W. FOX.

Glory-Hole, or Reheating-Furnace for Glass-Ware.

No. 202,533. Patented April 16, 1878.

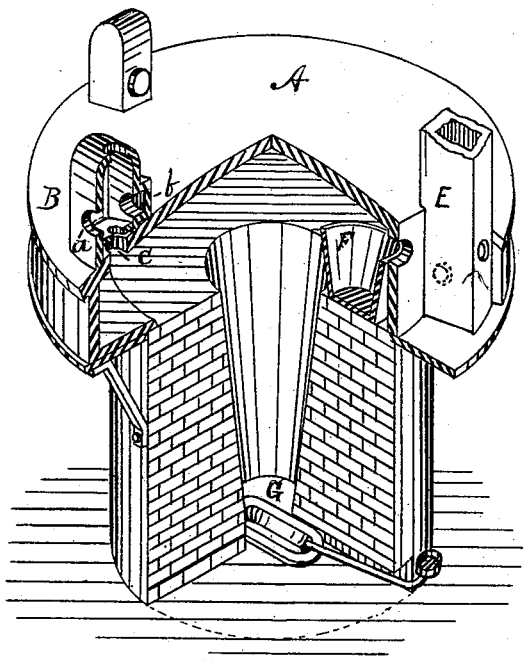

FIG. 1.

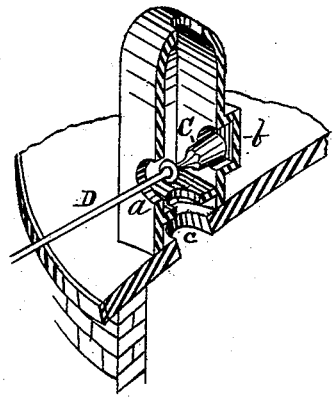

FIG. 2.

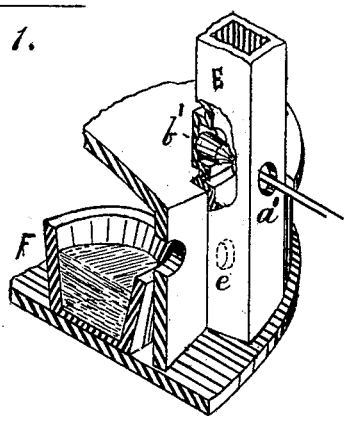

FIG. 3.

Witnesses
M. A. Parks.
Martin Vanmus

By

William Fox. Inventor

C. C. Tucks Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM FOX, OF WHEELING, WEST VIRGINIA.

IMPROVEMENT IN GLORY-HOLES OR REHEATING-FURNACES FOR GLASSWARE.

Specification forming part of Letters Patent No. **202,533**, dated April 16, 1878; application filed February 20, 1878.

To all whom it may concern:

Be it known that I, WILLIAM FOX, of the city of Wheeling, in the county of Ohio and State of West Virginia, have invented certain new and useful Improvements in Glory-Holes or Reheating-Furnaces for Glassware; and I do hereby declare that the following is a full, clear, and exact description of my invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of my invention is to prevent the edges or thinner portions of the ware from melting or softening down during the process of fire polishing or finishing; and to this end it consists of a peculiar construction of the ware-apertures through which the article to be heated is introduced into the furnace, whereby certain portions of the article are protected from the intense heat required to expand or polish the remaining parts, thus giving a proportionate degree of heat to the entire article according to its thickness and configuration, all of which will be hereinafter fully explained in detail, reference being made to the drawings, in which—

Figure 1 is a perspective view of my invention applied to an ordinary furnace, and Figs. 2 and 3 enlarged views of ware-hole flues.

In the drawing like letters of reference refer to like parts.

In Fig. 1, the letter A represents the body of an ordinary melting and glory-hole furnace combined. B is a ware-hole flue, constructed to sit over an opening, *c*, in the top of the furnace, and is hollow throughout its length and open at each end, for the entrance and exit of the flame.

The flue has an opening, called "ware-hole," through one side, at *a*, for the admission of the article to be polished, and a recess at the opposite side, at *b*, to receive the end of the article.

C is a glass goblet in position for fire-polishing; D, snap or punty, used to handle goblet. E is a ware-hole flue attached to side of furnace, having an opening inside of flue, near bottom, at *e*, for entrance of flame, and provided with ware-hole *a'* and recess *b'*, similar to those in flue B, on top of furnace. F is a glass-pot; G, a shoe to hold oil fuel.

The mode of operation is as follows: The flame is forced through the opening *c* in the top of the furnace, by means of a suitable blast, into the ware-hole flue, from whence it makes its exit by means of the opening at the top. The ware is introduced through the opening *a* sufficiently far to reach into the recess *b* at the opposite side of the flue, where the edge is protected from the current of hot flame passing through the flue, and at the same time is heated to the proper degree required to finish the edge at the same operation of polishing or finishing the thicker portions or body of the article.

In the construction of the ware-hole flues I do not wish to confine myself to any particular form of opening or shape of flue, as it is obvious that a number of forms could be devised to accomplish the same result which would be within the scope of my invention.

The ware-hole flues can be placed on the inside of the furnace, and, if desired, form part of its structure.

With my invention I am enabled to fire-polish the entire article in a rapid and perfect manner without danger of melting the thinner parts of the ware before the thicker portions get sufficiently heated to remove the mold-marks and other blemishes, such being the difficulty with the present mode of polishing the ware by inserting the article entirely in the flame of the furnace, it being impossible to polish the ware perfectly from this cause.

My invention is also applicable to either the melting-furnace or the glory-hole, if the fuel used is suitable for reheating the ware.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a glory-hole for fire-polishing glassware, the ware-hole constructed with a recess or shield, substantially as described, so that the thicker portions of the ware receive the greater degree of heat, as set forth.

2. A ware-hole flue, B, having an opening,

a, in one side and a recess, *b*, in the opposite side, substantially as herein shown, and for the purpose set forth.

3. The combination of a ware-hole flue, B, having a ware-hole, *a*, in one side and a recess, *b*, in the opposite side, and the furnace A, substantially as herein shown, and for the purpose set forth.

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

WILLIAM FOX.

Witnesses:
CY. BATES HOWARD,
PAUL D. DYER.