

G. M. KEEFFER.

Tools for Forming Screw Threads in the NeckS of Glass Bottles.

No. 125,739.

Patented April 16, 1872.

Fig. 2.

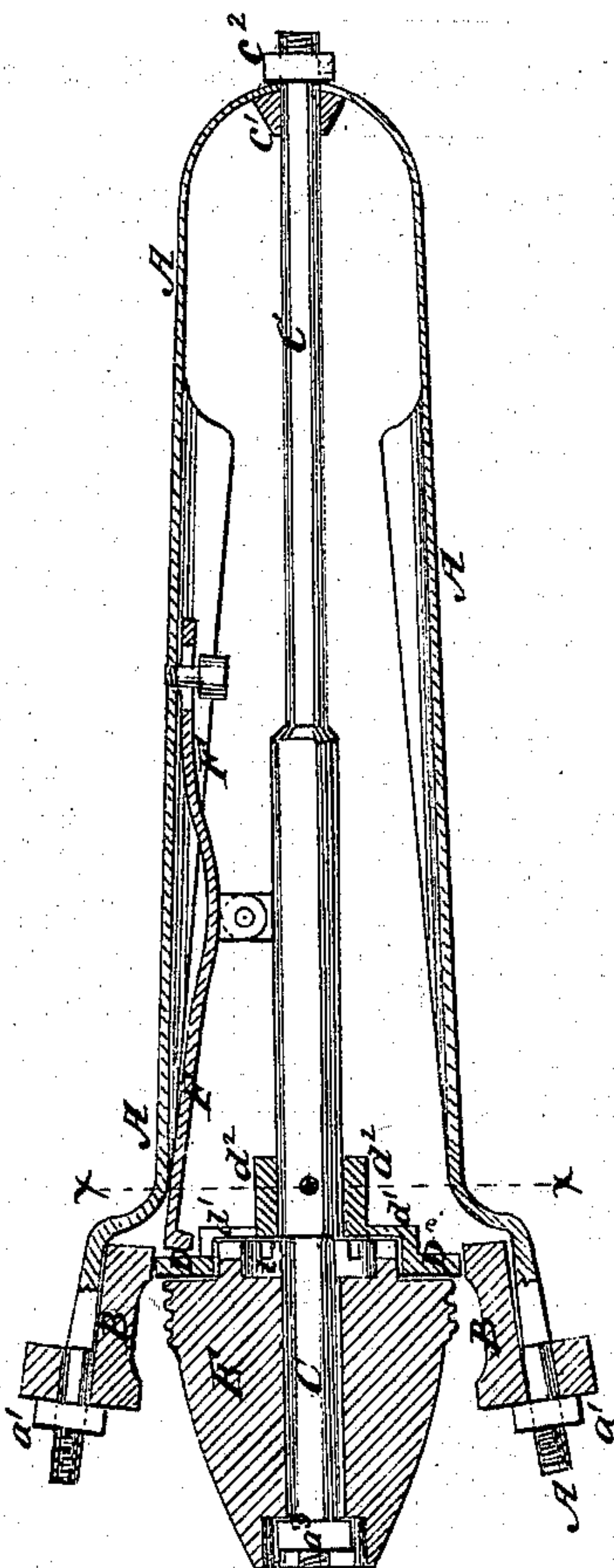
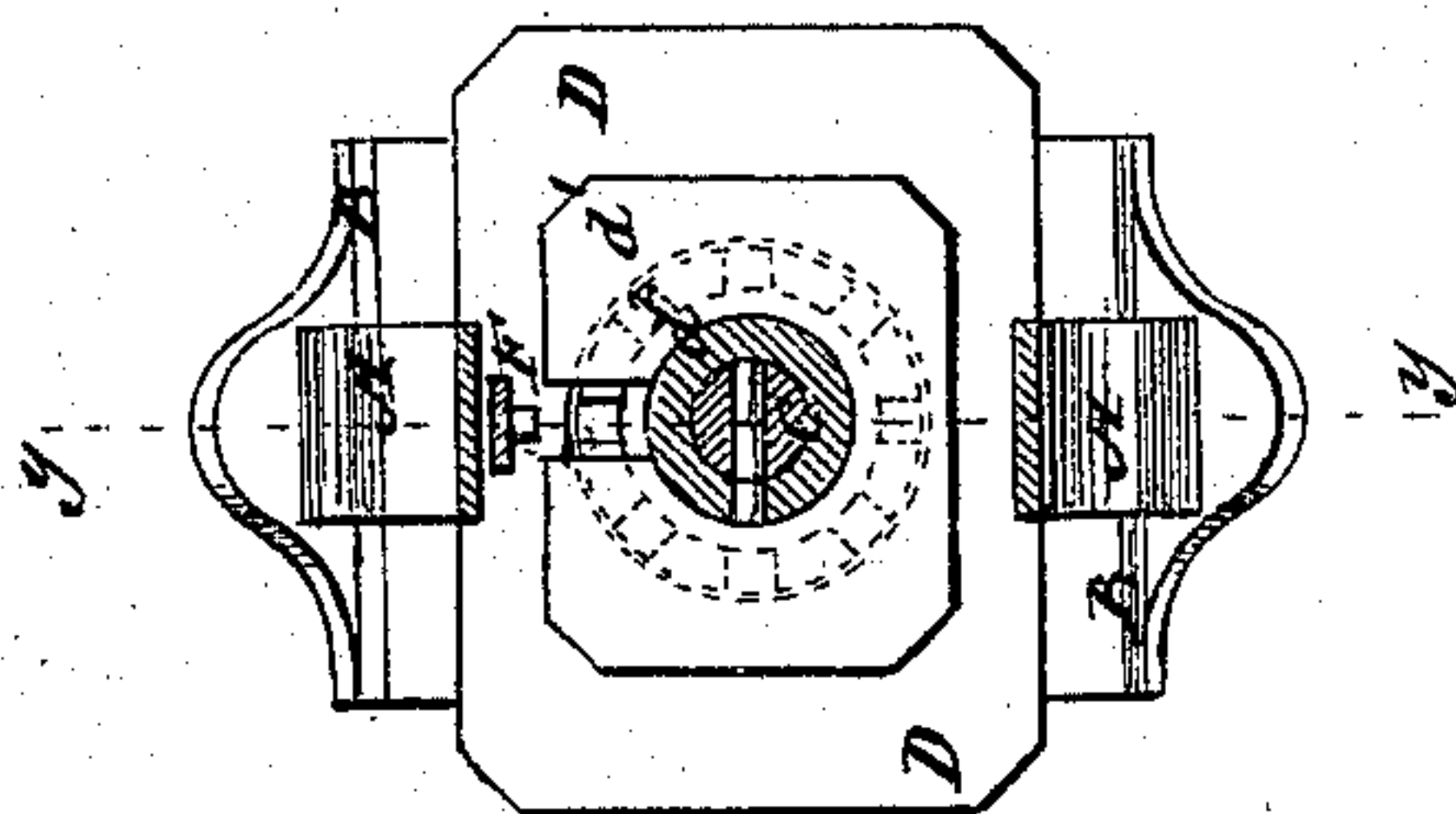


Fig. 1.



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IMPROVEMENT IN TOOLS FOR FORMING SCREW-THREADS IN THE NECKS OF GLASS BOTTLES.

Specification forming part of Letters Patent No. 125,739, dated April 16, 1872.

Specification describing a new and useful Improvement in Tools for Forming Screw-Threads in the Necks of Glass Bottles, Jars, &c., invented by GOVENEUR M. KEEFFER, of East Birmingham, Buchanan Post Office, in the county of Allegheny and State of Pennsylvania.

Figure 1 is a detail cross-section of my improved tool taken through the line *x x*, Fig. 2. Fig. 2 is a detail longitudinal section of the same taken through the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention has for its object to improve the construction of tools for forming screw-threads in the necks of glass bottles, jars, &c., so as to make them more convenient in use and more effective in operation; and it consists in the construction and combination of various parts of the tools, as hereinafter more fully described.

A is the bow or handles of the tool, which is made of an iron bar bent at its center and rounded off at the sides, so that the operator can conveniently grasp it with his hand. The ends of the handles A are bent outward, or have offsets formed upon them to receive the jaws B, which form the neck or lip of the bottle or jar, and which are secured to said ends detachably by nuts *a'*, as shown in Fig. 2, so that they may be detached and replaced by others, as may be desired. C is a rod, one end of which passes through a hole in the center or bend of the handle A, and is secured in place by a collar, *c'*, formed upon said rod to fit into the concave of the handle A and by the nut *c''*, as shown in Fig. 2. D is a small square plate, which has a countersink or recess, *d'*, upon its forward side to receive the flange of the plug E. The plate D is also made with a sleeve, *d''*, through which the rod C passes, and by means of which the plate D is secured to the rod C by screws, rivets, or other convenient means. E is the plug that forms the interior of the neck of the jar or bottle, and which has a screw-thread formed upon its thicker part or base to form a screw-thread in the said neck. The plug E is perforated longitudinally through its center to receive the forward end of the rod C, to which it is secured by a nut, *e'*, screwed upon the end of the said rod C, and which enters a countersink in the forward end of the said plug E. Upon the base or rear end of the plug E is

formed a circular flange, *e'*, which enters the countersink *d'* of the plate D, as shown in Fig. 2. The plate D is slotted, and the flange *e'* is notched to receive the end of the catch or lock lever F to lock the plug E to said rod C, when desired, so that the plug E may be turned or screwed out of the neck of the bottle or jar. The lever F is pivoted to the rod C, and its other or rear end is slotted to receive a guide, projection, or pin formed upon or attached to the inner side of one arm of the handle A.

The handle A should be made elastic, so that when the pressure upon it is removed its elasticity may remove the jaws B from the neck of the jar or bottle. The lever F should also be made elastic, and should be so arranged that, when the arms of the handle A are pressed together to press the jaws B against the neck of the jar or bottle, the engaging end of the said lever F will be withdrawn from the notched flange *e* of the plug E, releasing said plug and allowing it to remain stationary while the outside of the neck of the bottle is being formed. As soon as the pressure upon the handle A is removed the elasticity of said handle will expand it and force the engaging end of the lever F inward to catch upon the notched flange *e'* of the plug E and lock it, so that the jar or bottle may be unscrewed from it.

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

1. The revolving plug E, having a screw-thread cut upon it, provided with a notched circular flange, *e'*, and pivoted to the forward end of the stationary rod C, to adapt it to be conveniently locked and released, substantially as herein shown and described, and for the purpose set forth.

2. The stationary plate D, provided with a countersink, *d'*, and a sleeve, *d''*, to adapt it to receive the flanged base of the plug E *e'*, and the rod C, to which it is attached, substantially as herein shown and described, and for the purpose set forth.

3. The combination of the lever-catch F with the handle A, stationary rod C, plate D *d'* *d''*, and pivoted flanged plug E *e'*, substantially as herein shown and described, and for the purpose set forth.

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