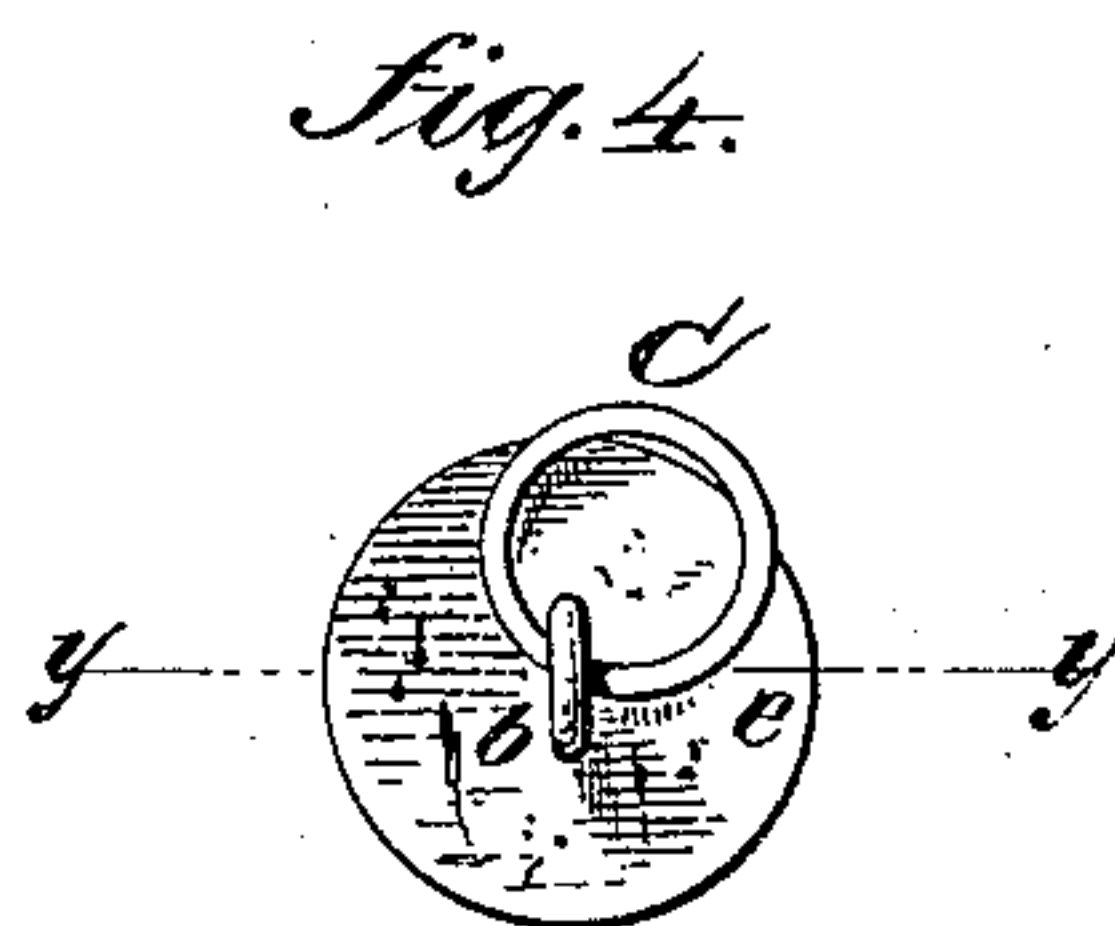
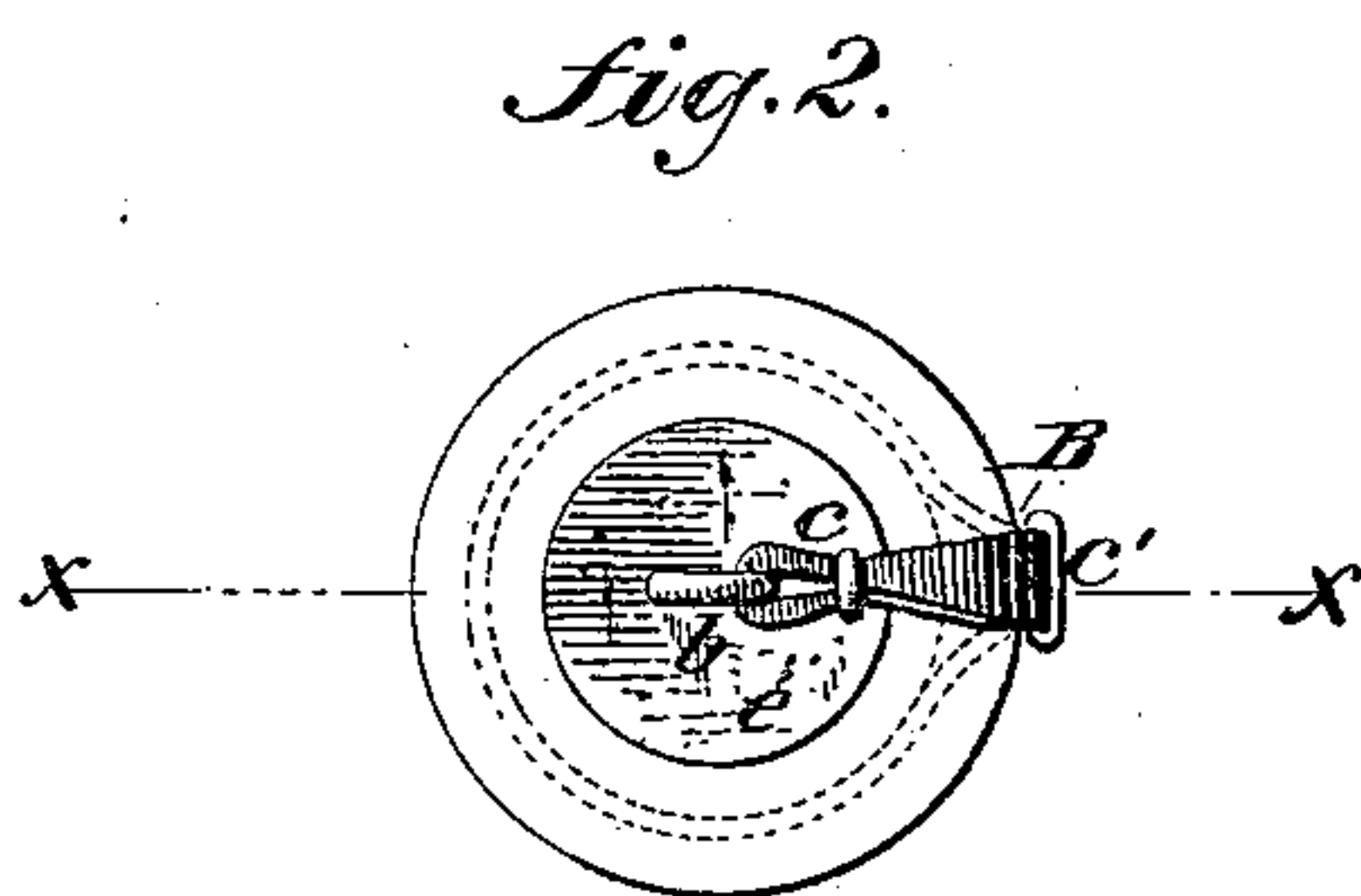
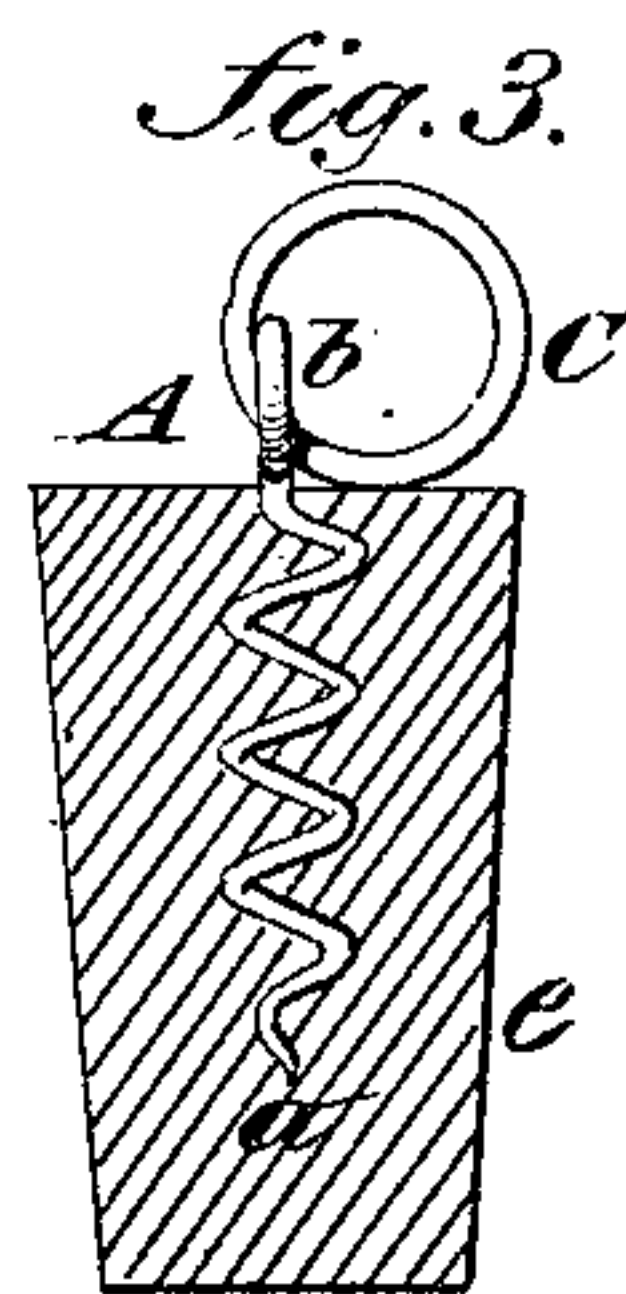
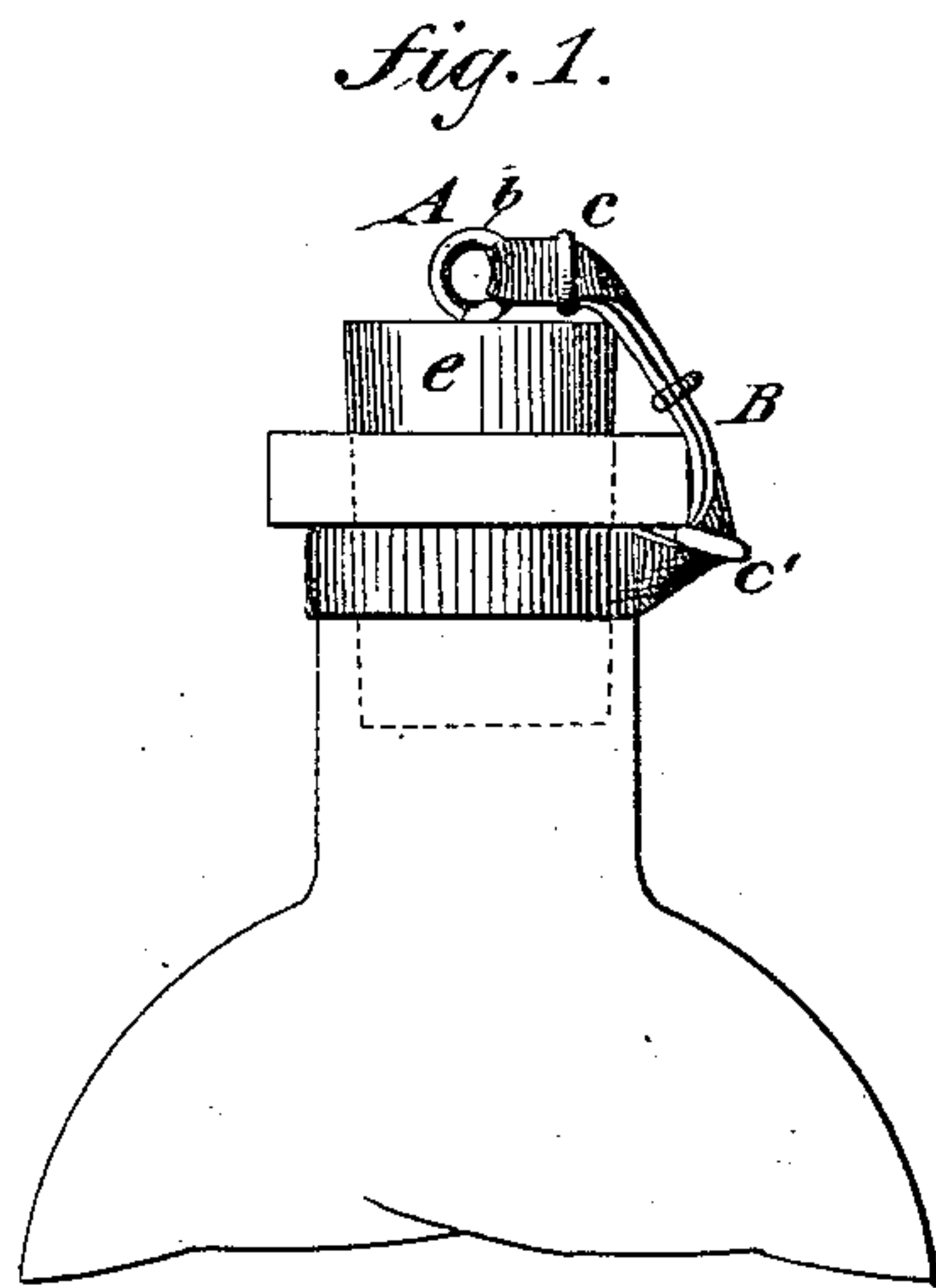


B. ARNOLD.
STOPPER-ATTACHMENT.

No. 191,295.

Patented May 29, 1877.



WITNESSES:
Gustave Dietrich
Alex F. Roberts

INVENTOR:
B. Arnold
BY *Mumford*
ATTORNEYS.

UNITED STATES PATENT OFFICE

BARNARD ARNOLD, OF FOSTER CENTRE, RHODE ISLAND.

IMPROVEMENT IN STOPPER ATTACHMENTS.

Specification forming part of Letters Patent No. 191,295, dated May 29, 1877; application filed December 4, 1876.

To all whom it may concern:

Be it known that I, BARNARD ARNOLD, of Foster Centre, in the county of Providence and State of Rhode Island, have invented a new and Improved Stopper Attachment, of which the following is a specification:

Figure 1 is a side elevation of a bottle and stopper, showing my improvement. Fig. 2 is a top view of the same. Fig. 3 is a longitudinal section on line *yy* in Fig. 4. Fig. 4 is a top view of a stopper provided with a screw and a ring.

Similar letters of reference indicate corresponding parts.

My invention consists in making from wire a screw or spiral terminating at one end in a point and at the other end in a ring, and is screwed into the stopper and attached to an elastic band which surrounds the neck, the object being to provide a device by means of which the stopper may readily be extracted, and by which it is supported when out of the bottle, so that it does not come into contact with the bottle, and is not liable to become lost.

In the drawing, A is a screw that consists of a wire bent spirally and sharpened at *a*, and at the opposite end formed into a ring or eye, *b*.

The screw A is inserted permanently in the cork or stopper *e*, and an endless elastic band, B, passes through the eye *b* and surrounds the neck of the bottle. A metallic slide, *c*, is placed upon the doubled elastic band near the eye *b*, and another similar slide, *c'*, is

placed on the band near the neck of the bottle.

An ordinary cord may be attached to the eye *b*, and to the bottle-neck in place of the elastic band, which will prevent the stopper from becoming lost, but will not support it when it is removed from the bottle.

In Figs. 3 and 4, a ring, C, is placed in the eye *b*, by means of which the stopper may be extracted.

The screw A, when inserted permanently in a stopper, affords a ready means for removing it from the bottle, and when the elastic band B is attached, as shown in Figs. 1 and 2, the stopper is suspended by it, so that it does not come into contact with anything.

When the improvement is applied to bottles for containing medicine this is an important advantage, as the stoppers cannot become lost or spoiled by contact with substances that might be injurious to the contents of the bottle.

When the ring C is connected with the screw A it affords an efficient means for removing the stopper.

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

The combination of the screw A, having the eye *b*, the elastic band B, and the slides *c c'*, substantially as herein shown and described.

BARNARD ARNOLD.

Witnesses:

C. SEDGWICK,

ALEX. F. ROBERTS.