

(No Model.)

S. S. NEWTON.

BOTTLE STOPPER OF CELLULOID OR ANALOGOUS MATERIAL.

No. 255,655.

Patented Mar. 28, 1882.

Fig. 1.

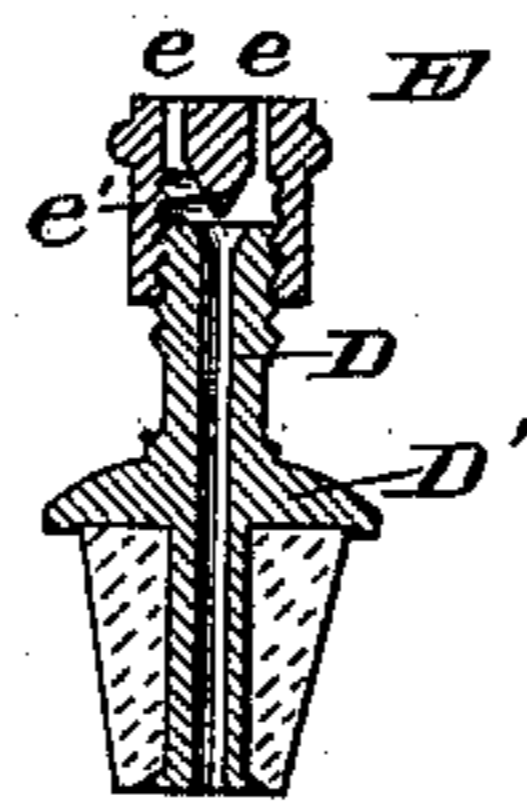


Fig. 2.

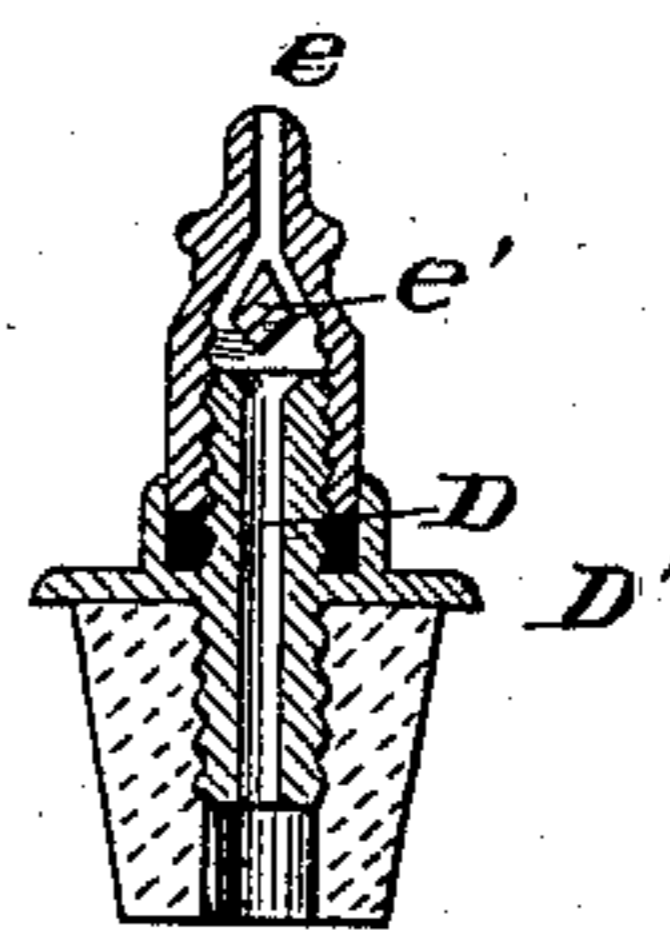


Fig. 3.

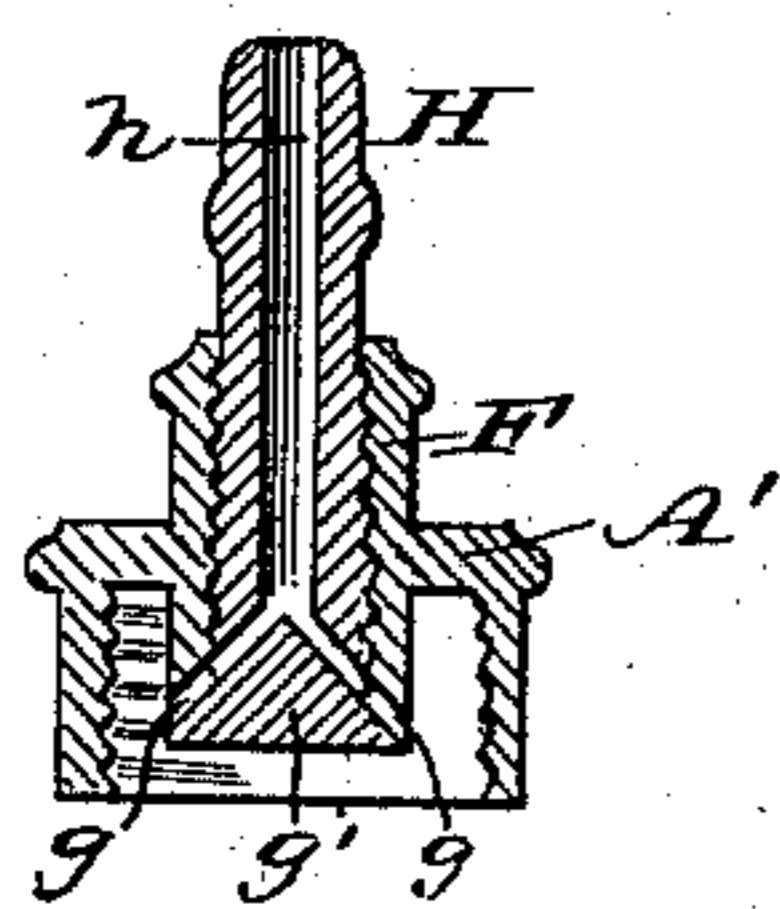


Fig. 4.

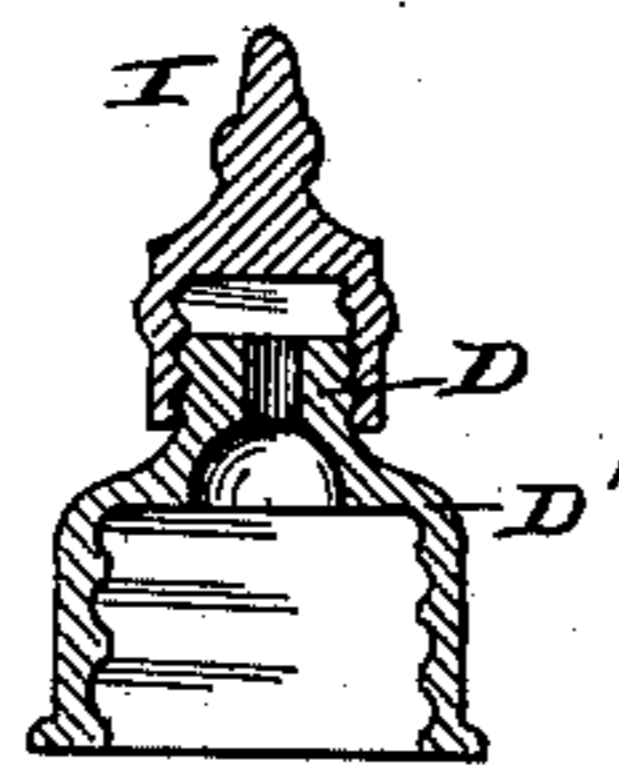
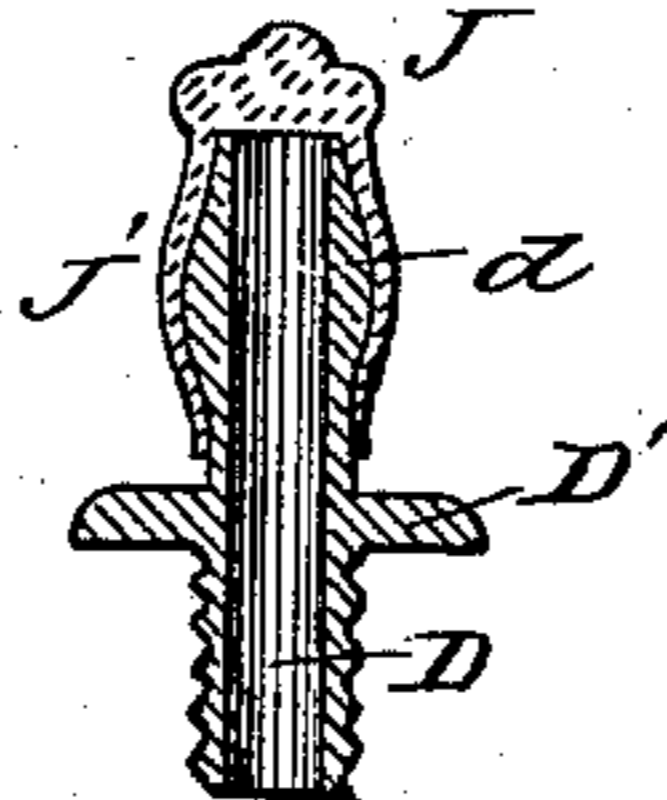


Fig. 5.



Witnesses:

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# UNITED STATES PATENT OFFICE.

STEPHEN S. NEWTON, OF BINGHAMTON, NEW YORK.

## BOTTLE-STOPPER OF CELLULOID OR ANALOGOUS MATERIAL.

SPECIFICATION forming part of Letters Patent No. 255,655, dated March 23, 1882.

Application filed December 9, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, STEPHEN S. NEWTON, a citizen of the United States of America, residing at Binghamton, in the county of Broome and State of New York, have invented certain new and useful Improvements in Bottle-Stoppers of Celluloid or Analogous Material; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to the production, as a new article of manufacture, of discharging-tubes, through which the contents of a bottle are to be delivered.

In the drawings, Figures 1, 2, 3, 4, and 5 are vertical sections of bottle-stoppers the discharge-tubes of which are made in accordance with my invention.

In Figs. 1 and 2, D is a discharging-tube; D', a flange covering the cork-tube or bottle-neck; E, a hood, screw-threaded to engage with the screw-threaded upper end of the discharge tube, and constructed with the central valve, *e'*, and discharge-ports *e*.

In Fig. 3, F is an internally-threaded tube section or socket, supported centrally in flange D', and provided at the bottom with ports *g* and a central conical projection, *g'*. H is a discharging-tube, screw-threaded externally to engage with the throat of the tube-section F, and having a discharge-opening, *h*, throughout its entire length, which is closed when screwed down against the part *g'*, as will be readily understood without a more detailed description.

In Fig. 4 the discharge-tube D does not project below the flange D', but is screw-threaded externally, as are the corresponding tubes in Figs. 1 and 2. I is a hood, screw-threaded internally to engage with and close the discharge-tube, the upper end of which the hood fits closely when screwed down.

In Fig. 5 the discharge-tube D is constructed with an external enlargement, *d*, near its

upper end, which may be of the form shown, or may consist merely of a circumferential rib or bead; but I prefer that shown. J J' is an elastic hood of an internal diameter slightly less than the external diameter of the discharge-tube at its upper end, so that as the hood is forced over the enlarged part *d* it is expanded. Therefore the hood will be held firmly in place upon the discharge-tube by reason of its contractile power.

Celluloid possesses many advantages as a material of which to manufacture bottle-stoppers, an important one being that it is not subject to discoloration by contact with vulcanized rubber, as is the case with metals ordinarily employed for such articles. Hence the stopper will not be tarnished by contact with the hood, which, by preference, is made of vulcanized rubber. Again, the strength and rigidity of celluloid make it specially desirable as a material from which to manufacture the discharging-tubes of bottle-stoppers of the various forms described above, from the fact that it will not readily yield to pressure. Hence there is little liability in ordinary use of the parts becoming bent or collapsed so as to prevent the screw-threaded parts from operating properly. Nor is celluloid discolored or corroded by the action of liquids with which the discharge-tube of a bottle-stopper is liable to be brought in contact—such as vinegar, acids, table-sauce, or other condiments, or by perfumery. Again, the fact that celluloid can be colored as desired makes it specially desirable for stoppers to be used upon various colored toilet-bottles.

What I claim is—

1. As a new article of manufacture, a bottle-stopper the discharge-tube of which is made of celluloid, substantially as set forth.

2. A bottle-stopper having a discharge-tube made of celluloid and a hood or cap made of vulcanized rubber, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

STEPHEN S. NEWTON.

Witnesses:

FREDK. HAYNES,

J. W. W. MICHELL.