(No Model.)

H. C. SCHRADER.

SNAP FOR HOLDING GLASS ARTICLES.

No. 292,685. Patented Jan. 29, 1884.

Fig. 1.

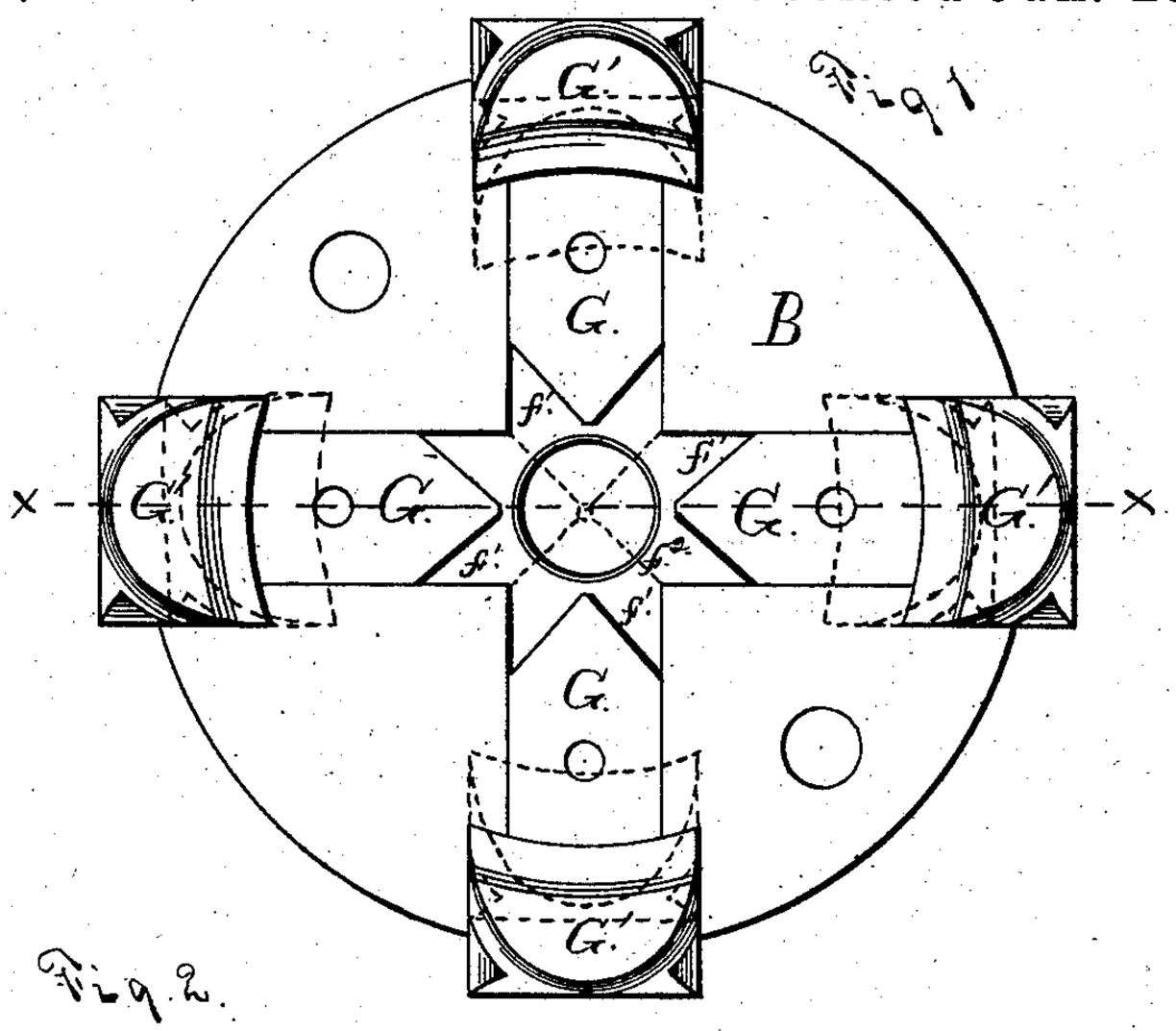


Fig. 2.

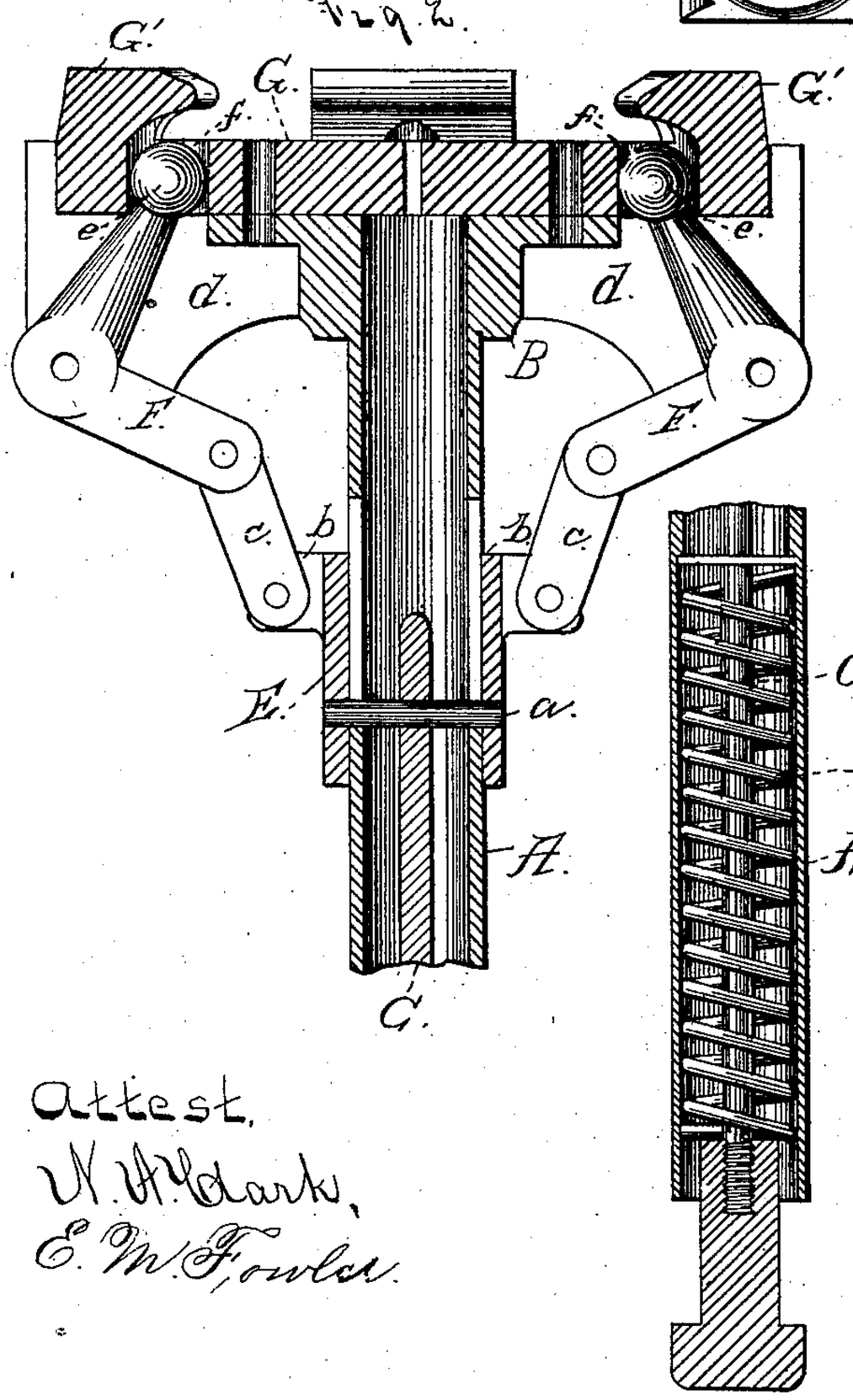
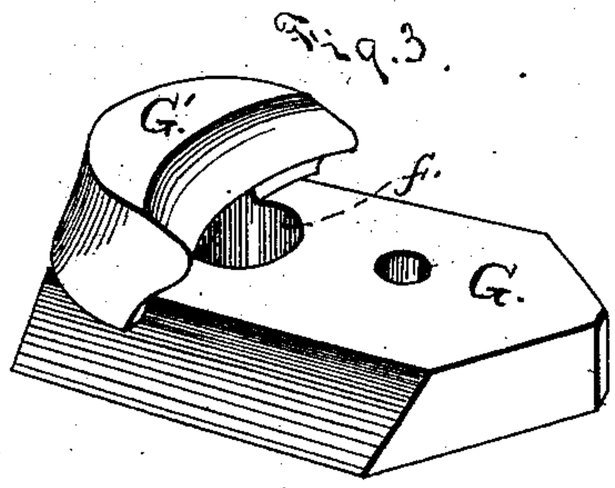


Fig. 3.



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UNITED STATES PATENT OFFICE.

HENRY C. SCHRADER, OF WHEELING, WEST VIRGINIA.

SNAP FOR HOLDING GLASS ARTICLES.

SPECIFICATION forming part of Letters Patent No. 292,685, dated January 29, 1884.

Application filed May 5, 1883. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. SCHRADER, of Wheeling, in the county of Ohio and State of West Virginia, have invented a new and useful Improvement in Snaps for Holding Glass Articles; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to an improvement in "snaps" for holding glass vessels during the reheating or finishing process. The object it has in view is the construction of a device of the character described, which will be adapted to use with glass vessels of various sizes and forms, and which will be simple, cheap, and effective.

To the accomplishment of the above the invention consists of the novel construction, arrangement, and combination of certain of the parts, all as will be fully hereinafter described and claimed.

For the better understanding of the invention, reference will be made to the accompanying drawings, in which—

Figure 1 is a top plan view of the device; Fig. 2, a vertical section on line *x x* of Fig. 1, and Fig. 3 a view in detail.

Like letters refer to corresponding parts in each of the views.

In the drawings, A represents a long hollow tube or handle carrying on its upper end a metal plate, B, to be hereinafter referred to. Inserted into this handle A is a rod, C, which protrudes a short distance below said handle and extends up to a point near the upper end of the same. Encircling this rod is a spiral spring, D, which abuts at its lower end against a shoulder formed on the lower end of the rod C, and at its upper end against a shoulder formed on the interior of the handle A, as shown in Fig. 2 of the drawings. At a point near its upper end the rod C is provided with an opening, into which is inserted and secured a pin, *a*, the ends of this pin passing through a slot formed in the handle A and secured to a collar or sleeve, E, passed around said handle, as shown.

By means of the construction thus far described, when pressure is applied to the rod C, the collar or sleeve E is moved up on the handle A through the medium of the pin *a*, referred to, and when the pressure is withdrawn from the rod C said rod and the collar E are drawn back to their original position through the medium of the spring D. The sleeve or collar E is provided, at points near its upper end, with a suitable number of bearings, *b*, in which are pivoted short arms *c*, the upper ends of said arms being pivoted in slots (not shown) formed on the lower ends of the bell-crank levers F. These levers F are pivoted at or about their centers between suitable depending arms or brackets, *d*, cast on the under side of the top plate, B, before referred to.

Upon the upper end of each of the levers F is formed a ball-shaped enlargement, *e*, which enlargements are inserted into recesses or cavities *f*, formed in suitable horizontally-moving jaws, G, now to be described. These jaws consist of metal pieces pointed at their inner ends and having their edges beveled, so as to fit in suitable dovetail grooves, *f' f'*, formed in the upper face of the top plate, B. These grooves extend entirely across this plate B, and are formed at right angles to each other, crossing at the center of the plate and forming an open space, f^2, as shown in Fig. 1.

Upon the upper face of each of the jaws G, and at the outer end of the same, is secured or cast a piece, G', which pieces are preferably curved on their inner faces, so as to enable them to fit more closely against the glass article to be held between them. When the device is not in use and the jaws are in their normal position, their inner or pointed ends are brought together, so as to present, with the top plate, B, a solid appearance.

The operation of the device is as follows: Pressure is applied to the rod C, and through the medium of the pin *a*, which is secured to the upper end of this rod and to the sleeve E, said sleeve is moved vertically on the handle A. This motion elevates the short arms *c*, which are secured between this sleeve and the bell-crank levers F, thus operating these levers, and the jaws G, to which they are attached, are drawn apart, thus leaving sufficient space between the curved pieces G' for the insertion of the article to be operated upon. When the foot or base of the article has been

placed between these pieces G′, the pressure is withdrawn from the rod C, and said rod, together with the sleeve E, forced down by the spiral spring D, which action forces the jaws G inwardly and brings the curved pieces G′ against the foot of the article which has been inserted between them, thus holding said article firmly in position. When the article has been operated upon and it is desired to remove it from the snap, pressure is again applied to the rod C and the jaws G drawn from contact with the foot of said article, the article itself being thus removed and the jaws allowed to assume their original position by withdrawing the pressure from rod C.

The advantages of my device over those used for a similar purpose are, first, one device may be employed with articles of a great variety of sizes and forms; second, by means of the construction employed a different number of holding jaws or snaps may be used, the device operating equally as well with two, three, or four of such jaws; third, the device is simple in construction, cheap, durable, and effective.

Having thus described my invention, what I claim as new therein, and that for which I desire to secure Letters Patent, is—

In the device described, the combination, with the hollow slotted handle A, provided with the spring-actuated rod C, pin *a*, and sliding collar E, of the arms *c c*, bell-crank levers F, and beveled-edged jaws G, sliding horizontally and radially in dovetail grooves *f′ f′* of the top or bed plate, B, substantially as described and shown.

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

HENRY C. SCHRADER.

Witnesses:

JOSEPH A. BODLEY,

J. D. ELSON.