

(Model.)

H. BENSON.

INTERNAL STOPPER FOR BOTTLES.

No. 295,102.

Patented Mar. 11, 1884.

Fig. 1.

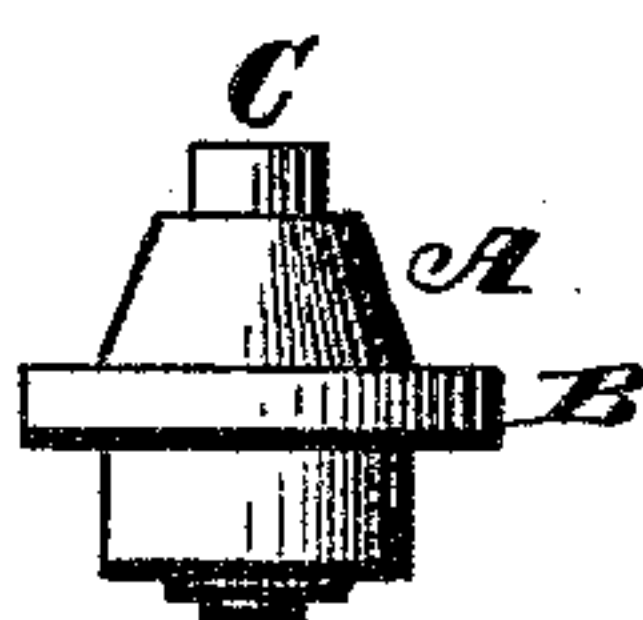


Fig. 2.

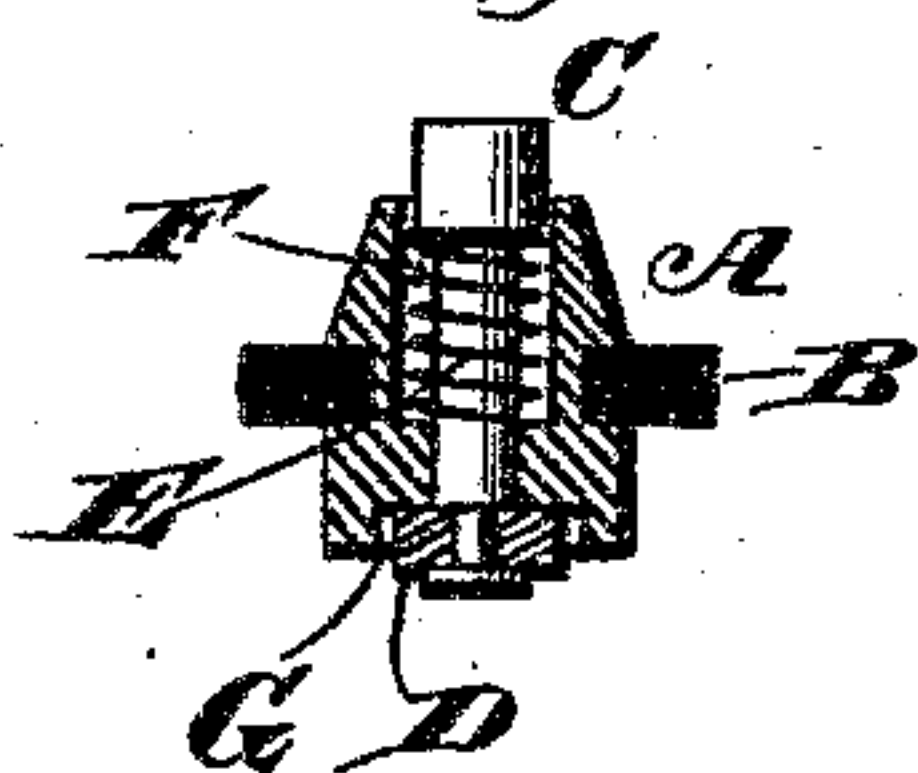
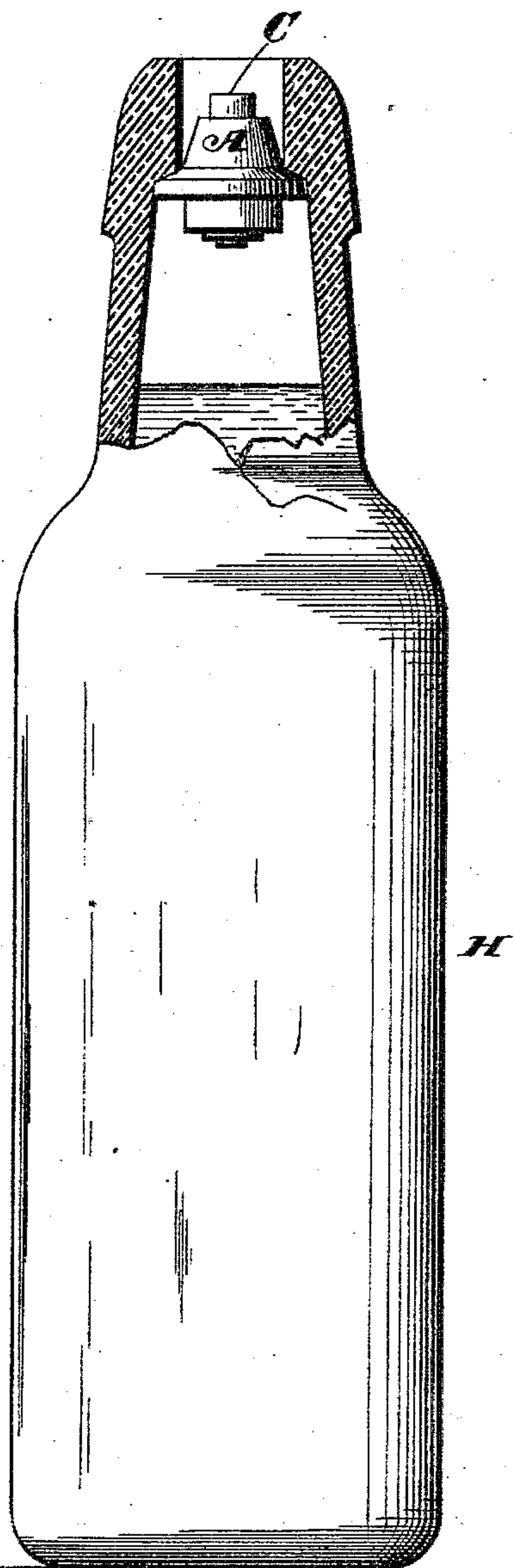


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

HENRY BENSON, OF NOTTINGHAM, ENGLAND.

INTERNAL STOPPER FOR BOTTLES.

SPECIFICATION forming part of Letters Patent No. 295,102, dated March 11, 1884.

Application filed December 29, 1883. (Model.) Patented in England April 21, 1882, No. 1,898, and in France December 14, 1882, No. 151,557.

To all whom it may concern:

Be it known that I, HENRY BENSON, of Nottingham, England, have invented new and useful Improvements in Stoppers for Bottles
5 Containing Aerated Liquids, (for which John Ballard has obtained a patent in Great Britain, No. 1,898, bearing date April 21, 1882, and John Ballard and myself have obtained a patent in France, No. 151,557, bearing date December 14, 1882,) of which the following is a
10 specification, reference being had to the accompanying drawings.

My invention relates to improvements in what are known as "stud-stoppers" for bottles
15 containing aerated liquids, said stoppers allowing the bottles to be more easily unstopped; and it consists in the construction which will be hereinafter particularly set forth.

Figure 1 of the accompanying drawings is a
20 side view of the stopper. Fig. 2 is a vertical section; Fig. 3, a side elevation of the bottle, with a portion of the neck in section, showing the stopper in place.

A stud, A, made of wood, china, glass, or
25 other suitable material, is grooved exteriorly to receive an india-rubber washer, B, (see Fig. 2,) and is perforated vertically to receive a cylindrical plug, C, grooved near its lower end, to receive a washer, D, between which and the
30 head of the plug a vertically-coiled galvanized or silvered metal spring, E, is placed. The lower end of the spring rests upon the bottom of a chamber, F, in the upper end of the stud, and the upper end of the spring pressing on
35 the head of the plug, the spring forcibly presses the top side of the washer D into a chamber, G, in the lower end of the stud.

When in use, the confined gas in the bottle
40 H presses the washer B close to the interior of the neck of the bottle, and the washer D into the lower chamber of the stud, thus effectually preventing the escape of the confined gas. The plug C being also held up by the spring E prevents the possibility of the bottle being un-
45 stopped by accident, and as the top of the plug in the stud-stopper lies below the top of the mouth of the bottle, the plug cannot be pressed inward, even if the bottle is placed bottom upward.

Bottles are constantly being unstopped where
the spindles or pistons project above the bottle-neck. To unstop a bottle having my improved stud-stopper in it, it is only necessary to gently press the plug C downward, which
55 will cause the upper surface of the washer D to leave its seat, and thus allow the confined gas to escape around it and up the perforation in the stud, when the stopper instantly drops to the bottom of the bottle.

The chambers F and G to some extent shield
60 and protect the plug and the washer thereon and reduce the size of the stopper. The upper chamber also affords a seat for the spring and protects the spring from injury.

I am aware that prior to my invention perforated stoppers with spindles or pistons have
65 been made, and I lay no claim thereto, broadly.

Having described my invention, what I claim is—

1. In a bottle-stopper, the stud chambered
70 at its upper and lower ends, and centrally perforated, and formed with a circumferential groove, in combination with the washer fitted in said groove and projecting beyond the sides of the stud, and the plug passed through the
75 central perforation and upper chamber, and provided with a washer at its lower end, fitting within the lower chamber of the stud, substantially as described.

2. The stopper composed of the stud chambered at its upper and lower ends, and perforated and provided with a circumferential
80 washer, in combination with the plug passed through the perforation and chambers, and provided with a washer at its lower end and a
85 spring at its upper end, within the chamber, to hold the washer against the base of the stud, substantially as and for the purpose set forth.

In testimony whereof I have hereunto signed
my name in the presence of two subscribing
90 witnesses.

HENRY BENSON.

Witnesses:

H. W. GOUGH,
J. H. GOUGH.