

No. 624,291.

Patented May 2, 1899.

W. BUTTLER.
GLASS MELTING FURNACE.

(Application filed Aug. 9, 1898.)

(No Model.)

Fig. 1.

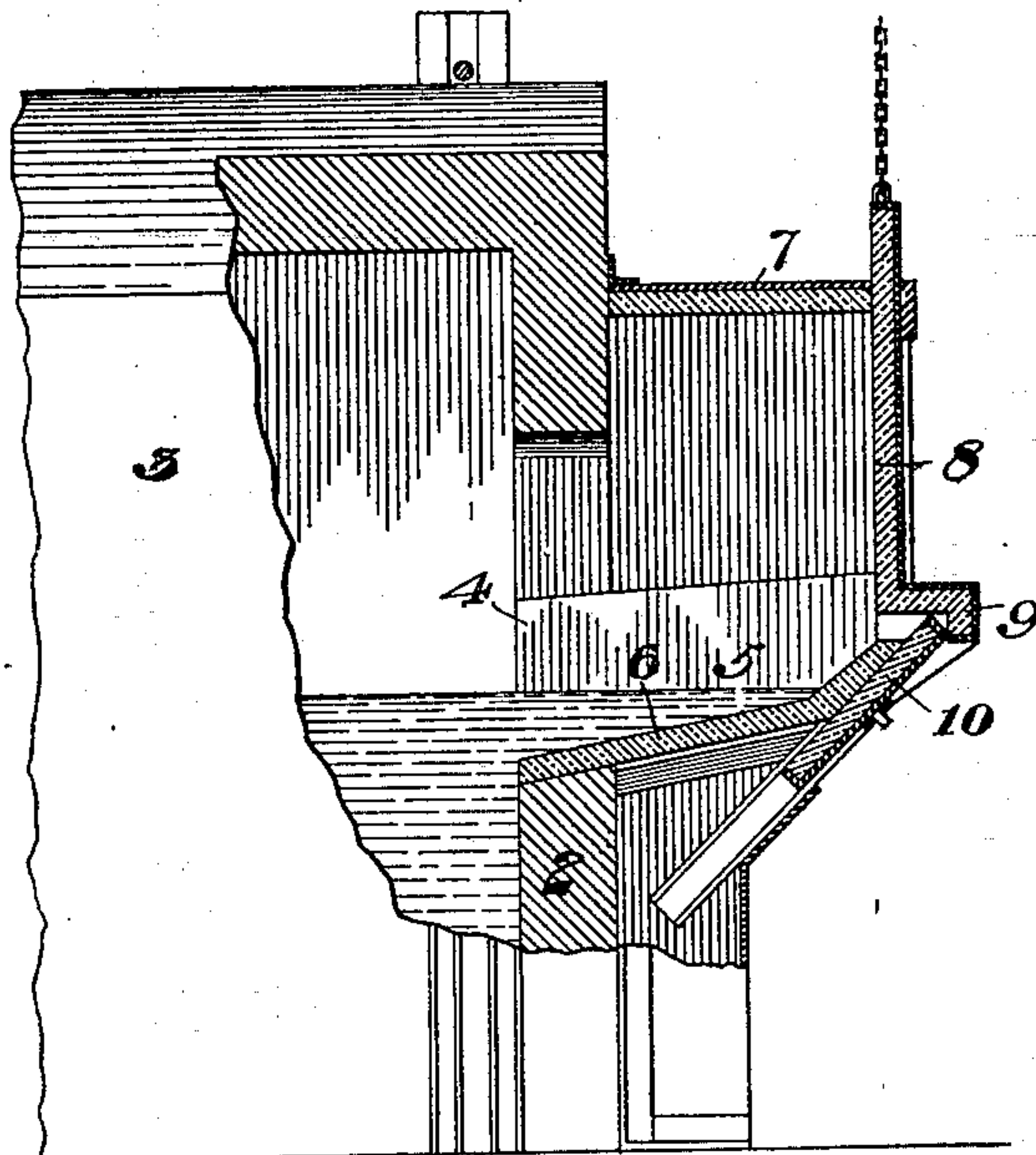
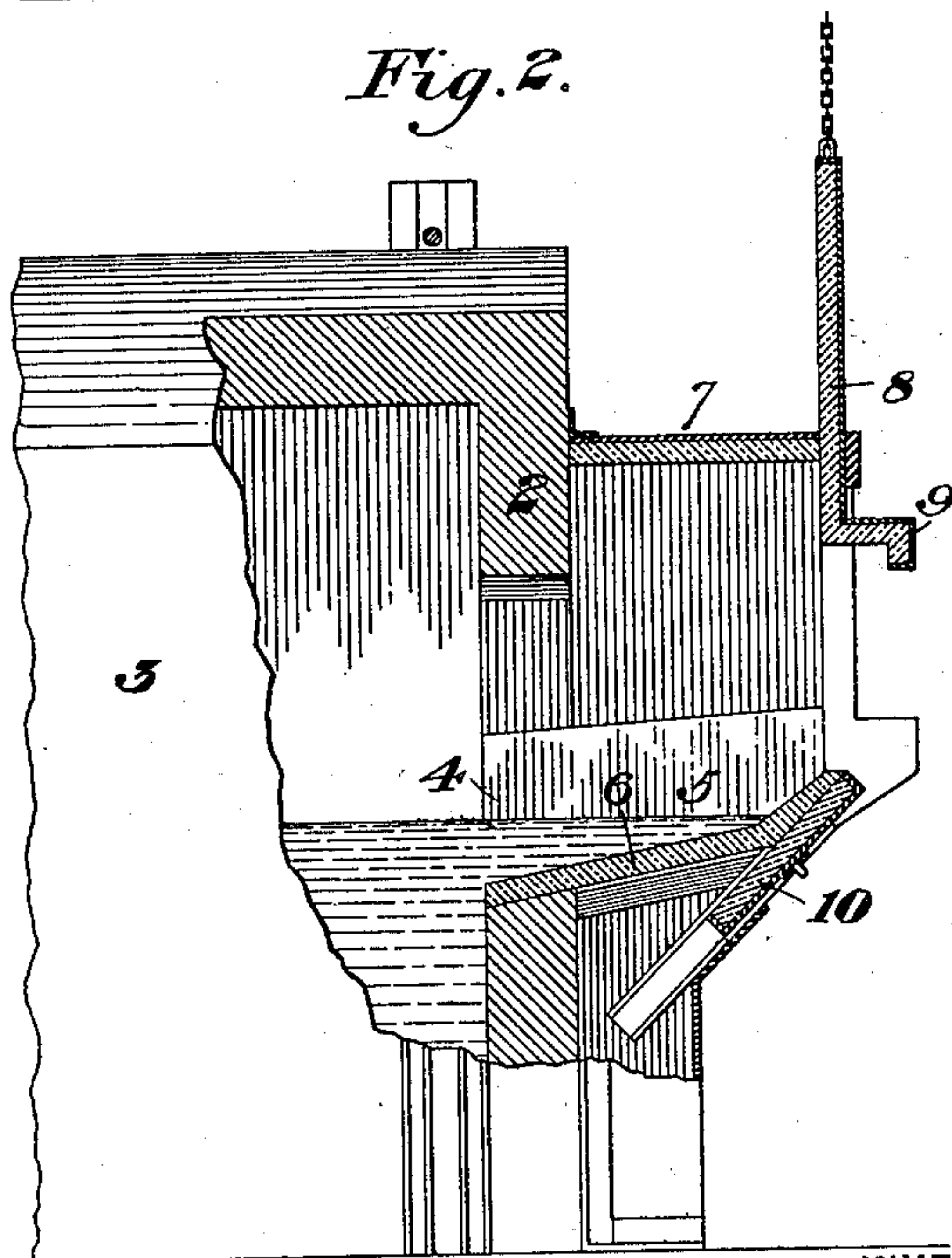


Fig. 2.



WITNESSES

J. A. Combs.
G. B. Blomming.

INVENTOR

William Butcher
by Gallwey & Macneil
his attys.

UNITED STATES PATENT OFFICE.

WILLIAM BUTTLER, OF REDKEY, INDIANA.

GLASS-MELTING FURNACE.

SPECIFICATION forming part of Letters Patent No. 624,291, dated May 2, 1899.

Application filed August 9, 1898. Serial No. 688,156. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM BUTTLER, of Redkey, in the county of Jay and State of Indiana, have invented a new and useful Improvement in Glass-Melting Furnaces, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

10 Figure 1 is a side elevation, partly broken away, of the end portion of my improved glass-melting furnace; and Fig. 2 is a similar view showing the hood opened for withdrawal of glass.

15 My invention relates to furnaces employed for melting glass, and is designed to provide an improved construction of the same whereby the glass may be drawn from them in a cheap and rapid manner in any desired quantities.

20 In the drawings, 2 represents the end wall of a tank-furnace 3, this wall having a hole 4, which extends below the level of the bath and around which is provided an external well or forehearth 5, in which the glass normally rests at the same level as in the furnace. The bottom 6 of this forehearth preferably slopes upwardly and outwardly, and the forehearth is covered by a hood 7, having an outer vertically-movable door 8, provided with an offset portion 9, which is engaged by the upper end of the sliding door 10, which rests within inclined guides below the outer portion of the forehearth-bottom.

35 In operating this furnace when it is desired to withdraw the glass the operator lifts the door 8 and lowers the door 10 and then rakes out of the end of the trough a desired quantity of glass. The doors are then closed, so as to keep the portion of glass within the forehearth, as well as the walls of this forehearth, at the proper temperature.

40 The advantages of my invention result from the doing away with the slow and ex-

pensive method of gathering the glass now used, the glass being fed with ease and rapidly into the molds, which may be placed under the outer end of the trough. The operator is well protected from the intense heat of the furnace proper, and the device is simple and may be applied to existing furnaces.

Many changes may be made in the form and arrangement of the parts without departing from my invention, since

I claim—

1. A glass-melting furnace having suitable inlet and outlet openings for applying heat to the bath, said furnace having a projecting portion communicating with the bath to allow a part of the molten glass to rest therein, the projecting portion having a discharge-opening and arranged to permit the location of a mold beneath said openings; substantially as described.

2. A glass-melting furnace having suitable inlet and outlet openings for applying heat to the bath, said furnace having a projecting portion communicating with the bath to allow a part of the molten glass to rest therein, and an inclined ledge within the projecting portion along which the glass may be raked; substantially as described.

3. A glass-melting furnace having suitable inlet and outlet openings for applying heat to the bath, said furnace having a projecting portion communicating with the bath to allow a part of the molten glass to rest therein, said projecting portion having an inner inclined ledge and a discharge-opening, and arranged to permit the location of a mold beneath said opening; substantially as described.

In testimony whereof I have hereunto set my hand.

WILLIAM BUTTLER.

Witnesses:

M. L. BURGESS,
FRED WOLTJEN.