

(No Model.)

R. S. WIESENFELD.
TOOL FOR MAKING BOTTLES.

No. 511,033.

Patented Dec. 19, 1893.

Fig. 1.

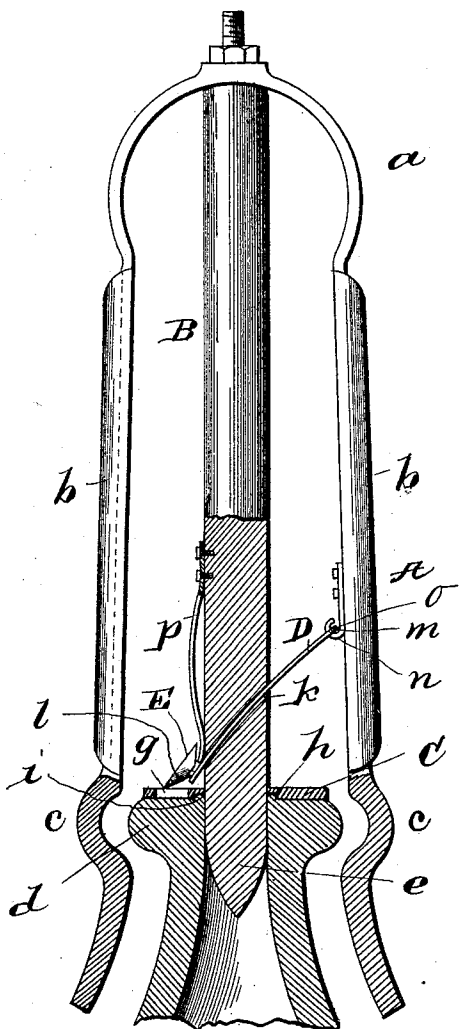
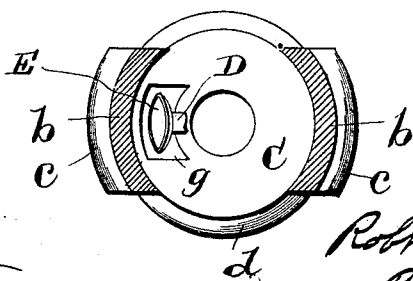
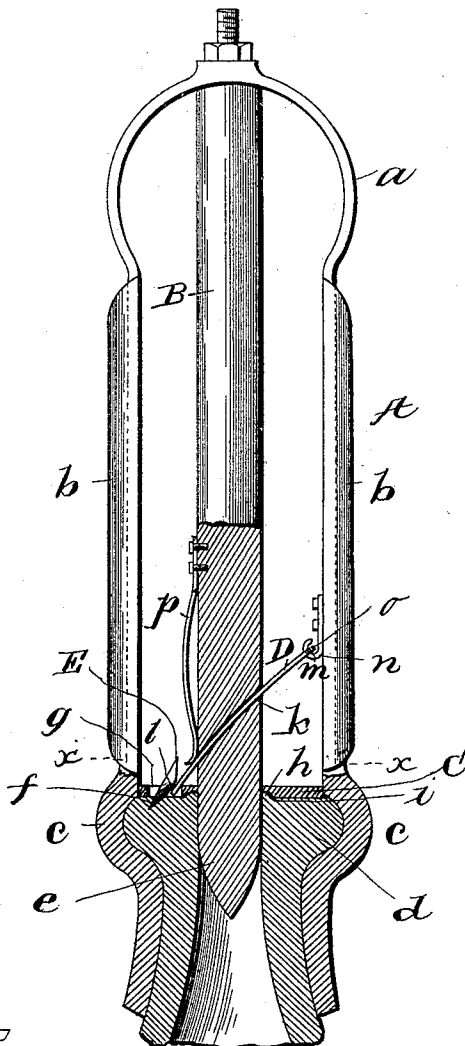


Fig. 2.



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TOOL FOR MAKING BOTTLES.

SPECIFICATION forming part of Letters Patent No. 511,033, dated December 19, 1893.

Application filed February 17, 1893. Serial No. 462,759. (No model.)

To all whom it may concern:

Be it known that I, ROBERT S. WIESENFELD, a citizen of the United States, residing at Baltimore, State of Maryland, have invented certain new and useful Improvements in Tools for Making Bottles; and I do hereby 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.

My present invention relates to tools for making bottles and has for its object the construction of a device for forming an angular groove in the face end of the head of the bottle as will be fully disclosed in the following specification and claims.

In the accompanying drawings which form part of this specification Figure 1, represents a side elevation partly in section showing the several parts in their normal positions; Fig. 2, a like view showing the position of the parts when in use, and Fig. 3, a cross section on the line *x x*.

Reference being had to the drawings and the letters thereon, A indicates a clamp having a bow shaped spring end *a* and two arms or sides *b b* on each of which are jaws *c c* to engage the head *d* of a bottle. The jaws are concave to conform to the head of the bottle which has previously been formed in a suitable mold. To the bow end *a* of the clamp is secured a rod B, the lower end *e* of which enters the neck of a bottle, as shown in Fig. 2, and centers the tool while the groove *f* is being formed in the face of the head of the bottle.

C indicates a bar which crosses the tool and through which the rod B projects, and is provided with an aperture *g*, and with a groove *h* on its under side to form the seat *i* on the bottle.

To the inside of one of the arms *b* is pivotally secured a bar D, which passes through a slot *k* in the rod B, and supports a revoluble wheel E mounted on a spindle *l* on the free or lower end of the bar D. The wheel E is projected through the aperture *g* in the bar C, when the spring jaws are compressed to engage the head of a bottle, as will hereinafter more fully appear. The bar D is shown pivoted to the arm *b* at *m* by an ordinary hook

n and eye *o*, but any approved form of hinged joint may be used.

To the rod B is secured a spring *p*, the lower end of which rests against the bar D and is designed to hold the wheel E down to its work.

To form the groove *f* in the head of a bottle, the head is reheated and seized by the operator by means of the spring jaws, and as the jaws are compressed the wheel E is projected into the soft glass and the groove *f* formed; the bottle being revolved while the tool is held stationary in the hand of the operator. The wheel E being supported at an angle to the axis of the rod B the groove *f* is undercut or at an angle to the face of the head of the bottle as shown and in the operation of forming the groove the wheel floats in the glass. To withdraw the wheel from the groove *f* the operator releases his grip on the spring arms *b b* when the resiliency of the spring withdraws the wheel.

Having thus fully described my invention, what I claim is—

1. A tool for making bottles, comprising a pair of compressible jaws, and a device for forming a groove in the face of the head and at an angle to said face.

2. A tool for making bottles, comprising a pair of compressible jaws, a centering rod and a device for forming a groove in the face of the head and at an angle to said face.

3. A tool for making bottles, comprising a pair of compressible jaws, a wheel attached to a bar pivotally connected to one arm of the jaws and supported to be projected into the face of the head of the bottle at an angle to the face.

4. A tool for making bottles comprising a pair of compressible jaws, a revoluble wheel supported upon a bar pivotally connected to one arm of the jaws and supported to be projected into the face of the head of the bottle at an angle to the face.

5. A tool for making bottles comprising a pair of compressible jaws, a centering-rod a transverse bar through which said rod passes, a bar pivotally connected to one arm of the jaws, and a wheel revolubly supported at the free end of said bar and at an angle to the axis of the centering rod.

6. A tool for making bottles comprising a

pair of compressible jaws, a centering-rod provided with a slot, and a bar supporting a wheel at an angle to the axis of said rod.

7. A tool for making bottles comprising a
5 pair of compressible jaws, a centering-rod provided with a slot, a bar extending through said slot and supporting a revoluble wheel, and a spring resting upon said bar.

8. A tool for making bottles comprising a
10 pair of compressible jaws, a centering-rod provided with a slot, a bar crossing the tool and

through which said rod projects and having an aperture and a groove to form a seat on the end of the head of the bottle, and a device
15 revolubly attached to said bar at an angle to the axis of the centering-rod.

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

ROBERT S. WIESENFELD.

Witnesses:

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