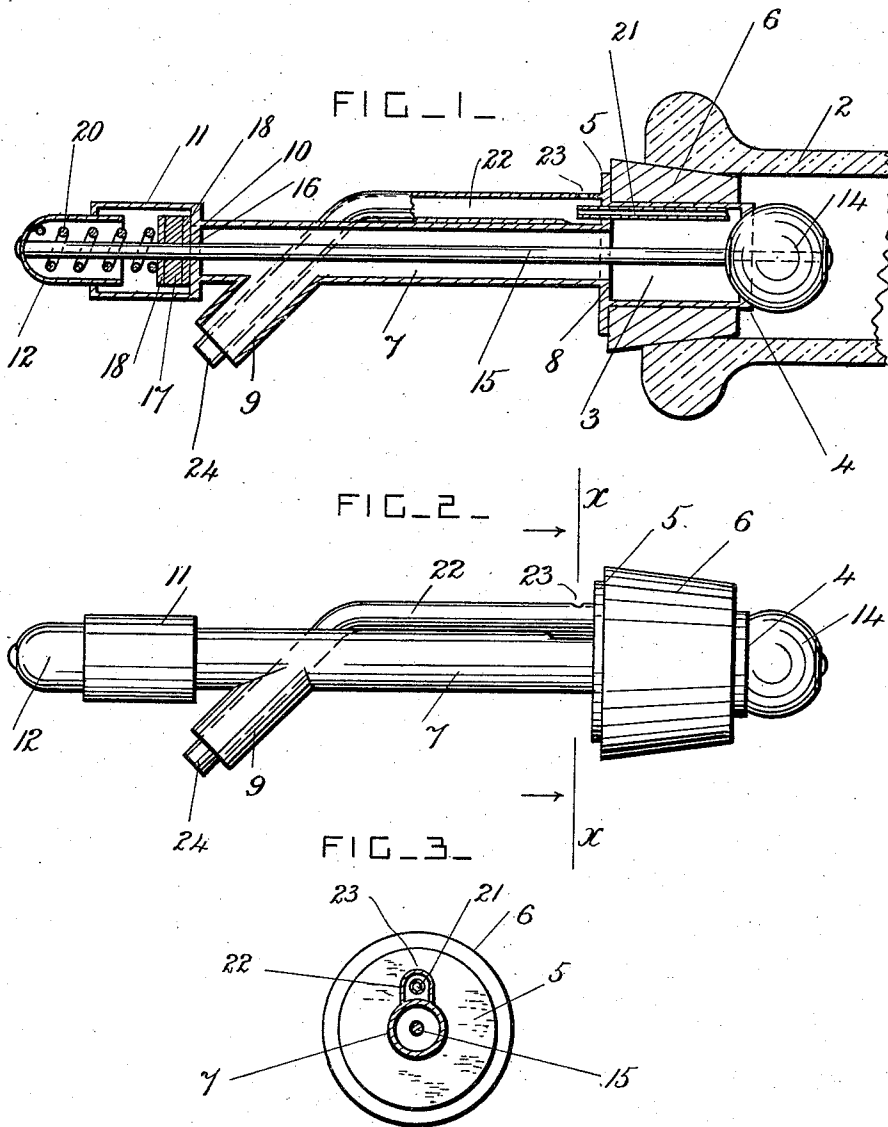


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SPIGOT.
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SPIGOT.

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To all whom it may concern:

Be it known that I, RUSSELL BONNELL, a citizen of the United States, residing at Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Spigots; 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 make and use the same.

This invention relates to spigots for regulating the flow of liquid from closed receptacles, such as large bottles; and it consists in providing means for admitting air to the receptacle to permit the liquid to flow freely therefrom, as hereinafter fully described and claimed.

In the drawings, Figure 1 is a longitudinal section through a spigot constructed according to this invention. Fig. 2 is a side view of the spigot. Fig. 3 is a cross-section, taken on the line $x-x$ in Fig. 2.

The bottle, or other vessel, has a neck 2, and is supported in a suitable position to let the water flow from it. The spigot shown is proportioned to regulate the flow from a five gallon water-bottle, and its proportions are varied in carrying out this invention to adapt it to water-bottles of various size. This spigot is specially adapted for use in connection with water-bottles which are supported in cooling chambers or boxes with their necks protruding therefrom, so that the water may be drawn from the same bottle in which it was shipped from the spring.

The spigot is provided with an outlet chamber 3 which is preferably of cylindrical form. This outlet chamber has a valve seat 4 at one end, and a flange 5 at its other end. A supporting and packing plug 6 of cork or india rubber is secured around the outlet chamber, against its flange, and is adapted to fit tightly in the neck of the bottle.

A water outlet pipe 7 projects centrally from the end plate 8 of the chamber 3, and is of much smaller area than the said chamber, so that the flow of water is materially less in velocity in the chamber 3 than in the outlet pipe 7.

An outlet nozzle 9 is provided on the underside of the outlet pipe 7 for delivering the water into a drinking vessel held beneath it.

The outer end of the outlet pipe 7 is closed

by a plate 10, and a spring chamber 11 is secured to it. A push-button 12 is provided and is arranged to slide in the outer end portion of the spring chamber.

A valve 14 is provided for normally closing the passage through the valve seat 4 into the outlet chamber. This valve is preferably a ball of india rubber, but any other approved form of valve may be provided. This valve is secured to a valve-stem 15 which is slidable in a guide hole 16 in the plate 10, and its outer end is secured to the outer end of the push-button.

Packing 17 of soft material is arranged between washers 18, and is placed in the spring chamber against the plate 10. The valve-stem is slidable in this packing, and water is thereby prevented from leaking out around the push-button.

A spring 20 is arranged in the spring chamber and the hollow push-button, between the outer end of the push-button and the outer packing washer, and this spring normally holds the valve against its seat.

An air pipe or vent pipe 21 is secured against the upper side of the outlet chamber 3, and its outer end projects through a hole in the end plate 8 above the level of the outlet pipe 7.

The other end of the air pipe is arranged near the said valve seat. An overflow pipe 22 is provided and is secured to the end plate 8 over the projecting end portion of the air pipe 21, and this pipe 22 has an air inlet hole or vent hole 23 in its upper side, above the outer end of the air pipe.

The overflow pipe 22 extends longitudinally along the outlet pipe 7, and it is preferably soldered to the outlet pipe, and it is provided with an inclined outlet nozzle 24 which is curved to fit around the outlet pipe and arranged against one side of the outlet nozzle 9.

The water is let out of the bottle by pressing the push-button. When the valve is opened slightly the water flows into the outlet chamber and passes out by the pipe 7, being checked in its flow through the outlet chamber by the end plate 8. The air enters through the air hole and air pipe, and passes into the vessel on the upper side of the valve to take the place of the water.

Any water which may flow occasionally through the air pipe, passes down the overflow pipe and is discharged with the water from the outlet pipe.

What I claim is:

1. In a spigot, the combination, with an outlet chamber having a valve seat at one end and a plate at the other end, and an outlet pipe projecting outwardly from the said plate longitudinally of the chamber; of an
5 inlet pipe in said chamber projecting through the said plate and arranged longitudinally of the chamber and to one side of the outlet pipe, and a valve normally closing the valve seat and provided with an operating stem which projects longitudinally
10 through the outlet pipe.

2. In a spigot, the combination, with a supporting plug provided with an outlet chamber having a valve seat at one end and a retarding plate at the other end, and an outlet pipe projecting from the said plate and provided with a discharge nozzle; of
15 an inlet pipe for air secured in the said chamber and projecting through the said plate and arranged adjacent to the outlet pipe, a single valve normally closing the passage through the said valve seat, and an
20 overflow pipe provided with an air inlet hole and in communication with the outer end of the said air inlet pipe and provided with an outlet nozzle.

3. In a spigot, the combination, with a supporting plug provided with an outlet chamber and an outlet pipe for liquid, of
25 a spring chamber secured to the free end portion of the said outlet pipe, an inlet pipe

for air secured in the said chamber above the level of the said outlet pipe, a single
35 valve controlling the outlet and inlet and provided with a stem which is guided in the spring chamber, a push-button on the end of the said stem, and a spring for closing the valve arranged in the spring chamber be-
40 hind the push-button.

4. In a spigot, the combination, with a supporting plug provided with an outlet chamber and an outlet pipe for liquid, of a
45 spring chamber secured to the free end portion of the said outlet pipe, an inlet pipe for air secured in the said chamber above the level of the said outlet pipe, a single valve controlling the outlet and inlet and provided with a stem which is guided in the
50 spring chamber, a hollow push-button carried by the said spring chamber and having its outer end secured to the said stem, packing devices around the said stem at the inner end of the spring chamber, and a spring
55 encircling the said stem and arranged between the outer end of the push-button and the said packing devices and operating to close the said valve.

In testimony whereof I have affixed my
60 signature in the presence of two witnesses.

RUSSELL BONNELL.

Witnesses:

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