(No Model.)

W. J. WILKINSON.

CLUTCH FOR HOLDING GLASS ARTICLES WHILE BEING FINISHED.

No. 571,255. Patented Nov. 10, 1896.

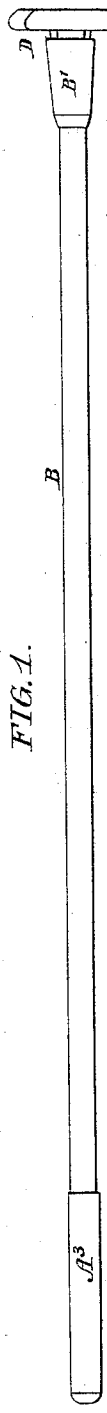

FIG. 1.

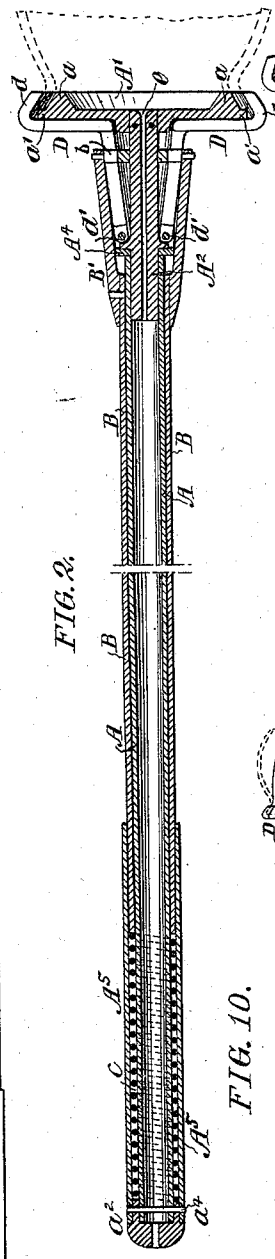

FIG. 2.

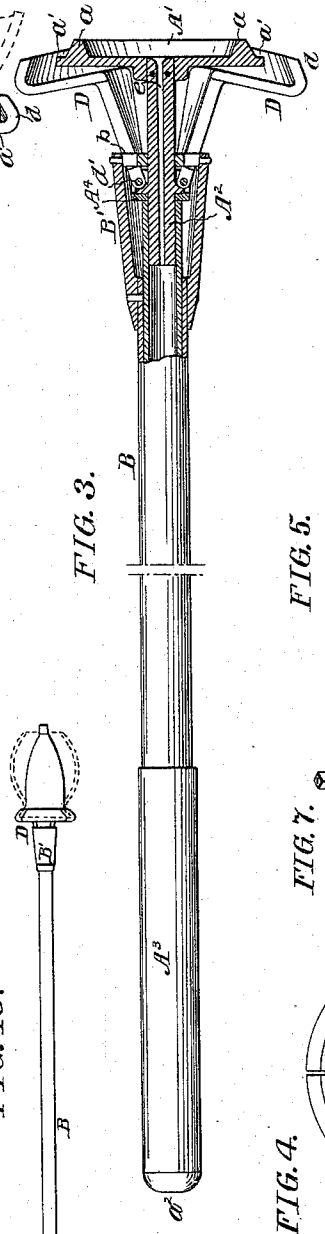

FIG. 3.

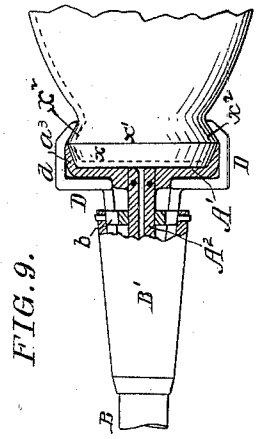

FIG. 9.

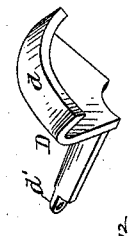

FIG. 5.

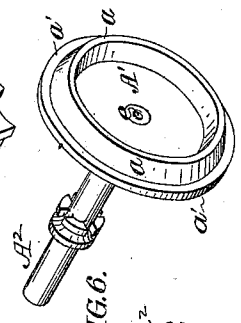

FIG. 6.

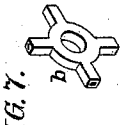

FIG. 7.

FIG. 8.

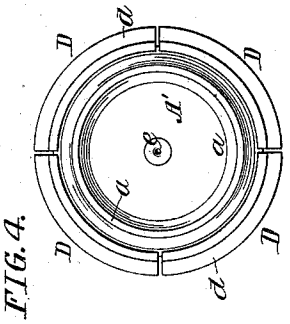

FIG. 4.

FIG. 10.

Witnesses:
F. D. Goodwin
Wm. A. Barr.

Inventor:
William J. Wilkinson
by his Attorneys
Howson & Howson

UNITED STATES PATENT OFFICE.

WILLIAM J. WILKINSON, OF PHILADELPHIA, PENNSYLVANIA.

CLUTCH FOR HOLDING GLASS ARTICLES WHILE BEING FINISHED.

SPECIFICATION forming part of Letters Patent No. 571,255, dated November 10, 1896.

Application filed October 23, 1894. Serial No. 526,726. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. WILKINSON, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented an Improved Clutch for Holding Glass Articles while being Finished, of which the following is a specification.

The object of my invention is to construct an improved mechanical clutch for holding glass articles to be finished that will not disfigure the article in its grasp and which can be readily attached to or detached from the same.

Referring to the accompanying drawings, Figure 1 is a view of my improved glass-blower's clutch. Fig. 2 is a longitudinal sectional view, partly broken away, showing the clutch closed. Fig. 3 is a side view, partly in section, showing the clutch open. Fig. 4 is an end view. Figs. 5, 6, 7, and 8 are detached perspective views of parts of the clutch. Fig. 9 is a view of a modification, and Fig. 10 is a diagram view.

In the manufacture of glass articles, such as globes for gas-fixtures and electric-light fixtures, it is the common practice to finish one end of the same while it is still held by the blowpipe. After this end has been finished it is then attached to the "post" on the end of an ordinary "pontil," and the article is then reheated and the end which has been held by the blowpipe is opened and finished. The article during this last finishing operation has been held by the post on the end of the pontil and to divide the same from the post it is necessary to give the pontil a sharp rap at its opposite end. With this method of procedure, however, great care has to be exercised in detaching the articles from the post, as the sudden shock very often breaks the lip or cracks the globes, the percentage of breakage at this point being very great, especially in large work.

By the use of my invention the ends of the articles which are finished while they are still held by the blowpipe are adapted to be grasped by my improved mechanical clutch on the end of a pontil in order that the opposite ends of the article may be opened and finished.

In the drawings my improved clutch is shown mounted on the end of a tube B, sliding upon an inner tube A. By means of this sliding movement the jaws of the clutch are opened and closed. Secured to the inner tube A is a stem A^2, carrying a plate A', which is provided with an annular flange a, adapted to fit the lip of the base of the shade or globe, as clearly illustrated in Figs. 2 and 9. The plate A' extends beyond this flange a and forms a peripheral flange or shoulder a', against which the edge of the lip of the globe or shade seats. These flanges a and a' serve as guards to keep the lips of the globe in their proper shape. The flange a' is beveled and the jaws of the clutch-levers are also beveled to correspond to the bevel of the lips of the globe or shade, so that when the jaws are closed down upon the lip of the globe they will hold it firmly without distorting or crimping it.

The clutch-levers D are pivoted at d' to a shoulder formed on the stem A^2, which is carried by the inner tube A. This shoulder is slotted at intervals to receive the tongues d' of the clutch-levers D, and it is also provided with an annular groove, in which the pivot-pins of the tongues of the clutch-levers lie. These tongues d' are held in place by means of a collar A^4, which is slipped over the stem A^2 before the plate A' is secured thereto, and is provided with slots a^2 to allow for the movement of the tongues d' of the clutch-levers. This collar is secured in place by the inner tube A abutting against it.

On the tube B is a sleeve B', which is preferably tapered, as shown, and secured to its outer end is a spider b, which slides upon the stem A^2 and is provided with arms b', between which the clutch-levers pass, as shown in Figs. 2, 3, and 7, so that on the movement of the sleeve B on the tube A the clutch-levers will be opened or closed.

The clutch is normally closed by reason of the pressure exerted by the spring c at the opposite end of the tube B, and this spring tends to force the sleeve B' up onto the clutch-levers. The spring c is confined between the end of the tube B and a mouthpiece a^2 on the tube, which is secured to both the tube A and a sleeve a^5, which is mounted on the same and which forms a casing to inclose the spring. The mouthpiece a^2 is secured in place by means of a pin a^4, driven through the same and through the tube A and sleeve A^5.

The stem A′ has an air-passage *e* communicating with the interior of the tube A, so that when it is wished to blow the glass article, say from the form illustrated in full lines in Fig. 10 to that shown in dotted lines in the same figure, it can readily be accomplished, as the plate A′ forms an air-tight joint with the lip of the glass article when it is clutched thereto. This is one of the important features of the invention.

In Fig. 9 I have shown a modification in which the plate A′ has a flange in the shape shown at a^3, which forms a cup for the reception of a projection on the article to be finished. In globes of this character the portion *x* is severed from the globe on the line *x′* when it is finished, leaving on the globe the lip x^2.

It will be understood that different-sized plates and clutch-levers may be employed for globes having lips of different diameters.

I claim as my invention—

1. The combination in a clutch for holding glass articles to be finished, of the inner tube, a plate secured to the stem carried by said tube, segmental clutch-levers pivoted to said stem, a sleeve, a spider mounted on said sleeve both the sleeve and spider engaging the clutch-levers and a spring acting to force the sleeve upon the clutch-levers, substantially as described.

2. The combination of the inner tube A, a flanged plate A′ levers having jaws forming an annular clutch, a tapered sleeve, a spider mounted on said sleeve and having arms passing between the clutch-levers, and a spring acting to force the sleeve upon the clutch-levers, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM J. WILKINSON.

Witnesses:
MURRAY C. BOYER,
FRANK E. BECHTOLD.