

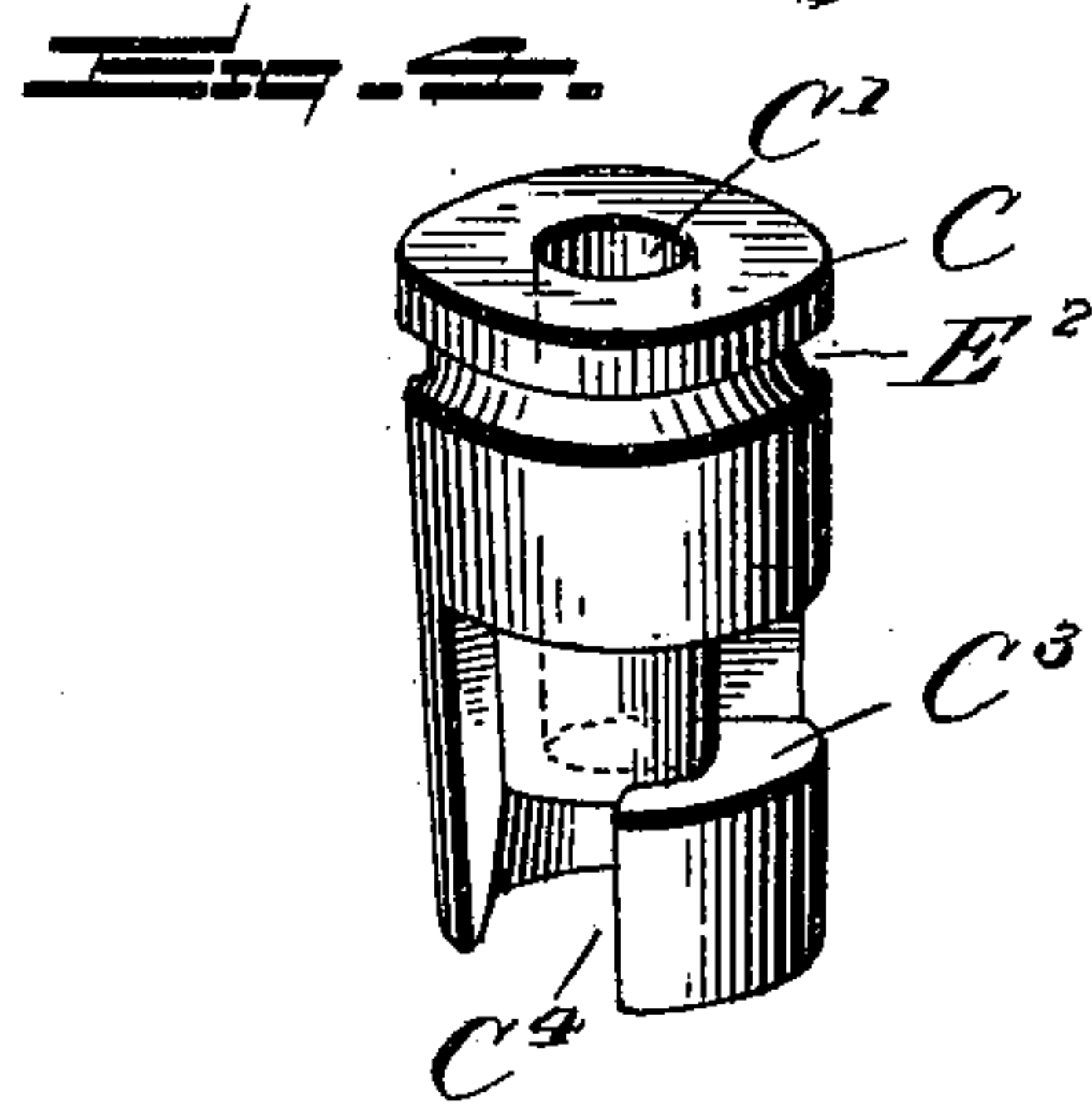
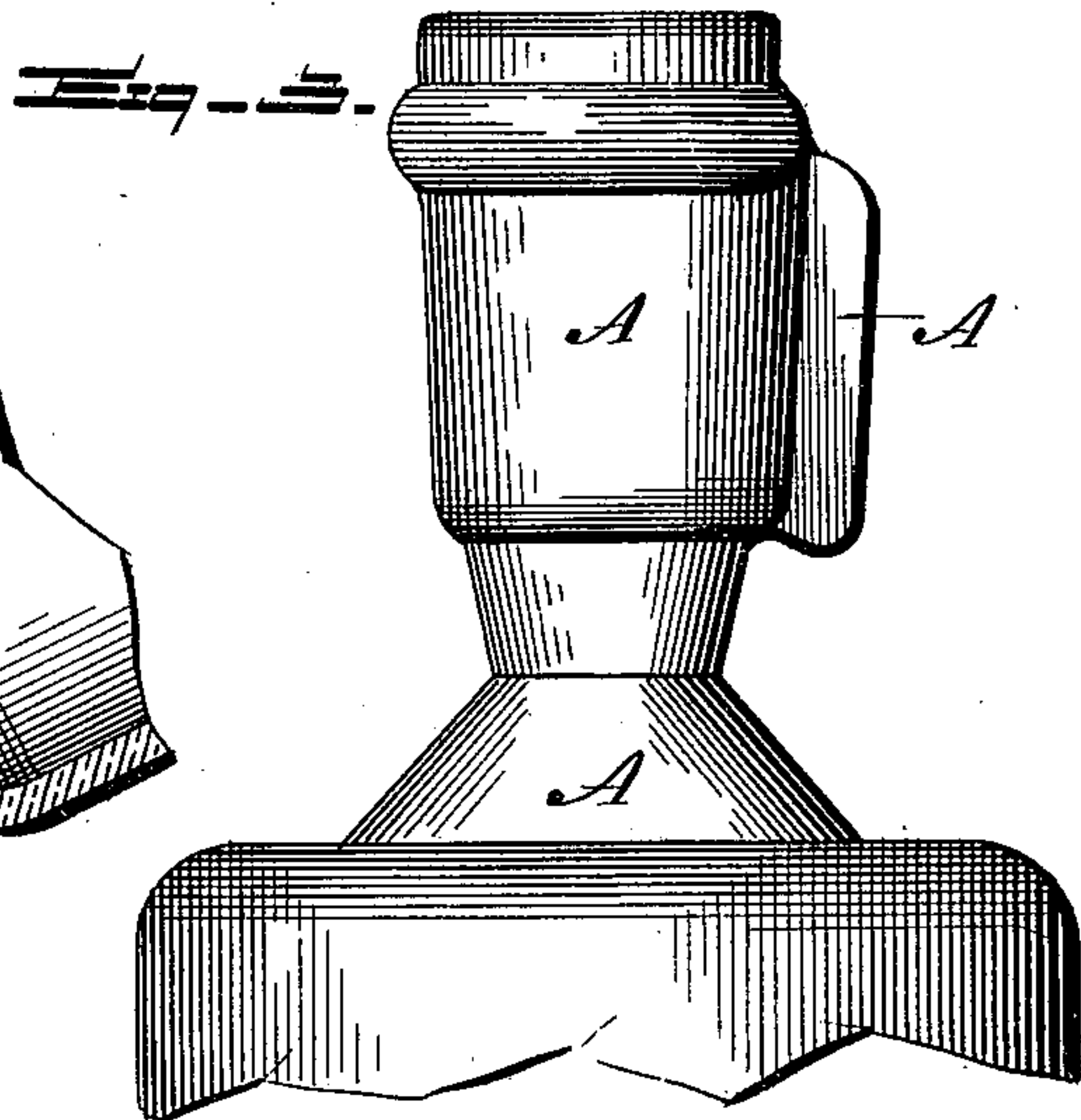
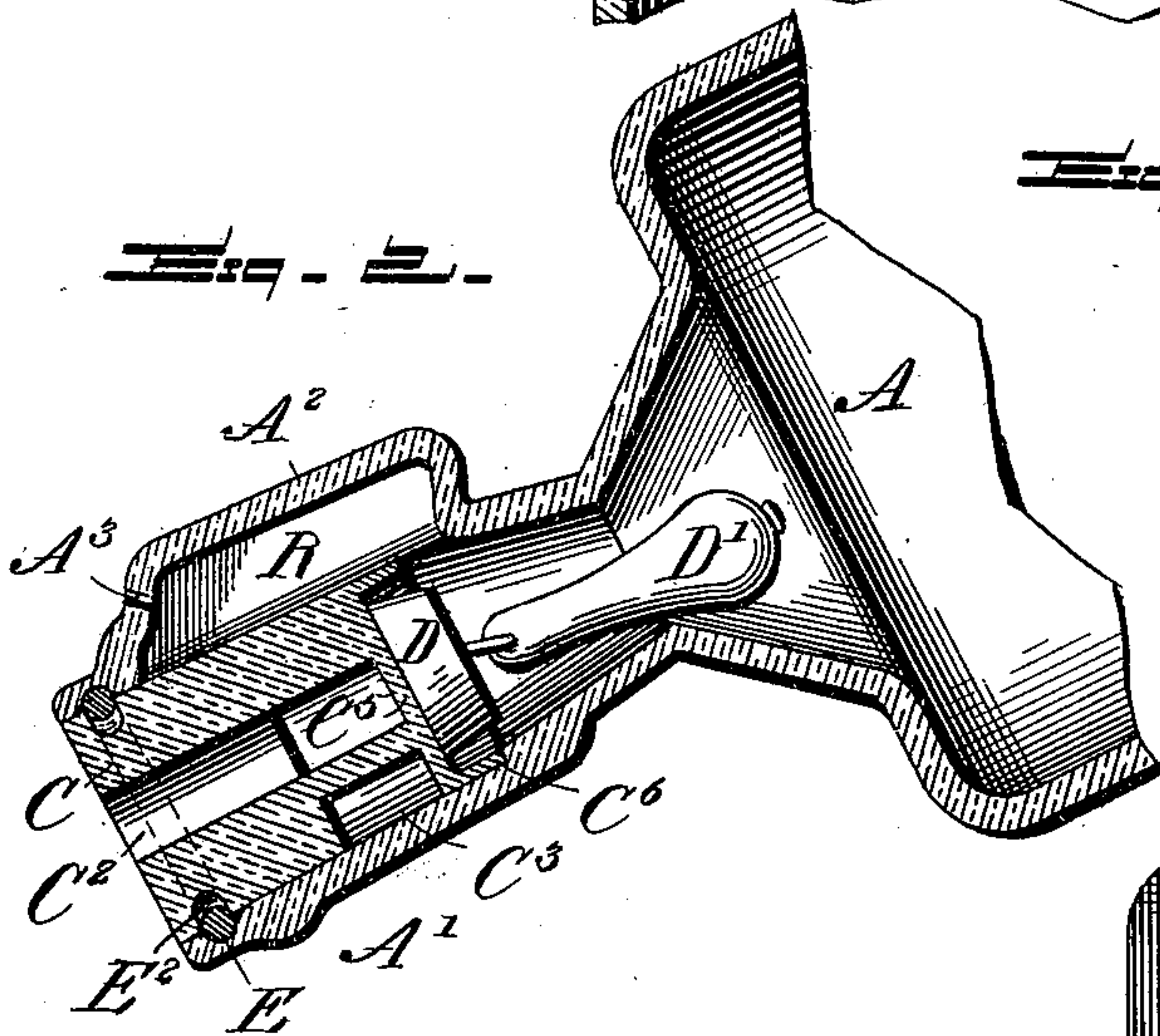
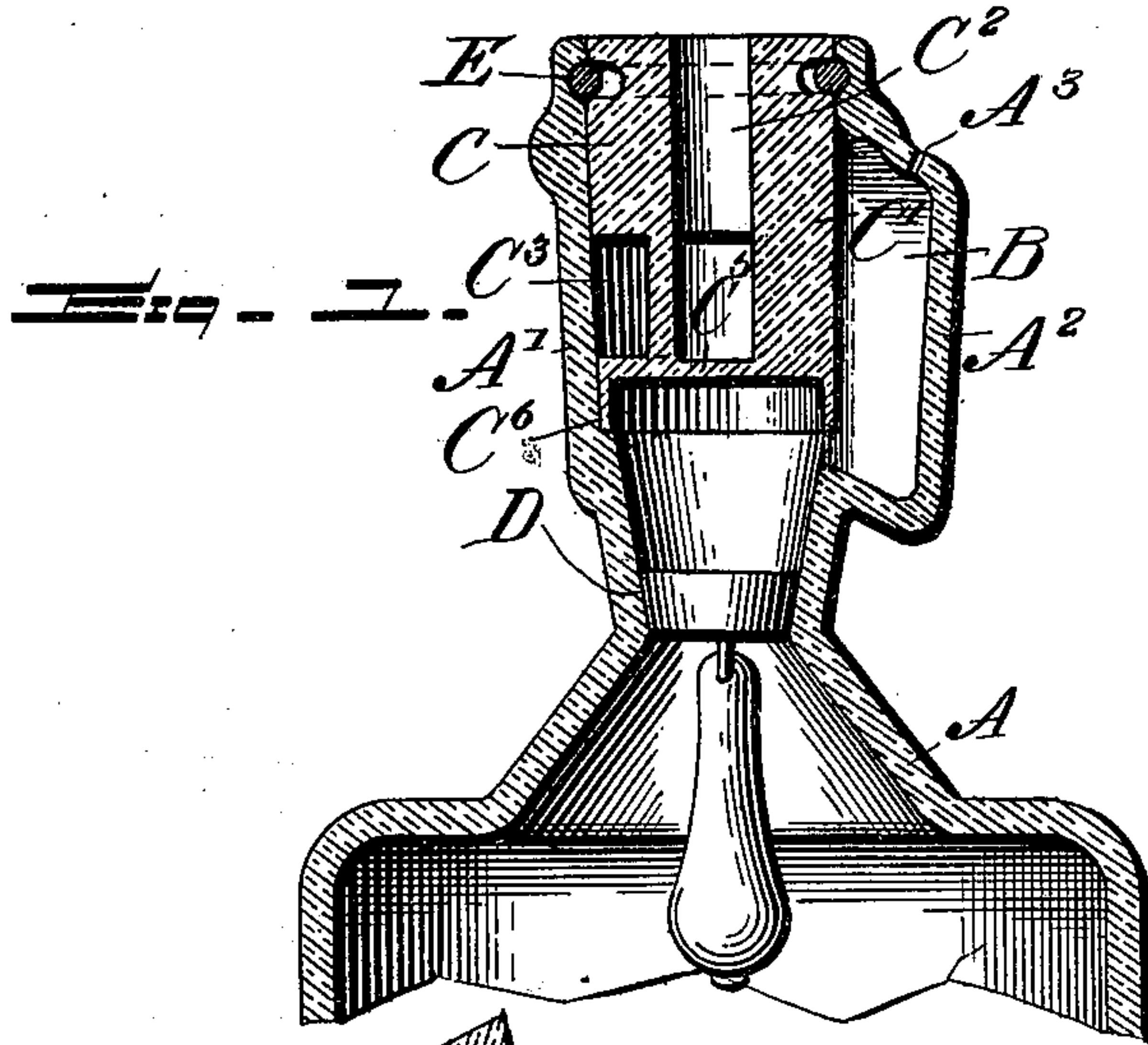
No. 675,343.

Patented May 28, 1901.

L. ANDERSON.
BOTTLE VENT.

(Application filed Jan. 25, 1901.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

LEE ANDERSON, OF PARIS, TEXAS, ASSIGNOR OF ONE-HALF TO HARRISON S. BETTES, OF SAME PLACE.

BOTTLE-VENT.

SPECIFICATION forming part of Letters Patent No. 675,343, dated May 28, 1901.

Application filed January 25, 1901. Serial No. 44,750. (No model.)

To all whom it may concern:

Be it known that I, LEE ANDERSON, a citizen of the United States, residing at Paris, in the county of Lamar, State of Texas, have invented certain new and useful Improvements in Bottle-Vents, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a bottle-vent, and particularly to a construction of parts adapted for use in a non-refillable bottle wherein the stopper is secured against removal.

The invention has for an object to improve the construction of vent shown in my prior patent, No. 665,546, granted January 1, 1901, by providing an open-sided vent-passage at the neck of the bottle, thus permitting the formation thereof at the time the bottle is blown and rendering the construction more simple and economically produced.

A further object of the invention is to provide a stopper adapted to form one wall of the vent-passage when in position and to provide an outlet therethrough for the discharge of liquid from the bottle.

Other objects and advantages of the invention will hereinafter appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a vertical section through a bottle embodying my invention. Fig. 2 is a similar view with the bottle inverted. Fig. 3 is a side elevation of the bottle, and Fig. 4 is a detail perspective of the stopper.

Like letters of reference indicate like parts throughout the several figures of the drawings.

The letter A designates a bottle which may be of any suitable construction, and the neck A' thereof is provided with an integral projection A², having an open-sided channel communicating with the neck of the bottle. This projection forms a vent-passage B and at its upper portion is provided with an air-inlet A³.

The structure thus far described provides a bottle-neck having a vent passage or channel extending parallel therewith and communicating with the neck throughout the

length of the channel. The inner wall for this channel may be formed by any desired form of stopper or sleeve through which the liquid may be poured; but for the purposes of rendering the bottle non-refillable I have shown a stopper C having a solid wall C' on one side, which forms the inner wall of the vent-passage and extends downward to leave a space between its lower end and the end of the vent-passage. This stopper is provided with a central aperture C², communicating at its lower end with a peripheral groove or way C³, which in turn communicates with the vertically-disposed inlet C⁴, thus providing a wall C⁵ at the base of the inlet C² to prevent the introduction of any instrument or device for affecting the valve beneath the stopper.

Beneath the stopper and adapted to fit upon a suitable valve-seat in the neck of the bottle is a valve D, having a flexibly-supported pendent weight D' to effect the operation of the same, as set forth in my patent before mentioned. This valve is substantially the same in construction as in that patent and operates in relation to the vent-opening in a similar manner. The stopper above the valve is provided with a recessed portion C⁶, into which the valve may rise during its reciprocatory movement. The stopper C may be secured in position by any desired means—for instance, a locking-ring E, adapted to seat partially in a recess in the bottle-neck and partially within an annular groove E² in the stopper, as shown in my prior patent.

The vent-passage as shown in my patent above referred to has been found difficult of construction in such an economical manner as to permit its general use, and the present passage is especially adapted to be formed when the bottle is blown or made, and thus does not increase the cost of production thereof, while it permits the air to enter the bottle from the base of the neck. The air-inlet A³ may be formed when the bottle is molded or subsequently by drilling, if found desirable. It will also be seen that any form of tubular stopper or sleeve may be used in connection with the vent-passage to form the inner wall thereof, as the invention is not dependent upon the use of the stopper and valve for preventing refilling of the bottle. The stopper

C differs materially from that disclosed in my former patent in that it is provided with a solid wall of sufficient length to form the inner wall of the vent-passage, while the outlet-passages from the bottle are disposed upon the opposite side from said wall, so as to permit a free entrance of the air from the vent into the bottle as the liquid is being poured therefrom and when the parts are in the position shown in Fig. 2.

From the foregoing description the operation of the several parts will be clearly seen, and it may be stated that changes may be made in the particular form or configuration of the vent-passage or of the stopper without departing from the spirit of the invention as defined by the appended claims.

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

1. A bottle - vent comprising a longitudinally - extending open - sided passage communicating throughout its length with the interior of the neck of the bottle, and a sleeve or stopper within said neck extending for a portion of the length of said passage and adapted to form the inner wall thereof; substantially as specified.

2. In a bottle, an open-sided vent-passage extending longitudinally of the neck thereof and communicating throughout its length with the interior of the neck and provided with an air-inlet in its outer wall; substantially as specified.

3. In a bottle, an open-sided vent-passage extending longitudinally of the neck thereof and communicating throughout its length with the interior of the neck and provided

with an air-inlet in its outer wall, and a stopper adapted to form the inner wall of said passage; substantially as specified.

4. In a bottle, an open-sided vent-passage extending longitudinally of the neck thereof and provided with an air-inlet in its outer wall, a stopper having a circuitous passage therethrough and a solid wall adapted to form the inner wall of said passage, and a valve beneath said stopper; substantially as specified.

5. In a non-refillable bottle, a stopper provided with a solid wall at one side and having a central passage therethrough closed at its lower end and a peripheral inlet-passage at the opposite side communicating with the central passage by a lateral channel, and extended peripheral walls to form a recess within the central lower portion of said stopper beneath the central passage; substantially as specified.

6. In a non-refillable bottle, a neck portion provided with an open-sided vent-passage extending longitudinally thereof and having an air-inlet in its outer wall, a stopper having a solid wall to form the inner wall of said passage, and a circuitous channel through said stopper, and a valve beneath said stopper adapted to close the discharge from said vent-passage and to be seated within the lower portion of said stopper; substantially as specified.

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

LEE ANDERSON.

Witnesses:

WALTER BERNHARDT,
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