

(No Model.)

W. H. WILSON.

TOOL FOR GROOVING THE MOUTHS OF BOTTLES.

No. 382,929.

Patented May 15, 1888.

Fig. 1.

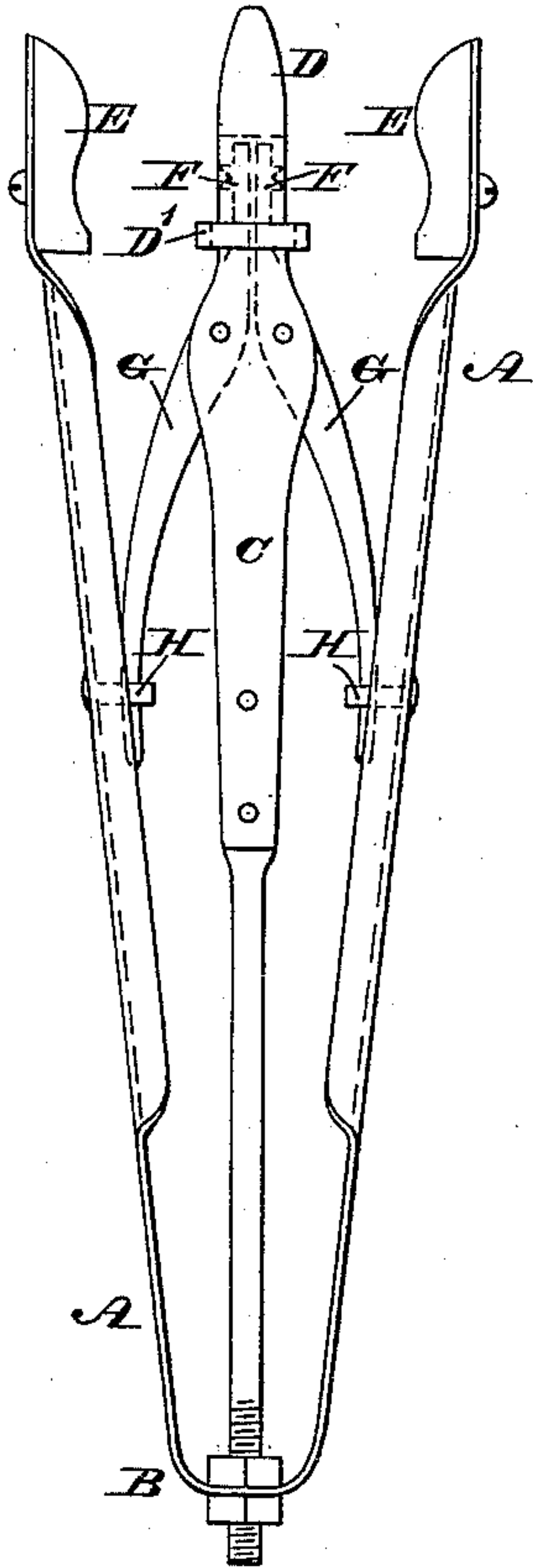


Fig. 2.

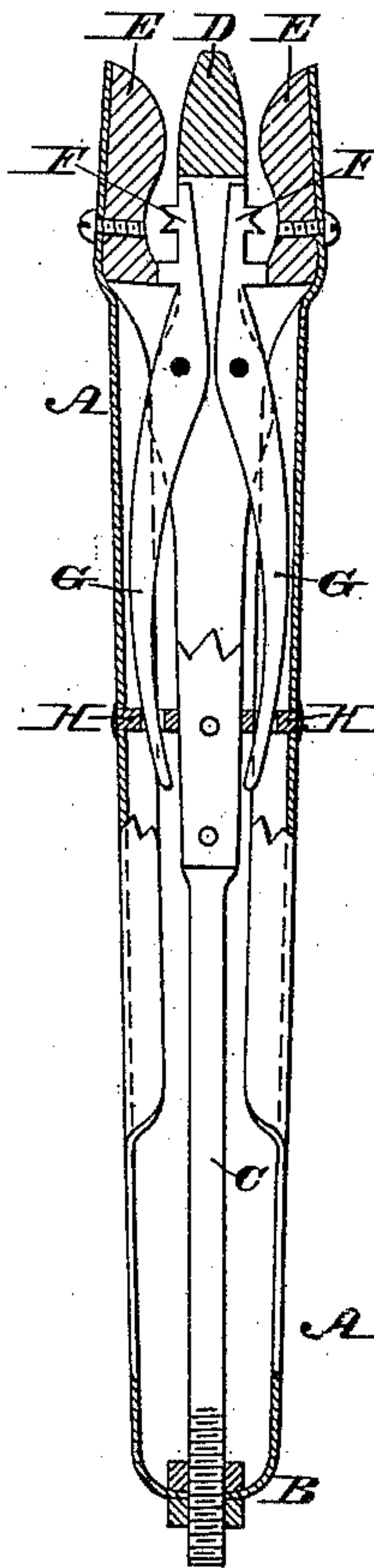
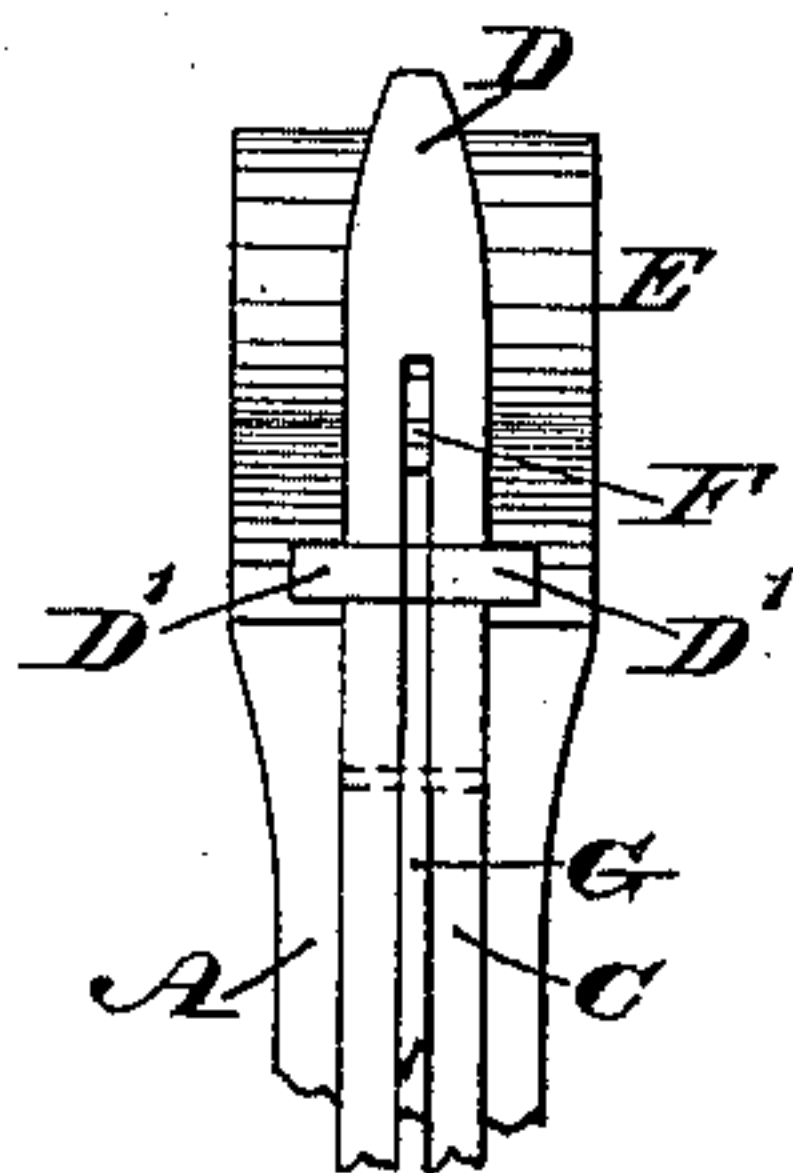


Fig. 3.



WITNESSES:

*No. P. Grant,*

*L. Douville*

INVENTOR:

*W. H. Wilson*

BY

*John A. Wiedersheim*

ATTORNEY.

# UNITED STATES PATENT OFFICE.

WILLIAM H. WILSON, OF CAMDEN, NEW JERSEY.

## TOOL FOR GROOVING THE MOUTHS OF BOTTLES.

SPECIFICATION forming part of Letters Patent No. 382,929, dated May 15, 1888.

Application filed November 16, 1886. Serial No. 219,035. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. WILSON, a citizen of the United States, residing in the city and county of Camden, State of New Jersey, have invented a new and useful Improvement in Tools for Grooving the Mouths of Bottles, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 represents a side elevation of a tool for grooving the mouth of a bottle embodying my invention. Fig. 2 represents a vertical section thereof. Fig. 3 represents a view of a detached portion of the inner part of the tool.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a tool for grooving the mouth of a bottle, the same embodying novel means for operating the grooving-bits, as will be hereinafter fully set forth.

Referring to the drawings, A represents spring-jaws, to the crown or jointed portion B of which is adjustably secured a stem, C, the latter having at the end opposite to said crown the prong or head D, which conforms to the shape of the inside of the mouth of the bottle to be grooved. To the ends of the jaws, adjacent to the head D, are secured the blocks or molds E, the faces of which conform to the shape of the outside of the mouth of the bottle to be grooved. The head is slotted near its inner end in the direction of its length to receive the grooving-bits F, which are secured to or formed with levers G, the latter being fitted partly within the stem C and pivoted thereto, the ends of the portions of the levers outside of the stem opposite to the bits freely entering eyes H on the inner sides of the jaws A. The bits are of the contour of the grooves to be formed, and they face the molds E, the levers G causing said bits to enter the head D when the jaws are opened, as in Fig. 1, and to emerge therefrom when the jaws are closed, as in Fig. 2. If desired, one of the bits, levers, and eyes may be dispensed with.

The operation is as follows: The tool is properly grasped by the hand and the head D inserted into the mouth of a bottle, the glass

being in hot condition, the extent of entrance of the head into the mouth being limited by shoulders D' at the base of said head. The jaws A are now closed, whereby they come in contact with the exterior of the mouth of the bottle. Simultaneously therewith the levers G are closed, whereby the bits F are projected laterally in opposite directions beyond the head D, and thereby forced into the glass. The tool is now rotated, whereby the bits form a groove on the inside of the mouth of the bottle, and the head D and molds E assist in finishing, respectively, the interior and exterior of said mouth. When the work is accomplished, the jaws are permitted to expand or open, whereby the levers carried by said jaws withdraw the bits from the groove that they have formed and return them into the head, whereby the tool may be disconnected from the mouth of the bottle, the bits occupying such position that they do not prevent the head from leaving said mouth.

It is evident that the bits are easily operated in both motions, and, owing to the levers G, said motions are quickly made. Furthermore, the spring of the jaws, which serves to open the same, is adapted to operate the levers G for returning the bits to their normal positions within the head D, thus avoiding complication in the construction of the tool, and rendering the latter strong and inexpensive. The head may also be nicely adjusted relatively to the molds E and the mouth of the bottle, owing to the adjustable connection of the stem C with the portion B of the jaws, the ends of the levers G freely moving in the eyes H during the adjusting motions of the stem.

I am aware that a bottle-grooving tool has been formed of jaws, bits, levers, and molds, said levers being operated by the jaws and thus projecting the bits. Such features I do not therefore claim.

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

A tool for grooving the mouth of a bottle, comprising the spring-jaws A, having the eyes or sockets H secured thereto on the inner sides thereof, and having the detachable molds



E secured at their ends, the stem C, adjustable in said jaws and having the slotted head D, with shoulders D', the levers G, partly within the said stem and pivoted thereto, each  
5 of the said levers having at one of its ends the bit F, the other end freely entering the eye H, the said shoulders D' forming a seat for the

neck of the bottle and adapted to abut against the lower portion of the molds, substantially as described.

WILLIAM H. WILSON.

Witnesses:

FRANK STOKES,

T. P. VARNEY.