

(No Model.)

T. CUNNINGHAM.
BRACKET FOR STEAM BOILERS.

No. 350,416.

Patented Oct. 5, 1886.

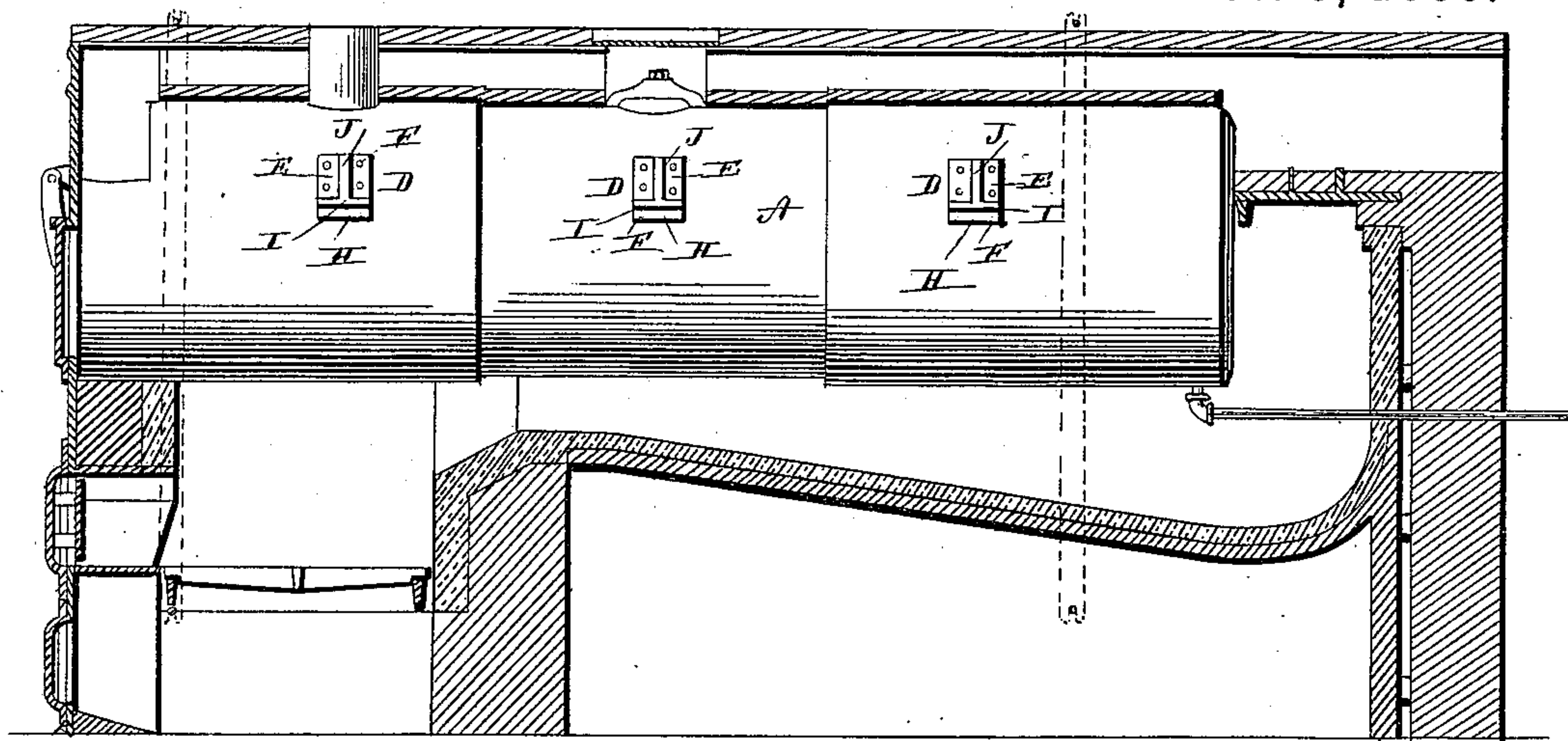


Fig. 1.

Fig. 2.

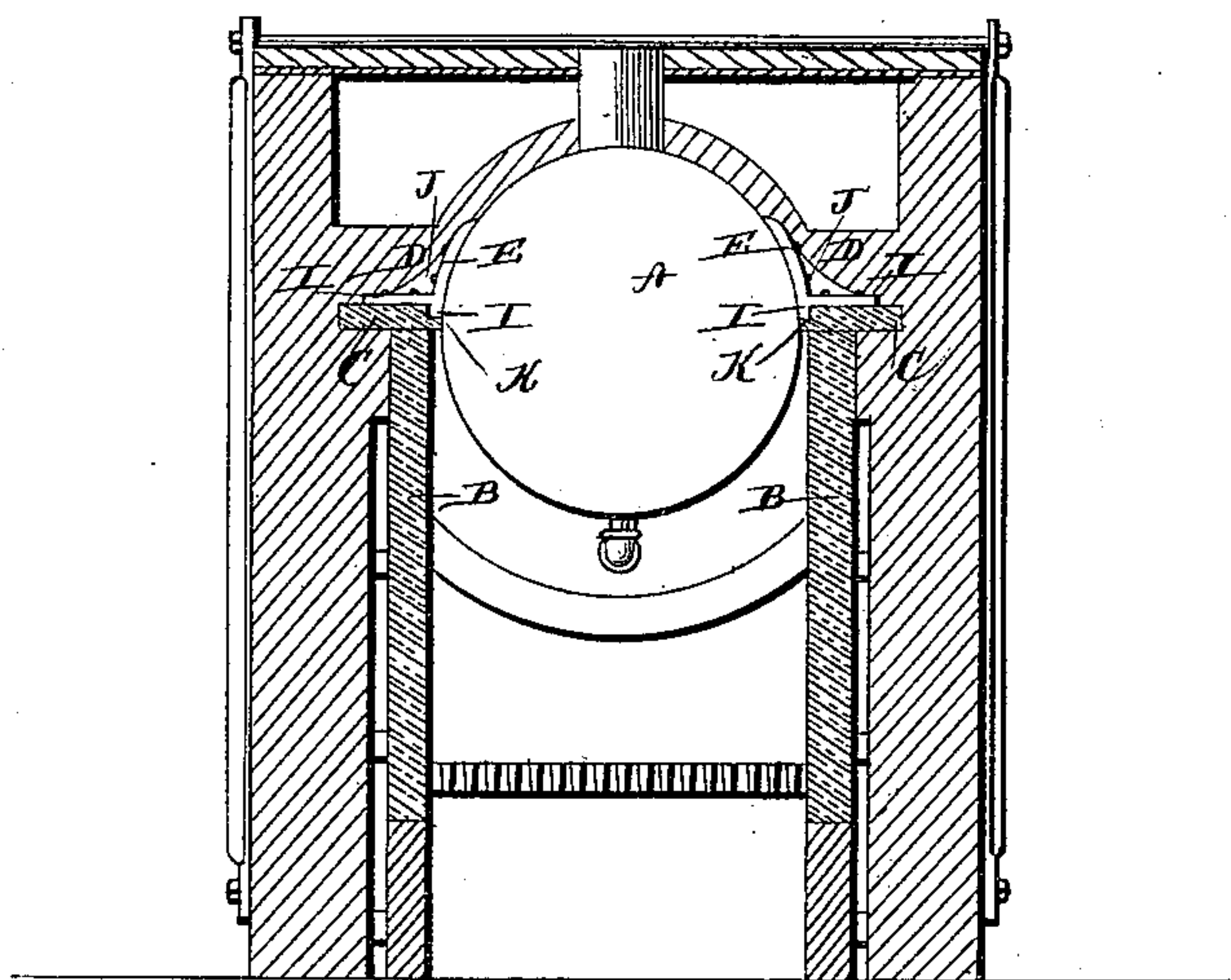


Fig. 3.

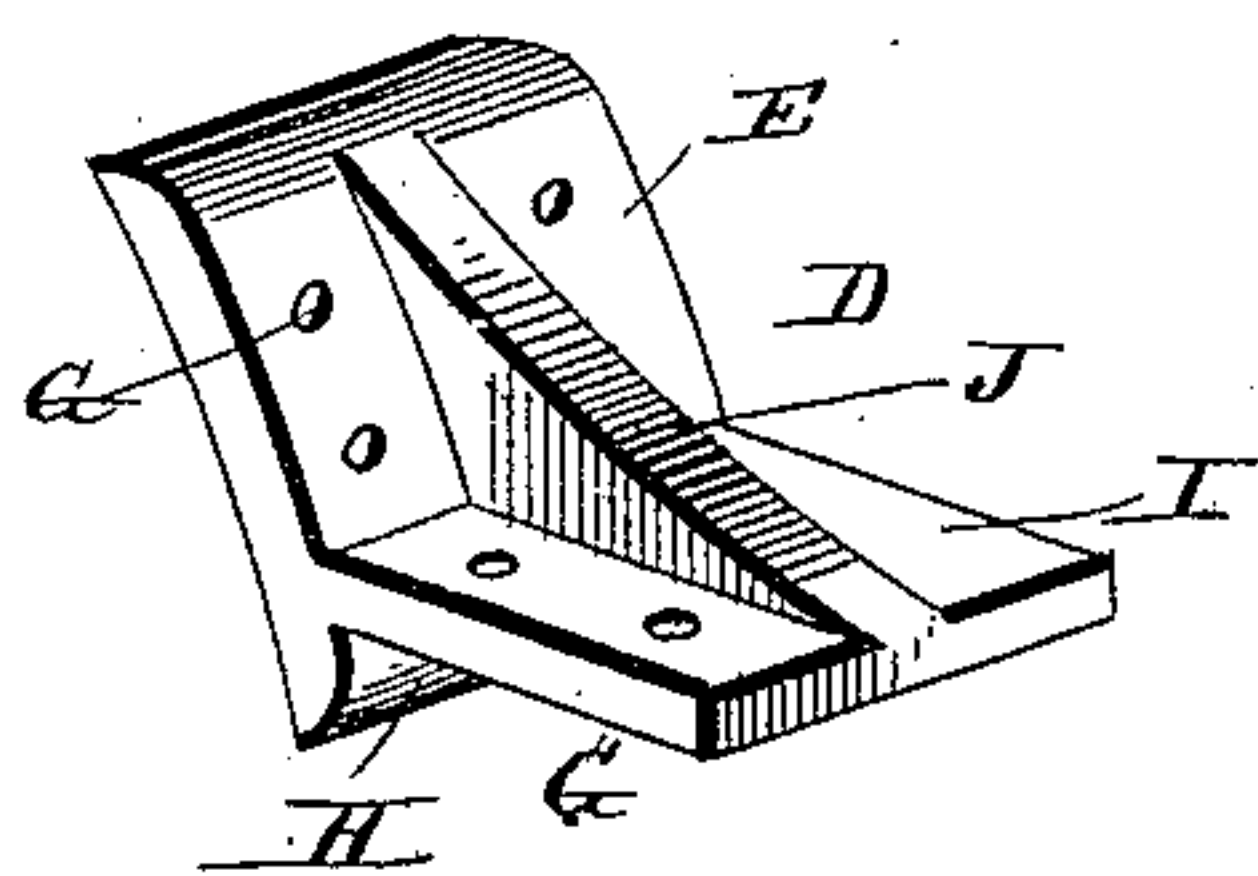


Fig. 4.

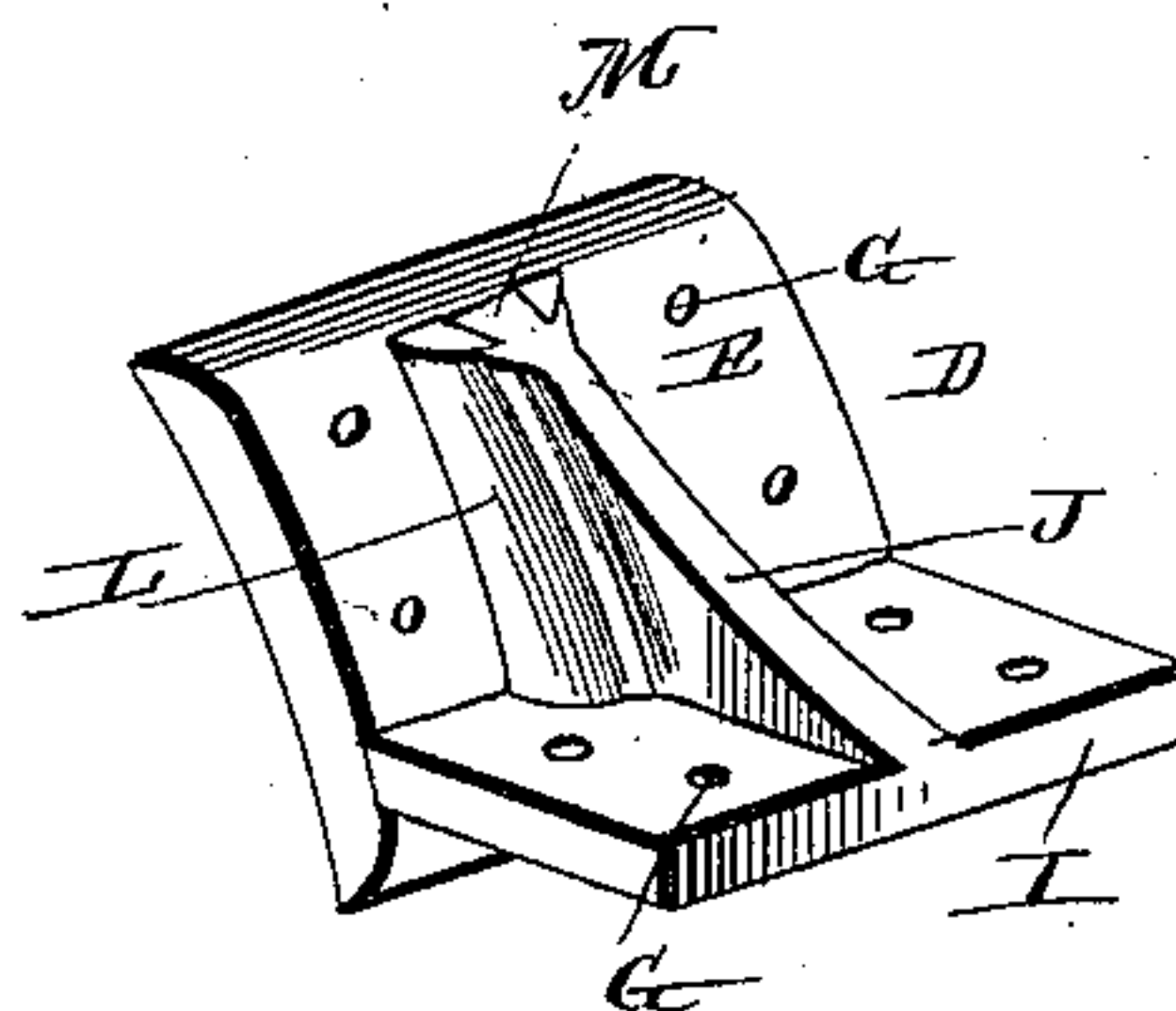
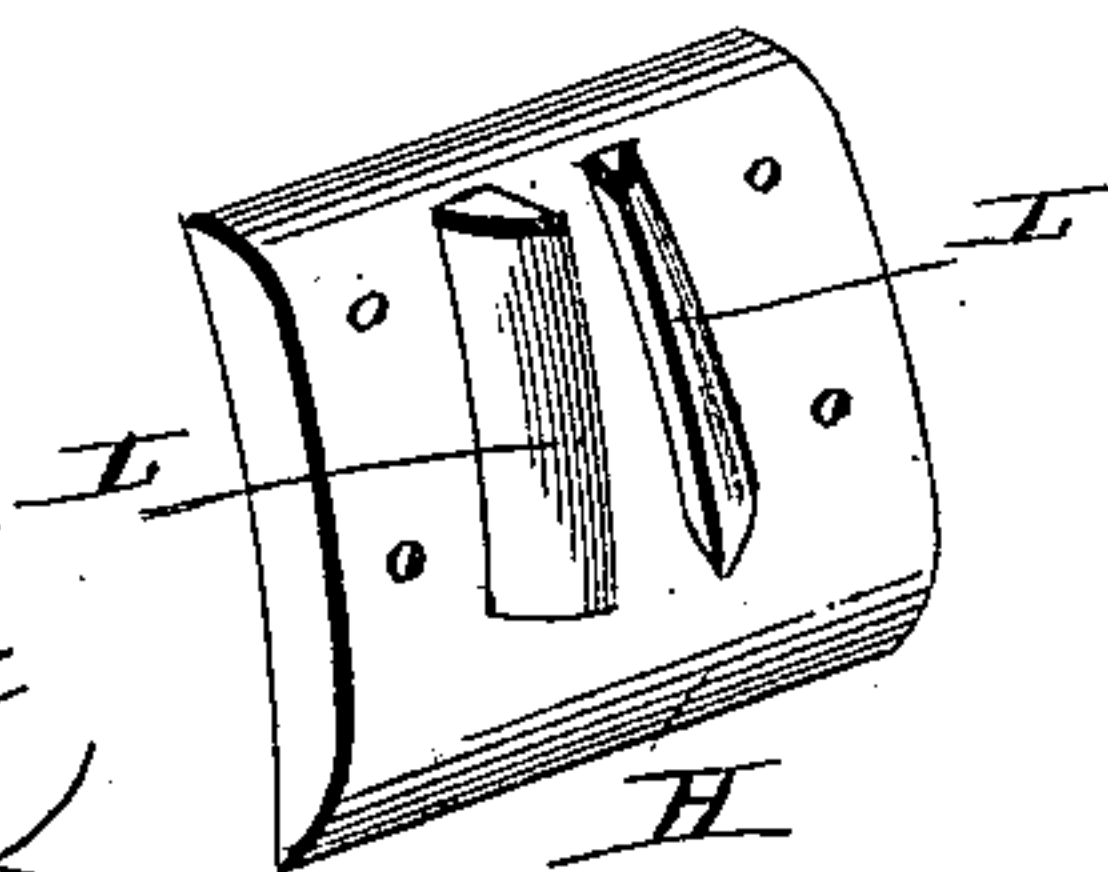


Fig. 5.



WITNESSES
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THOMAS CUNNINGHAM, OF CHELSEA, MASSACHUSETTS.

BRACKET FOR STEAM-BOILERS.

SPECIFICATION forming part of Letters Patent No. 350,416, dated October 5, 1886.

Application filed July 17, 1886. Serial No. 208,264. (No model.)

To all whom it may concern:

Be it known that I, THOMAS CUNNINGHAM, a citizen of the United States, and a resident of Chelsea, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Brackets for Steam-Boilers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a longitudinal vertical sectional view through the brick-work of a steam-boiler, showing the boiler in side view, and showing the boiler provided with my improved bracket. Fig. 2 is a transverse sectional view of the same. Fig. 3 is a perspective view of one of the brackets. Fig. 4 is a similar view of a bracket in which the toe portion is separable from the curved portion, and Fig. 5 is a similar view showing the two portions of the bracket separated.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to brackets for supporting steam-boilers in the surrounding brick-work; and it consists in the improved construction and combination of parts of a bracket having a heel or extension of the curved portion secured to the boiler-shell, and of a bracket having a detachable toe, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the boiler-shell, which may be of any desired construction or size, and B B indicate the side supports, preferably built of fire-brick and formed with the capping C at their upper edges.

The brackets D consist of the curved portion E, which is secured to the boiler-shell by means of rivets F, passing through rivet-holes G in the usual manner, and this curved portion has a heel or lip, H, projecting below the toe I, projecting from the back of the curved portion in the usual manner, and formed with the usual re-enforcing rib or brace, J. This heel or lip is provided with rivet-holes, through which rivets pass into the boiler-shell, and the heel bears against the inner edge of the capping, upon which the toe rests, resting in a rabbet,

K, in the said capping, or simply bearing against the inner edge of the same. This lip or heel will add to the surface of the curved portion, giving a larger surface for passing fastening-rivets through than the curved portion of the usual bracket possesses, and the lip or heel will at the same time, by bearing against the inner edge of the capping, either plainly against the edge of the capping or by resting in a rabbet, divide the strain upon the supports, producing a lateral strain, together with the downward strain, upon the capping, causing the strain of the weight of the boiler to be partly exerted upon the brick-work surrounding the sides of the boiler.

At times it is desirable to have the toes of the brackets removable, so that the boiler may be passed through smaller apertures than it would be able to pass through if the toes of the brackets remained in place, and this class of brackets are shown in Figs. 4 and 5, in which the back of the curved portion of the bracket is shown provided with two upwardly-converging ribs, L L, into which the correspondingly-shaped inner end of the toe may be slid, the weight of the boiler drawing the ribs to bear tightly upon the sides of the inner end, M, of the toe. By constructing the brackets in this manner the toes may be removed from the brackets when the boiler is transported, and the boiler may be inserted through smaller spaces than it could be passed with the toes of the brackets projecting outward, and the toes may be inserted between the ribs after the boiler has been put in place, when the toes will be jammed so firmly in place by the weight of the boiler drawing the converging ribs down upon the correspondingly-shaped inner ends of the toes that there will be no difference, or a very slight one, between the solid bracket and the separable or slip bracket in regard to strength.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. A bracket for a steam-boiler, consisting of a curved portion for fastening to the boiler-shell and a detachable toe having means for securing it to the rounded portion and having a flat under side, as and for the purpose shown and set forth.

2. In a bracket for steam-boilers, the com-

5 bination of a curved portion having upwardly-
converging ribs upon its back, and having
rivet-holes, with a toe having its inner end
shaped to fit between the converging ribs, the
lower portion of the curved portion projecting
below the under side of the toe, forming a lip,
as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my
own I have hereunto affixed my signature in
presence of two witnesses.

THOMAS CUNNINGHAM.

Witnesses:

HENRY W. BRAGG,
GEO. H. PEARL.