(Model.)

A. F. WILSON.

TOOL FOR FINISHING THE NECKS AND LIPS OF BOTTLES.

No. 265,726. Patented Oct. 10, 1882.

Fig. 1.

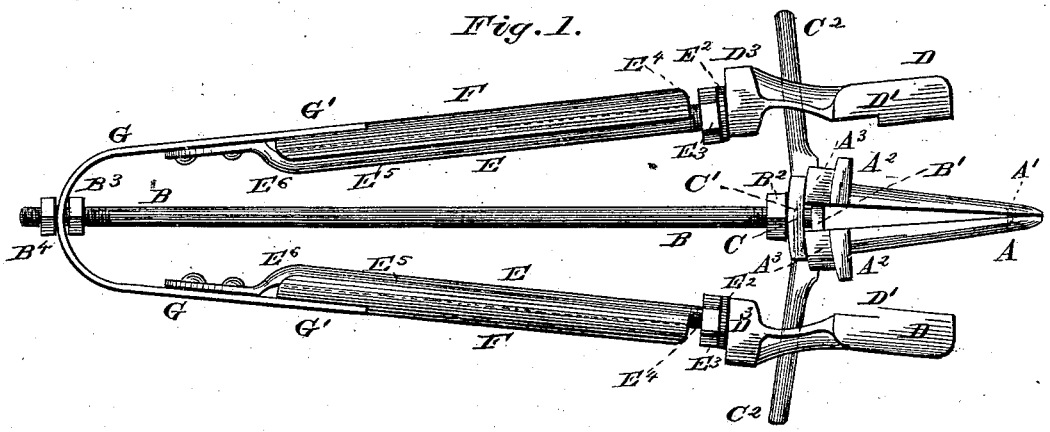


Fig. 2.

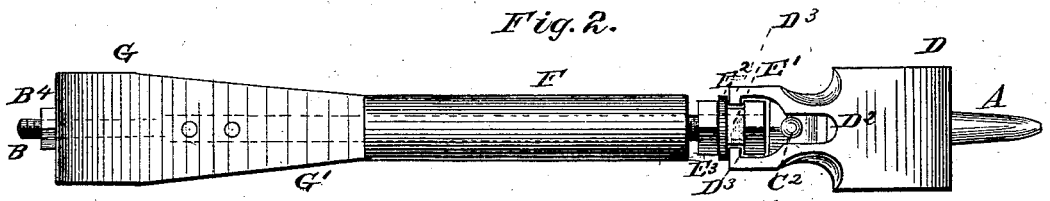


Fig. 3.

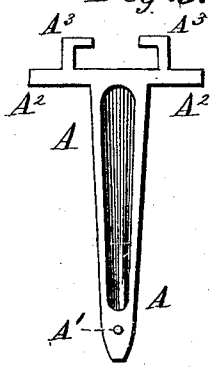


Fig. 4.

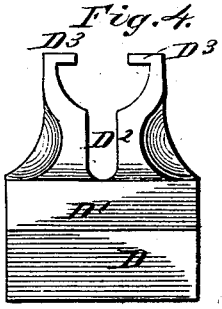


Fig. 5.

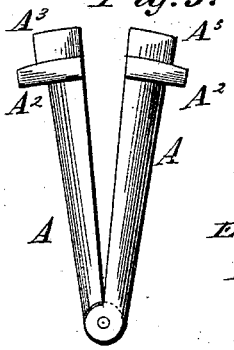


Fig. 7.

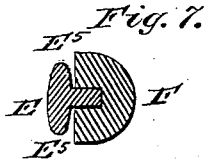
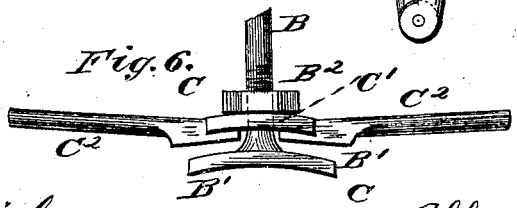


Fig. 6.



WITNESSES

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TOOL FOR FINISHING THE NECKS AND LIPS OF BOTTLES.

SPECIFICATION forming part of Letters Patent No. 265,726, dated October 10, 1882.

Application filed February 4, 1882. (Model.)

To all whom it may concern:

Be it known that I, ALLAN F. WILSON, a citizen of the United States, residing at Clayton, in the county of Gloucester, in the State of New Jersey, have invented a new and useful Improvement in Tools for Finishing the Mouths and Lips of Glassware; and I do hereby declare the following to be a sufficient, full, clear, and exact description thereof to enable others skilled in the art to make and use the said invention.

The object of my invention is to render the tool more comfortable and convenient to the workman, to make the same more readily adaptable to different sizes of ware, and to increase the convenience and facility of use.

The nature of my invention may be briefly stated to consist, first, in insulating or non-conducting handles; second, the mode of attaching such handles; third, the construction of the shanks of the instrument to facilitate the attaching or detaching of such handles and retarding the conduction of heat; fourth, an expansively or diametrically adjustable core or plug; fifth, providing such plug with shoulders adjustable diametrically; sixth, rendering the plug adjustable, so as to vary the depth of the external lip on the glassware; seventh, expansible and contractible jaws, in combination with the handles, so that the position of the handles remains of convenient breadth to be grasped, while the jaws may be expanded to any required diameter of mouth on the ware; eighth, having slots in the jaws, combined with a guide attached to the plug, so as to retain the plug in the plane of the center line of the jaws and relieve the workmen of the labor or effort otherwise required to hold it in position; ninth, the construction of grooved non-conducting handles, adapted from their form to be held securely in position by the spring upon the shanks; tenth, the general disposition for convenience of handling and working of the several parts and their modes of attachment to each other, thus securing great cheapness of construction, convenience of assembling of parts, and great facility of repairs and adjustment.

I will now proceed to describe the mode of making and using this invention, referring, in so doing, to the accompanying drawings and letters of reference marked thereon, in which drawings—

Figure 1 shows a plan of the implement when laid flat upon its side. Fig. 2 shows a side view of the instrument lying in the same position; and the remaining figures, 3, 4, 5, 6, and 7, illustrate the several parts detached from each other.

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

A represents the plug or core, and is composed of two parts made conically when closed together, and susceptible, when opened, of becoming wider at the base, but fixed or closing at the point or apex. A dowel-pin, A′, is secured in one half of the cone, near the point, and fits into a corresponding hole in the other half, so that the two parts of the cone always remain in the same place as they open or close at the base. A hinge at the point may be substituted therefor, as indicated in the dotted line shown in Fig. 3. At the base of the cone is a flange, A^2, formed on each half thereof, and below or back of the flange A^2 are projections or hooks A^3, which engage under shoulders D′, formed on the end of the central rod or the stem B. The hooks A are clamped against the shoulder D′ by a curved plate, C′, forming part of a guide, C, by means of the nut B^2. The surfaces of the plates C′, hooks A^3, and shoulders D′ are curved, so as to be in the form of cylindric segments, having their axes coincident and perpendicular near the point of the cone or plug A, by which means the plug A and shoulders A^3 are readily expanded or contracted and adjusted diametrically, while the point or end of the cone remains of the same dimensions.

D D are jaws having shoulders D′, which serve to shape the rim or external lip of the glass vessel, as upon bottles and jars. Through the jaws D, back of the shoulder D′, are slots D^2, through which fit laterally but play freely longitudinally the arms C^2 of the guides C, and serve to hold the jaws D in the same plane as the axis of the cone A.

Below or back of the slot D^2 are hooks D^3, which engage under heads E′ upon the shanks E E, against which heads the hooks D^3 are pressed and held firmly by the washers E^2 and nuts E^3, so that the shanks E, while maintain-

ing the same relative distance, can have the jaws D adjusted to greater or less distance from each other, as may be required to suit different diameters of mouths or necks and lips of bottles and jars or other glassware. The shanks E beyond the screw-thread E^4 are made ribbed or in section, like a capital letter T, so as to be extremely light and stiff, and by reason of their lightness and small cross-section to be incapable of conducting any large amount of heat through their length, and also so as to present the ridge or rib outwardly, (marked E^5 in the drawings,) upon which the handles F, formed of non-conducting or slow-conducting material, can be readily applied.

Beyond the ribbed or T-shaped portions of the shanks E there is an offset or bend, E^6, made outwardly, beyond which the shanks terminate in flat surfaces, which are riveted to the spring G. The spring G is in form like a capital letter U, perforated at the bend, through which aperture the stem or rod B passes, where it is secured by nuts B^3 and B^4 fitting upon a screw-thread cut thereon. The ends of the spring G (marked G′) project far enough over the ribbed portion of the shank E to serve to retain the grooved non-conducting handles in position upon the shanks.

By means of the nuts B^3 and B^4 the rod or stem B and cone or plug A may be adjusted longitudinally, so as to vary the distance between the shoulders D′ and A^2, and thus vary the thickness of the lip upon the necks of bottles, jars, or other glassware as may be required.

By reason of the elasticity of the ends G′ of the springs G the handles F are retained in position, and can be readily removed by simply pulling them outward. At the ends nearest to the jaws D the handles F, being of more perishable material than the rest of the implement, have to be frequently renewed, and form an article of manufacture salable without the instrument, although especially adapted to be used with it. The slotted openings D^2 in the jaws D, fitting closely laterally upon the guiding-stems or horn C^2 of the guide C, and being free to move longitudinally in the slots as adjusted by the nuts B^3 and B^4, moving the stem B, plug A, and guide C lengthwise, serve to retain the plug A always in the same central plane with the jaws D.

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

1. In a tool for finishing the lips and mouths of glassware, the combination of grooved non-conducting handles with the ribbed or T-shaped shanks of such instruments, substantially as shown and described.

2. The combination of grooved slow-conducting handles F with the ribbed or T-shaped shanks E and springs G′, substantially as shown and described.

3. In a tool for finishing the necks and mouths of glassware, the combination of the spring G with the ribbed shanks E, connecting the jaws therewith, for the purpose of retarding the conduction of heat from the jaws to the spring, substantially as set forth, shown, and described.

4. The core or plug A, diametrically adjustable at its base, in combination with the flanges A^2 and curved plate C′, as and for the purpose set forth.

5. The expansible plug A, in combination with the shoulder B′, curved plate C′, rod B, and nut B^2, arranged to operate substantially as and for the purpose set forth.

6. The expansible plug A, in combination with a longitudinally-adjustable rod B and shouldered jaws D, for varying the thickness of external lips of glassware, substantially as shown and described.

7. The expansible and contractible and longitudinally and diametrically adjustable jaws D, in combination with the shanks E, handles F, and spring G, arranged to operate substantially in the manner set forth and described.

8. The combination of the slotted jaws D with the guiding cross-bar C, arranged to operate substantially in the manner set forth and described.

9. The combination of the longitudinally and diametrically adjustable jaws D, shanks E, handles F, spring G, rod B, nuts B^3 and B^4, guides C, and expansible and contractible plug A, arranged to operate substantially in the manner set forth and described.

10. As an article of manufacture, grooved non-conducting handles F, adapted to fit upon the ribbed shanks of tools for forming the mouth and lips of glassware, substantially as shown and described.

ALLAN F. WILSON.

Witnesses:
LINN WHEELER,
J. DANIEL EBY.