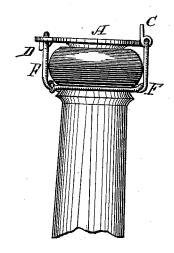
## W. NORTH. Bottle-Stopper Fastener.

No. 197,396

Patented Nov. 20, 1877.

Fig.1.



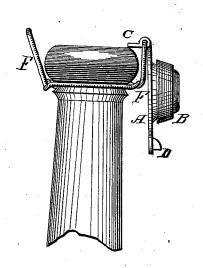
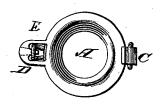


Fig. 3.



**A**itnesses:

Inbentor:

Im North

Per C.H. Walson & Storneps

## UNITED STATES PATENT OFFICE.

WILLIAM NORTH, OF SHEEPRIDGE, NEAR HUDDERSFIELD, ENGLAND.

## IMPROVEMENT IN BOTTLE-STOPPER FASTENERS.

Specification forming part of Letters Patent No. 197,396, dated November 20, 1877; application filed October 26, 1877.

To all whom it may concern:

Be it known that I, WILLIAM NORTH, of Sheepridge, near Huddersfield, in the county of York, England, have invented new and useful Improvements in Stoppers for Bottles, and in the means of securing stoppers on and into the bottles, which improvements are fully set forth in the following specification, reference being had to the accompanying drawings.

The object of this invention is to facilitate and greatly increase the rapidity of opening bottles, and is specially adapted for malt liq uors, champagne, and all effervescent liquors.

For this purpose I fasten a steel wire round the groove in the neck of the bottle, which wire is, at one end, formed into a loop, and bent upward to a little above the mouth of the bottle. The other end of the wire is twisted into the shape of twine, and is also bent upward to a little above the mouth of the bottle, where it is formed with a short bend outward, which serves as a catch for holding down the stopper. This latter I make of metal, in one piece, with two projecting parts, directly in front of each other, across the center. The one projection is perforated horizontally, for the loop of the steel wire to pass through, so as to form a hinge, the other and opposite projection being perforated vertically, so as to allow the catch or bend on the steel wire to pass through such perforation when the stopper is pressed down. The projection at the hinge portion of the stopper is of an angular form, and so made that the stopper readily springs open, but is prevented from closing again by the corner of the angle coming in contact with the edge of the mouth of the bottle.

That part of the stopper which fits into the mouth of the bottle I make of a somewhat conical or taper form, to which I attach a band or ring of india-rubber or other elastic substance, by the use of which the bottle is closed.

The catch, or that part of the steel wire where the projection on the stopper locks into the same, is tempered, so as to act as a spring, which, on being pressed back horizontally, releases the stopper, which flies open, leaving the mouth of the bottle free.

In order that my invention may be more readily understood, I attach hereto a sheet of drawings, where A indicates the stopper; B, the elastic band on same; C, the angular projection on the stopper, through which the steel wire passes; D, the opposite projection on the stopper, by which the spring-catch holds it down.

Figure 1 shows the mouth of the bottle closed by my improved stopper. Fig. 2 shows the same open, and the stopper prevented from returning to the neck of the bottle by the action of the angular projection. Fig. 3 shows a top or plan view.

The stopper A is cut away at E, so that the projection D is inclosed, as well as the spring-catch F, so that the catch is not liable to be accidentally slipped from the catch in packing or handling the bottles when full; and by forming the wire and spring in one piece the device is easily and cheaply made, readily put on, and quickly removed when broken.

Having thus fully described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. The stopper A, having the cut-away part E, and provided with the catch D, in combination with the catch F, substantially as and for the purpose set forth.

2. The spring-catch F, in combination with the stopper A and angular projection C, substantially as and for the purpose set forth.

WM. NORTH.

Witnesses:

HENRY WEINTZ, DAVID J. BAILEY.