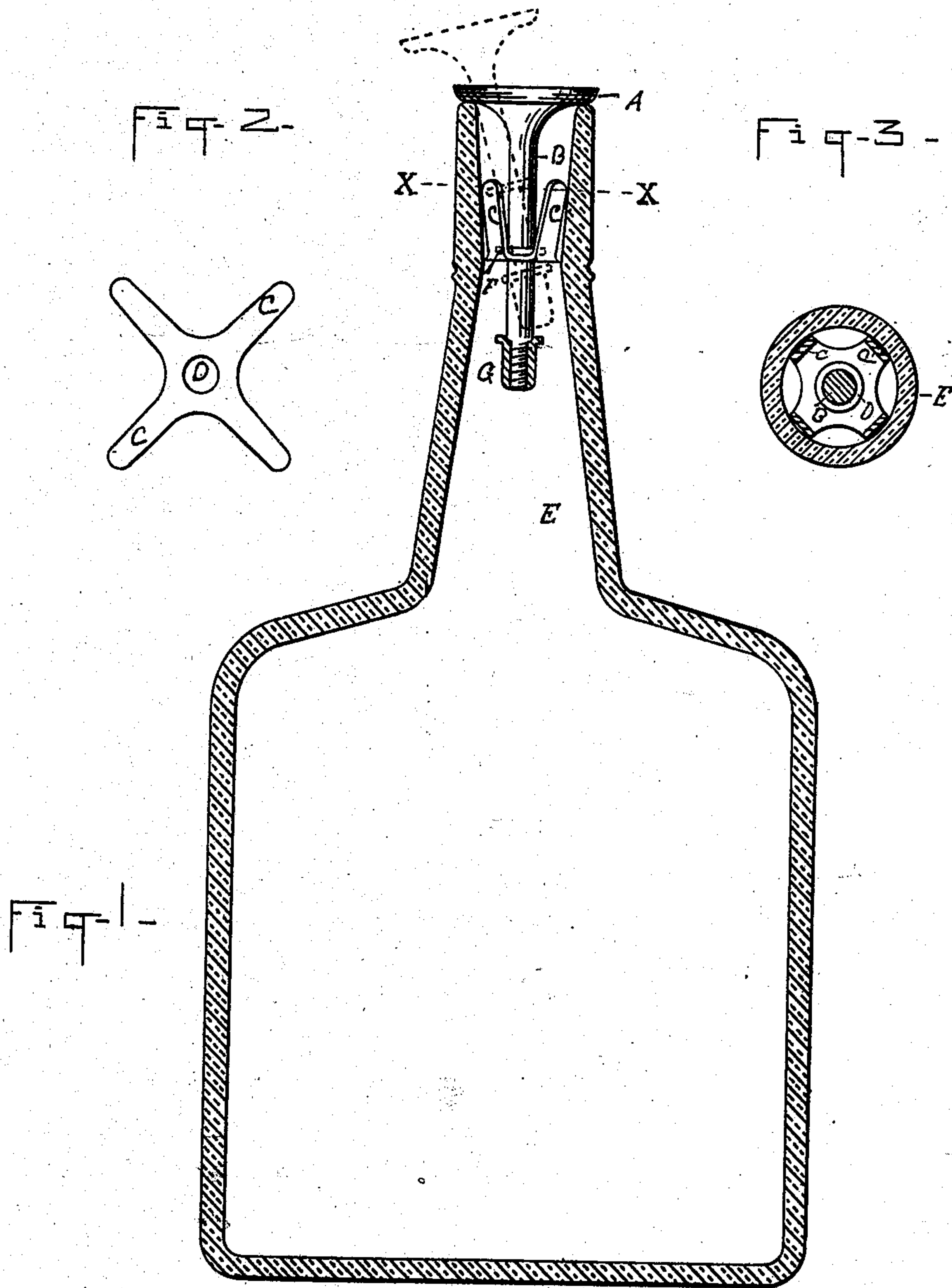


J. H. SMITH.
BOTTLE STOPPER.
APPLICATION FILED FEB. 8, 1908.

900,223.

Patented Oct. 6, 1908.



WITNESSES -
W. J. Leary.
Marion Richards.

INVENTOR -
James H. Smith -
By Clifford Dennis Clifford,
Attorneys

UNITED STATES PATENT OFFICE.

JAMES H. SMITH, OF PORTLAND, MAINE.

BOTTLE-STOPPER.

No. 900,223.

Specification of Letters Patent.

Patented Oct. 6, 1908.

Application filed February 8, 1908. Serial No. 414,892.

To all whom it may concern:

Be it known that I, JAMES H. SMITH, a citizen of the United States, and resident of Portland, county of Cumberland, State of Maine, have invented new and useful Improvements in Bottle-Stoppers, of which the following is a specification.

This invention has for its object to provide a bottle with a stopper which will open and close the bottle automatically by tipping or righting the bottle.

In the drawings herewith accompanying and making part of this application, Figure 1 is a vertical sectional view of a bottle with my improved device shown partly in elevation therein, the dotted lines showing the position of the stopper when the bottle is tipped; Fig. 2 is a plan view of the blank from which the detent is made; Fig. 3 is a transverse sectional view of Fig. 1 taken on line X—X.

Same letters of reference refer to like parts.

The stopper A is provided with an attenuated stem B. Mounted on said stem is a detent having flexible spring arms C and being provided with a hole D through which loosely passes the stem of the stopper. The arms or prongs C are bent so that when forced into the neck of a bottle E they press laterally against the interior wall of the neck of the bottle and remain in frictional engagement therewith. The stem is provided with shoulders F and G, one above the detent and the other G below, shoulder G being removable to permit the stem to be inserted in the hole D in the detent.

To place my stopper in position the stopper and detent are assembled by first removing the shoulder G, inserting the stem of the stopper through the hole D in the detent and then replacing the shoulder G. The stopper and detent are then inserted in the neck of the bottle, the shoulder F pushing the detent down until the stopper seats itself as shown

in Fig. 1. The arms C on the detent being flexible are bent as it passes into the neck of the bottle and thus hold the detent stationary in frictional engagement with the neck of the bottle, while the stopper is free to move outwardly to the position shown in dotted lines to uncork the bottle, its outward movement being limited by the lower shoulder of the stem.

My invention is not to be restricted to the precise forms shown since the form of the detent and the means for limiting its movement may be varied provided only that the detent remains stationary in frictional engagement with the walls of the bottle while the stopper is free to move outwardly a limited distance.

Having thus described my invention and its use I claim:—

1. A bottle stopper having an attenuated stem provided with a shoulder intermediate its ends, a removable cap on its inner end and a detent mounted on said stem between said shoulder and said removable cap, said detent adapted to have lateral frictional engagement with the walls of a bottle.

2. A bottle stopper having an attenuated stem provided with a shoulder intermediate its ends and a cap on its lower end, in combination with a detent mounted on said stem and provided with flexible upwardly extending arms adapted to have frictional engagement with the walls of the neck of a bottle, said detent being adapted to be forced into the neck of the bottle by means of said shoulder.

In testimony whereof, I have signed my name to this specification in presence of two subscribing witnesses this 5th day of February, 1908.

JAMES H. SMITH.

In presence of—

ELMER H. WATERHOUSE,
ELGIN M. VERRILL.