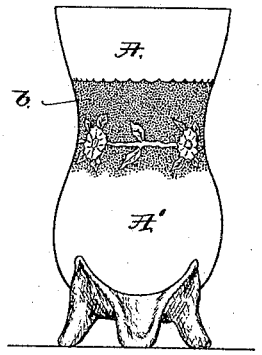
(Specimens.)

J. LOCKE.

METHOD OF ETCHING ON GLASS AND OTHER MATERIAL.

No. 343,961. Patented June 15, 1886.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH LOCKE, OF MEDFORD, ASSIGNOR TO EDWARD D. LIBBEY, OF WINCHESTER, MASSACHUSETTS.

METHOD OF ETCHING ON GLASS AND OTHER MATERIAL.

SPECIFICATION forming part of Letters Patent No. 343,961, dated June 15, 1886.

Application filed January 18, 1886. Serial No. 188,917. (Specimens.)

To all whom it may concern:

Be it known that I, JOSEPH LOCKE, a subject of the Queen of Great Britain, but at present residing in Medford, county of Middlesex, and State of Massachusetts, have invented an Improvement in Methods of Etching on Glass and other Material, of which the following is a specification.

This invention has for its object to improve the method of etching on glass, metal, and other substance which can be eaten by acid.

In methods of etching now practised to produce what is known as a "stipple" effect, the wax or acid resisting pellicle or layer applied to the glass is cut through by means of a tool at points where the material is to be eaten or attacked by the acid when the material is placed in the usual acid-bath.

In my experiments, to simplify and hasten the operation of etching to produce a stippled or frosted ground, and at the same time cheapen the cost of that kind of work, I have discovered that the usual pellicle or layer of wax is unnecessary; and also that it is unnecessary to cut or outline by a tool the spots where the acid may attack the material for the production of the stippled ground.

The drawing represents a vase, a part of which has been treated to represent stipple-work.

The article to be treated, whether it be a piece of ware or a plate or sheet, will, in accordance with my invention, be protected at points where the article is to be left smooth and plain, as shown at A A′, by means of a pellicle or layer of wax or other usual acid-resisting coating. The part of the article which is to be etched to resemble stipple-work, as at *b*, has applied to it a thin layer of some finely comminuted or pulverized acid-resisting powder—such, for instance, as rosin, asphaltum, or other well-known equivalent having like properties. The fine particles of the acid-resisting powder applied in a thin coating, as described, will be made to adhere to the ware, plate, or sheet, preferably by means of a thin layer of oil, varnish, or other equivalent compound, the said particles adhering to and touching the body of the article, protecting the said article at such points from the acid in the usual acid-bath; but all parts of the article not so protected by the said particles, or parts of the article coated only with the oil or varnish, are left free to be acted upon by the acid, and said non-protected portions acted upon by the acid are attacked and eaten away; but all parts of the article protected by an adhering particle of rosin or other acid-resisting powder is not eaten by the acid.

The article herein represented—a vase—is supposed to have been acted upon by the acid, as described, to form the stipple-work *b*.

The finer the acid-resisting powder or material, the finer the stipple-work.

The acid-resisting or protecting particles may be deposited on the glass or other plate or body by means of a sieve or by sprinkling.

I claim—

The herein-described improvement in the art or method of etching glass and other material to produce a stipple ground, which consists in depositing upon the said material separate detached particles of acid-resisting powder, and then subjecting the article so treated to the action of acid, whereby the portions of the surface of the article not protected by the acid-resisting particles are attacked and eaten away by the acid, substantially as described.

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

JOSEPH LOCKE.

Witnesses:
G. W. GREGORY,
F. L. EMERY.