

J. G. & J. H. THOMPSON.

STEAM BOILER.

No. 177,300.

Patented May 9, 1876.

Fig. 1.

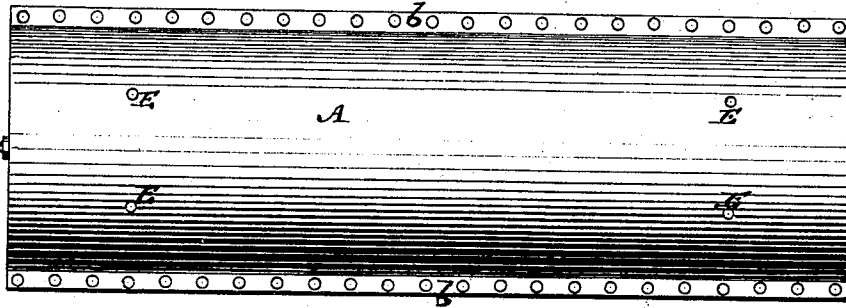


Fig. 2.

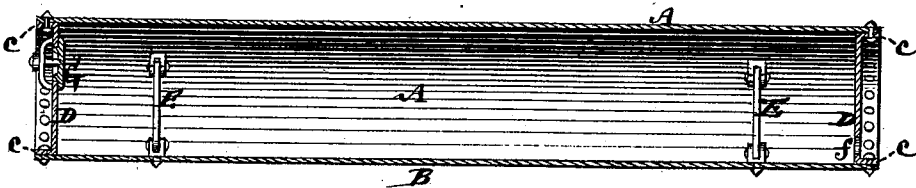


Fig. 3.

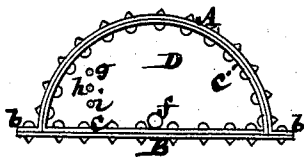
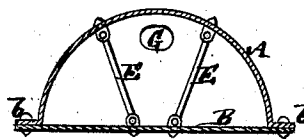


Fig. 4.



Witnesses
John Becker
Fred. Warner

J. G. Thompson
J. H. Thompson
by their Attorneys
Brown & Allen

UNITED STATES PATENT OFFICE

JAMES G. THOMPSON AND JOHN H. THOMPSON, OF TAMAROA, ILLINOIS,
ASSIGNORS OF ONE-HALF THEIR RIGHT TO DEWITT C. BARBER, OF
SAME PLACE.

IMPROVEMENT IN STEAM-BOILERS.

Specification forming part of Letters Patent No. **177,300**, dated May 9, 1876; application filed
March 6, 1876.

To all whom it may concern:

Be it known that we, JAMES G. THOMPSON and JOHN H. THOMPSON, both of Tamaroa, in the county of Perry, and State of Illinois, have jointly invented certain new and useful Improvements in Steam-Boilers; and we do hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to improvements in that class of steam-boilers which are formed of an arched construction in cross-section. The improvements will be fully hereinafter described, and specifically pointed out in the claim.

In the accompanying drawing, Figure 1 is a plan of a steam-boiler constructed in accordance with our invention. Fig. 2 is a longitudinal vertical section of the same; Fig. 3, an end view; and Fig. 4, a vertical transverse section of the boiler.

A are the top and sides of the boiler bent to form an arch which may either be elliptic or circular, but is here shown to correspond with the segment of a circle, and has its lower edges on either side turned outward to form longitudinal exterior flanges *b b*, which rest on a flat base or boiler bottom, B, and which are riveted on the outside to said base. D D are the heads of the boiler. These heads are formed with an externally-projecting face-flange, *c*, all around them, and are of the same

contour as that of the body of the boiler in its transverse section, and so that they fit closely within said body at its opposite ends, with the outer edges of the flanges *c* flush with the end edges of the body of the boiler, whereby not only the heads may be riveted to their places from the outside of the boiler, but also act as interior stays to stiffen the body. The top and sides A of the boiler and base B are further stiffened or strengthened by intermediate braces E E, which may be applied to every plate, or every other plate, in the length of the boiler, according to the pressure the boiler is required to resist. G represents a man-hole cover in the one boiler-head D; *f* the water-supply aperture, and *g h i* the boiler-gages.

We claim—

The combination, in a steam-boiler of arched construction in transverse section, and having a flat bottom, of the oblique stays E on the inside thereof, the longitudinal exterior flanges *b*, and the heads D, having face-flanges *c c*, and inserted in the ends of the boiler, as and for the object specified.

JAMES G. THOMPSON.
JOHN H. THOMPSON.

Witnesses:

DAVID JOHNSTON,
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