G. WEGMAN.

FAUCET FOR DRAWING LIQUIDS.

APPLICATION FILED JAN. 21, 1909.

957,524. Patented May 10, 1910.

Fig. 1.

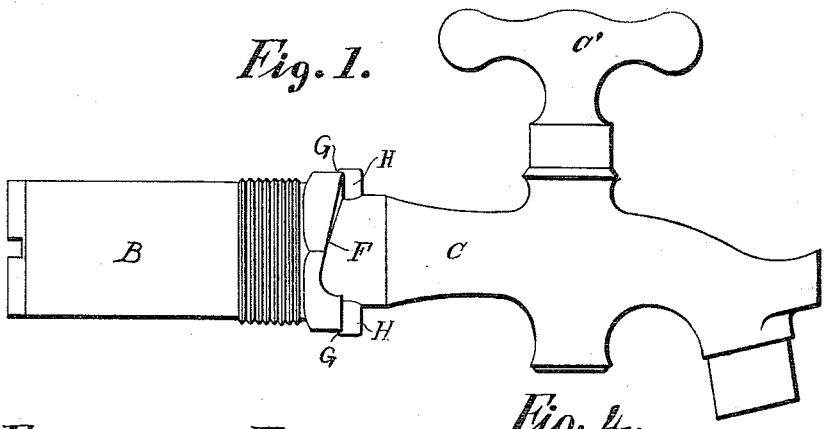


Fig. 2.

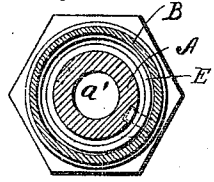


Fig. 3.

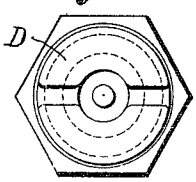


Fig. 4.

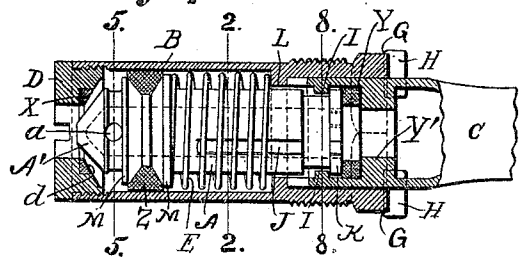


Fig. 5.

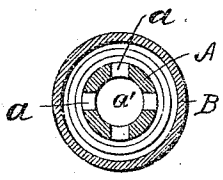


Fig. 6.

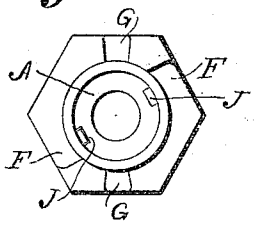


Fig. 7.

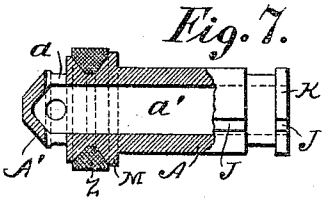


Fig. 8.

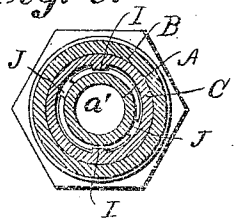
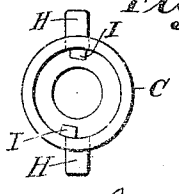


Fig. 9.



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UNITED STATES PATENT OFFICE.

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FAUCET FOR DRAWING LIQUIDS.

957,524. Specification of Letters Patent. Patented May 10, 1910.

Application filed January 21, 1909. Serial No. 473,559.

To all whom it may concern:

Be it known that I, GEORGE WEGMAN, a citizen of the United States, residing at the city of Beaver Dam, in the county of Dodge and State of Wisconsin, have invented a new and useful Faucet for Drawing Liquids, of which the following is a specification.

My invention relates to improvements in faucets.

The object of my invention is to provide a faucet composed of two separable members, each inoperative without the other, one of which is permanently attached and connected with the source of liquid supply, and adapted to prevent the withdrawal of liquid except when the other member is in position for use, and said other member being removable and adapted, when in position of use, to permit the withdrawal of liquid in the ordinary manner. This object is accomplished by providing the permanent member with an automatically closing valve, which cannot be opened except by a special tool or appliance, and the detachable member is so formed as to constitute such an appliance, and so arranged, that when the second member is adjusted to a position for use, the automatically closing valve will be opened. The detachable member is provided with an ordinary manually operated valve, by means of which the flow of liquid may be controlled, when the other valve is in open position.

In the following description, reference is had to the accompanying drawings, in which—

Figure 1 is a side view of my improved faucet with the parts assembled in position for use. Fig. 2 is a cross sectional view, drawn on line 2—2 of Fig. 4. Fig. 3 is a view of the permanently attached member as seen from its inner end. Fig. 4 is a vertical, longitudinal sectional view of the permanently attached member, showing the automatically acting valve and its actuating spring and plunger rod in full. Fig. 5 is a cross sectional view drawn on line 5—5 of Fig. 4. Fig. 6 is a view of the permanently attached member as seen from the outer end. Fig. 7 is a detail view of the valve member, part in axial section. Fig. 8 is a cross sectional view on line 8—8 of Fig. 4. Fig. 9 is a view of the detachable member as seen from its inner end.

Like parts are identified by the same reference characters throughout the several views.

Referring to Figs. 4 and 7, it will be observed that a cylindrical casing B incloses a tubular valve stem A, which is provided with a valve A′ normally seated at *d* against a tubular nut D, which is screwed into the end of the cylinder B and serves as a valve seat. This valve A′ is normally seated, against the pressure of the liquid, by compression spring E interposed between the shouldered portion L on the interior surface of cylinder B and the flange portion M on the stem A. There are two of these flanges M and packing ring Z is fitted between them and bears against the interior surface of the casing B. The valve stem A is provided with apertures *a* between the valve A′ and the flanges M, which apertures communicate with the interior cavity *a′* of the stem. The outer end of the stem is reduced in size and provided with a terminal flange K, having notches J for a purpose hereinafter explained. The outer end of the casing B is provided with a nut shaped end portion having cam recesses F and notches G of less depth than the recesses and located between the recesses.

The detachable member C of my improved device is provided with an ordinary valve to be operated manually by a handle C′. The inner end of this member is cylindrical in form and adapted to enter the outer end of the casing B. It is provided with interiorly projecting lugs I, which are adapted to pass through the notches J and engage the interior surface of the flange K. The member C is also provided with a packing ring Y interposed between an interior annular flange Y′ and the projections I and adapted to bear against the outer surface of the flange K, when the projections I are in a position of engagement against the inner surface of such flange. The member C is also provided with outwardly extending arms H, which are adapted, in one position of adjustment, to enter the notches G, in which position, if the member C is right side up and in engagement with the flange K on the outer end of the member A, the valve A′ will be held in a retracted position, as shown in Fig. 4, thus permitting liquid to flow through the central port in the valve seat D past the

valve A′ and through an aperture *a* to the interior of the valve stem, and through the valve stem into the spout or member C, through which its delivery is regulated by the manually controlled valve and valve handle C′. The cam recesses F are of sufficient depth so that when the arms H are in registry with these recesses, the member C may be inserted sufficiently to permit the lugs I to pass through the notches J in the flange K, when the valve is seated at *d*. By then rotating the member C, these lugs will move along the inner surface of the flange K, and at the same time, the arms H will travel outwardly and annularly along the inclined surfaces of the cam recesses F, which force the member C outwardly and retract the valve A′ from its seat. The notches G are of sufficient depth to permit the arms H to enter and lock the member C in its proper position of adjustment without permitting sufficient inward movement to allow the valve A′ to come to its seat. The notches J are also preferably so located as to receive the lugs I in only one position of adjustment, and in such a position that the member C will require approximately but one-quarter of a turn to the right after it has been inserted, in order to bring it to its proper position with the handle C′ extending upwardly. In order to prevent the insertion of the member C to valve unlocking position from any other position than that above described, the notches J are provided at points which are not diametrically opposite each other, (see Figs. 6 and 9), and the lugs I are similarly positioned. This makes it necessary to insert the member C in a position where only a one-quarter turn is required to bring it to the correct position.

With the above described construction, it is obvious that the member C, which constitutes the spout portion of the faucet, may be removed after using the same, whereupon no liquid can be drawn through the member B until the spout member C is returned to its position, or some other valve unlocking key employed, having means for engaging the flange K and retracting the valve A′ from its seat.

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

1. A faucet consisting of the combination of two separable tubular members, one of said members being provided with a spring actuated valve seating against the pressure and the other of said members being arranged, in one position of adjustment, to engage and actuate said valve to open position, said members, when so engaged, being adapted to afford a liquid tight passage from one member into the other.

2. A faucet comprising a set of separable tubular members, one provided with a manually actuated valve, a spring actuated valve located in the other member and provided with a flanged stem, and a flange engaging projection on the first mentioned member adapted to retract the valve stem and valve in one position of adjustment said spring actuated valve being arranged to seat against the pressure of a fluid tending to flow through the faucet, and having a spring of sufficient tension to normally hold the valve to its seat against such tension except when the other member is in position of use.

3. A faucet comprising a cylindrical casing having an interior spring actuated valve seating against the pressure and provided with a flanged stem, a spout member having an extremity adapted to enter the casing in coupling relation to said flange, said spout member having exterior projections and said casing having cam recesses, adapted to receive the projections and permit the spout member to assume a coupling relation with the valve stem, and said spout member being also rotatable in coupling position, whereby said projections, in passing out of the cam recesses, will retract the valve by drawing the same from its seat in the direction of the spout member.

4. A faucet comprising a cylindrical casing having a valve seat, a spring actuated valve in the casing, having a tubular stem and a terminal notched flange, said casing having its extremity provided with cam recesses and notches, a spout member adapted to enter the casing and to receive the valve stem flange, interior projections on said spout member adapted to pass through the flange notches into coupling engagement with the flange, and projections on the exterior surface of the spout member, adapted to enter the cam recesses when the interior projections are in registry with the flange notches; said tubular valve stem having apertures therein at an intermediate point.

5. A faucet comprising a cylindrical casing having a valve seat, a spring actuated valve in the casing, having a tubular stem and a terminal notched flange, said casing having its extremity provided with cam recesses and notches, a spout member adapted to enter the casing and to receive the valve stem flange, interior projections on said spout member adapted to pass through the flange notches into coupling engagement with the flange, and projections on the exterior surface of the spout member adapted to enter the cam recesses when the interior projections are in registry with the flange notches, said tubular valve stem having apertures therein at an intermediate point, said spout member having an interior flange and a packing ring adapted to be interposed between such flange and the valve stem flange.

6. A faucet comprising a cylindrical cas-

ing having a valve seat, a spring actuated valve in the casing, having a tubular stem and a terminal notched flange, said casing having its extremity provided with cam recesses and notches, a spout member adapted to enter the casing and to receive the valve stem flange, interior projections on said spout member adapted to pass through the flange notches into coupling engagement with the flange, and projections on the exterior surface of the spout member adapted to enter the cam recesses when the interior projections are in registry with the flange notches, said tubular valve stem having apertures therein at an intermediate point, said valve stem being provided with a packing ring between said apertures and said terminal flange.

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