

(No Model.)

M. W. BARSE.

FURNACE FOR HEATING GLASS POTS, CRUCIBLES, BLANKS, &c.

No. 345,356.

Patented July 13, 1886.

Fig. 1.

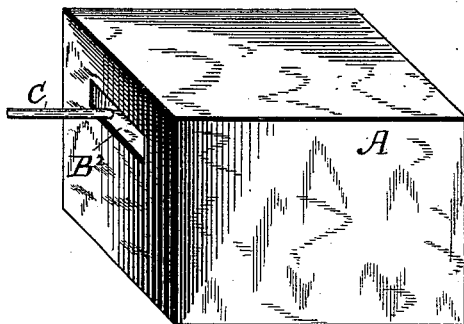


Fig. 2.

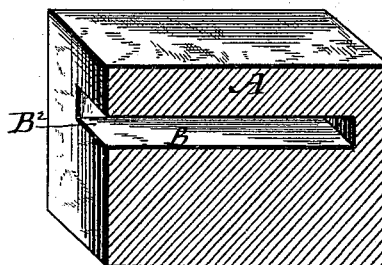


Fig. 3.

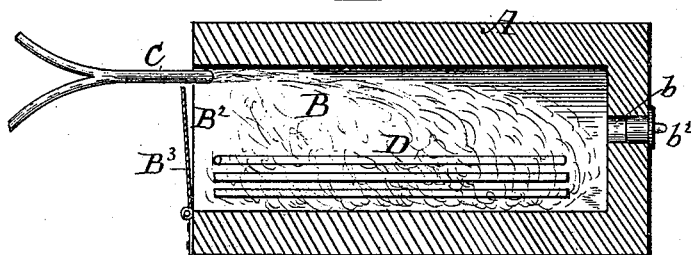
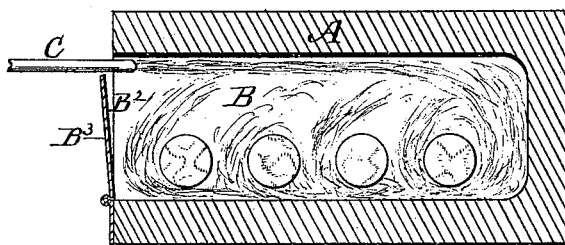


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

MILLS W. BARSE, OF OLEAN, NEW YORK.

FURNACE FOR HEATING GLASS POTS, CRUCIBLES, BLANKS, &c.

SPECIFICATION forming part of Letters Patent No. 345,356, dated July 13, 1886.

Application filed November 4, 1885. Serial No. 181,845. (No model.)

To all whom it may concern:

Be it known that I, MILLS W. BARSE, a citizen of the United States, residing at Olean, in the county of Cattaraugus and State of New York, have invented certain new and useful Improvements in Furnaces for Heating Glass Pots, Crucibles, Blanks, &c., of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in furnaces for heating glass in pots or crucibles, and also bars, blanks, &c.; and the object of my improvement is to construct a simple inexpensive furnace, in which blanks, or the glass or other objects contained in pots or placed in the furnace, may be rapidly and uniformly heated or melted, as hereinafter described, and specifically set forth in the claims.

In the drawings, Figure 1 is a perspective view of the furnace. Fig. 2 is a sectional perspective view of the same. Figs. 3 and 4 are horizontal sections showing top views of the interior of the furnace containing blanks or bars and crucibles or pots containing glass or other substance to be heated or melted.

The body of the furnace is represented at A. It is generally made of bricks, and has therein a substantially rectangular chamber, B, a few inches in height, according to the nature of the objects to be heated, and open at the front end, B², upon the same level with its floor. In this opening is inserted one end of a pipe, C, through which is forced, by a fan-wheel or other suitable means, a current of mixed air and gas, or of mixed steam, air, and hydrocarbon gas, or other combustible material. The pipe C is inserted close to one side of the opening B², and the discharge of the combustible material is parallel to the side of the furnace.

The rush of gas from the end of the pipe C causes currents of heated air and gases that curl around the interior of the furnace and over and among the pots, crucibles, blanks, or bars D, placed therein, are drawn again into the flame at the end of the pipe C, and finally escape through the front opening, B². Said opening may be provided with the door B³, to be partly closed to retard the exit of the heated gases and products of combustion over its upper edge.

To prevent any undue deposit of smoke or soot against the interior of the furnace by condensation before the walls are sufficiently heated, a small opening, b, may be left in the rear end of the furnace, for the exit of the smoke while firing up; but afterward, to get the full benefit from the burning gases, this opening is closed by a plug, b², or other suitable means, and said gases are made to escape at the opening B², through which they first entered.

Although only one leading pipe C is used, as shown, for small furnaces, for large furnaces two parallel pipes may be used, substantially upon the level of the floor, one pipe adjoining each side wall, or half-way between said side walls.

I am aware that furnaces have been fed with fuel admitted through pipes entering said furnaces into or adjacent to the ceiling or upper part thereof, and I do not claim this construction.

Having now fully described my invention, I claim—

1. A furnace for heating pots, crucibles, blanks, bars, &c., consisting of a chamber having a closed rear end and opening B² at the front, substantially upon the same level with the floor of said chamber, a pipe, C, entering said opening upon one side thereof to direct a current of inflammable gases parallel and adjacent to one side of said chamber, and said front opening, B², to discharge the products of combustion, substantially as and for the purpose described.

2. A furnace for heating pots, crucibles, blanks, bars, &c., consisting of a chamber having a closed rear end, an opening, B², at the front substantially upon the same level with the floor of said chamber, a pipe, C, entering substantially at the bottom of said opening to direct a current of inflammable gases parallel to one side of said chamber, and said front opening, B², to discharge the products of combustion, substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

MILLS W. BARSE.

Witnesses:

J. E. WORDEN,
F. L. BARTLETT.