(No Model.) 2 Sheets—Sheet 1.

W. LEIGHTON, Jr.

GLASS CRIMPING MACHINE.

No. 344,585. Patented June 29, 1886.

Fig. 1.

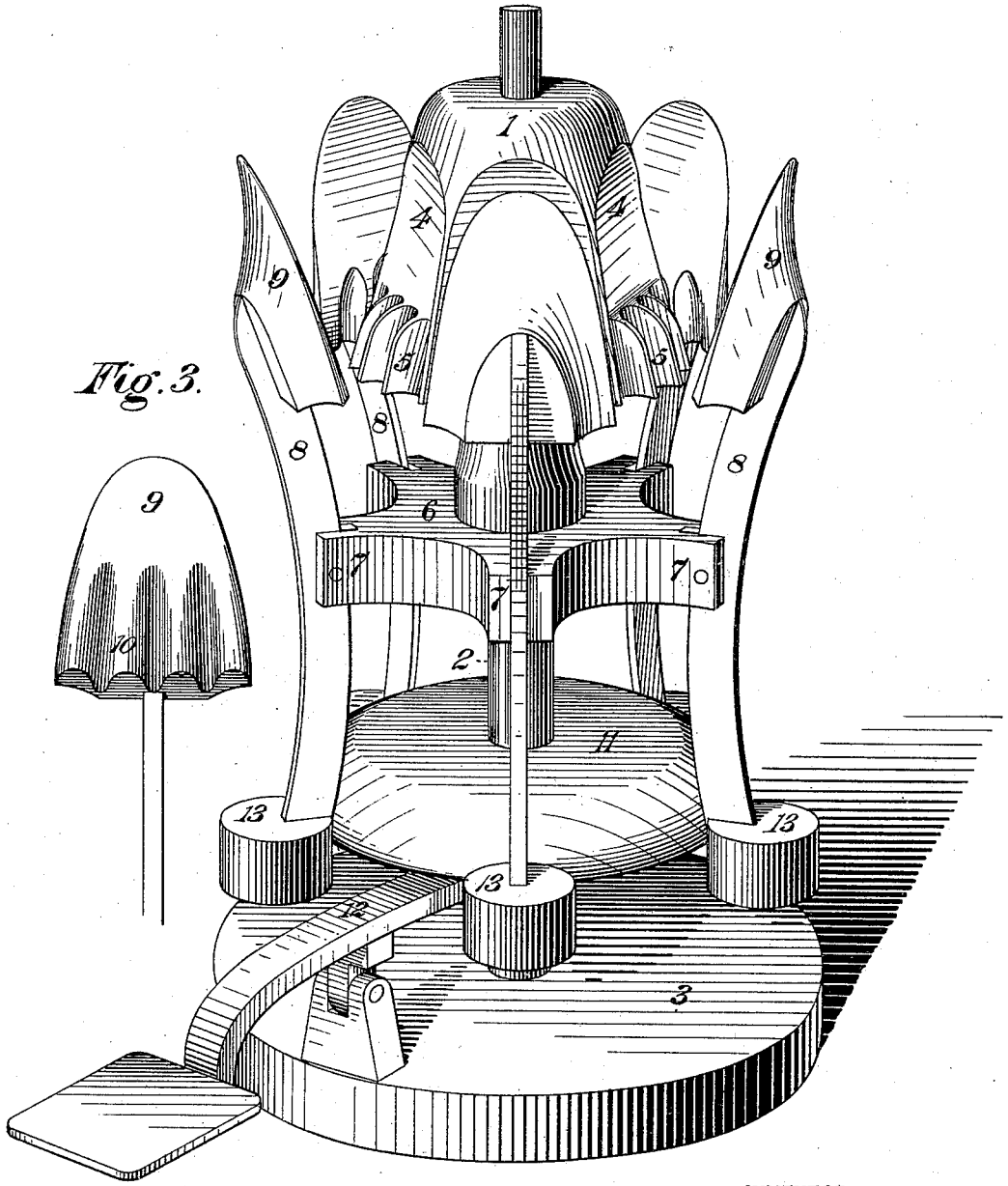

Fig. 3.

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(No Model.)

2 Sheets—Sheet 2.

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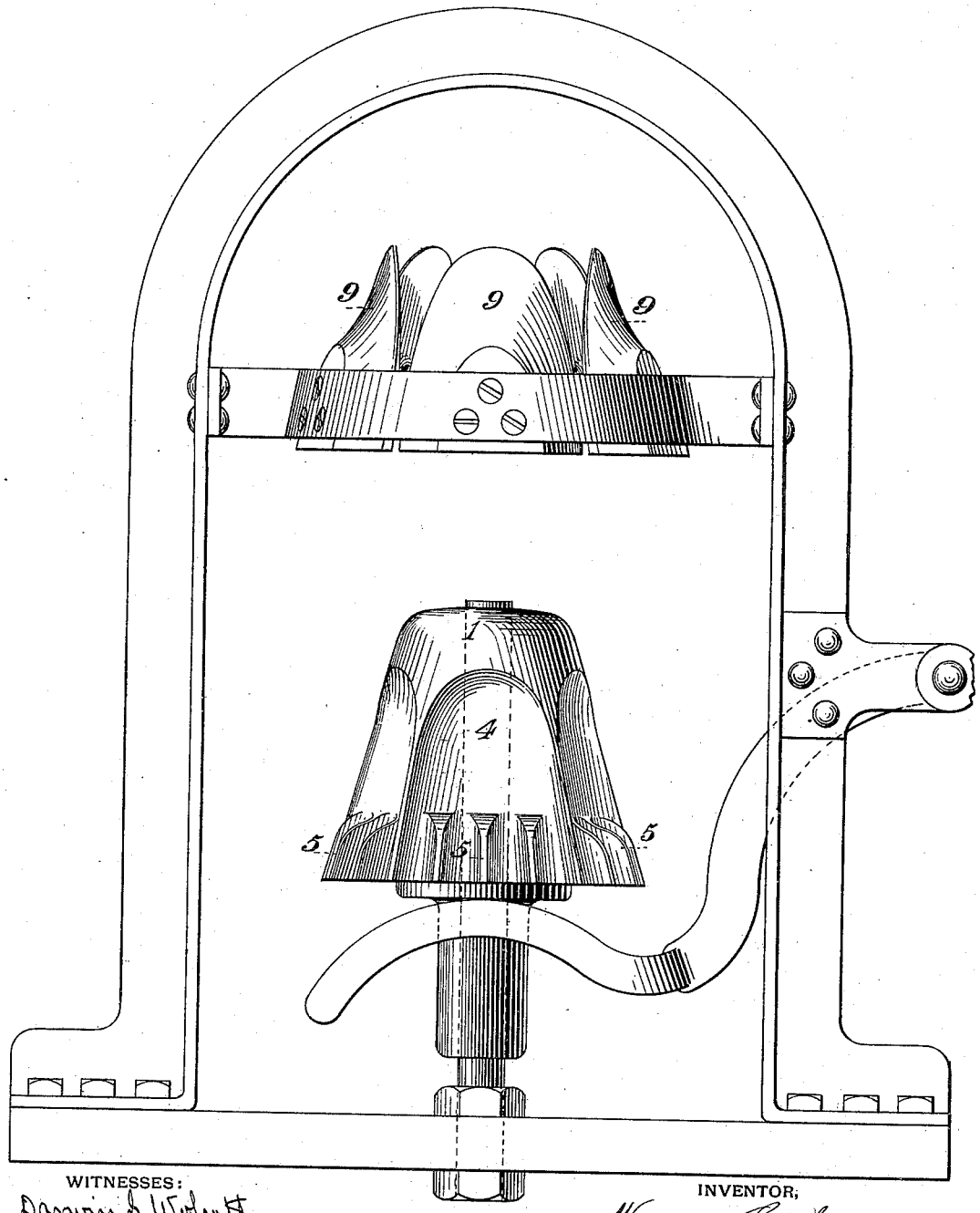
Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM LEIGHTON, JR., OF WHEELING, WEST VIRGINIA.

GLASS-CRIMPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 344,585, dated June 29, 1886.

Application filed March 11, 1886. Serial No. 194,755. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM LEIGHTON, Jr., residing at Wheeling, in the county of Ohio and State of West Virginia, a citizen of the United States, have invented or discovered certain new and useful Improvements in Glass-Crimping Machines, of which improvements the following is a specification.

In the accompanying drawings, which make part of this specification, Figure 1 is a view in side elevation of one form of my improved crimping-machine. Fig. 2 is a similar view of a modified form of machine. Fig. 3 is a detail view of the operative end of one of the fingers.

The invention herein relates to certain improvements in machines for crimping or otherwise ornamenting or shaping articles of glassware, and has for its object the simultaneous formation of similar or diverse ornamentations around the surface of glassware; and to this end the invention consists, in general terms, in the construction and combination of parts, substantially as hereinafter described and claimed.

In the form of machine shown in Fig. 1 the stationary former 1 is mounted on a post or pillar 2, secured in a suitable base or support, 3. The surface of this former is made to conform to the shape of the article to be produced and provided with such projections or indentations as will produce the desired ornamentation on the article—as, for instance, the former 1, which is adapted for forming glass shades, is provided with a series of flattened surfaces, 4, at the lower ends of which are formed a series of ribs, 5, for the formation of crimps or ruffles around the edge of the article. Below the former is secured to the standard 2 a spider-like frame, 6, having the ends of its arms 7 slotted for the reception of the "curved" fingers 8, which are pivoted to arms 7, as shown. The upper ends of these fingers are provided with enlargements 9, which are made of such size as to inclose either partially or entirely the former 1 when closed in upon the same. The inner or operative surfaces of these fingers are shaped to produce the desired configuration of the article to be operated on, and are provided with projections or indentations for the formation of any desired ornamentation on the outer surface of the article.

In the machine shown the inner faces of the enlargements 8 are made approximately flat, corresponding with the flattened faces 4 on the former 1, and are provided at their lower edges with ribs 10, for the purpose of forcing the edges of the shade in between the ribs 5, thereby crimping or ruffling the edges of the shade.

On the post or standard 2, below the spider-frame 6, is mounted the disk 11, adapted to be moved up and down the post by the lever 12. This disk is provided with a curved or rounded edge, against which bears the lower portion of the fingers, said fingers being held against the disk by the weights 13, secured to their lower ends. By raising and lowering this disk along the curved edge of the fingers 8 the upper ends of said fingers are moved toward or away from the former 1, as will be clearly understood.

In lieu of making the fingers 8 movable, as above described, they may be made stationary, as shown in Fig. 2, the former being made movable so as to carry the article up into contact with the operative face of the fingers.

I do not wish to limit myself herein to any specified form or arrangement of fingers and former, nor to any particular manner of moving or operating either of them.

In using the above-described machine the previously-formed article is placed while in a plastic condition on the former 1, and the fingers 8 are then forced inwardly against the article, causing the latter to conform to the shape of the former 1, and impressing on such article any ornamentation which may have been formed on the operative faces of the fingers or the former, or both.

In the form of machine shown in Fig. 2 the former 1 is moved up into what might be termed a "sectional mold," formed by the stationary fingers. The former and fingers are removable from their supports, thereby permitting of the substitution of different formers and fingers.

I am aware that exteriorly-acting devices having roughened or grooved surfaces have been used in connection with interiorly-acting

devices having smooth operating-faces for the purpose of impressing ornamentations or grooves on the exterior surface of the article operated on; but I am not aware of any prior construction or use of an interior former, such as is adapted to impress an ornamentation on the inside of an article of glassware, in combination with a movable exterior former, which, acting at the same time on the outside of the same article, is adapted to coact with the interior former in giving to the article of glassware an outside as well as an inside ornamention, both being parts of a common design.

I claim herein as my invention—

1. In a machine for crimping or ornamenting glassware, the combination of a former having its operative surface shaped and constructed to effect the desired shape and ornamentation of the inner surface of the article to be operated on, and a series of pivoted crimping or ornamenting fingers coacting with the interior former in producing an exterior and interior ornamentation on the article of of glassware, substantially as set forth.

2. In a machine for crimping or ornamenting glassware, the combination of a former having its operative surface shaped and constructed to effect the desired shape or ornamentation of the inner surface of the article operated on, and a series of movable crimping or ornamenting fingers coacting with the interior former in producing an exterior and interior ornamentation of the article of glassware, substantially as set forth.

In testimony whereof I have hereunto set my hand.

WILLIAM LEIGHTON, JR.

Witnesses:
ANNIE M. GAYHART,
JOS. H. DE VILLE.