

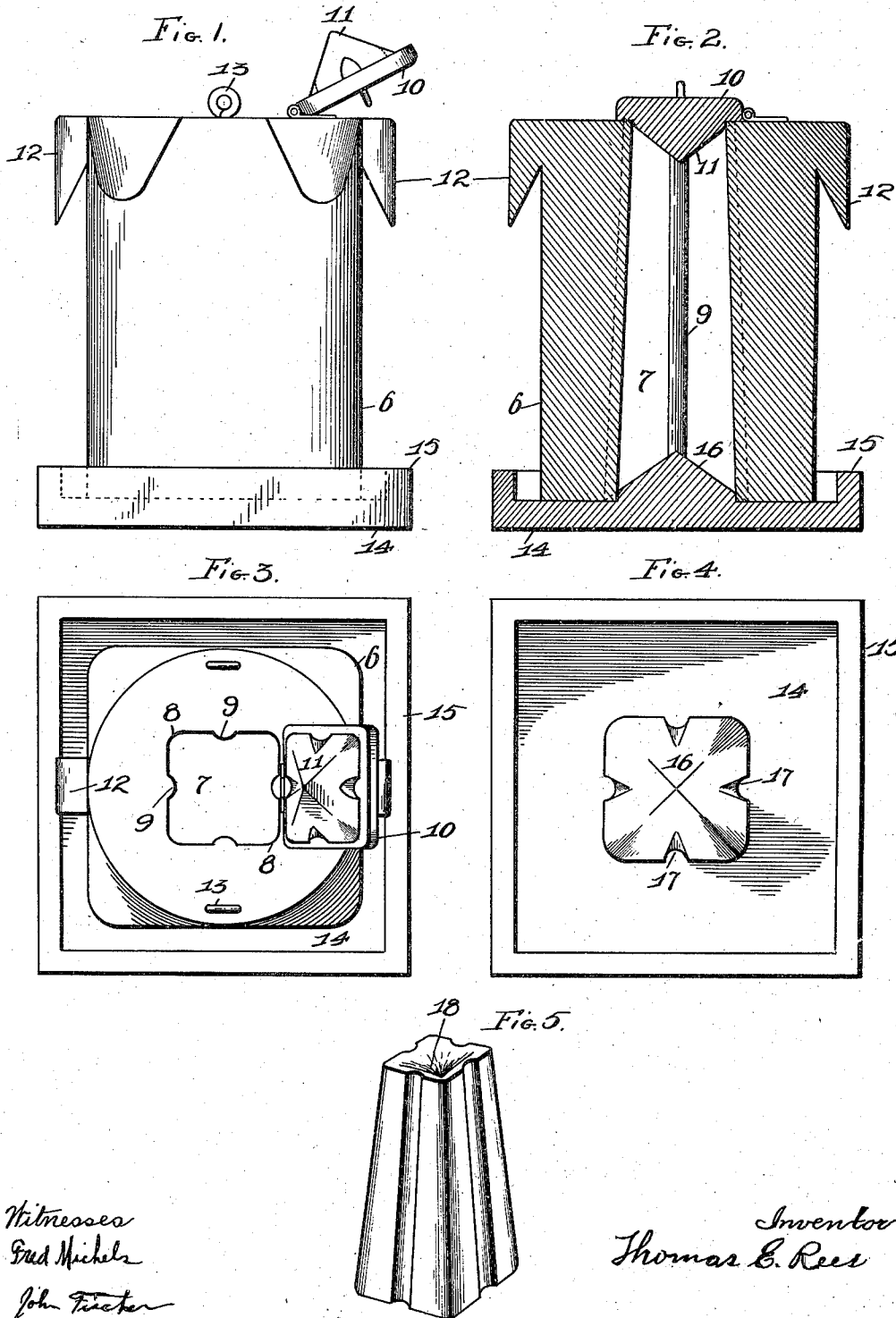
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PATENTED NOV. 24, 1903.

T. E. REES.  
INGOT MOLD.

APPLICATION FILED DEC. 1, 1902.

NO MODEL.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## INGOT-MOLD.

SPECIFICATION forming part of Letters Patent No. 745,117, dated November 24, 1903.

Application filed December 1, 1902. Serial No. 133,321. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS E. REES, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Ingot-Molds, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in ingot-molds; and it consists in the novel arrangement, construction, and combination of parts, as will be more fully hereinafter described, and set forth in the claims.

The object of this invention is to provide a mold so shaped and constructed as to form an ingot which when passed through the rolls will form a plate or sheet without waste or irregular ends.

Figure 1 is a side elevation of my complete mold. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a top plan view. Fig. 4 is a top plan view of the base-plate, the mold being removed. Fig. 5 is a perspective view of the ingot as shaped by the mold.

In the construction of my improved mold I provide a body 6, having a longitudinal opening 7 extending throughout its length and tapered in form, being of larger diameter at the base, the said opening having rounded corners 8, and located on all four sides midway between the rounded corners are longitudinal ribs 9.

Upon the top of the body 6 is suitably hinged a cap or cover 10, provided at its under side with a tapered projection 11, the outer surface thereof being in conformity with the shape of the mold. The body 6 is also provided with lugs 12 and eyes 13, which are for the purpose of attaching hoisting-chains for removing said molds from the cast ingot.

The body 6 or mold proper is placed upon a base-plate 14, the outer edge thereof being upturned, forming a flange 15. In the center of the base-plate is formed a tapered projection 16 and is provided with recesses 17 to allow the same to fit snugly within the lower opening of the mold. The purpose of the tapering-projections formed on the base and cover is to form a depression in the ends of the ingot, as indicated by the numeral 18 in Fig. 5. This feature is for the purpose that

when the ingot is placed in the rolls it will form a plate or sheet with true ends, thus dispensing with the waste caused by shearing the ends of plates formed from ingots having straight ends.

It is a well-known fact that an ingot cast with its ends solid will form a plate with ends pointed. This is caused by the center bulging out beyond the edges, and this must necessarily be clipped off to form an equal sheet. This clipping is a waste and must be remelted. The longitudinal grooves also provide for equal thickness and perfect edges.

I do not desire to limit myself to the precise construction and shape of opening and projection on the base and cover, as an oblong, oval, or any suitable shape may be used that is in cross-section.

The operation of my invention is as follows: The body 6 is placed upon the base-plate 14, bringing the opening 7 directly over the projection 16, and is then placed in the space formed by the body and flanges 15. This is to prevent air from gaining access from below. The metal is then poured into the mold from the top, and when sufficiently filled the cover is closed. When the metal in the mold becomes cool, the mold is removed from the plate by raising it. This will leave the ingot stand upon the base-plate and will be shaped as shown in Fig. 5 of the drawings.

Having fully described my invention, what I claim is—

1. An ingot-mold, comprising a body 6, a longitudinal tapering opening 7, the corners 8 of said opening being rounded, ribs 9 formed on the surface of the opening midway between the rounded corners, a cover 10 hinged to the top of said mold, a tapering projection 11 formed on the cover and arranged to conform with the shape of the mold, lugs 12 and eyes 13 formed integral with said mold-body, substantially as specified.

2. A mold of the class described, comprising a body 6 having a longitudinal tapering opening 7, the corners of said opening being rounded, ribs 9 formed on the body projecting inwardly in the opening and formed midway between the rounded corners, a cover hinged to the top of said body, a tapering projection formed on the bottom of said cover and shaped to conform with the shape of the

opening, in combination with a base-plate 14,  
flanges 15 formed on said base-plate, a taper-  
ing projection 16 formed on said base-plate  
and arranged to conform with the shape of  
5 the bottom of the opening, integral ears  
formed on the body for hoisting the same  
from the casting, substantially as specified.

In testimony whereof I affix my signature  
in presence of two witnesses.

THOMAS E. REES.

Witnesses:

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