

Z. S. DURFEE.
No. 131,332.

Ingot-Molds.
Patented Sep. 17, 1872.

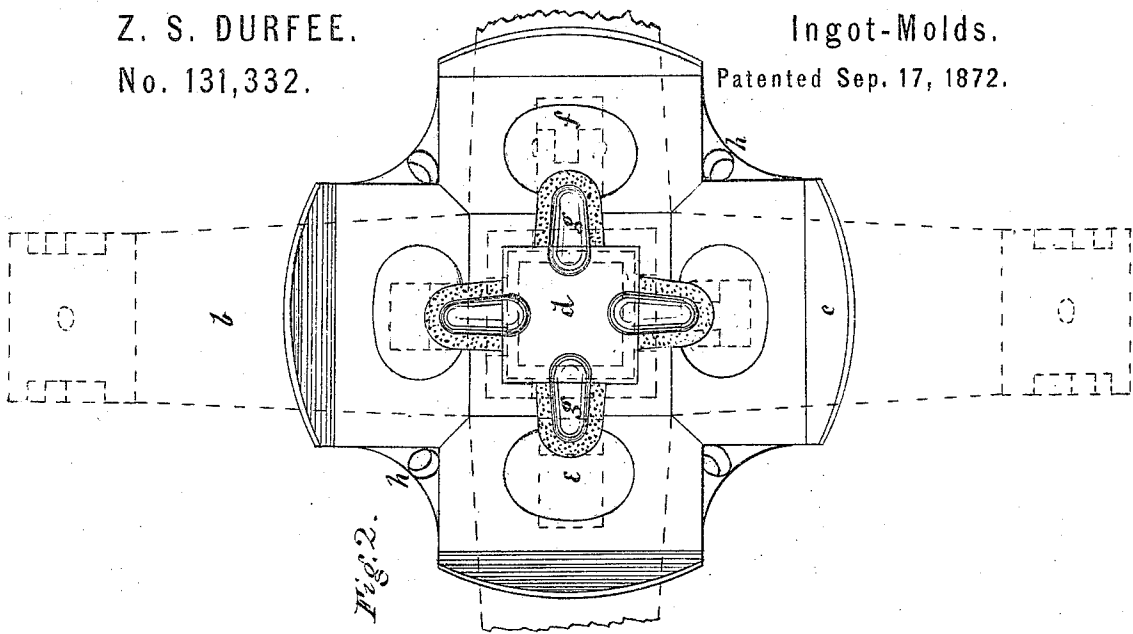


Fig. 2.

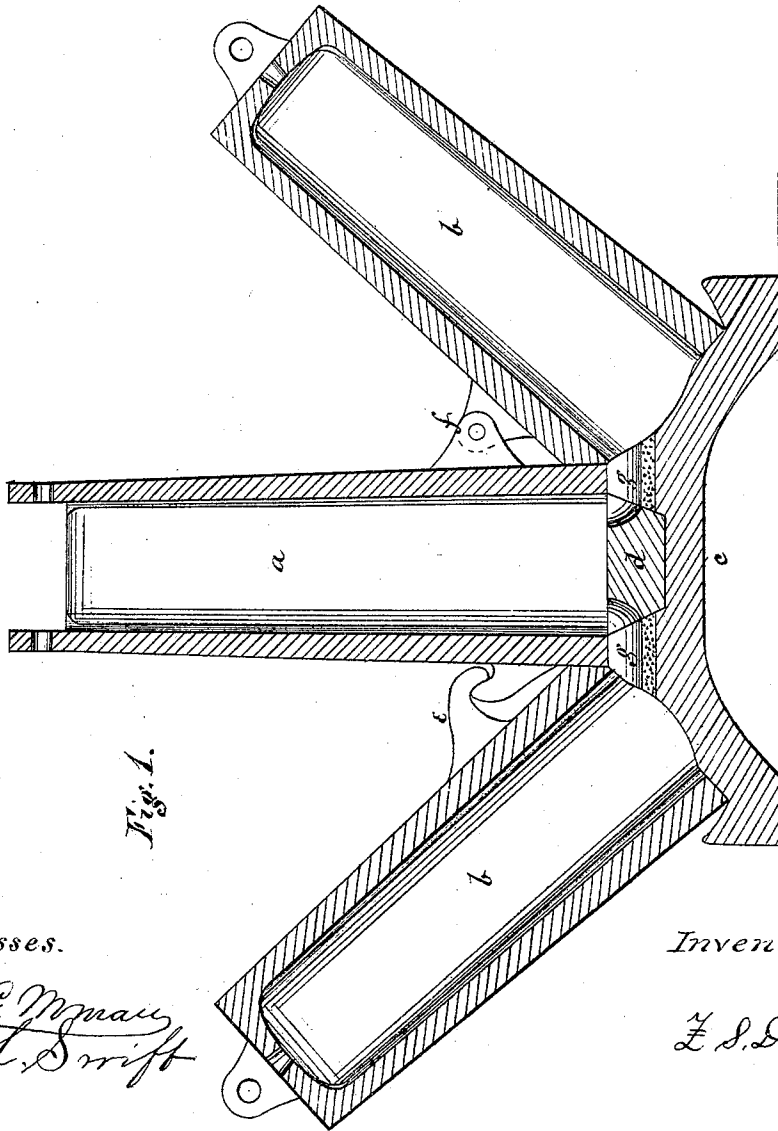


Fig. 1.

Witnesses.

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ZOHETH S. DURFEE, OF NEW YORK, N. Y.

IMPROVEMENT IN INGOT-MOLDS.

Specification forming part of Letters Patent No. **131,332**, dated September 17, 1872; antedated September 12, 1872.

To all whom it may concern:

Be it known that I, ZOHETH S. DURFEE, of the city, county, and State of New York, have invented a new and Improved Arrangement and Construction of Molds for Casting Ingots of Steel and other Metals, of which the following is a specification:

On Sheet A of the accompanying drawing I have shown my arrangement for casting ingots for rails and other uses, Fig. 1 being a vertical section through the molds, and Fig. 2 a plan view of the base on which the molds are set.

a is the sprue-mold; *b b*, the connected ingot-molds; *d* is a removable piece of gray cast-iron, or it may be of fire-brick, or any suitable refractory material, which takes the wear of the stream of metal as it falls, and thus saves the wear of the base. *g g* are the runners, through which the metal is distributed from the sprue-mold to the connected molds. These runners are shown as lined with a mixture of fire-clay and sand, or other refractory material; but I oftener use them without such lining. *e* and *f* show different modes of attaching the connected molds to the sprue-molds, and *h h* are eyes or loops, whereby the base-plate can be handled. There are shallow

concavities shown at the bases of the outlying molds, arranged so that the ingots will have their ends slightly rounded, and thus be more likely to roll out even-ended, instead of becoming hollow-ended, as they usually do when cast flat-bottomed, by reason of the generally more rapid elongation of the outsides of the ingots than of the center portions during the rolling process.

The operation of these molds will be sufficiently understood from the drawing.

I do not claim casting ingots in clusters, nor yet casting cluster-ingots at an angle with the spine-ingots; neither do I claim making the molds so as to produce convex ends on the ingots; nor using refractory lining in the runners of ingot-molds; but

What I claim as my invention, and desire to secure by Letters Patent, is—

The methods, herein described and shown in the accompanying drawing, of attaching ingot-molds to their bases, and supporting them in an inclined position.

ZOHETH S. DURFEE.

Witnesses:

CHS. H. LADD,
EMIL FLEUSNER.