

(No Model.)

M. & S. H. DARRAGH.
METAL CRUCIBLE.

No. 282,279.

Patented July 31, 1883.

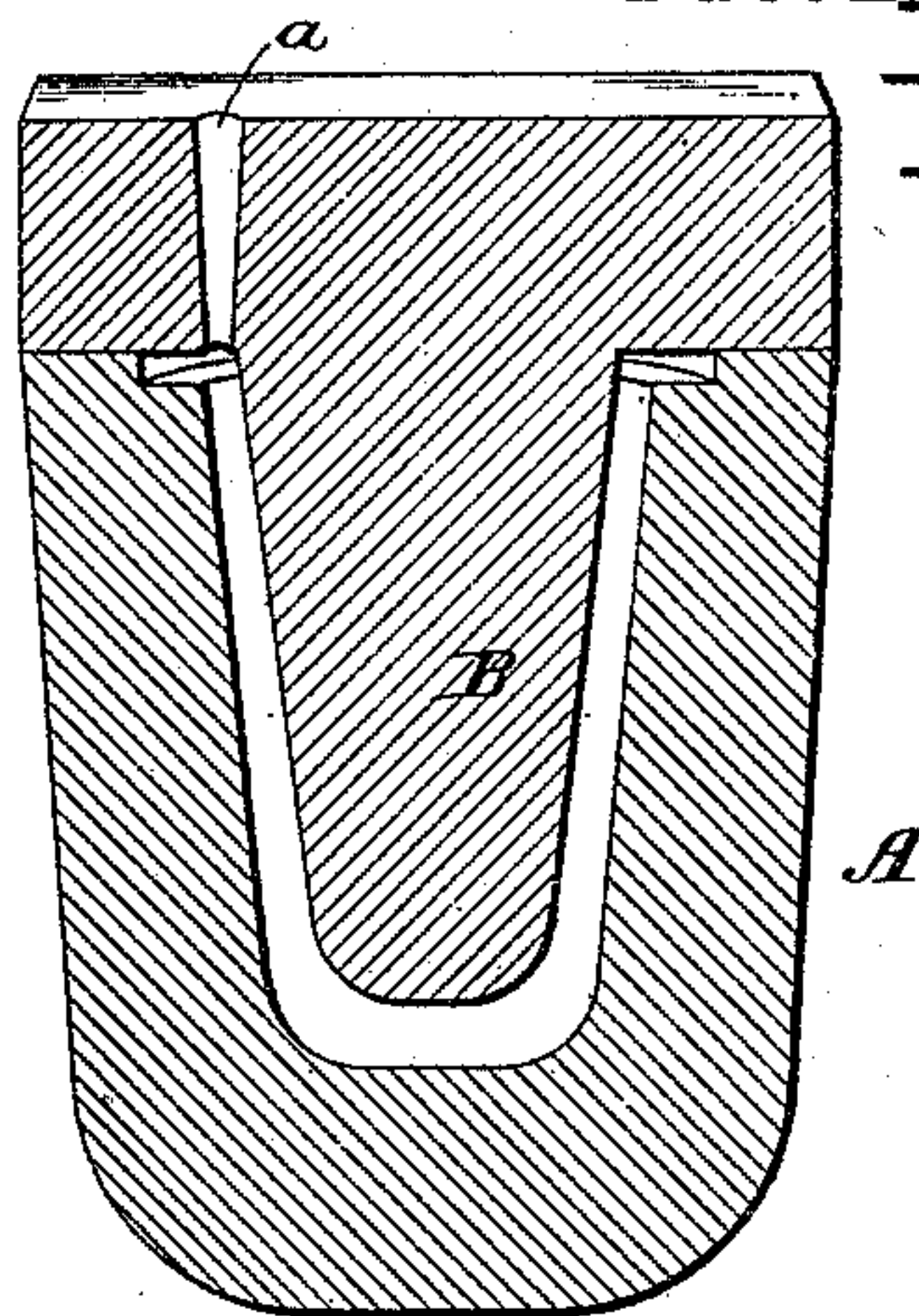


Fig. 1.

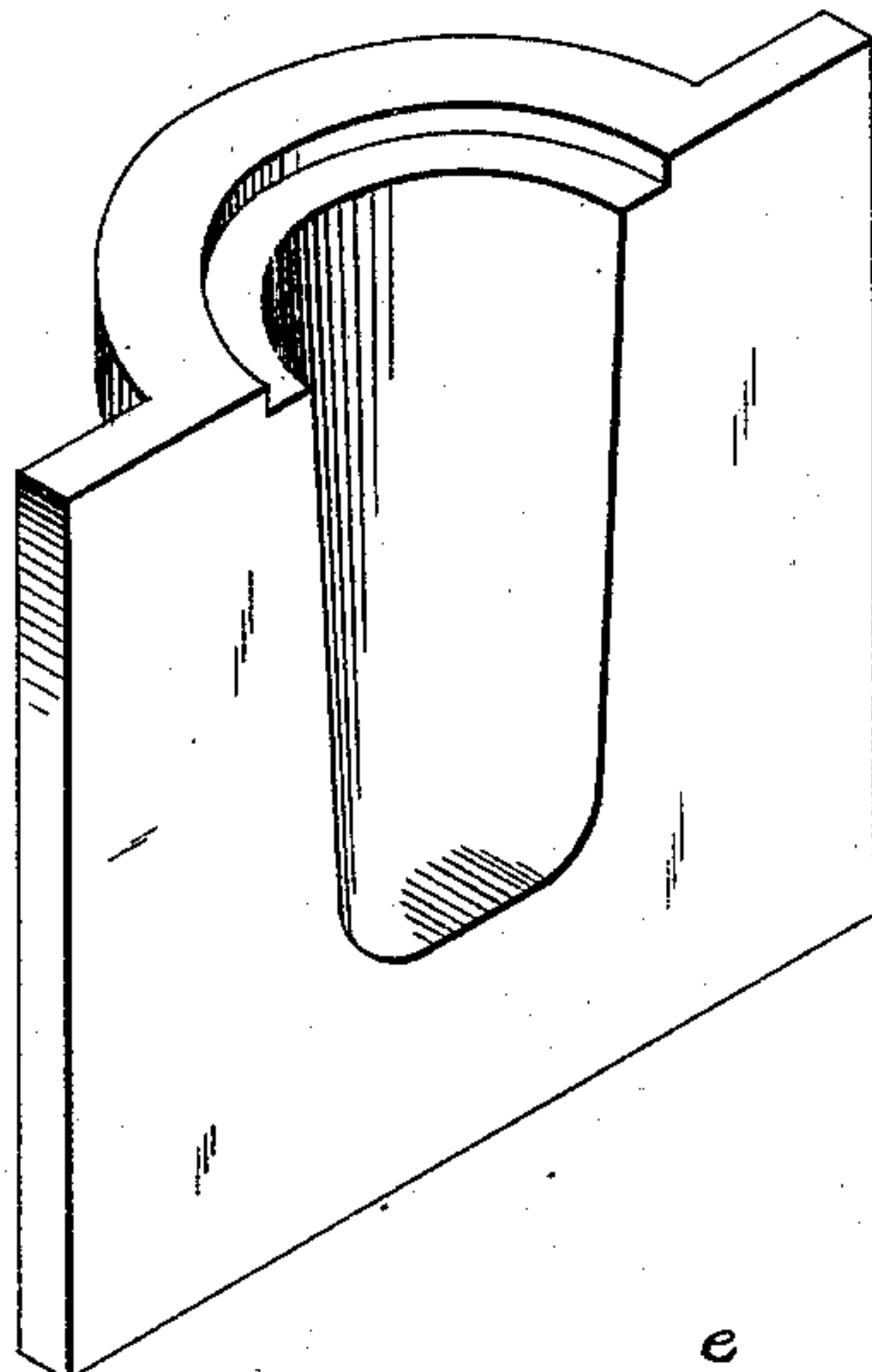


Fig. 2.

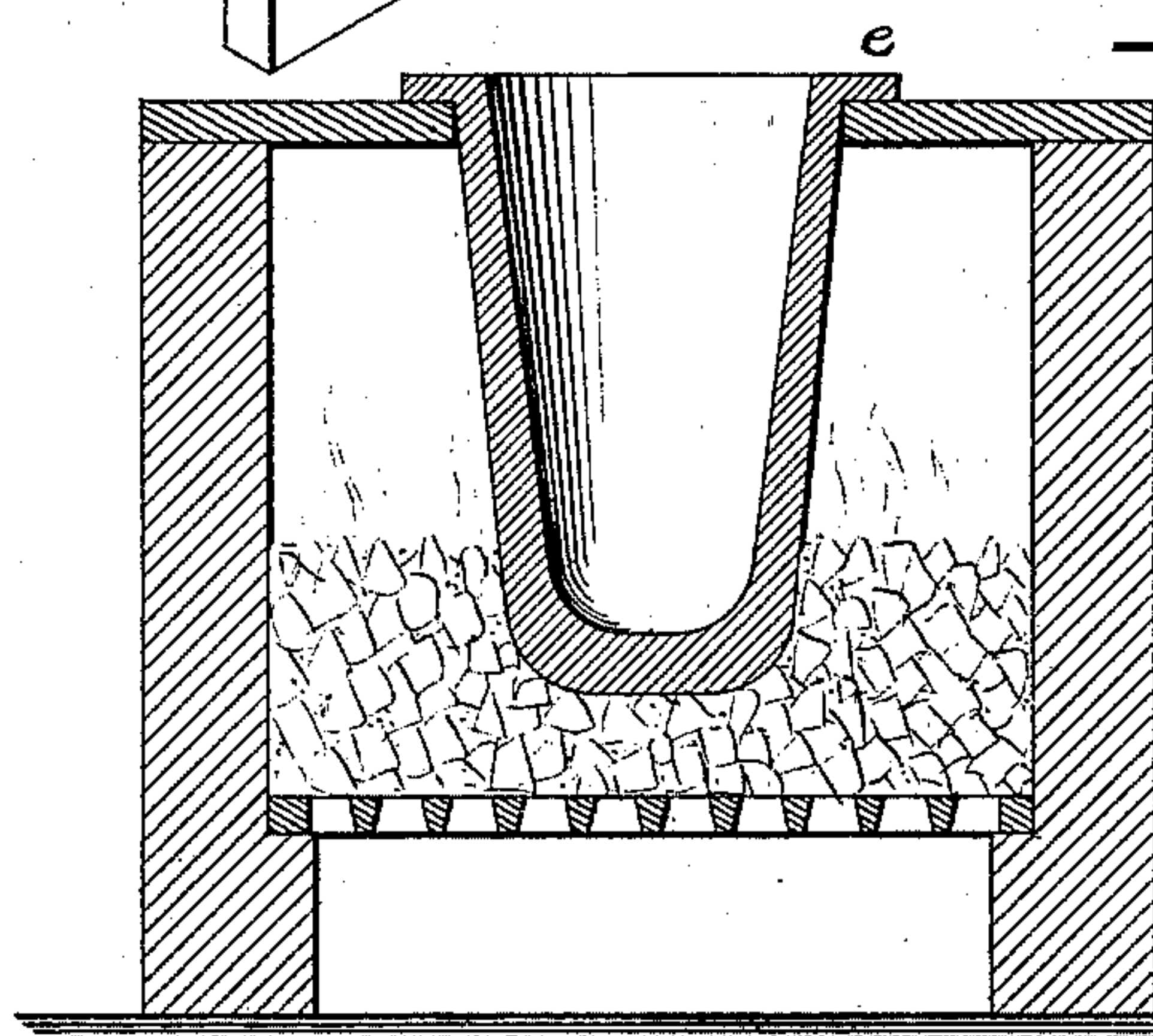


Fig. 3.

Attest:
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Mattison Darragh
Scudder & Darragh
By their Attorney
Charles E. Foster

UNITED STATES PATENT OFFICE.

MATTISON DARRAGH AND SCUDDER H. DARRAGH, OF BRIDGEWATER, PA.

METAL CRUCIBLE.

SPECIFICATION forming part of Letters Patent No. 282,279, dated July 31, 1883.

Application filed March 24, 1882. (No model.)

To all whom it may concern:

Be it known that we, MATTISON DARRAGH and SCUDDER H. DARRAGH, of Bridgewater, Beaver county, Pennsylvania, have invented
5 Improvements in Crucibles, of which the following is a specification.

Our invention relates to that class of metal pots or crucibles employed for holding hot lead to be used in tempering steel; and it consists in a metal pot having an entire outer surface of chilled metal.

The pots ordinarily used for melting and holding lead to be employed in tempering are made of iron cast in sand molds, and by reason of the porosity of the metal, and the soft iron being in contact with the fire, and the weight of the lead contained therein, and the weight of the pot hanging upon the flange thereof, they last but a short time and are expensive to renew. We obviate these objections by casting the pots in a chill, as illustrated in the accompanying drawings, in which—

Figure 1 is a section, showing one form of
25 chill and mold for casting; Fig. 2, a perspective view, showing a half-section of another form of chill; and Fig. 3, a sectional view, showing the arrangement of the pot in the furnace.

30 The chill A may be in one piece, as shown in Fig. 1, or of two or more sections, Fig. 2, clamped or bolted together, and corresponds to the form of the exterior of the pot to be cast.

35 The core B is made of sand or loam in any

suitable manner, and the metal is poured between the two through a channel at *a*, Fig. 1.

After many experiments we have found that this mode of manufacture results in the production of pots with exterior surfaces which
40 resist the action of the fire much longer than those made in the ordinary manner, and which are less likely to break, and have greater solidity and strength. In consequence of the greater density and superior strength the pots thus
45 made may be cast much thinner than those produced in the ordinary manner, thereby reducing the first cost, as well as the amount of fuel required to melt the lead and maintain it in a fluid condition. Owing to their superior
50 density and greater strength, the pots thus made are less liable to break from the flanges *e*, by which they are supported, than are the ordinary pots.

The use of a chill materially facilitates the
55 manufacture, as the preparing of a mold and the making of an outside pattern for each pot are avoided.

We claim—

As a new article of manufacture, a cast-iron
60 pot for melting lead, having the entire outer surface chilled, as set forth.

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

MATTISON DARRAGH.

SCUDDER H. DARRAGH.

Witnesses:

CHAS. B. HURST,
C. M. MERRICK.