

(No Model.)

L. PERTIN.  
METHOD OF ORNAMENTING GLASS.

No. 403,552.

Patented May 21, 1889.

Fig. 1.

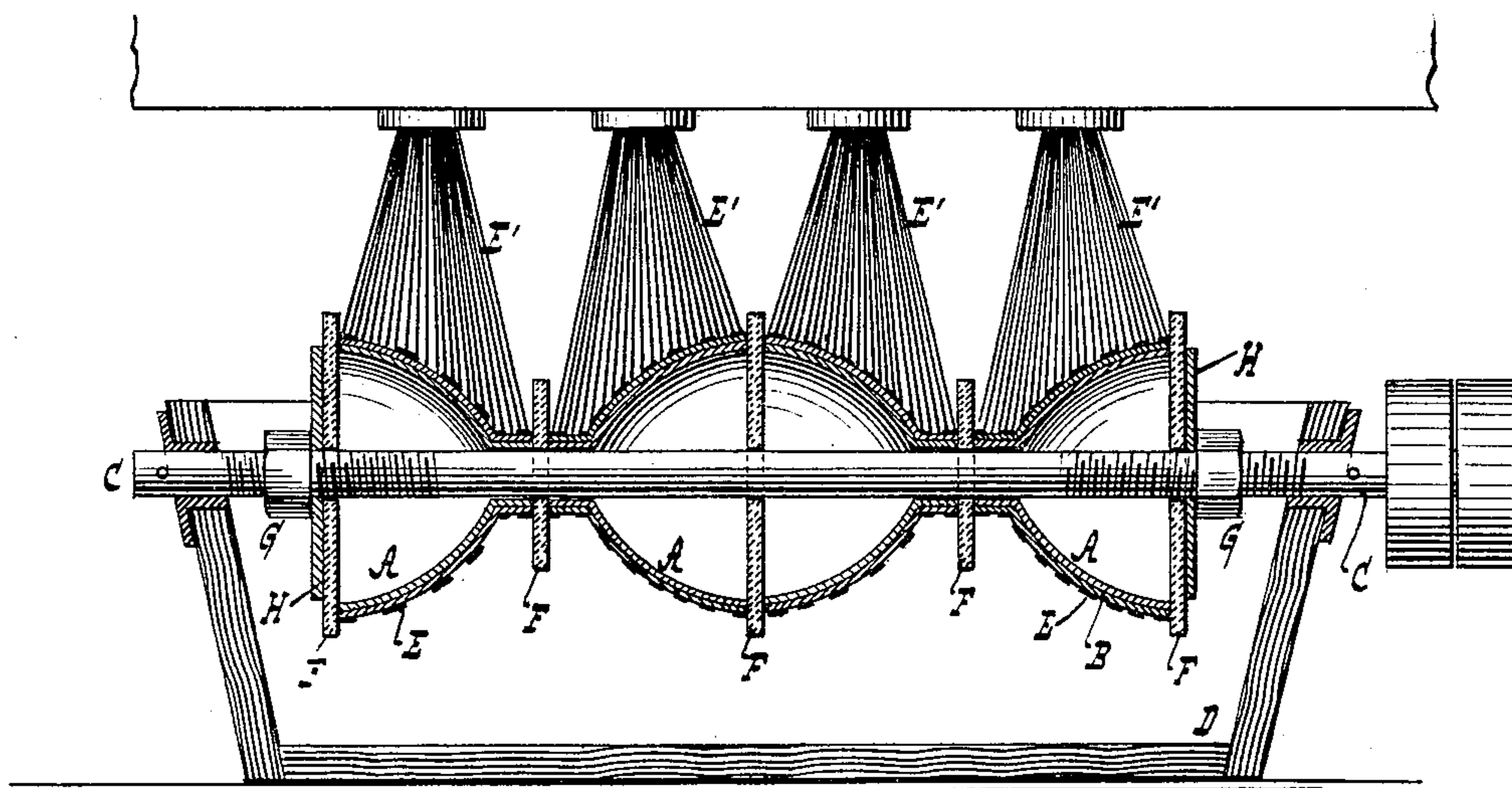
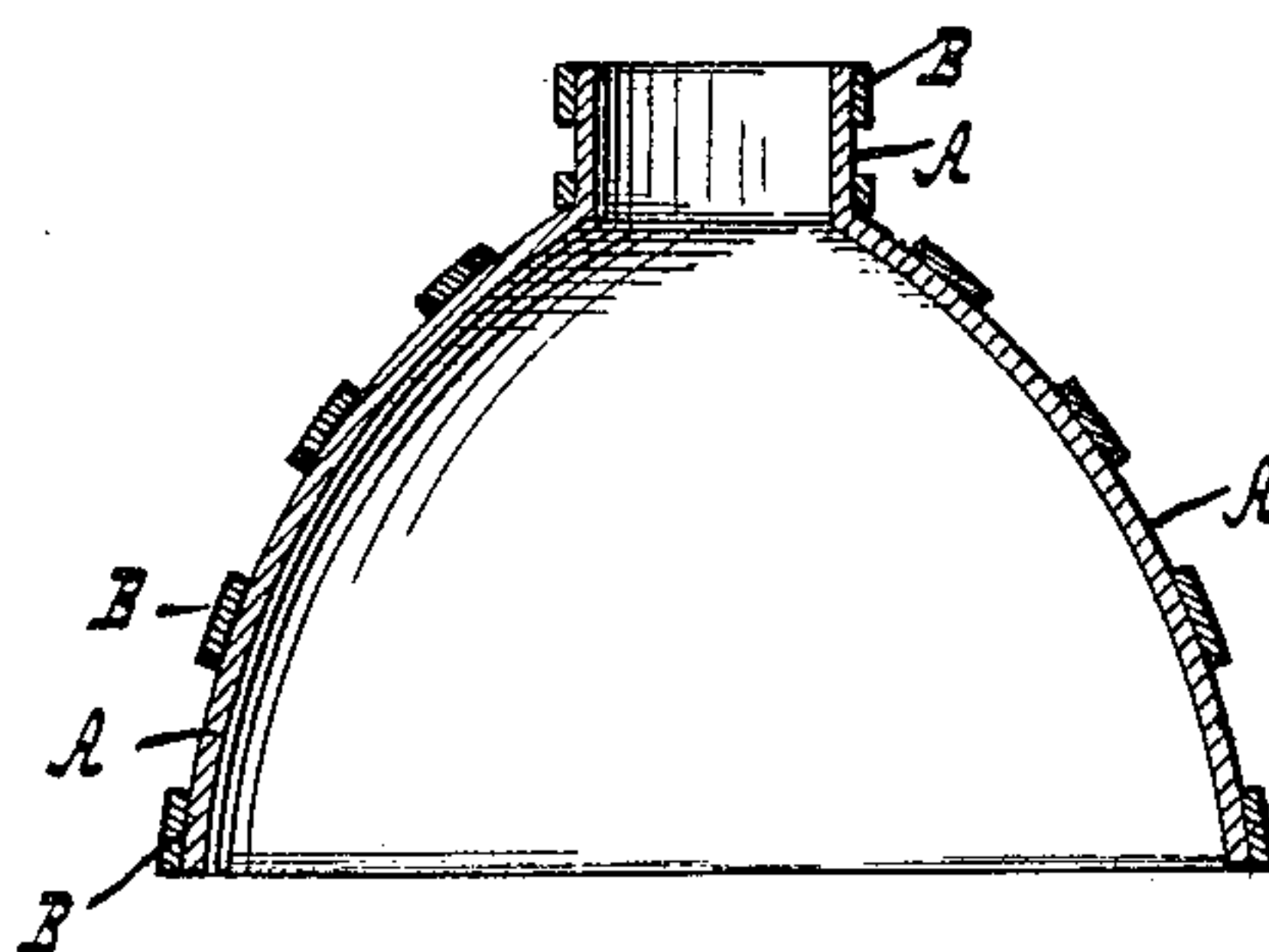


Fig. 2.



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# UNITED STATES PATENT OFFICE.

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## METHOD OF ORNAMENTING GLASS.

SPECIFICATION forming part of Letters Patent No. 403,552, dated May 21, 1889.

Application filed February 7, 1888. Serial No. 299,001. (No model.)

*To all whom it may concern:*

Be it known that I, LÉON PERTIN, a citizen of the United States, residing at No. 214 Calyer street, Green Point, Kings county, and State of New York, have invented new and useful Improvements in Methods of Ornamenting Glass, of which the following is a specification.

This invention has for its object to provide a novel method of ornamenting glassware or vitreous articles—such as dishes, globes, lamp-shades, drinking-glasses, and the like.

The improved method consists, essentially, in covering portions of the article with a protective layer and leaving other portions of the article unprotected, then revolving the article and causing portions of the same to pass at intervals through an acid etching-bath to etch the unprotected portions of the article, and brushing off the eaten portions while the article is revolving.

In the drawings, Figure 1 shows the manner of etching glassware. Fig. 2 shows an article after being etched or ornamented.

Similar letters indicate corresponding parts.

The process can be applied to an article composed of a homogeneous mass of glass or to an article having a body of one kind of glass or material and provided with a coating or lining of a different kind of glass, or a vitreous coating or lining. In the drawings is shown an article having a glass coating.

The letter A indicates the body of the article—such, for example, as a lamp-shade—and B is a glass or vitreous coating. The portions of the coating which are not to be etched or eaten by the acid or bath are covered with a fatty or impervious layer, E, in the manner known to the trade. One or more of the articles are then mounted on a rotating spindle, C. Nuts G clamp the washers H against the article or articles, and cushions or pads F prevent the articles scratching against one another or against the washers H. Said pads F can also be made, if desired, to prevent acid entering the interior of the articles.

The acid is contained in a suitable recep-

tacle, D, and as the article A rotates through the acid or bath different portions of the article are caused to pass at intervals through the etching bath or acid, and those portions which are not protected by the coating E thus become etched or eaten. These etched or eaten portions clinging to the article prevent the acid from readily affecting the portions underlying the eaten portions, so that ordinarily the etching process is very slow.

By employing a brush or scraper, E', to continually remove the eaten portions of the article, the underlying portions will be exposed to the action of the bath as the article rotates, so that the bath can continually attack exposed uneaten portions of the article, whereby the process of etching is greatly expedited.

What I claim as new, and desire to secure by Letters Patent, is—

1. The method herein described of ornamenting vitreous articles, which consists in covering portions of the article with a protective layer, then revolving the article, and while revolving causing portions of the same to pass at intervals through an acid etching-bath to etch the unprotected portions, and continuously brushing off the eaten portions of the article while it is revolving through the bath, substantially as set forth.

2. The method herein described for ornamenting vitreous articles, which consists in covering portions of the article with a protective layer and leaving other portions unprotected, then rotating the article, and while rotating subjecting the unprotected portions at intervals to the action of an etching-bath, and continuously removing the eaten portions while the article is revolving through the bath, substantially as set forth.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

LÉON PERTIN.

Witnesses:

HENRY WORMS,  
JAS. T. OLWELL.