

(No Model.)

T. M. DILLINGHAM.
BOTTLE.

No. 557,655.

Patented Apr. 7, 1896.

Fig. 1.

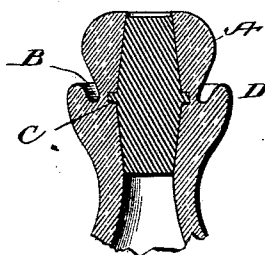


Fig. 2.

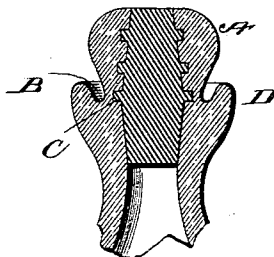
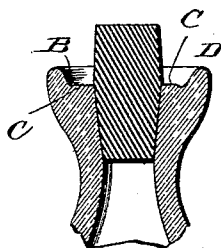


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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BOTTLE.

SPECIFICATION forming part of Letters Patent No. 557,655, dated April 7, 1896.

Application filed November 12, 1895. Serial No. 568,738. (No model.)

To all whom it may concern:

Be it known that I, THOMAS M. DILLINGHAM, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Bottles; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

It is well known that bottles which have been filled by the manufacturer or producer with genuine products have, after the original contents were used, been refilled by unscrupulous persons with inferior or sophisticated material and then resold as genuine, thus working a double injury, since it defrauds the purchaser and injures the reputation of the manufacturer. Various measures have been resorted to to correct this evil. So far the remedies applied have been inadequate, and it is the object of this invention to supply a bottle which cannot be refilled and used again without full notice thereof, and this I accomplish by the simple means of forming the neck so that the cork cannot be withdrawn, thus making it necessary to break the neck to get at the contents, and also forming the neck so that the fracture will occur orderly at such a point and in such a manner as to leave the bottle intact as a safe receptacle while using the contents, and yet will be so changed in reference to a new bottle that it will be impossible to refill it and foist it on an innocent purchaser as an original package.

In the drawings, Figures 1, 2, and 3 show the general plan of my device.

A represents in section the neck of a bottle formed in accordance with my invention. At B the glass is contracted so as to make a thin place extending entirely around the neck in a plane perpendicular to the axis of the neck. On the inside of the neck an annular groove is formed at C opposite the lower end of the thinnest part of the neck. In Fig. 1 the neck is contracted or choked at the mouth of the bottle. In Fig. 2 the neck is provided with grooves into which the soft cork will enter;

otherwise the neck is made extra heavy. The relation of these parts—that is, their relative thickness—is to be carefully adjusted to effect the object in view. The bottle is filled and corked in the usual way. When it becomes necessary to open the bottle, it will be found that the cork is firmly held by the choked mouth and the expansion of the cork into the grooves, and the cork cannot be withdrawn through the channel by which it was inserted and it becomes necessary to fracture the neck around the part B. This may occur either by the force of a pull and a twist on the cork or by a gentle blow on the weakest part of the neck, or by the pressure of a special tool designed to crush the neck entirely around. When by any of these methods the separation has been effected, the presence of the cork below the line of fracture prevents the passage of any fragments of glass into the bottle. Hence these may be brushed away and the cork withdrawn without danger from the broken glass.

It will be observed that the cork is seated partly within the removable portion of the neck and partly within the neck proper, the object being to strengthen the weakened or breakable part of the neck, to prevent broken glass going into the bottle, and also for the economy of using the same cork to close the bottle while in use.

It will also be noted that this bottle is designed to be closed by the single operation of the insertion of a simple cork in the usual way. It is therefore adapted for everyday use where celerity of filling and closing is necessary, and it can be filled and stoppered by the machines in common use. Hence it has advantages over methods of closing involving the use of two or more steps, as where the stopper is of several parts and composed of different substances.

The projecting lip D on the outside makes a smooth surface in handling the bottle, and the edge of the groove C on the inside leaves a smooth edge for the reception of the cork. Sufficient neck is left on the bottle for the insertion of a cork while using up the contents, and the line of fracture is so slight and so well guarded that there is no danger in handling the bottle as much as may be necessary. Should the fracture occur unintentionally, the

cork extending well below the point of weakness, the contents need not necessarily be lost.

In manufacturing these bottles care must be taken to apportion the glass in its varying thickness to meet the strains to which it will probably be subjected. The presence of the cork acting as a plug or filling beyond the weak part gives the strength and resistance necessary in handling the bottle in use, and no more breakage of these bottles is to be apprehended than those made in the usual style. Such bottles cannot, of course, be refilled and resold without notice to the consumer, but for all economic domestic uses these bottles fulfill their mission as well as the ordinary kind.

Fig. 3 shows the neck with cork inserted after fracture and removal of the upper part.

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

A bottle-neck provided with a seat for the cork choked or contracted sharply toward the mouth, a cork fitting the same, and a breakable line, near the greatest diameter of the cork, and at such a point as to leave approximately half the cork within the removable part, and the rest within the neck proper substantially as described.

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

THOMAS M. DILLINGHAM.

Witnesses:

AUGUSTUS B. FIELD,
PETER S. KENNY.