(No Model.)

J. F. & E. G. ZIMMERMANN.

CRUCIBLE OR CASTING LADLE.

No. 308,028. Patented Nov. 11, 1884.

Fig. 1.

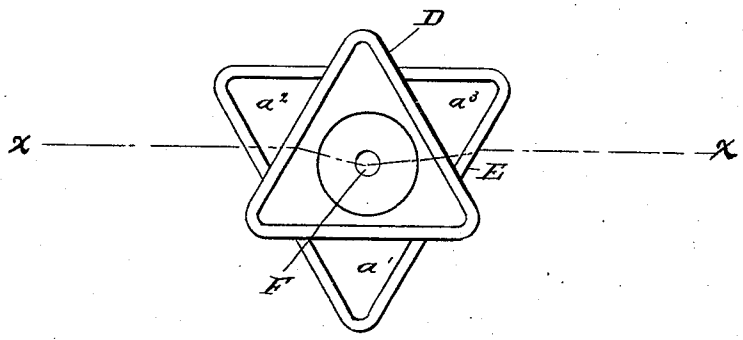
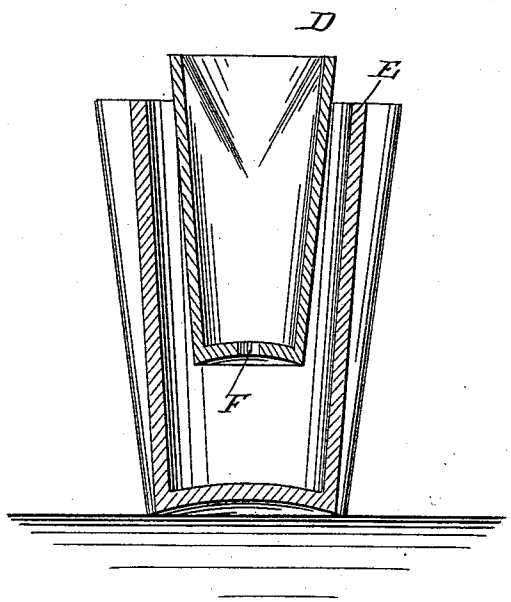


Fig. 2.



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UNITED STATES PATENT OFFICE.

JACOB FRIEDRICH ZIMMERMANN AND ERNST GEORG ZIMMERMANN, OF HANAU, GERMANY.

CRUCIBLE OR CASTING-LADLE.

SPECIFICATION forming part of Letters Patent No. 308,028, dated November 11, 1884.

Application filed July 19, 1884. (No model.)

To all whom it may concern:

Be it known that we, JACOB FRIEDRICH ZIMMERMANN and ERNST GEORG ZIMMERMANN, both citizens of Germany, and residing at Hanau, Germany, have invented new and useful Improvements in Crucibles or Casting-Ladles, of which the following is a specification.

The object of our invention is to provide a new and improved crucible or casting-ladle, which is so constructed as to retain the slag and prevent its being poured out with the molten metal, &c.

The invention consists of the detailed construction and combination of parts, substantially as hereinafter fully set forth and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a plan view of our improved crucible or casting-ladle. Fig. 2 is a cross-sectional elevation of the same on the line $x\,x$, Fig. 1.

In the embodiment of our invention we place a crucible, D, into a crucible, E, the crucibles being so arranged that the angles of one are opposite the sides of the other. Thus three channels, a' a^2 a^3, are formed which extend from the bottom of the crucible D to the three corners at the top of the crucible E. Of these channels two are closed at the top by crucible-lining or other refractory material, so that the molten metal can only be poured out of the remaining open channel a'. The bottom of the crucible D is located some distance from the bottom of the crucible E, and a series of apertures, F, are formed in the bottom of the crucible D. The molten material in the bottom of the crucible E and in the crucible D are poured out through the channel a', whereby the slag, &c., are retained in the crucibles, as all the molten metal is drawn from the bottom. The molten metal in the crucible D passes through the aperture F into the crucible E, and then out through the channel a'.

We are aware that, broadly, it is not new to provide a crucible with a pouring-channel formed of a partition with its upper end extended rearwardly crosswise of the crucible.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The crucible and casting-ladle comprising the outer triangular vessel, E, and the inner triangular vessel, D, with its angles presented toward or crossing the sides of said outer vessel, and having downward-sloping sides, and its apertured bottom disposed above the bottom of the outer vessel and inner vessel, having an apertured tapered lower end, substantially as and for the purpose set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JACOB FRIEDRICH ZIMMERMANN.
ERNST GEORG ZIMMERMANN.

Witnesses:
FRANZ WIRTH,
JOSEPH PATRICK.