C. S. WEITZ.

BOTTLE FILLING VALVE.

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1,393,864.

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Fig. 1

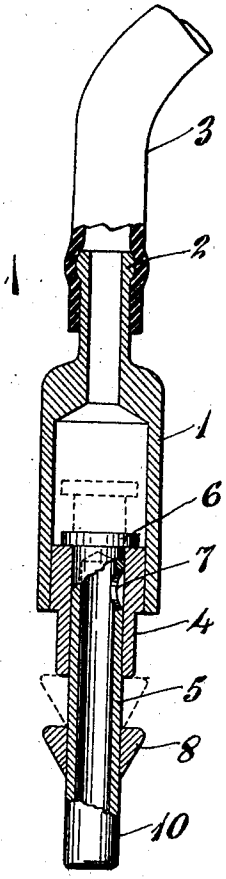
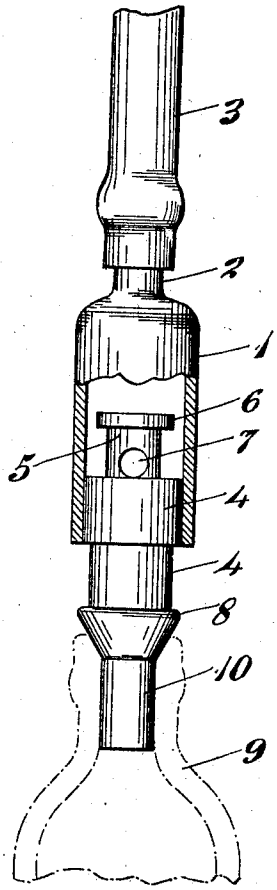


Fig. 2



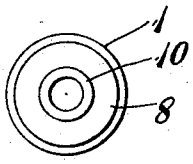


Fig. 3

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BOTTLE-FILLING VALVE.

1,393,864. Specification of Letters Patent. Patented Oct. 18, 1921.

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To all whom it may concern:

Be it known that I, CARL S. WEITZ, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented a certain new and useful Bottle-Filling Valve, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to a bottle filling valve, and has reference particularly to the provision of simple and efficient mechanism for the filling of bottles with liquids.

In the filling of bottles by hand it is customary to siphon the liquid from the vessel in which it is contained by means of a flexible hose, the free end of the hose being inserted into the mouths of the respective bottles during the process. When the hose is withdrawn from a bottle it is compressed so as to shut off the flow of liquid until another bottle has been supplied. This process results in the waste of a large quantity of the liquid by reason of the inefficiency of the method for stopping the flow from the hose. The principal object of the present invention is to provide efficient and automatically operating valve mechanism for stopping the flow of liquid while removing the hose from one bottle to another.

A further object of the invention is to provide in connection with valve mechanism for cutting off the flow of liquid a suitable bottle filling spout or nozzle.

Other objects will appear from the following detailed description of my invention.

In the drawings:

Figure 1 is a central longitudinal section of my invention;

Fig. 2 is an elevation of the invention, partly in section, illustrating its use.

Fig. 3 is a bottom view of the device.

The numeral 1 indicates a cylindrical body or casing made of brass or other suitable metal. The body 1 is open at its upper end and is provided with a nipple or hose connection 2 for the attachment of a hose 3.

Tightly fitted in the lower end of the casing 1 is a sleeve 4. Slidably mounted in the sleeve 4 is a tubular valve plunger 5, provided on its upper end with a disk or valve 6 arranged to seat on the upper end of the sleeve 4. Below the valve 6 the plunger 5 is provided with an inlet opening 7, which is above the sleeve 4 when the plunger is in raised position as shown in Fig. 2, but which is inside the sleeve when the valve 6 is seated. Below the sleeve 4 the plunger is provided with a collar 8, the side of which is beveled downwardly so as to rest in the mouth of a bottle 9 as illustrated in Fig. 2. The upper surface is flat and provides a stop for the plunger against the lower end of sleeve 4 when the device is in use and the valve open. Below the collar 8 the plunger forms a spout 10 which extends into the neck of the bottle.

From the foregoing description the nature and value of my invention will be apparent to those skilled in the art to which the same appertains. For the purpose of filling bottles, the spout 10 is inserted in the neck of a bottle, the collar 8 resting in the mouth thereof. The weight of the casing 1 causes the lower end of the sleeve 4 to rest on the collar 8; the opening 7 in the plunger being thus set above the sleeve 4, liquid siphoned through the hose 3 passes through the valve into the bottle 9. When the bottle is filled, the operator lifts the casing 1, during which the valve 6 seats upon the upper end of the sleeve 4, after which the spout 10 is removed from the bottle, the flow of the liquid being stopped by the closure of the valve. It will thus be seen that I have provided an automatic construction, whereby the objects herein set forth are fully attained.

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

1. A bottle filling valve comprising a casing, a nipple for the attachment of a hose on the upper end of said casing, a sleeve in the lower end of said casing, the upper end of said sleeve forming a seat for a valve, and a tubular valve plunger slidably mounted in said sleeve, said plunger being provided with a valve on its upper end arranged to seat on said valve seat, an opening below said valve and a spout on its lower end and means on said plunger arranged to rest in the mouth of the bottle and to support the device with the valve open.

2. A bottle filling valve comprising a casing, a nipple for the attachment of a hose on the upper end of said casing, a sleeve in the lower end of said casing, the upper end of said sleeve forming a seat for a valve, a tubular valve plunger slidably mounted in said sleeve, said plunger being provided with a valve on its upper end arranged to seat on said valve seat, an opening below said valve, and a spout on its lower end and a collar on said plunger arranged to rest in the mouth of the bottle and to support the device with the valve open.

CARL S. WEITZ.