(No Model.) 2 Sheets—Sheet 1.

S. G. VOGELEY.

GLASS FINISHING APPARATUS.

No. 558,537. Patented Apr. 21, 1896.

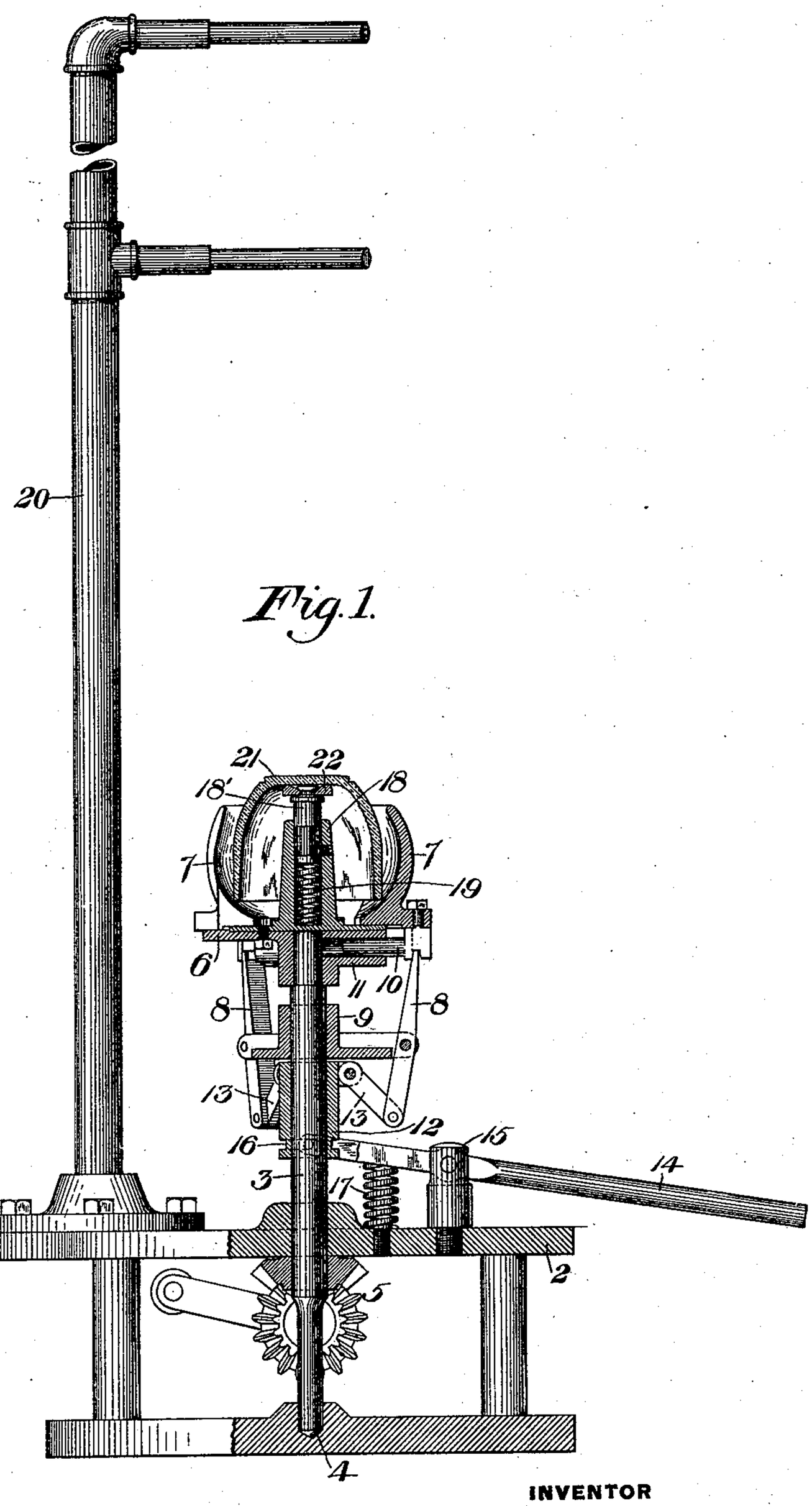

Fig. 1.

WITNESSES

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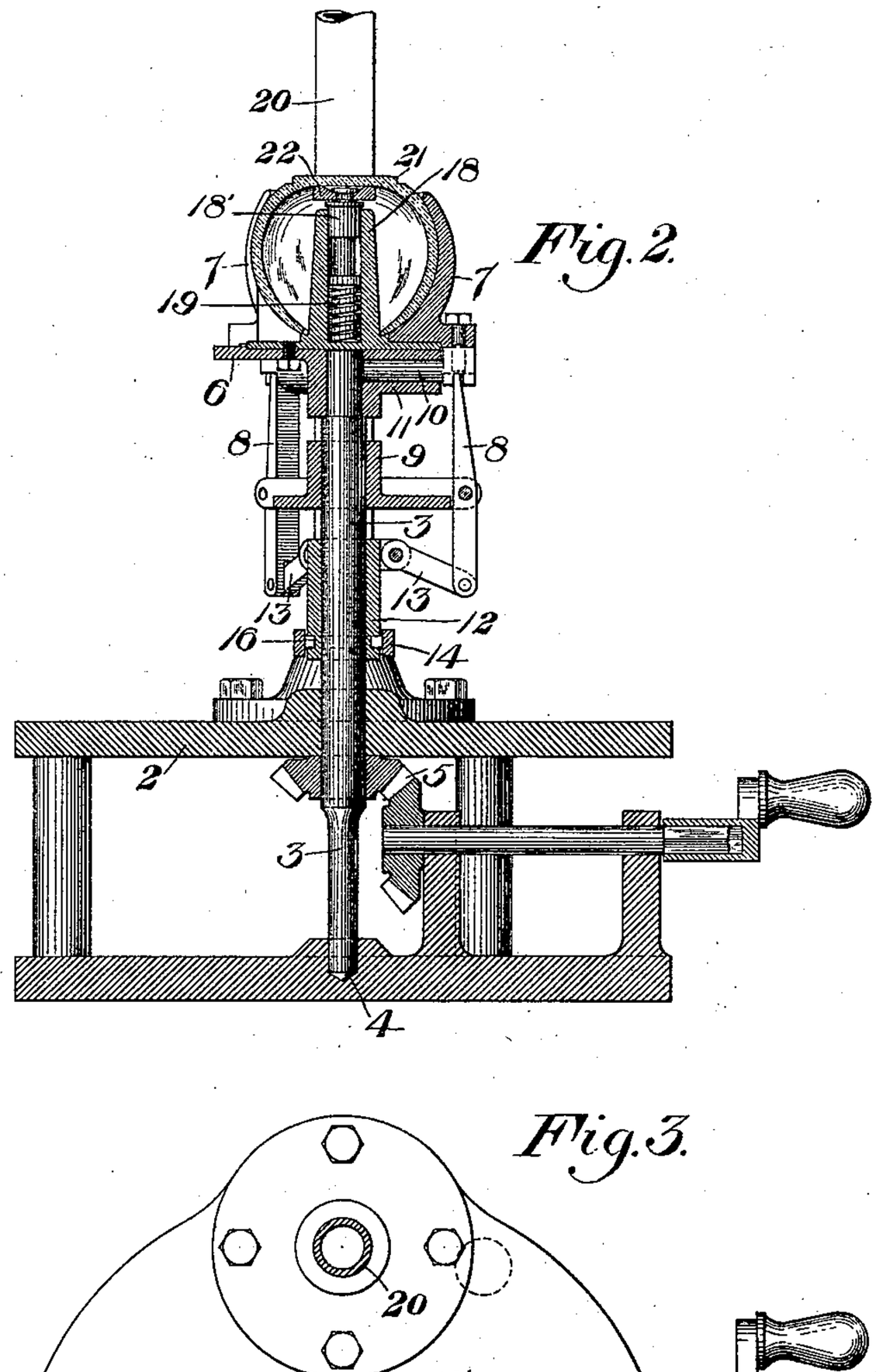

Fig. 2.

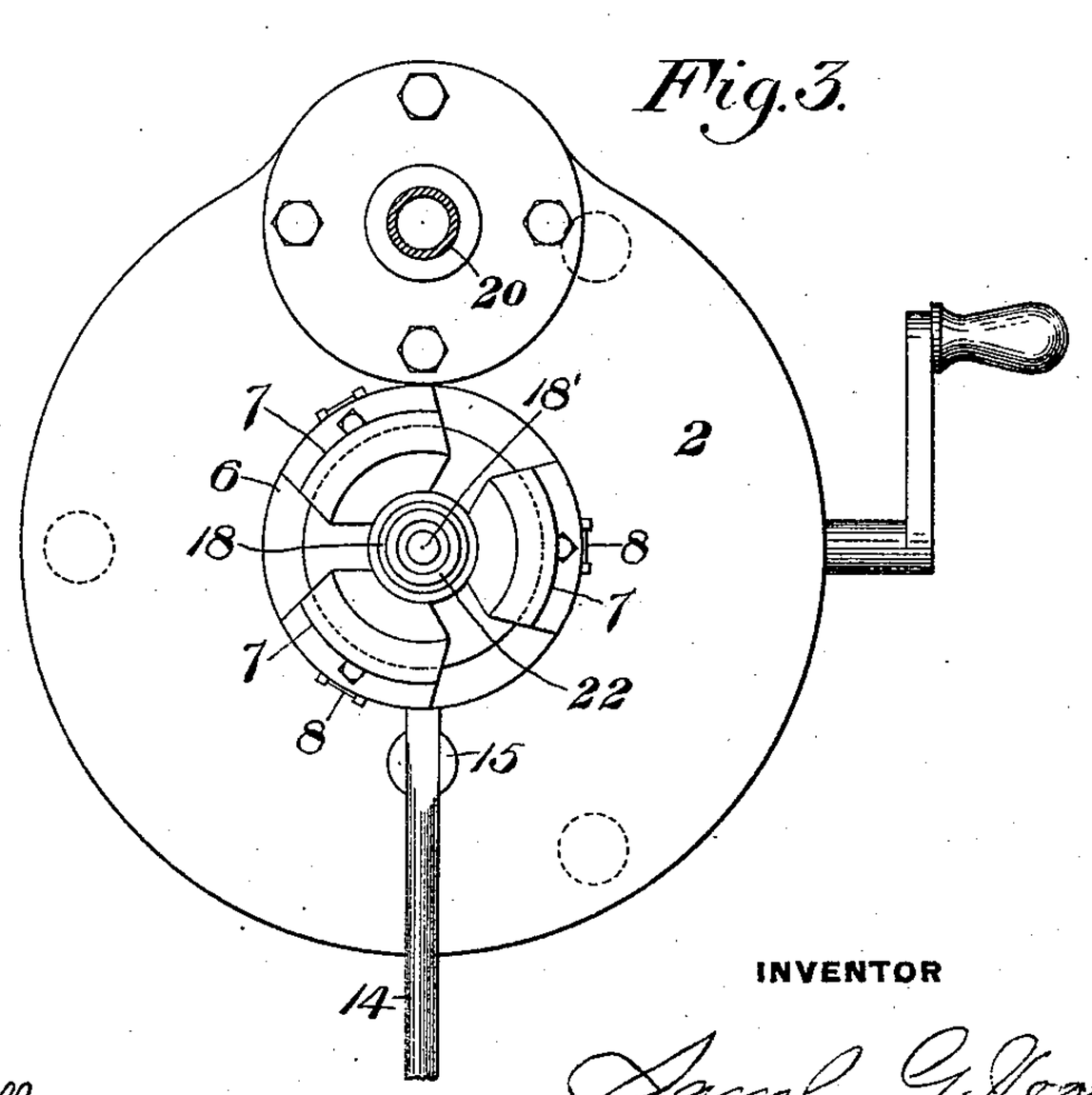

Fig. 3.

WITNESSES

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UNITED STATES PATENT OFFICE.

SAMUEL G. VOGELEY, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO THE UNITED STATES GLASS COMPANY, OF SAME PLACE.

GLASS-FINISHING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 558,537, dated April 21, 1896.

Application filed October 1, 1894. Serial No. 524,564. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL G. VOGELEY, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Glass-Finishing Apparatus, of which the following is a full, clear, and exact description, reference being had to accompanying drawings, forming part of this specification, in which—

Figure 1 shows my improved apparatus in side elevation, partly in vertical section. Fig. 2 is a vertical section thereof, showing the parts of the former in their closed position; and Fig. 3 is a plan view.

The object of my invention is to provide apparatus for the shaping and forming of articles of glassware, which can be operated without skilled labor and can be readily adjusted to suit articles of various sizes and shapes.

In the drawings, 2 represents the base or frame of the machine.

3 is a rotary shaft which is stepped in bearings 4, and is adapted to be rotated by gearing 5.

6 is a plate which is keyed to the top of the shaft and which bears the former-sections 7 7. These sections are preferably three in number. They are concave in their interior to suit the shape of the glass article or bowl to be formed therein and are mounted slidingly on seats on the plate 6, on which they are movable toward and from the center of said plate. These sections are thus moved by means of levers 8 8, which are fulcrumed to a flanged collar 9, fixed to the shaft 3, and at their upper ends are pivotally connected to the heads of guide-bolts 10, which are fixed to the former-sections and are fitted in guide-sockets 11 at the base of the plate 6. The pivotal motion of the levers is effected by the following means: 12 is a collar which is longitudinally movable on the shaft 3 and is connected with the levers 8 by links 13. A hand-lever 14 is fulcrumed to a post 15, and at its end is forked and is fitted to a groove 16 on the collar 12, so that the collar may rotate with the shaft, and that by vertical motion of the lever 14 the collar may be moved up or down. 17 is a spring which bears upon the lever 14 and tends to raise the collar 12, and thus to swing the levers 8 outwardly and to spread the former-sections 7.

18 is a hollow post which is fixed to the plate 6 and projects upwardly therefrom. It constitutes a guide-socket in which a head 18′ is set and is vertically movable, and it contains a spring 19 by which said head is pressed upwardly. 20 is a post or standard forming a guide for the snap by which the glass article to be shaped is manipulated.

The operation is as follows: The parts being in the position shown in Fig. 1, the glass article 21 having been pressed into the form shown in that figure and having been heated is seized by the snap, and the workman holding the snap then places the article inverted upon the head 18′ and presses it downwardly gradually upon said head, moving the latter down against pressure of the spring 19, and simultaneously he raises the outer end of the lever 14, so as to force the former-sections inwardly against the glass article. The shaft 3 and with it the plate 6 and the former-sections are meanwhile rotated by the gearing 5, to which power may be applied either by hand or by a suitable motor while the glass article is held stationary by the snap and rests upon a loose or revoluble disk 22 at the top of the head 8. The revolution and inward pressure of the former-sections 7 press the sides of the glass article inwardly, impart to it a perfectly symmetrical shape circular in cross-section, and finally reduce it to the finished form shown in Fig. 2, thus completing the formation of the article. When it is completed, the outer end of the lever 14 is lowered, thus retracting the former-sections and permitting the article to be removed.

The points of invention which I intend to cover by this specification are the concave former-sections 7 7 and the inwardly-movable head 18′, upon and against which the article is pressed when it is inserted into the space within the former-sections. The use of this spring-backed head facilitates the insertion of the glass article and prevents its distortion, since the spring is an easy and automatic device to permit the glass article to be pushed down gradually as it is being shaped, but to

hold it up at the beginning of the operation, so as to prevent its edges from being buckled by the former-sections.

I claim—

1. A glass-finisher comprising a rotary plate having external inwardly-movable former-sections and carrying a central projecting support carrying upon its outer end the base of the inverted blank, said support being movable to and from the plate; substantially as described.

2. The combination of rotary inwardly-movable former-sections, and a spring-backed support or head contained within the same and adapted to receive the glass article and to permit it to be inserted gradually within the closing sections; substantially as described.

In testimony whereof I have hereunto set my hand.

SAML. G. VOGELEY.

Witnesses:
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W. B. CORWIN.