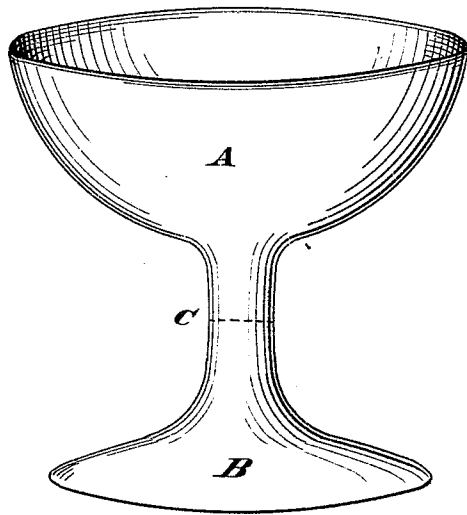


L. WAGNER.  
MANUFACTURE OF GLASS-WARE.

No. 180,970.

Patented Aug. 8, 1876.



*Attest.*

*James Coy  
Jay E. Ratcliff*

*Inventor.*

*Louis Wagner.*

# UNITED STATES PATENT OFFICE

LOUIS WAGNER, OF WHEELING, WEST VIRGINIA, ASSIGNOR TO J. H. HOBBS  
BROCKUNIER & CO., OF SAME PLACE.

## IMPROVEMENT IN THE MANUFACTURE OF GLASSWARE.

Specification forming part of Letters Patent No. **180,970**, dated August 8, 1876; application filed  
July 27, 1874.

### *To all whom it may concern:*

Be it known that I, LOUIS WAGNER, of Wheeling, in the county of Ohio and State of West Virginia, have invented certain Improvements in the Manufacture of Glassware, of which the following is a specification:

My invention relates to stemmed articles of glassware, and consists in forming the article in two pieces—the one being the bowl and a portion of the stem, and the other the foot and a portion of the stem—and uniting the two portions together at a welding-heat or in other appropriate manner, so that the joint lies in the stem between the bowl and the foot, instead of at the top of the stem, as heretofore.

The drawing represents a cup or goblet, in which A is the bowl, B the foot, and C the stem.

In the ordinary method of forming the foot and stem in one piece and joining the bowl to the top of the stem, the article almost invariably breaks by any sudden change of temperature, and very often immediately after finishing. The cause of this breakage is the unequal expansion and contraction of the bowl and stem, and the necessary imperfection of a joint formed between parts so different in shape and construction. I obviate this by forming the bowl and a portion of the stem—say, as far as the dotted line at C—in

one piece, and the foot and lower part of the stem as far as the same dotted line C, in another piece, and then uniting the two, either in the ordinary manner by the use of third or a welding piece, or by the method of pressing together in a mold while in a plastic state, as described in J. H. Reighard's reissued Patent 5,924, of June 16, 1874, which latter I prefer, as it forms a more perfect joint. The two portions of the stem, being of equal size, shape, and density, will expand and contract equally, and consequently there will be no strain from that cause on the joint. This location of the joint also permits the different operations of manufacture to be effected with greater facility, and, consequently, at a lower cost than is possible by the ordinary method, and at the same time produces ware of greater stability.

Having thus described my invention, claim—

A stemmed article of glassware, formed of two pieces, the upper consisting of the bowl and a portion of the stem, and the lower of the foot and a portion of the stem, when joined together at a point in the stem between the bowl and foot.

LOUIS WAGNER.

Witnesses:

JAY E. RATCLIFFE,  
JAMES COX.