G. KIM.
Glass Pot.

No. 198,628. Patented Dec. 25, 1877.

Fig. 1.

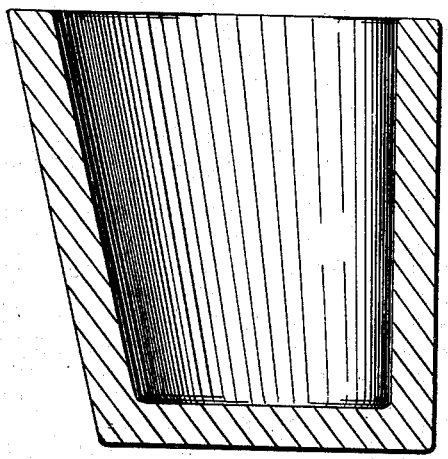


Fig. 2.

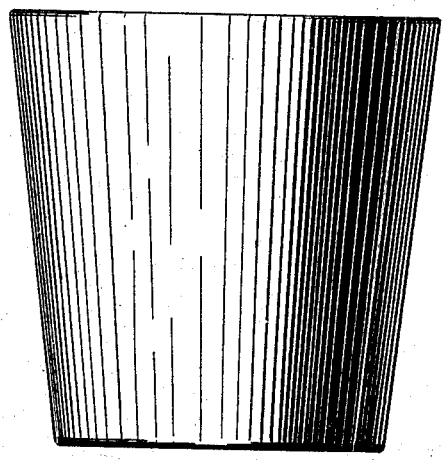


Fig. 3.

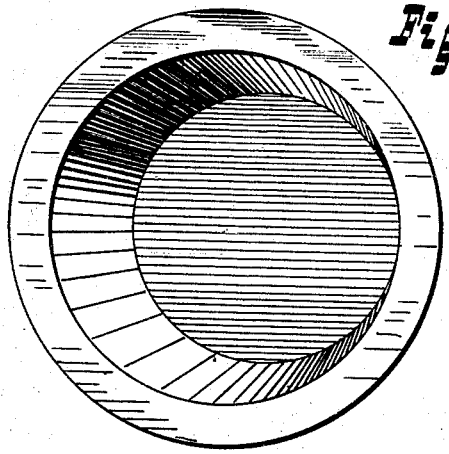
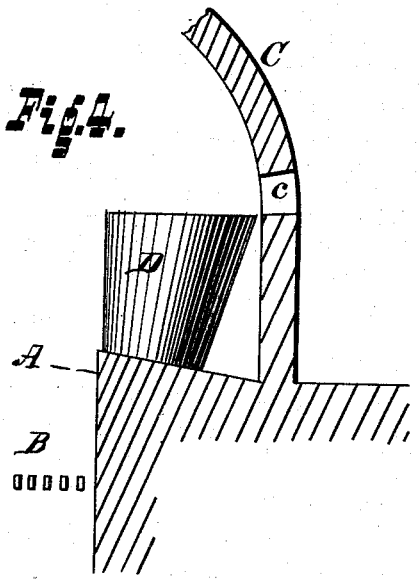


Fig. 4.



Witnesss.
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UNITED STATES PATENT OFFICE.

GEORG KIM, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN GLASS-POTS.

Specification forming part of Letters Patent No. **198,628**, dated December 25, 1877; application filed November 23, 1877.

To all whom it may concern:

Be it known that I, GEORG KIM, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a certain new and useful Improvement in Glass-Pots; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, which form part of this specification, and in which—

Figure 1 is a vertical central section, Fig. 2 a rear elevation, Fig. 3 a plan view, and Fig. 4 a partial section, of a glass-melting furnace, showing relation of pot, bank, and arch.

This invention relates to the construction of clay pots for melting glass; and consists in making the pot in any of the usual forms, but giving its upper edge an inclination to the axis, and its bottom either a similar inclination or other form.

These pots are generally made of fire-clay, in the form of a right frustum of a cone or analogous form, having top and bottom at right angles to its axis. Being placed on the "bench" of the furnace, the side next the furnace or fire-bed overhangs, and is more liable to injury from the flames than other parts. The result is that, in melting, this portion becomes softened and weak, and, being subject to the same amount of pressure from the molten glass as the other parts of the pot, it is incapable of withstanding it, and gives way, precipitating the contents into the "cave," and causing great loss to the manufacturer.

Resort may be had to elevating that side of the pot by inclining the bench, or propping up; but this causes the upper edge of the pot to incline away from the fire, thus shielding the contents and preventing the flames from doing their full quota of work upon the glass, and the consequence is the improper heating of the glass.

I construct the pot in the form of an inverted conoidal frustum, having its upper edge inclined to the axis, and its lower edge either inclined also or at right angles to the axis. The purpose will be at once understood from inspection of Fig. 4, in which A designates the bench or bank of the furnace; B, the fire-chamber; C, the arch, having the work-hole *c*, and D the pot, formed as above described. It is placed so that its long side inclines outwardly toward the work-hole *c*, and its short side rises perpendicularly, facing the fire, while the upper edge is horizontal.

The setting may be by an inclined bottom to the pot resting on a level bank, or by a square bottom elevated at the inner side by inclining the bank, or by propping. The resulting advantages are at once apparent. The side of the pot which faces the fire does not now overhang, while excessive pressure upon that part is relieved by the inclination of the pot, and at the same time this leaves a greater space than usual about the base of the pot for the play of the flames. The general effect is, therefore, first, less liability of the pot giving way; second, greater heating effect; third, more gradual and even distribution of the heat; and, fourth, closer approach of the lip of the pot to the inner edge of the work-hole, thereby preventing loss of glass in withdrawing "balls."

Thus a pot will last much longer than if made in the usual form, and prevent much loss and annoyance from stoppage.

It is particularly adapted to window-glass, which requires greater heat and more rapid working than other kinds.

I am aware that a patent has been granted for a crucible for metals, having its upper edge inclined obliquely to its axis, but for no such purpose as that for which I have inclined the upper edge of the glass-pot.

The crucible has an opening in its longest side below the edge, and the object of prolonging the side is to allow the oxides to float above the opening when the crucible is tilted, and thus to pour out only the pure metal through said opening.

In view of this patent I have to remark that I do not claim, broadly, as my invention a crucible or melting-pot, for whatever purpose intended, having its upper edge inclined obliquely to its axis.

I claim as new—

1. A glass-pot, having its upper edge in-

clined obliquely to its axis, and its longest side unbroken below the edge, substantially as and for the purposes described.

2. A glass-pot having its upper edge inclined to its axis, and the short side at right angles to the upper edge, substantially as shown and described.

In testimony whereof I have hereto set my hand this 16th day of November, 1877.

GEORG KIM.

Witnesses:
THOS. J. MCTIGHE,
A. V. D. WATTERSON.