(Model.)

J. B. WILSON.

TOOL FOR FORMING BOTTLE LIPS AND NECKS.

No. 295,848. Patented Mar. 25, 1884.

FIG. 1.

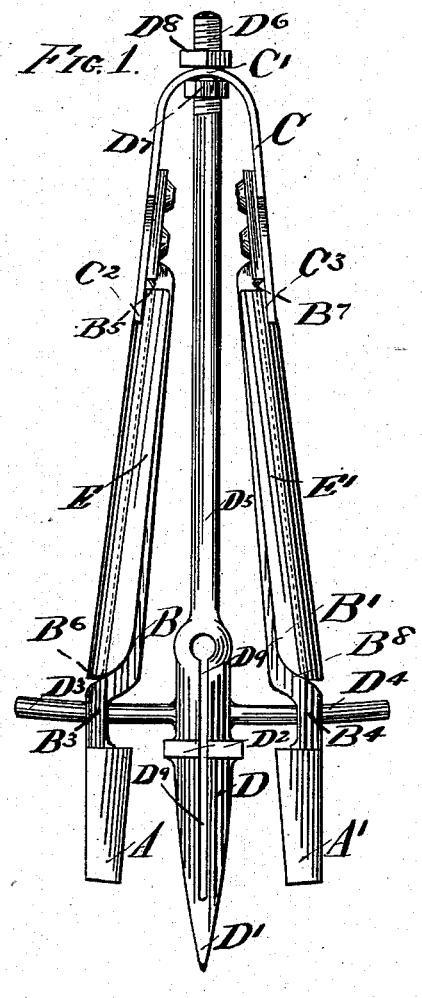
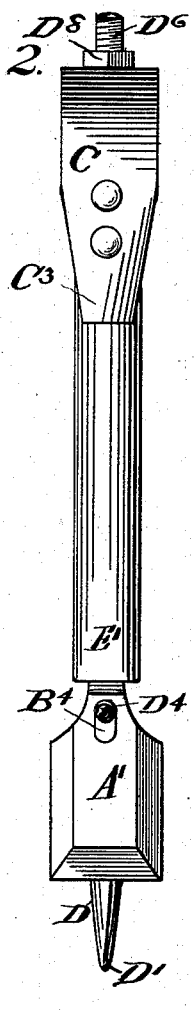


FIG. 2.



WITNESSES:

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TOOL FOR FORMING BOTTLE LIPS AND NECKS.

SPECIFICATION forming part of Letters Patent No. 295,848, dated March 25, 1884.

Application filed September 14, 1883. (Model.)

To all whom it may concern.

Be it known that I, JOSEPH BAREFORD WILSON, a citizen of the United States, residing at Clayton, in the county of Gloucester and State of New Jersey, have invented certain new and useful Improvements in Tools for Forming Bottle Lips and Necks; and I do hereby declare the following to be a sufficiently full, clear, and exact description thereof to enable others skilled in the art to make and use the said invention.

This invention relates to that class of tools or implements used by glass-blowers for shaping and finishing the lips of glass vessels, such as bottles and jars; and it has for its object the cheapening in cost, by simplifying the construction, their greater durability, and the facility of adjustment to compensate for wear, and to adapt the instrument to different diameters of mouths required in glassware.

It has been found by experience that the steel bow or spring by which the jaws of such instruments are connected becomes weak at the place of greatest flexure, and usually breaks long before the other parts of the instrument are worn out; and it has also been found by experience that in tools having an expansible plug composed of several parts, or in which the guides for centering the central plug with the jaw are formed in a separate piece or pieces, these parts in working lose their adjustment and require a degree of attention and watchfulness on the part of the workmen which interferes with rapid working.

To overcome these difficulties and imperfections, the nature of this invention consists of a conical shouldered plug of ductile metal having a slot formed therein, which, being opened by the insertion of wedge-shaped tools, expands the cone diametrically, and in guides forming an integral piece with the said shouldered cone, projecting and sliding through slotted apertures in the shanks or shafts bearing the jaws, and in a screw-shaft formed also as an integral piece with the said shouldered cone, by which the lengthwise adjustment of the cone and shoulders in relation to the spring and jaws is effected. The spring or bow is formed of metal not easily susceptible of corrosion, and permanently secured to the shanks or shafts of the jaws by riveting.

I will now proceed to particularly describe the mode of making and using the said invention, referring in so doing to the drawings annexed, and the letters of reference marked thereon.

Figure 1 is a side view of the tool, and Fig. 2 an edge view thereof.

The same letters of reference apply to the same parts in both figures.

A and A′ are the jaws, each formed of the same piece of metal with the shanks B and B′, which shanks are riveted at the opposite ends to a spring or bow, C, made of elastic metal not easily corroded, hard-rolled "German silver" or brass being found to answer effectually.

D is the plug, being of a conical form at D′, and having shoulders D^2, adapted to rest on the end of a bottle-neck, curved guides D^3 and D^4, projecting laterally and passing so as to slide freely through slots B^3 and B^4 in the shanks B and B′, and a stem, D^5, terminating in a screw, D^6, passing through a hole, C′, in the center of the spring C, where it is secured by nuts D^7 and D^8, by which the plug D may be adjusted in the direction of its length in relation to the jaws A and A′, shanks B and B′, and spring C. Grooved wooden handles E and E′ are fitted over the shanks B and B′, and are held thereon by projecting ends C^2 and C^3 of the spring C, the offsets B^5, B^6, B^7, and B^8, as indicated in dotted lines, in the shanks B and B′ providing the requisite space, the function of the handles E and E′ being to protect the hands of the operator from heat. The plug D is slotted at D^9 from a point back of its apex to a point back of the shoulders D^2. When it is desired to increase the diameter of the plug D and adapt it to form larger necks on bottles, a wedge or lever is inserted in the slot D^9, and the plug D thereby laterally expanded. When it is desired to contract the plug D to form smaller bottle-necks, it is compressed by hammering or by squeezing it in a smith's vise, the slot D^9 closing or narrowing in this operation.

Having described my invention and the mode of using the same, what I claim is—

1. In a tool for forming the necks and lips of glassware, a shouldered plug formed of an integral piece of ductile metal, and having a slot formed therein for the purpose of facilitating the diametrical adjustment thereof, substantially as set forth.

2. In a tool for forming the necks and lips

of glassware, a diametrically-adjustable slotted plug formed of an integral piece of ductile metal having lateral guides forming an integral part thereof, substantially as set forth.

3. In a tool for forming the necks and lips of glassware, a diametrically-adjustable slotted plug formed of an integral piece of ductile metal having a screwed shank forming an integral part thereof, and adapted to adjust the same lengthwise in relation to the jaws and spring of such tool, substantially as and for the purpose set forth.

4. An improved implement for forming the necks and lips of glassware, consisting of a diametrically-expansible slotted plug formed of an integral piece of ductile metal having lateral guides, and a screwed shaft forming an integral part thereof, in combination with jaws formed upon slotted shanks covered by slow-conducting handles, and united to said plug by nuts bearing upon a spring of metal less corrodible than the shanks and jaws, substantially as set forth and described.

JOSEPH B. WILSON.

Witnesses:
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