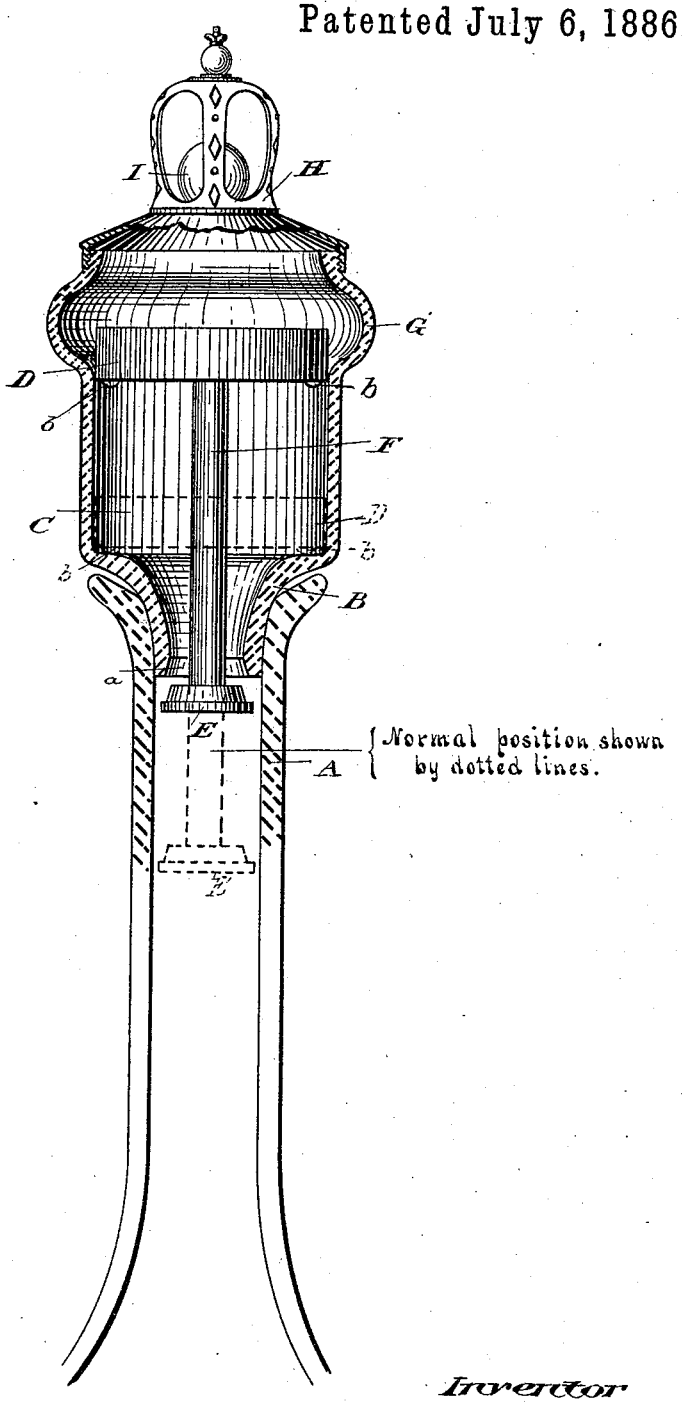
(No Model.)

J. CANAN.

BOTTLE.

No. 345,112. Patented July 6, 1886.



Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES CANAN, OF PORT COLBORNE, ONTARIO, CANADA.

BOTTLE.

SPECIFICATION forming part of Letters Patent No. 345,112, dated July 6, 1886.

Application filed March 15, 1886. Serial No. 195,201. (No model.)

To all whom it may concern:

Be it known that I, JAMES CANAN, of the village of Port Colborne, in the county of Welland, in the Province of Ontario, Canada, gentleman, have invented a certain new and useful Improvement in Bottles, of which the following is a specification.

The object of the invention is to provide a device which will prevent more than a given quantity of liquid being poured out without placing the bottle in a vertical position; and it consists, essentially, of a double-ended valve placed in the neck of a bottle, or in a case connected therewith, so placed that the space in the case or neck between the two ends of the valve shall represent a space capable of containing the desired quantity, which can only escape from the bottle when the upper end of the valve reaches an enlargement at the top of the case or neck, at which time the lower aperture in the case or neck is closed by the bottom end of the valve, so that while the liquid between the two ends of the valve escapes freely through the mouth of the bottle or case the main body of the liquid is cut off, substantially as hereinafter explained.

The drawing represents a sectional view, illustrating my invention applied to a case forming the stopper of an ordinary decanter. The bottle is represented as standing in its normal position; but the valve is shown in full lines in a position which it will assume when the bottle is turned horizontally, the position the valves assume when the bottle is in an upright position being represented by dotted lines.

In this application, A represents the neck of the bottle, and B the stopper, which forms the base of the case C.

D is a piston-shaped valve made to fit neatly the interior of the case C. E is a disk-shaped valve formed to fit and close the aperture in the bottom of the stopper B. These valves D and E are connected together by the stem F, and form what may be termed a "double-ended valve."

G is an enlargement formed at the top of the case C, and H is an ordinary ball-valve stopper placed on top of the case C.

When the bottle is turned upside down, the ball I will naturally fall from the aperture it closes, and the double-ended valve will fall out, the liquid being prevented escaping by the piston-valve D until the said valve reaches the enlargement G, by which time the valve E has reached the seat *a*, formed on the bottom of the stopper B, effectually cutting off the liquid in the bottle from the case C, the contents of which represent the quantity it is desired to measure out, and which is discharged through the aperture at the end of the stopper H as soon as the valve D reaches the enlargement G, as before stated. Before any more liquid can be withdrawn it is necessary to replace the bottle in its ordinary vertical position, when the weight of the double-ended valve causes it to fall back until the valve D strikes the bottom of the case C, where it remains ready for the next time that it is desired to pour out the liquid.

In order to prevent the double-ended valve being broken, I prefer to place around the face of the valve D a series of small rubber buttons, *b*, which receive the jar and prevent the breakage suggested. A rubber ring might be substituted for these rubber buttons; but I think the buttons will be preferable.

I prefer to make the whole of the device of glass, and I think it will be better to make an independent case such as I have shown; but of course it will be understood that I do not confine myself to any particular material, and it will also be seen that the neck of the bottle might be blown to effect the purpose desired.

What I claim as my invention is—

1. The combination, with a bottle provided with a case having valve-seats, of a double-ended stopper arranged to automatically close the inlet and open the outlet of said case upon a reversal of the bottle, substantially as and for the purpose specified.

2. A case, C, adapted to fit the neck of a bottle, having the seat *a* and an enlargement, G, formed in it, as shown, in combination with the valve D, fitting the said case, and valve E, substantially as and for the purpose specified.

3. A case, C, having an enlargement, G, formed in it and connected to the stopper B, fitting the neck A, and having a seat, *a*, formed on

its bottom, in combination with the valve D, connected by the stem F with the valve E, designed to fit the seat *a*, substantially as and for the purpose specified.

4. A case, C, having an enlargement, G, formed in it, in combination with a valve, D, having a series of rubber buttons, *b*, and a valve, E, connected to it, and designed to close the aperture in the bottom of the stopper B, substantially as and for the purpose specified.

Toronto, March 9, 1886.

JAMES CANAN.

In presence of—
CHARLES C. BALDWIN,
DONALD CAMPBELL RIDOUT, Jr.