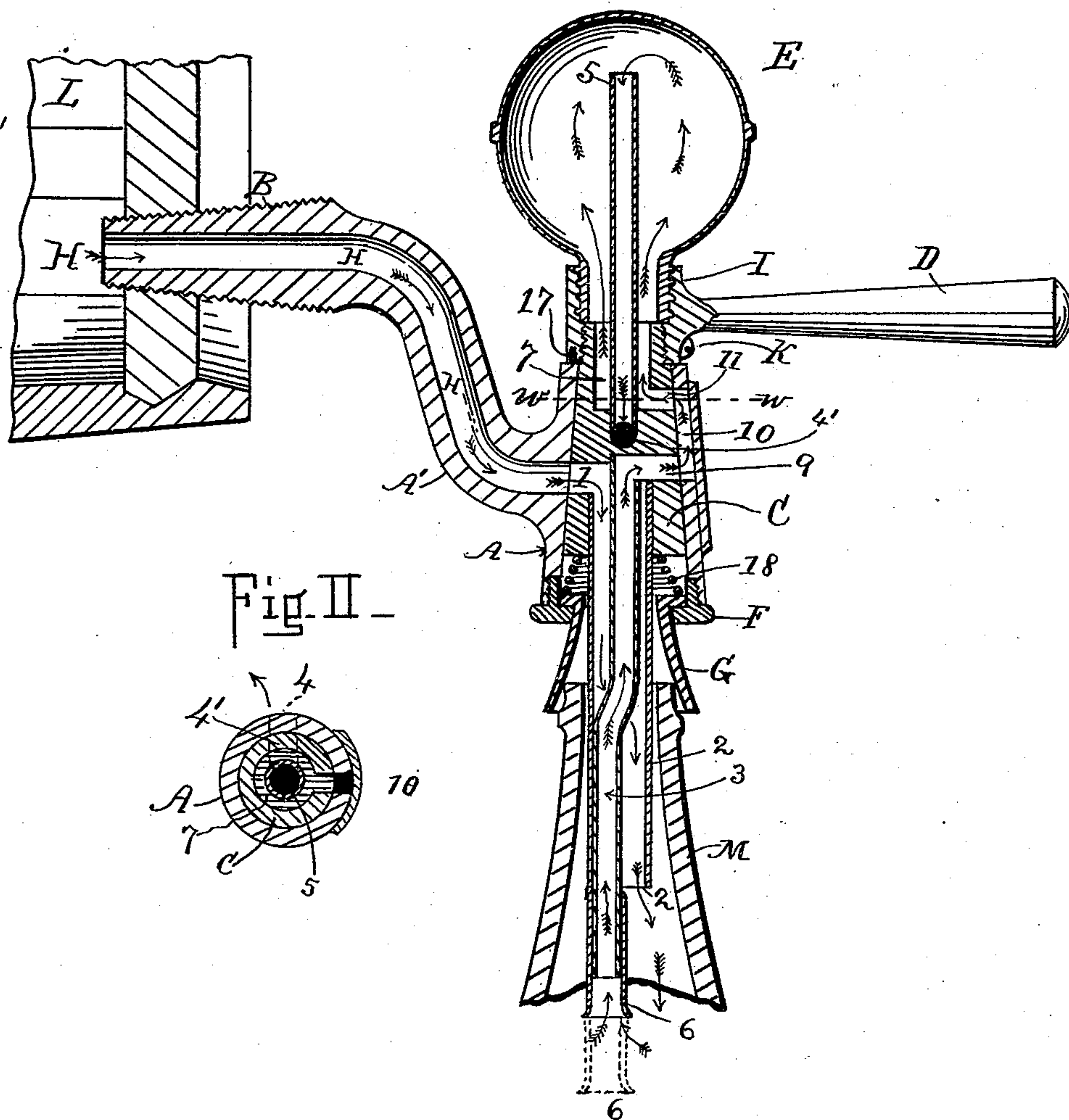
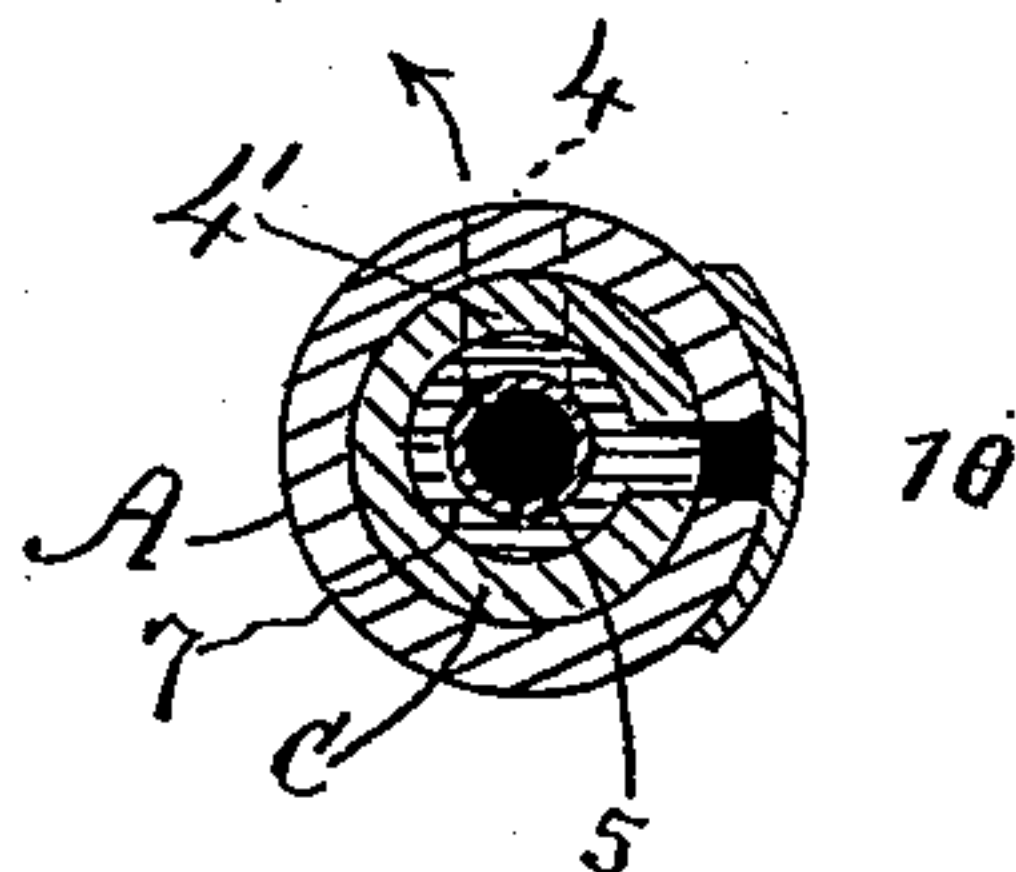


Fig. II—



Witnesses
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Fig. III.

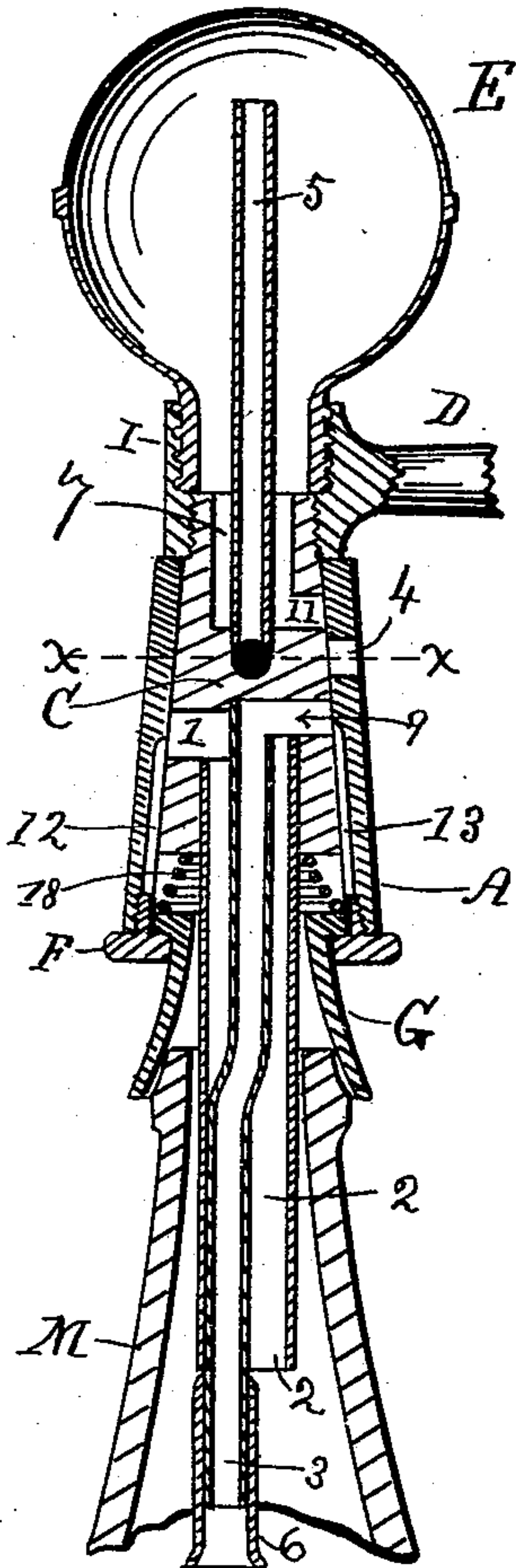


Fig. IV.

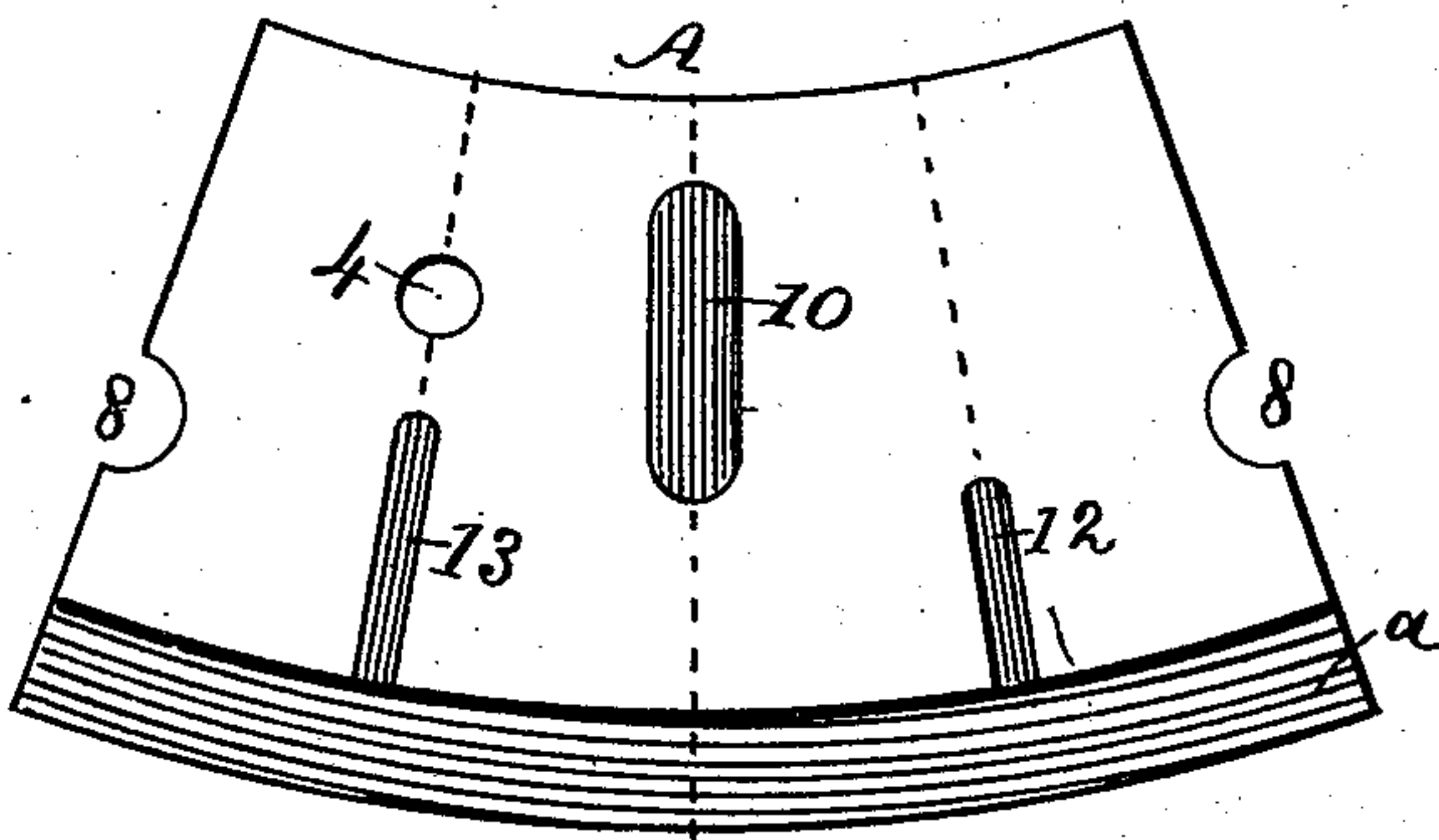


Fig. V.

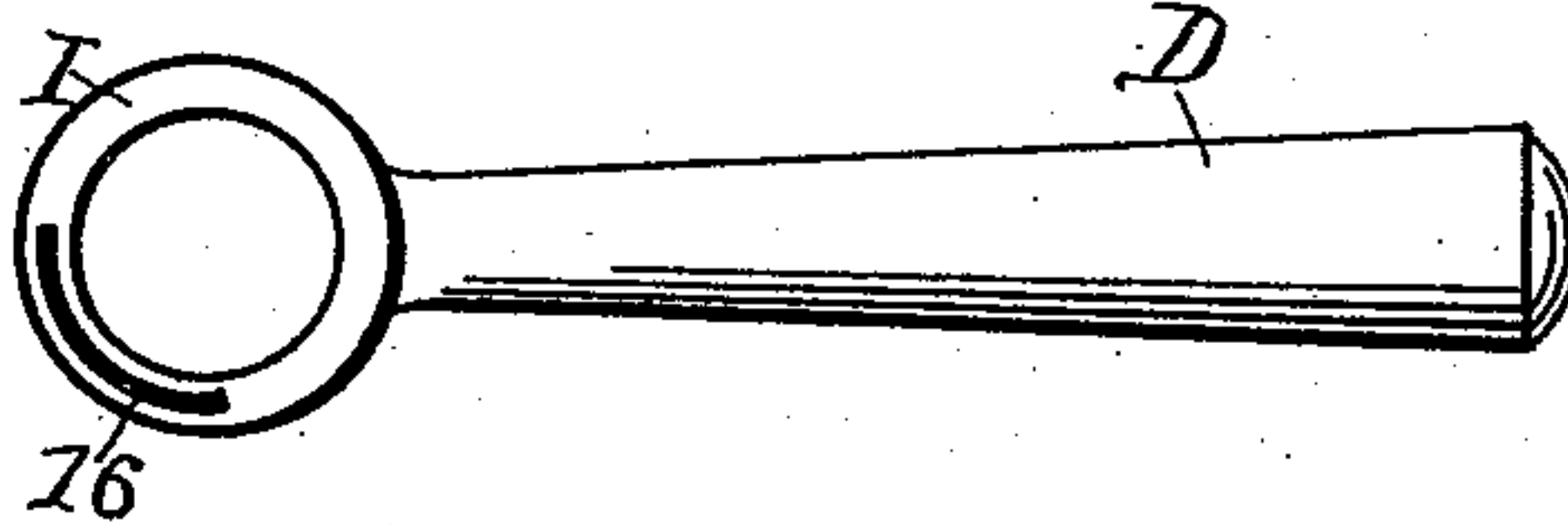
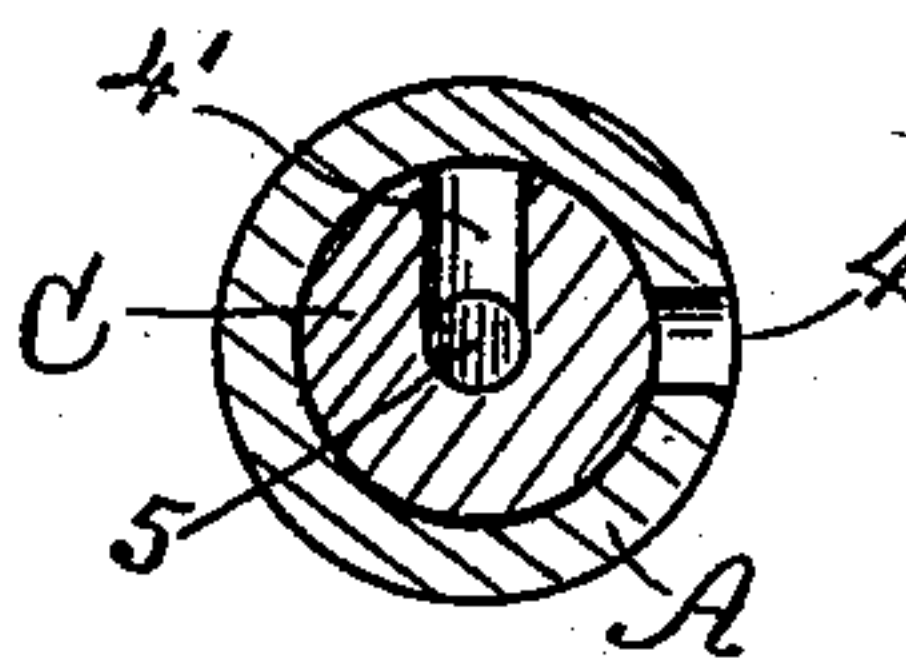


Fig. VI.



WITNESSES

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UNITED STATES PATENT OFFICE.

KARL KIEFER, OF CINCINNATI, OHIO.

FAUCET.

SPECIFICATION forming part of Letters Patent No. 487,866, dated December 13, 1892.

Application filed July 16, 1892. Serial No. 440,225. (No model.)

To all whom it may concern:

Be it known that I, KARL KIEFER, a citizen of Germany, residing at Cincinnati, in the county of Hamilton and State of Ohio, have
5 invented certain new and useful Improvements in Faucets; and I do hereby 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
10 make and use the same.

My invention relates to devices for drawing fluids from casks or other reservoirs, and has for its object the provision of means for filling bottles or other receptacles without employment of a funnel.

My invention consists in a faucet having attachments connected thereto that will indicate when the receiving-vessel is filled and in novel form and arrangement of air and liquid
20 tubes and ducts and in combinations thereof that regulate the passage of fluid through the faucet and comprise vents for escape of air displaced as the receiving-vessel is supplied, all as hereinafter fully described, illustrated
25 in the drawings, and specifically pointed out in the claims.

Referring to the accompanying drawings, wherein like letters and numerals of reference point out similar parts on each view, Figure 1
30 is a central vertical section of my improved bottle-filling faucet. Fig. 2 is a horizontal section on line *ww* of Fig. 1. Fig. 3 is a vertical section at right angles to Fig. 1, with the plug of faucet turned at an angle of ninety degrees
35 or in its closed position. Fig. 4 represents, on an enlarged scale, the development of the interior of the conical body of the faucet, illustrating the relative position of grooves on its inner surface and apertures. Fig. 5 is an under
40 side view of the faucet lever or handle. Fig. 6 is a horizontal section on line *xx* of Fig. 3.

A is the body of the faucet, which consists of a hollow cone the lower end of which is provided with internal screw-thread *a*. It has
45 two apertures 4 and 8 and on its inner surface recesses 10, 12, and 13, as displayed in Fig. 4. From said body and integral therewith there extends bent tube A', having screw-threaded
50 stem B for connection to the supply-tank L or reservoir from which the fluid is to be drawn. Said tube forms a passage-way for fluid into

and within opening 1 of plug C when brought into coincidence therewith, as illustrated in Fig. 1, and through which the fluid will pass
55 downwardly, as presently more particularly pointed out.

C is a conical plug outwardly conformed to be seated within the body A and freely turn therein. Said plug has aperture 11, and below which in vertical alignment therewith aperture 9 at about a right angle to said apertures 11 and 9, and in a line intermediate thereof is another aperture 4', which continuously connects with air-tube 5, and when said
60 aperture is brought to register with aperture 4 of body A air will escape outwardly from said tube through said coinciding apertures. (See Fig. 6 and dotted lines, Fig. 2.) At the opposite side of the plug, near its lower end,
65 is aperture 1, adapted when said plug is turned in the position shown in Fig. 1 to form a continuation of inner passage H of bent tube A', and thereby compose a continuous way for inflow of fluid from supply tank or cask L.
70 The upper end of plug C is provided with screw-threads to intermesh with threads on the circular extension I of operating-handle D.

The plug C is provided with independent upper and lower axial bores which do not communicate. Said bores are supplied with air and fluid tubes adapted to be brought in connection with the fluid-inlet openings and air-ducts shown in Fig. 4 by operation of the device, as hereinafter described.

F is an orificed screw-cap having an uprising inward flange which in practice is screwed into the lower end of the body A, as shown in Figs. 1 and 3. Within the orifice of said screw-cap is permanently adjusted a flaring
80 rubber cap G, having central opening to receive the upper end of the neck of a bottle M. The cap G from its upper periphery flares outwardly, so that it will fit over vessels of
85 divers diameters and by compression of said cap the connection will be hermetically closed, as will be readily understood. Said cap G is permanently held in position by having its upper edge overturned to form a peripheral
90 flange, which lies circumferentially upon the inner extension of screw-cap F. (See Figs. 1 and 3.)

Resting within cap F is a short spiral spring 18, upon which rests the lower end of plug

C. Permanently connected to plug C, and within its lower axial bore, is tube 2, the upper open end of which, when turned in position shown in Fig. 1, composes a passage-
 5 way for inflow of fluid from inlet H, as indicated by arrows, the upper end of said tube being turned in position to compose continuous way, in combination with aperture 1 of said plug C. Within tube 2 is air-tube 3,
 10 which extends below the lower end of tube 2. Said air-tube has lower section 6, which can be extended telescopically, (see dotted lines, Fig. 1,) in order to adapt the device to receiving vessels of divers dimensions and enable
 15 the filling thereof to a predetermined elevation. Said air-tube 3 extends vertically within the lower axial bore of plug C to about a median point of its length and its upper open end is adapted to be turned to communicate
 20 with recess 10 through opening 9 of said plug, whereby air from the vessel, as M, will be conducted upwardly in a direction and for a purpose presently pointed out.

5 is an air-vent tube which extends upwardly from the axis of plug C. It has an open-ended elbow 4'.

Within the upper threaded extension of plug C and surrounding the tube 5 is a concentric chamber 7, into and through which
 30 displaced air will flow when said plug is turned to form a continuous passage from the lower opening of tube 3, as plainly shown in Fig. 1. (Indicated by upwardly-pointing arrows.)

Into the upper end of circular extension I
 35 of handle D is inserted the open-ended neck of a glass globe E, which globe will turn with said handle. Within said globe extends the upper portion of air-tube 5. The lower open neck of the globe E communicates with circumferential chamber 7, surrounding tube 5,
 40 whereby when the handle is in position shown in Fig. 1 air will pass upward within the duct 6, thence through orifice 9 of plug C, and be transmitted along recess 10 into chamber 7,
 45 from whence it will flow into the glass globe.

The handle D cannot be turned completely around. Its rotation is arrested by pin 17, protruding from upper rim of the body A, which
 50 pin enters into slot 16 at lower end of head I of the handle, and, as will be readily understood, the movement of said head is limited by the respective opposite terminals of said slot.

K is a screw that secures head I of handle to upper end of plug C, whereby said plug,
 55 by movements of the handle, is reciprocatingly turned horizontally in either direction to the limit of slot 16 and the respective apertures and recesses moved to register with openings and ducts of other members of the
 60 device.

From the foregoing description, in connection with the drawings, the nature and object and the practical operation of my invention will be readily understood by all familiar
 65 with structures to which it is allied. Its operation may be thus described. The faucet, having its members in position as shown in

Fig. 3, is connected to a supply-tank L by insertion of its stem B within an eduction-orifice. Said stem is shown screw-threaded outwardly; but any suitable mode of connection
 70 may be employed without departing from the scope and purview of my invention. By reference to Fig. 3 it will be seen that the air and fluid ducts are not in conjunction with apertures and recesses of the body A. The open
 75 neck of a bottle M is then inserted within the elastic cap G, which is pressed down upon said neck to effect hermetical closure. Before this adjustment section 6 of air-tube 3 is
 80 moved telescopically to a point that will govern the rise of fluid within said bottle to a predetermined elevation. The handle D is then turned horizontally, which will have the effect of bringing the branch aperture 1 of
 85 plug C into alignment with tubular opening H of branch A', whereby fluid from supply-tank L will uninterruptedly flow through said opening H, aperture 1, downwardly within
 90 tube 2 into receiving-vessel M. At the same time displaced air will rise within tube 6 and pass through recess 10 into chamber 7, and from thence will commence to fill glass globe E. As the pressure of air increases it will be
 95 discharged from globe E downwardly and pass along its elbow outwardly through orifice 4 of body A. When the liquid reaches up to the lower opening of section 6, which is practically a prolongation of air-duct 3,
 100 there will be a gradual uprising of fluid within tube 3 and therefrom to and within globe E, which will at once give visible notice that the receiving-vessel is full. At the same time the inflow of fluid will force the air from within
 105 the globe through tube 5, and it will all be forcibly discharged by pressure of inflowing fluid. The faucet is kept open or closed by turning handle D, its head I being screwed on top of plug C, which is kept in position by
 110 means of spring 18, the horizontal motion of said handle being limited by pin 17, which extends into slot 16, as before set forth. The small quantity of liquid within tube 2 below
 115 opening 1 and tube 3 will be discharged into the bottle M as it is removed. When the next bottle is ready to be filled, it is not immediately pressed tightly within the rubber cap, but held loosely therein to allow the liquor
 120 still in the glass ball to flow into the bottle and the displaced air will have free egress through the neck of the bottle. As soon as the liquor has disappeared from the glass ball, the bottle's neck is pressed within the rubber cap, as previously set forth. The globe E can,
 125 however, be removed by unscrewing its threaded neck from the head I and its contents disposed of as may be desired.

Having thus fully described my invention and the manner of its operation, what I claim, and desire to secure by Letters Patent of the
 130 United States of America, is—

1. A faucet for filling bottles, consisting of conical plug C, body A, into which said plug is seated, tubular extension A', integral with

body A, having terminal stem B, adapted to be connected to eduction-opening of supply-tank, said plug having within its upper axial bore air-duct 5, with lower open-ended elbow, and lower liquid-tube 2, within which is air-tube 3, provided with terminal movable extension 6, in combination with glass globe E, into which liquid will flow when the receiving-vessel is filled to a predetermined elevation, as and for the purpose intended, substantially as described.

2. A device for filling bottles or like receptacles, consisting of a faucet composed of an interior conical plug C, upper and lower non-communicating vertical tubes 5, 2, and 3, the plug having diametrical apertures 11 and 9 in vertical alignment, aperture 4', and opposite aperture 1, said plug being seated within body A, provided with apertures 4 and 8, and upon its inner surface recesses 10, 12, and 13, said openings and recesses adapted to register with openings of the plug when rotated therein, the upper end of the plug having circular open-ended chamber 7, surrounding lower section of duct 5, glass globe E, whereby through said recesses, as a connected receiving vessel is being filled, the displaced air will pass through said ducts and openings brought into coincidence into and within said glass globe E, attached to the upper end of the faucet, and when said vessel is supplied to a predetermined elevation the condition of the supply will be visibly indicated by uprising of liquid within said globe, substantially as described.

3. In a faucet of the character described, operating-handle D, having apertured interiorly-threaded circular extension I, and globe E, its open-ended threaded neck inserted within extension I, the lower edge of said extension provided with semispherical groove 16, in combination with pin 17, extending from upper edge of body A, whereby reciprocal movement of the handle and connected globe

will be limited by opposite terminals of said groove, substantially as described.

4. In a faucet of the character described, a body A, its lower end provided with inner thread, open-flanged cap F, and elastic downwardly-flaring cap G, the upper end of which is overturned on inward peripheral flange of cap F, all in combination with spiral spring 18, substantially as described.

5. In a device for filling bottles and similar receptacles, an outward body A, conical plug C, seated therein, upward vertical air-duct 5, with lower connected elbow and downwardly-extending vertical liquid pipe 2, interior air-duct 3, provided with terminal telescopically-movable section 6, said plug and body provided, respectively, with openings and recesses arranged to register, whereby the flow of liquid and air will be provided with continuous passage-ways by partial revolution of said plug within the surrounding body, and downwardly-flaring open-ended cap G, attached to screw-cap F, having spiral spring 18, upon which bears base of plug C, all in combination with glass globe E, adjusted at upper end of said plug and screwed into circular extension I of handle D, as and for the purpose intended, substantially as described.

6. In a faucet of the character described, an air-vent tube having lower vertically-extending section 6, adapted to be moved telescopically thereon, whereby said tube can be lengthened or shortened and liquid flowing into receiving-vessel will be gaged to desired elevation, as and for the purpose intended, substantially as described.

In testimony that I claim the invention above set forth, I affix my signature in presence of two witnesses.

KARL KIEFER.

Witnesses:

M. W. B. MAY,
F. S. HASTINGS.