Dec. 25, 1923. 1,478,754

J. E. MOORE

DISPENSING DEVICE

Filed June 6, 1922

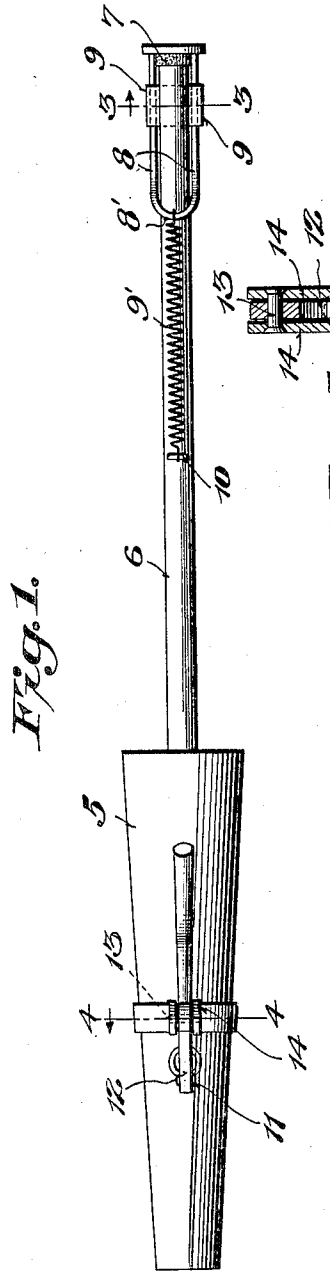


Fig. 1.

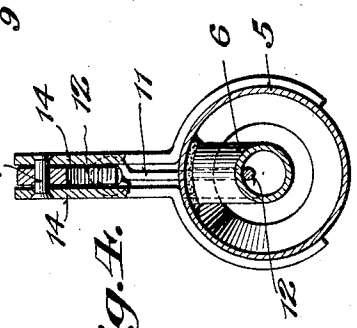


Fig. 4.

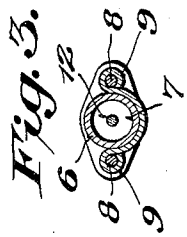


Fig. 3.

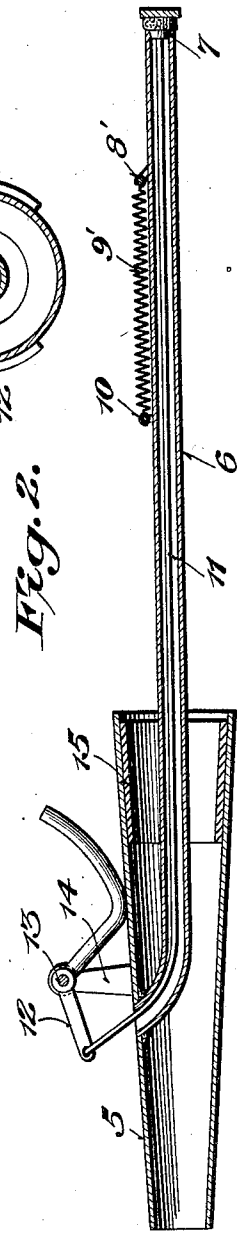


Fig. 2.

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WITNESS:-

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UNITED STATES PATENT OFFICE.

JAMES ERASTICE MOORE, OF CHANUTE, KANSAS.

DISPENSING DEVICE.

Application filed June 6, 1922. Serial No. 566,268.

To all whom it may concern:

Be it known that I, JAMES ERASTICE MOORE, a citizen of the United States, residing at Chanute, in the county of Neosho and State of Kansas, have invented certain new and useful Improvements in Dispensing Devices, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to means for admitting air to cans, bottles, carboys, and other containers during withdrawal or dispensing of liquid therefrom.

It is an object of the invention to provide a device for that purpose that will permit continuous flow of liquid from a container and thus avoid gurgling, spurting, or intermittent flow that odinarily occurs from unvented containers.

Another object of the invention is to provide such a device with a conveniently controlled valve for regulating admission of air to a dispensing container.

Still another purpose of the invention is to provide a unitary article that includes both a funnel for directing liquid from one container to another or into an oil-inlet or the like and venting means for the container from which the liquid is being withdrawn.

When considered in connection with the description herein, the characteristics of the invention will be apparent from the accompanying drawing, forming part hereof, wherein an embodiment of the invention is disclosed, for purposes of illustration.

Although the disclosures herein exemplify what now is considered to be a preferable embodiment of the invention, it is to be understood that it is not the intention to be limited necessarily thereto in interpretation of the claim, as modifications and adaptations within the limits of the claim can be made without departing from the nature and spirit of the invention.

Like reference-characters refer to corresponding parts in the views of the drawing, of which—

Fig. 1 is a front or top view;

Fig. 2 is a longitudinal section;

Fig. 3 is a section on the line 3—3, Fig. 1; and

Fig. 4 is a section on the line 4—4, Fig. 1.

Having more particular reference to the drawing, 5 designates a funnel of generally trunco-conical shape, one end portion of which is arranged to be inserted into the inlet-opening of a can, bottle, or other container, or into an oil-inlet of machinery, and the opposite or receiving end is larger and arranged to take or contact with the spout, neck, or mouth of a can, bottle, or other container from which liquid is to be dispensed.

A vent-tube 6 extends from outside of the funnel through the wall thereof, to which it is secured, and thence outwardly from the mouth of the funnel. The tube preferably is long enough to extend to, or nearly to, the bottom of the dispensing container with which it is to be used, in order that the tube, when the container is tilted or turned upside down, at its free or inner end will discharge air into the space then above the surface of the liquid in the container.

Emission of air from the tube is controlled by a valve 7 seatable against the inner or discharge end of the vent-tube. The valve is connected with, and in the embodiment shown is carried by, two members 8, one disposed on each side of the tube, and supported by and reciprocable in guides 9 attached to the tube. The members 8 are parts of a substantially U-shaped bridle member of wire or rod material, bent to afford a yoke-like end portion 8′. The valve is kept normally closed by a spring 9′ attached to the yoke portion of the bridle and to a member 10 secured to the tube.

A valve-control member 11, preferably of wire or rod material, is disposed inside of the vent-tube, and it is connected at one end to the valve and at the other end it extends outside of the tube and is connected pivotally to an end portion of an arm 12 swingably mounted intermediately of its ends on a pin 13 carried by standards or supports 14 secured to the wall of the funnel.

When the device is to be used, the tube is inserted into a container while in upright position, and the receiving end portion of the funnel is placed against the discharge orifice of the container or over the spout or neck thereof. Then the smaller discharge end portion of the funnel is placed against or into the inlet

through which contents of the container are to be discharged and the container tilted or turned upside down to permit flow into the funnel.

During the pouring operation, the lever-handle or arm 12 may be moved to open the valve and released to permit it to close under the influence of the spring 9, and thus admission of air to the dispensing-container and discharge of liquid therefrom are controlled. Upon completion of discharge of the desired amount of liquid from the container, the latter is restored to upright position.

In order to prevent liquid from overflowing from the funnel during the pouring operation and to prevent liquid adhering to the walls of the funnel from running down outside of the spout or neck of the container, the funnel inside of its receiving end portion is lined with comparatively soft sheet material 15, such as leather or rubber, in order that a reasonably tight seal may be had with the spout or neck when inserted in the funnel.

After the container is restored to upright position, the venting device may be withdrawn therefrom and the discharge-orifice closed, if it is necessary to close it; or the device may be left in the container ready for use during the next discharging operation.

In view of the fact that the valve is at the discharge end of the vent-tube, instant control of emission of air therefrom is had, and there is avoided such uncontrolled emission of air due to expansion as would occur with the valve at the entrance end of the tube.

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

A dispensing device comprising a member arranged to receive liquid from a container, a vent-tube attached thereto and extending from the mouth thereof and arranged to be inserted into a container, a valve associated with the inner portion of said tube arranged to control emission of air therefrom, guides on the inner portion of said tube, a bridle slidable in said guides and connected with said valve, a spring associated with said bridle arranged to keep said valve normally closed, an operating member mounted on said receiving member, and a member connecting said operating member with said valve.

In testimony whereof I affix my signature.

JAMES ERASTICE MOORE.