

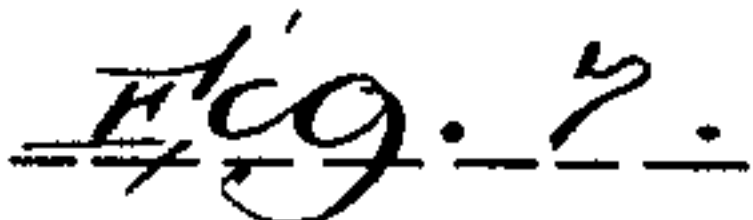
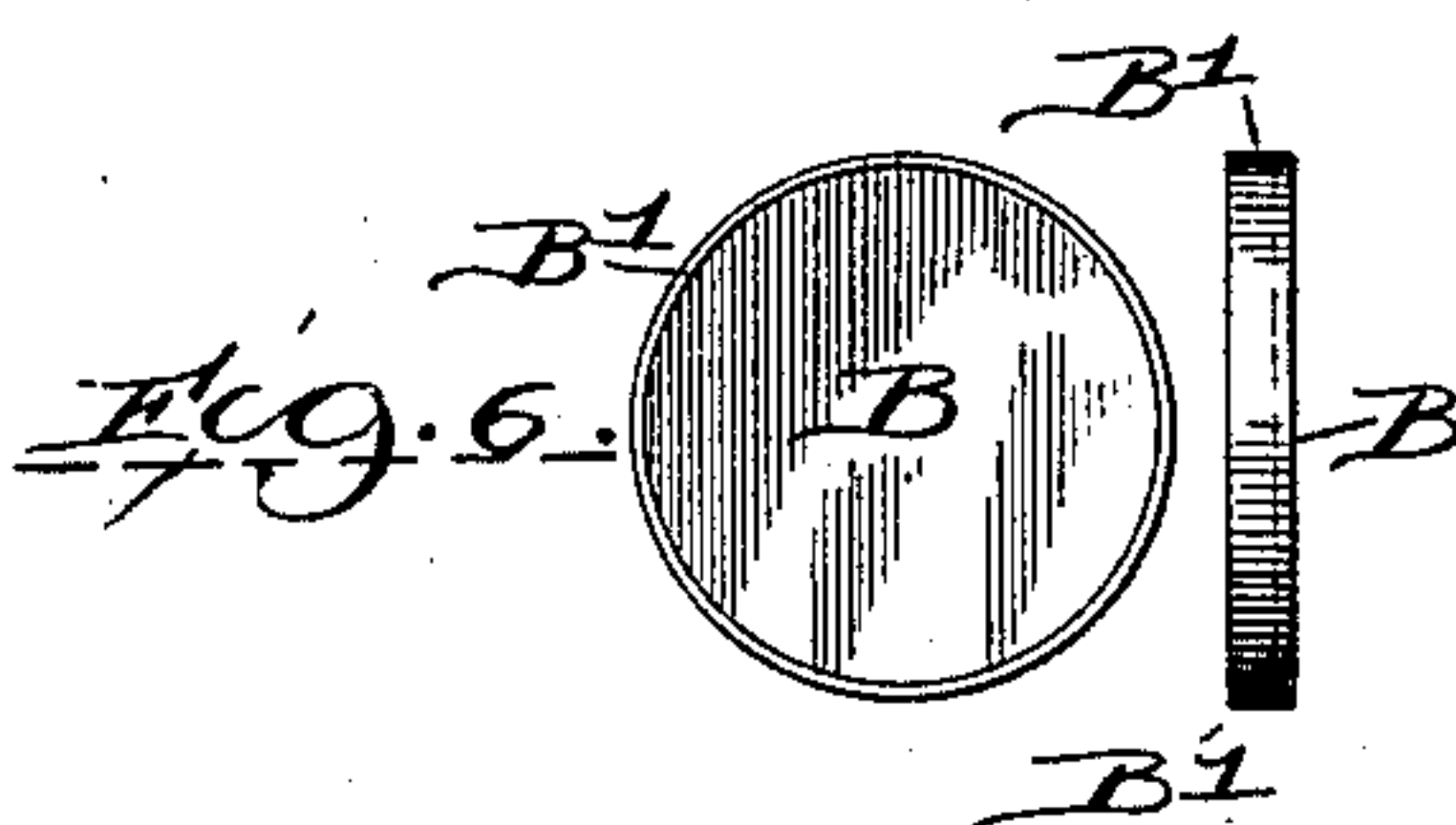
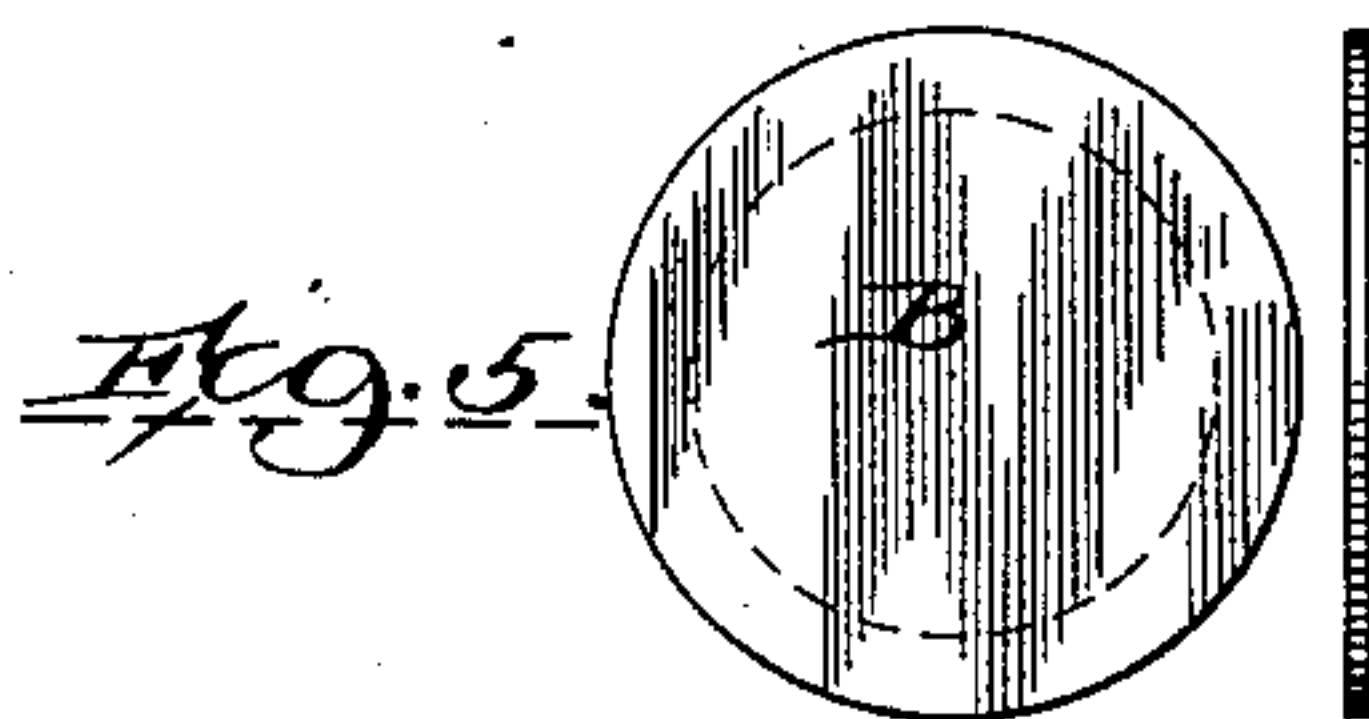
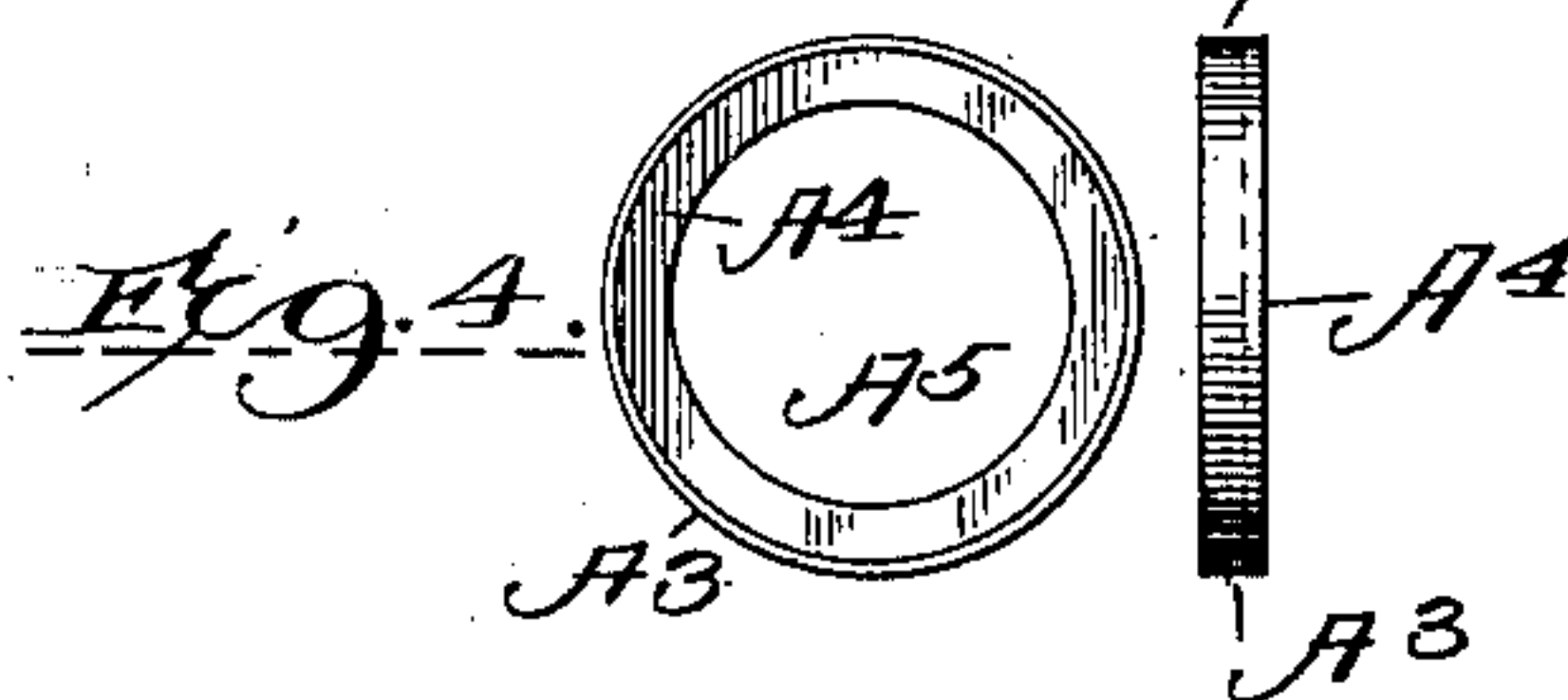
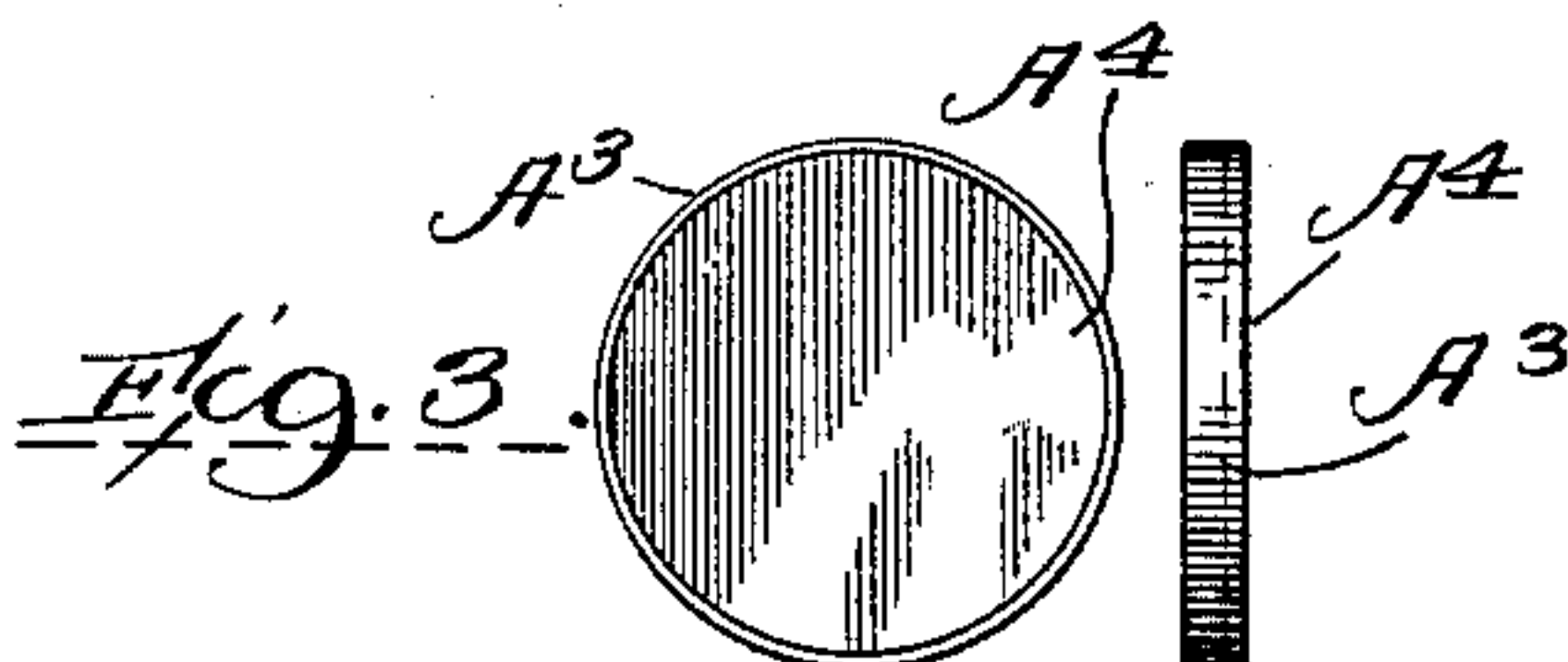
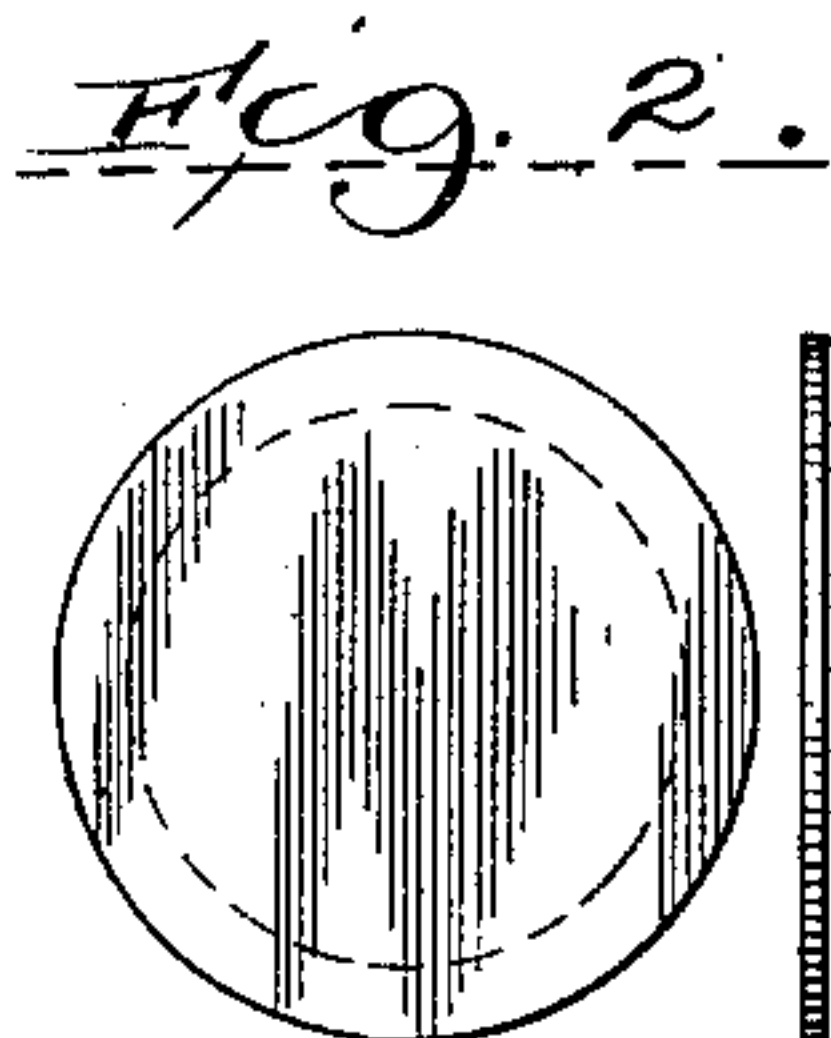
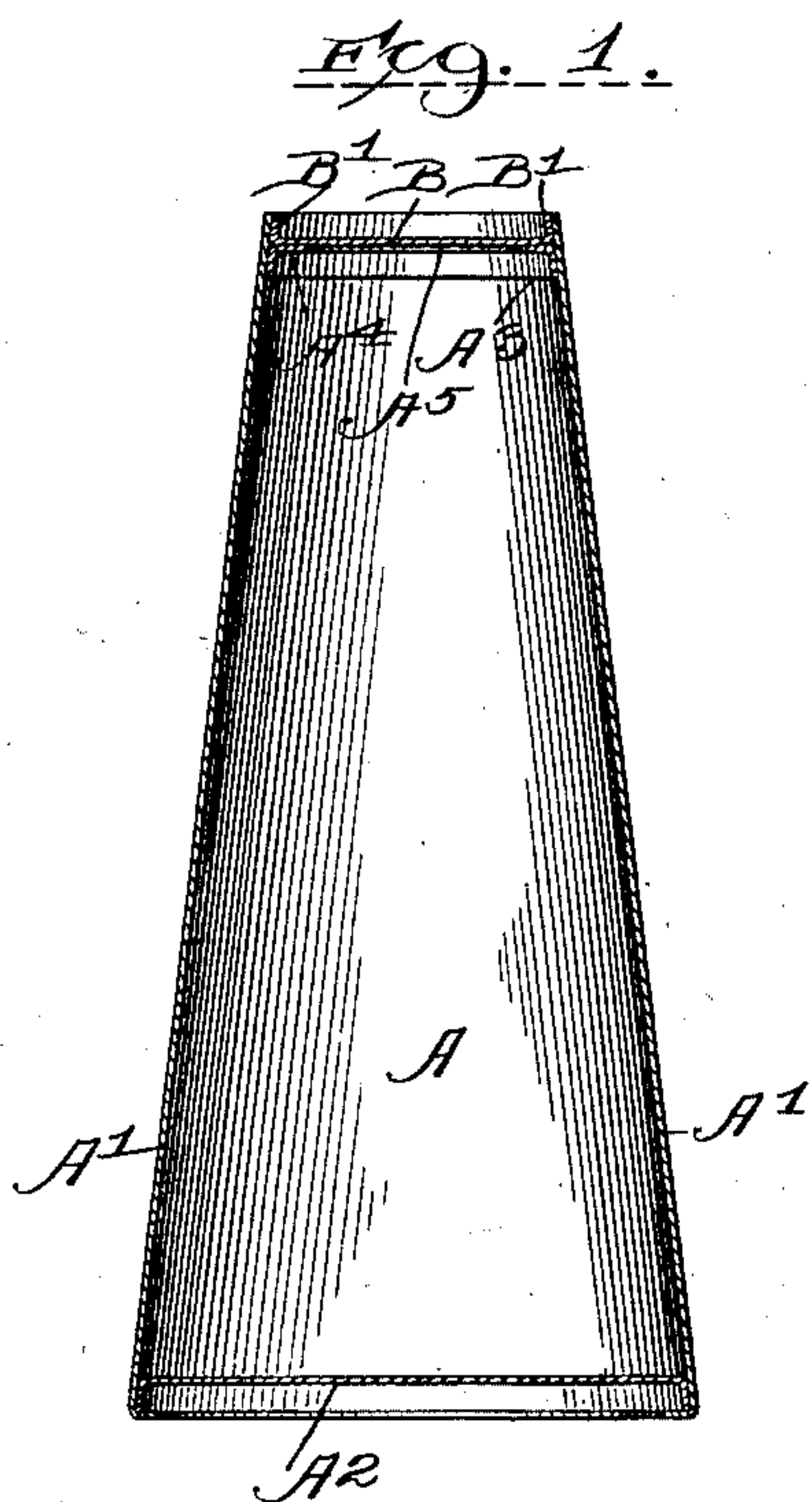
No. 671,784.

Patented Apr. 9, 1901.

A. W. WEBER.  
CLOSURE FOR BOTTLES.

(Application filed Sept. 22, 1900.)

(No Model.)



Witnesses:  
Ray White.  
Harry D. White.

Inventor:  
Andrew W. Weber  
By Luther R. Miller Attorney.

# UNITED STATES PATENT OFFICE.

ANDREW W. WEBER, OF JACKSON, MICHIGAN.

## CLOSURE FOR BOTTLES.

SPECIFICATION forming part of Letters Patent No. 671,784, dated April 9, 1901.

Application filed September 22, 1900. Serial No. 30,773. (No model.)

*To all whom it may concern:*

Be it known that I, ANDREW W. WEBER, a citizen of the United States, residing at Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Closures for Bottles and Similar Receptacles, of which the following is a specification.

This invention relates generally to liquid-tight closures for receptacles, and refers particularly to a simple and reliable stopper for bottles made from fiber or paper. It also may be used in connection with bottles of glass, earthenware, or other materials.

In the accompanying drawings, Figure 1 is a vertical central section through a paper bottle embodying the features of my invention. Fig. 2 is the blank from which the annular flange in the throat of the bottle is formed. Fig. 3 shows said blank after the second step in the operation—to wit, the turning of its edge over at right angles to its face—has been performed. Fig. 4 is the representation of the blank after the third operation—to wit, the punching of its central opening. Fig. 5 shows the blank from which the cap is formed after said blank has been cut from the sheet material of which it is made. Fig. 6 is a view of said cap after its edges have been turned upward, and Fig. 7 is a central section through the same.

Like letters of reference indicate corresponding parts throughout the several views.

A is a bottle, in this instance represented as being composed of paper, having the side walls A' and the bottom A<sup>2</sup>.

A<sup>3</sup> is the ring constituting the throat of the bottle, which ring is shown in its complete form in Fig. 4, the flange A<sup>4</sup> thereof forming the annular shoulder against which the closure rests and the central opening A<sup>5</sup> the throat of the bottle.

B is the cap or closure shown in Figs. 6 and 7, made usually of pasteboard. In the process of its formation it is first cut in circular disk form from the sheet material of which it is made and afterward pressed to provide it with its peripheral upturned edge B'. The body portion of the cap B is intended to lie in the upper end of the bottle A in contact with the upper face of the flange A<sup>4</sup> of the

ring A<sup>3</sup>, the upturned edges of said closure B lying in contact with and within the side walls A' of the receptacle A. The cutting of the disks (shown in Figs. 2 and 5) is performed and the flanges thereof turned in the usual manner.

The ring A<sup>3</sup> is secured at its peripheral edges to the walls of the receptacle A with cement and the whole bottle afterward given a waterproofing treatment, as by coating its interior with paraffin.

The considerable surface of the closure B in contact with the bottle and the inward inclination of the walls of the latter insure a tight joint between the closure and said walls.

I claim as my invention—

1. In a closure for bottles, in combination, a cap having a body portion with a peripheral flange formed substantially at right angles to said body portion; and a throat portion adapted to be secured to the side walls of the receptacle, and comprising an annular ring for contacting the body portion of said cap to form a tight joint therewith, said side walls tapering slightly inward above said annular ring to retain said cap in contact with said ring.

2. In a closure for bottles, in combination, a cap having a body portion with a peripheral flange formed substantially at right angles to said body portion; and a throat portion comprising an annular ring adapted to contact the body portion of said cap, and form a tight joint therewith, said ring having a peripheral flange adapted to be secured to the side walls of the receptacle on the interior thereof.

3. In a closure for bottles, in combination, a cap having a body portion with a peripheral flange formed substantially at right angles to said body portion; and a throat portion comprising an annular ring adapted to contact the body portion of said cap to make a tight joint therewith, said ring having a peripheral flange adapted to be secured to the walls of the receptacle, said walls tapering slightly inward above said annular ring, to retain said cap in contact with the ring.

ANDREW W. WEBER.

Witnesses:

WESLEY SEARS,  
E. K. DAMBY.