(No Model.)

J. F. MARTIN.

BOTTLE STOPPER.

No. 539,696. Patented May 21, 1895.

Fig:1.

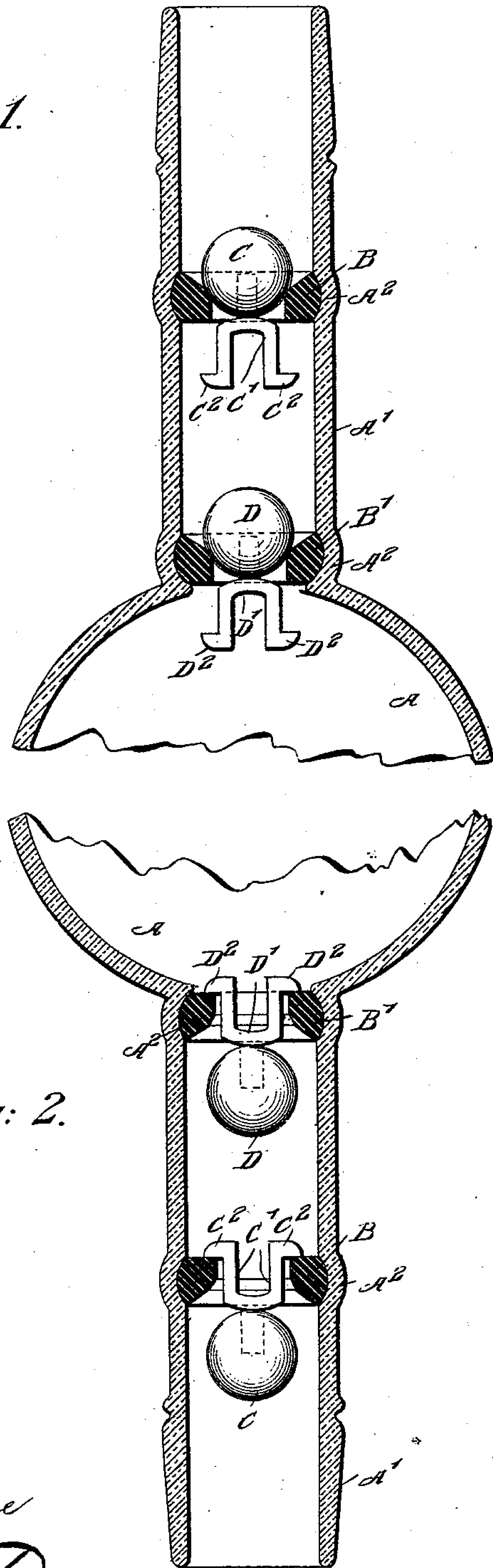

Fig: 2.

WITNESSES:
John A. Rennie
Theo. G. Hoster

INVENTOR
J. F. Martin
BY Munn & Co
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JAMES F. MARTIN, OF NEW YORK, N. Y.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 539,696, dated May 21, 1895.

Application filed September 20, 1894. Serial No. 523,613. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. MARTIN, of the city, county, and State of New York, have invented a new and Improved Bottle-Stopper, of which the following is a full, clear, and exact description.

The invention relates to bottle stoppers designed to prevent refilling of the bottle; and the object of the invention is to provide a new and improved bottle stopper which is comparatively simple and durable in construction, can be cheaply manufactured, and is arranged to permit of readily transferring the contents of the bottle into a glass or other receptacle, but which will prevent refilling the bottle with an inferior quality of the liquid it previously contained.

The invention consists of independent valves arranged in the neck of the bottle, each comprising a valve seat and bottle valve, and a valve stem extending from the valve to each valve seat to engage with its lower end the under side of the valve seat on unseating the valve by tilting the bottle.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a sectional side elevation of the improvement as applied, and Fig. 2 is a like view of the same in a tilted position.

The bottle A on which the stopper is applied is provided in its neck A′ with two or more valve seats B and B′ all located suitable distances apart, and fitted into annular recesses A^2 formed in the neck A′, to securely hold the said seat in position. The seats are preferably made of cork, but other material may be employed; also means may be used for securely fastening the seats in place in the neck A′ of the bottle.

The valve seat B is provided with a ball valve C, adapted to be seated on the beveled top surface of the said valve seat, and from this ball valve extends downwardly a valve stem C′ passing through the valve seat proper, and preferably formed with a fork; the members of which are provided on their outer ends with outwardly projecting lugs C^2, adapted to engage the under side of the valve seat B when the latter is tilted or placed in an upside down position, as will be understood by reference to Fig. 2.

On the valve seat B′ is arranged a similar ball valve D having a stem D′ made in the shape of a fork and extending through the opening in the valve seat B′, the outer ends of the forked members being provided with lugs D^2 extending outwardly to engage the under side of the valve seat B′ when the bottle is tilted.

Now, it will be seen that the ball valves C and D, readily seat themselves on their seats B and B′ respectively, whenever the bottle is in a normal position, as shown in Fig. 1, but when the bottle is tilted, then the valves C and D unseat themselves to permit of pouring the contents of the bottle into a glass or other receptacle. When the ball valves C and D fall off their seats, then the stems C′ and D′ move with their projections C^2 and D^2 respectively, against the under side of the seats B and B′ respectively, so as to prevent the ball valves from entirely disengaging the seats and to guide the ball valve back to their normal position. Then the bottle is again placed in a vertically normal position.

It is understood that by the shape of the valve stems the movement of the ball valves is limited when the bottle is tilted, and at the same time sufficient space is left in the opening of the valve seats to permit the liquid to flow from the body of the bottle through the said opening, and the neck of the bottle to the glass or other receptacle. It will further be seen that by the construction described, unauthorized persons cannot refill the bottle with inferior, spurious quality of the liquid previously contained in the bottle, as the valve D will prevent refilling as it normally seats itself on its seat, even should the valve C be held off its valve seat by specially constructed tools or other devices. It will further be seen that such unauthorized persons cannot remove the valve seat C entirely from the valve seat B owing to the projections C^2 engaging the under side of the seat B, should the valve seat be drawn upward, and even then the other valve D remains closed and thus prevents the filling of the bottle with

the liquid. The valves C and D, may be made of any suitable material, with their stems formed integrally thereon, but I prefer to make valve D and its stem of glass, porcelain or like material, while the other valve C, may be made of wood, cork, hollow glass or other similar substance to cause this valve to float; and in use the bottle is placed in a reversed position as shown in Fig. 2, and if attempted to be filled, then this light valve will float upward into its seat, and thus prevent the filling of the bottle.

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

1. A bottle stopper comprising two independent annular valve seats, adapted to be secured in the neck of a bottle at a suitable distance apart, and two ball valves adapted to seat themselves on said valve seats, said valves having forked stems, each of which projects through the central opening of its respective seat and has its forks bent outward to engage the opposite face of the valve seat, substantially as set forth.

2. A bottle stopper comprising two independent annular valve seats adapted to be secured in the neck of a bottle at a suitable distance apart, and two ball valves adapted to seat themselves on said valve seats, one of said valves being of a material of less specific gravity than the contents of the bottle and the other of greater specific gravity, said valves having forked stems, each of which projects through the central opening of its respective seat and has its forks bent outward to engage the opposite face of the valve seat, substantially as set forth.

JAMES F. MARTIN.

Witnesses:
J. J. REICHELT,
AMASA HIGGINS.