

(No Model.)

A. H. DAUCHY.
VALVE AND FAUCET.

No. 485,828.

Patented Nov. 8, 1892.

Fig. 1.

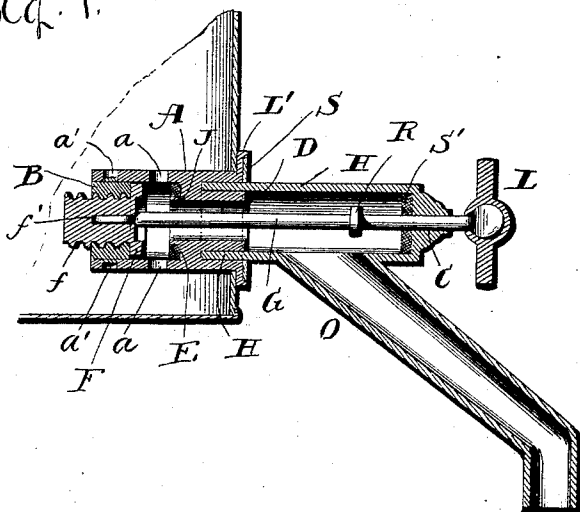


Fig. 2.

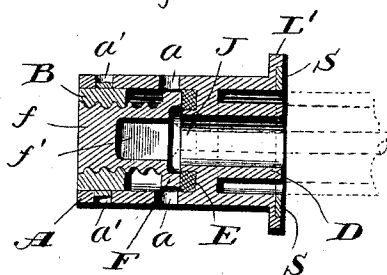
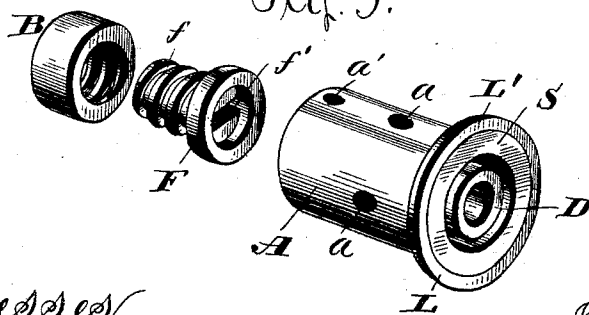


Fig. 5.



Witnesses
 G. Williamson.
 P. J. Rogers.

Inventor
Arthur W. Danchy,
by Franklin J. Hong
his attorney.

UNITED STATES PATENT OFFICE.

ARTHUR HOMER DAUCHY, OF SAN DIEGO, CALIFORNIA.

VALVE AND FAUCET.

SPECIFICATION forming part of Letters Patent No. 485,828, dated November 8, 1892.

Application filed January 19, 1892. Serial No. 418,577. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR HOMER DAUCHY, a citizen of the United States, residing at the city of San Diego, in the county of San Diego and State of California, have invented certain new and useful Improvements in Valves and 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 certain new and useful improvements in nozzles and vents of that class which comprise a valve-stopper and a nozzle removably fitted to the valve-stopper; and provided with a key by means of which the valve in the stopper may be unseated when it is required to draw the liquid contents from the vessel to which the stopper is fitted and securely seated to prevent any wastage during storage or transportation.

The prime object of the invention is to dispense with all springs and provide a positive means for seating and unseating the valve, thereby insuring a movement of the same at the required time in each direction.

A further object of the invention is to reduce the cost of manufacture to a minimum and simplify the structure as much as possible consistent with efficiency and durability in the practical operation of the invention.

The improvement consists of the novel construction and in the combination of parts which will be more fully hereinafter described and claimed, and which are shown in the annexed drawings, in which—

Figure 1 is a detail longitudinal section of the valve-stopper and the nozzle in co-operative relation and showing them applied to a can, the lower corner portion of the latter being shown only. Fig. 2 is a sectional detail of the valve-stopper, the valve being seated and the nozzle removed. Fig. 3 is a detail view of the several parts comprising the valve-stopper, showing them separated and arranged in their relative positions.

For economy of construction and to dispense with soldering and to afford greater strength to all parts the valve-cylinder A, the

nozzle-supporting tube D, the valve-seat E, the nipple or tubular extension J, and the outer flange L are formed in a metal mold or matrix in such a manner as to be complete in one piece. The valve-cylinder is provided with a series of openings *a* in its sides midway of its ends and the holes *a'* near the inner end. The flange L at its exposed end is provided with a thin circular plate of hard metal S, having a central opening for the passage of the nozzle H. This is placed in the mold, and when the soft metal of which the valve-cylinder is composed is poured in the mold it forms around the plate S and secures it in the flange L.

The nipple or tubular extension J on the valve-seat E receives the compression-washer, which is supported against the pressure of the valve by the valve-seat E.

The valve F is formed in a metal mold or matrix, and the threaded stem *f* screws into the threaded nut B. The opening *f'* in the front wall of the valve extends back into the threaded stem *f*, to receive the inner end of the key G in the nozzle H when operating the key to open and close the valve. The nut B is formed in a metallic mold or matrix to fit the opening in the inner end of the valve-cylinder, and is internally threaded to receive the threaded valve-stem *f*. It is secured in the valve-cylinder by means of solder placed in the holes *a'*. The spout O is formed in the metal mold or matrix and a metal core forms the opening for the passage of the fluid. It is provided with a downward turn or projection at its outer end to conduct the fluid directly into the lamp or other vessel when drawing from the vessel. The nozzle is formed in a metal mold or matrix with a metal core to form the opening for the passage of the liquid and the key G, and is provided with a leather washer S' in its outer end, through which the key G passes tightly to prevent any liquid from passing out around the key. Before pouring the metal in the nozzle-mold the upper end of the spout O is placed through an opening in the side of the mold, the end of the spout being shaped to fit close about the metal core, and when the mold is closed it fits closely around the spout and holds it in position in the mold. To join the nozzle to it, the end of the spout being in the nozzle-mold,

the thickness of the metal in the nozzle and its end fitting closely about the metal core prevents the metal running into the opening in the spout when pouring the mold and causes it to form around the end of the spout and attach the nozzle to it.

The key G is adapted to slide in the nozzle H and its inner end is flattened to fit the opening f' in the front wall of the valve F, and is provided with a stop R in the nozzle H to limit its outer movement and prevent it from becoming disengaged from the valve when in operation. The inner end of the key is flattened, and the stop R soldered on the key-wire in its proper position. The outer end of the key is then placed in the nozzle by passing it from the valve end through the leather washer S' and opening C in the front end of the nozzle. The outer end of the key is then flattened and placed in an opening in the center and at the side of the mold which forms the key-head L. The metal is then poured in the mold and forms the key-head, securely attached to the end of the key-wire.

The valve-stopper is applied to a can or vessel by making a round hole the diameter of the valve-cylinder in the can or vessel at the desired point. Then place the valve-cylinder in the vessel through said hole and pass a soldering-iron around the outer edge of the hard-metal plate S, a sufficient amount of the soft metal which forms the flange L being around the outer edge of the hard-metal plate S to form a solder to secure the valve-stopper in the can or vessel, the hard-metal plate S serving as a guide for the soldering-iron and preventing it from melting the soft metal inward beyond the outer edge of the hard-metal plate S.

To draw the liquid contents from a can or vessel to which the valve-stopper is applied, the nozzle is fitted on the support D and the key is engaged with the valve, at the same time its inner end entering the opening f' in the front wall of the valve when the nozzle is applied to the support. On turning the key in the proper direction the valve will be unseated and the liquid passing through the openings a will escape by way of the nozzle-support D, the nozzle H, and spout O into the vessel placed for its reception. After a sufficient quantity of the liquid has been drawn the key is turned in the reverse direction to seat the valve and shut off the flow. The

nozzle may be removed and the vessel set aside or transported, or the nozzle may be left in position for further use.

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

1. In a valve-stopper, the combination, with the valve-cylinder having holes a and openings a' , and a nut which is provided with a threaded opening, and a valve having a threaded stem which is adapted to screw into the said threaded opening, of a nozzle removably fitted to the said valve-stopper and having a key which is adapted to be engaged with the said valve to open and close the same, and the solder in the said holes a' for holding the cylinder to the nut, substantially as described, and for the purposes specified.

2. The combination, with the valve-cylinder having openings a' and holes a , and a valve-seat, and a valve having a mutual screw-thread connection with the said cylinder, of a nozzle removably fitted to the said valve-cylinder and having a key which is adapted to be engaged with the said valve to seat and unseat the same, and the solder in the said holes a' for holding the cylinder to the nut, substantially as shown and described.

3. The combination, with a soft-metal cylinder having a tube and flange at one end, of a nozzle held around said tube, and a hard-metal plate surrounding said nozzle and held within said flange, substantially as shown, and for the purpose specified.

4. A valve-stopper comprising a valve-cylinder having openings a in its sides between its ends and flange at one end, the nozzle-support D, the valve-seat E, having the nipple or tubular extension J, the hard-metal plate in the said flange, the nut B, having a central threaded opening, the valve having a threaded stem which enters the opening in the nut B and having the opening in its front wall, the nozzle removably fitted on the support D and surrounded by said hard-metal plate, and the key G, substantially as described, and for the purpose set forth.

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

ARTHUR HOMER DAUCHY.

Witnesses:

F. B. WALKER,
GEO. W. POWELL.