

F. Schaum,
Glass Furnace

N^o 10,830.

Patented Apr. 25, 1854.

Fig: 1.

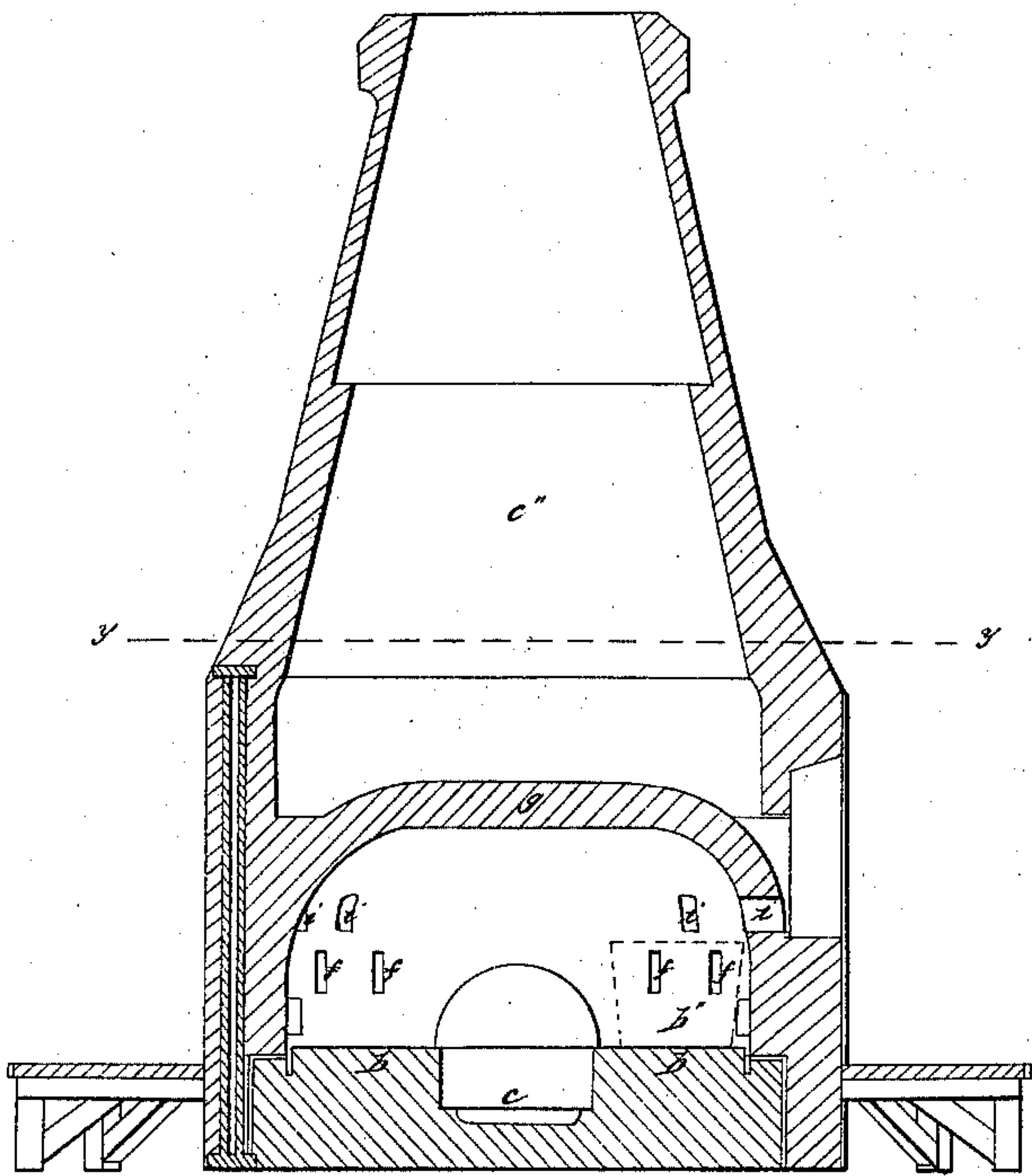


Fig: 4.

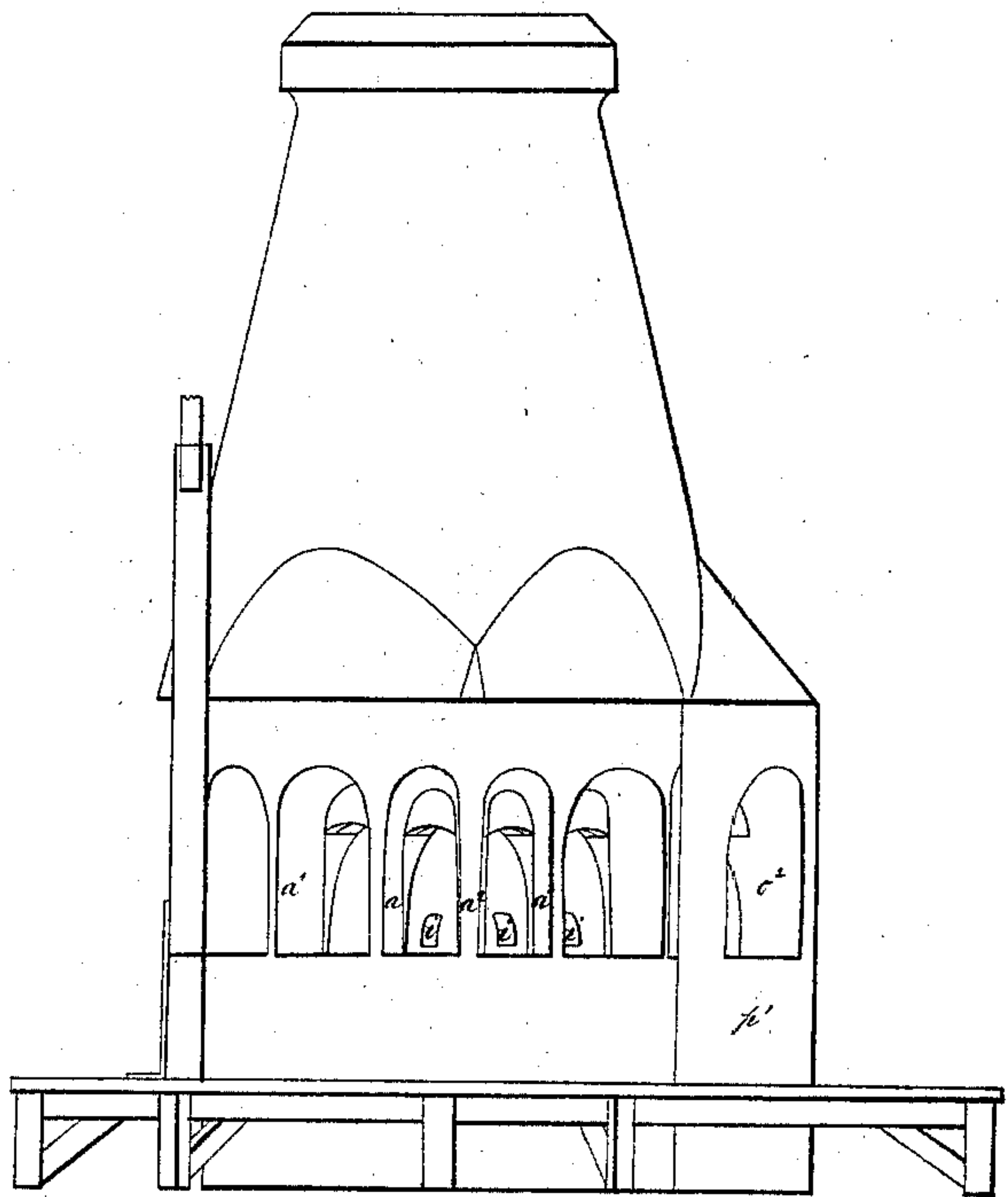


Fig: 3.

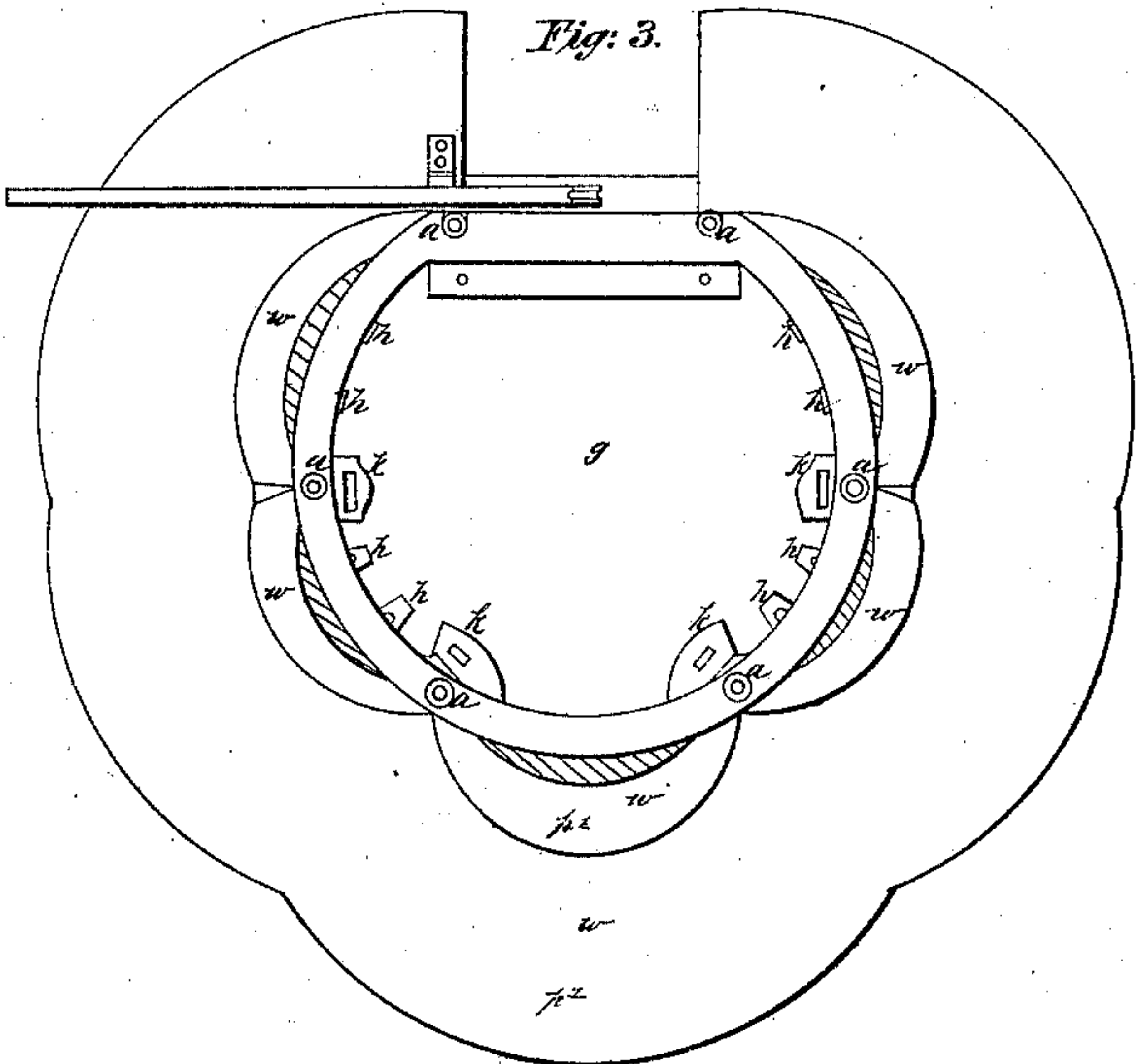
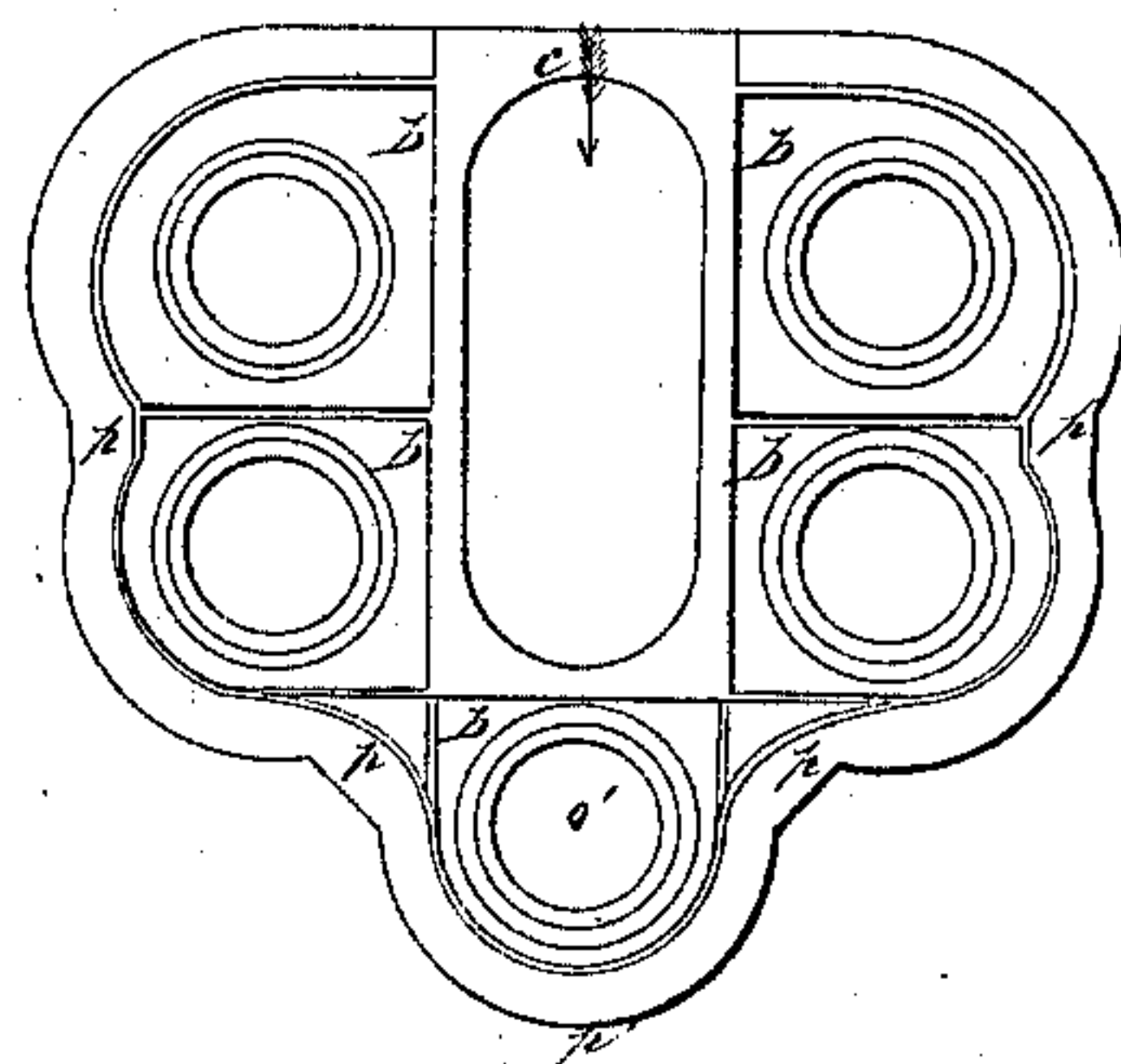


Fig: 2.



UNITED STATES PATENT OFFICE.

FREDERICK SCHAUM, OF BALTIMORE, MARYLAND.

GLASS-FURNACE.

Specification of Letters Patent No. 10,830, dated April 25, 1854.

To all whom it may concern:

Be it known that I, FREDERICK SCHAUM, of Baltimore, Maryland, have invented a new and useful Improvement in Glass-Furnaces, of which the following is a full, clear, and exact description, reference being had to the annexed drawings.

Figure 1, is a vertical, middle, section of the furnace. Fig. 2, is a top view of the bench or sieges with five glass pots thereon and of the fire place. Fig. 3 is a horizontal section through the line y, y , of Fig. 1, showing the chimney flues which conduct the smoke into the great chimney or cone and the hollow columns supporting the cone. Fig. 4 is a side elevation of the furnace.

The nature of my invention consists in giving such form to the furnace by the external and internal configuration of the breast wall around the pots that a greater number of workmen or blowers can be employed than in any of the present known forms of glass furnaces, and also in the arrangement of the chimney flues in relation to the pots and the great chimney cone, so that a great amount of heat is saved and the melt conducted more uniformly and with much greater rapidity than in ordinary glass furnaces.

The furnace is built up of masonry in the usual mode of building such structures.

In Figs. 1 and 2 b is the bench or sieges upon which the pots o, o are placed. In Fig. 3 w, w, w, w, w , the wall of the furnace.

This wall in ordinary furnaces is made of of a square form, or of horseshoe form or entirely round, and has but one "tease hole" or "ring," to each pot through which the blower has access to the glass, or two such holes at the most, but by my mode of forming the wall with the reëntering portions $P P$ so as to partly surround the pots, I get the advantage of an extra tease hole to each pot and two extra holes to the back pot o^1 one of which o^2 is shown on one side the other being opposite and not shown in the drawing. In ordinary furnaces the projection p^1 is made square and with but one hole in the rear for the sides of the back pot could not be approached by a blower without his interference with the blowers at the pots contiguous. Thus in my furnace of five pots I have six more holes than have ever been had in other furnaces of five pots and I employ an increased number of workmen in proportion.

What I claim as my invention in glass furnaces is—

Making the external and internal configuration of the breast work of the furnace wall with the reëntering portions so as to partly embrace the pots and to furnish room for additional or extra tease or ring holes substantially in the manner described.

F. SCHAUM.

Witnesses:

TOBMIE CAMPBELL,
J. J. GREENOUGH.