I. HALL.

MEANS FOR MELTING AND CASTING METAL.

APPLICATION FILED FEB. 8, 1916.

1,306,376. Patented June 10, 1919.

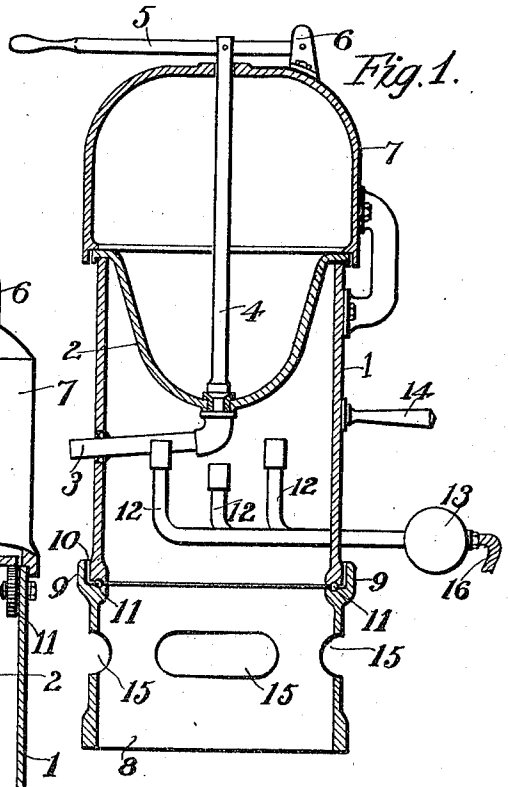


Fig. 1.

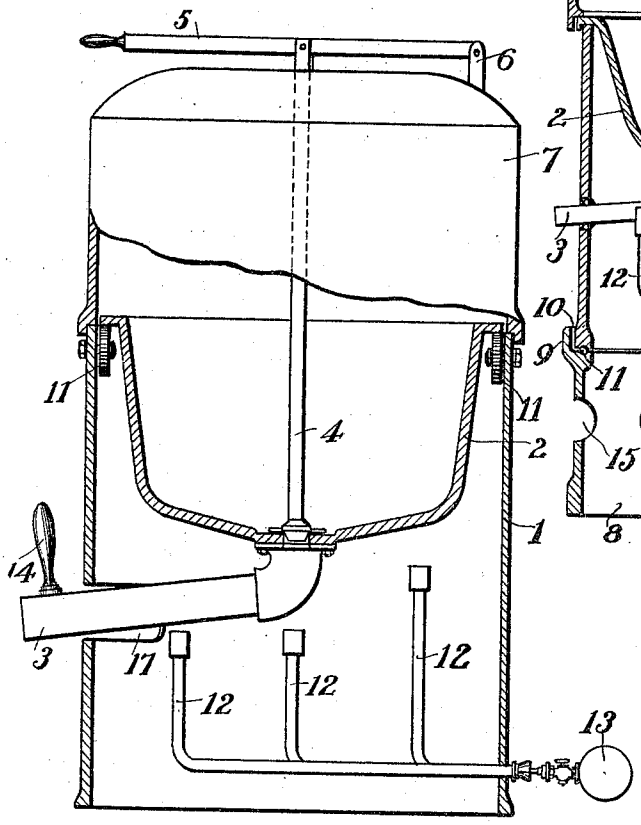


Fig 2

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UNITED STATES PATENT OFFICE.

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MEANS FOR MELTING AND CASTING METAL.

1,306,376. Specification of Letters Patent. Patented June 10, 1919.

Application filed February 8, 1916. Serial No. 77,098.

To all whom it may concern:

Be it known that I, ISAIAH HALL, subject of the King of Gt. Britain, and residing at Hagley Road, Edgbaston, in the city of Birmingham, county of Warwick, have invented a new and useful Means for Melting and Casting Metal; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to means for melting and casting metal, and consists of the novel combinations of parts described in the accompanying specification, illustrated in the appended drawings and more particularly pointed out in the annexed claim. The present invention has for its object to enable a number of molds to be fed from a single furnace.

In order that the invention may be readily understood reference may be had to the accompanying drawings in which:—

Figure 1 is a part sectional elevation of a furnace according to the present invention.

Fig. 2 is a part sectional elevation of a modification of the invention in which the melting pot is adapted to turn instead of the furnace complete.

In Fig. 1 the furnace comprises a body 1 which supports a melting pot 2 provided with a pouring spout or outlet pipe 3 projecting through the body 1 controlled by a valve 4 of the cone type seating in the bottom of the melting pot 2 and operated by a lever 5 hinged to a bracket 6. The bracket 6 is attached to or forms part of a dome shaped body 7 which covers the melting pot.

Below the furnace is a shell-like base 8 with a flange 9 at its upper edge forming a recess 10, the floor of the recess 10 being provided with balls 11 or rollers or the like, on which the under face of the furnace body 1 is supported. The balls 11 may be located in annular races formed in the floor of the recess 10 and the under face of the furnace body 1.

The furnace is heated by suitable means such as gas burners 12 connected to a common distributing chamber 13 to distribute equally the volume of gas, while handles 14 fixed to the furnace body 1 allow the furnace to be rotated by hand upon its base 8. Air inlets 15 in the base 8 admit sufficient air for combustion.

When it is desired to cast the molten metal, the valve 4 is operated and the metal flows out of the pouring spout 3 into molds which are arranged in a circle or an arc of a circle. Such an arrangement is particularly useful for furnaces used for stereotype metal as a considerable number of casting boxes can be arranged around the furnace. A flexible tube 16 connects the gas equalizing chamber 13 to the gas supply to allow of rotation of the furnace.

In Fig. 2 the melting pot 2 is arranged on the main body 1 so as to be capable of turning thereon, anti-friction rolls 11 being preferably interposed to enable the pot to be turned easily by hand. The other details of construction are similar to those illustrated in Fig. 1, except that a circumferential slot 17 is formed in the furnace body to permit of the rotary movement of the pouring spout or flow pipe 3, and the base 8 is dispensed with. The number of molds which can be fed is less than is the case with the furnace shown in Fig. 1.

Having thus described my invention, what I claim is:—

Means for melting and casting metal, comprising, in combination, a furnace body, a melting pot rotatably supported on said body, the said pot having an outlet, a valve controlling the said outlet, means for operating the said valve, a pouring spout fixed to said pot and projecting from the exterior of the said body.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

ISAIAH HALL.

Witnesses:

WILLIAM ARTHUR DAVIS,

DOROTHY MAY HUGHES.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."