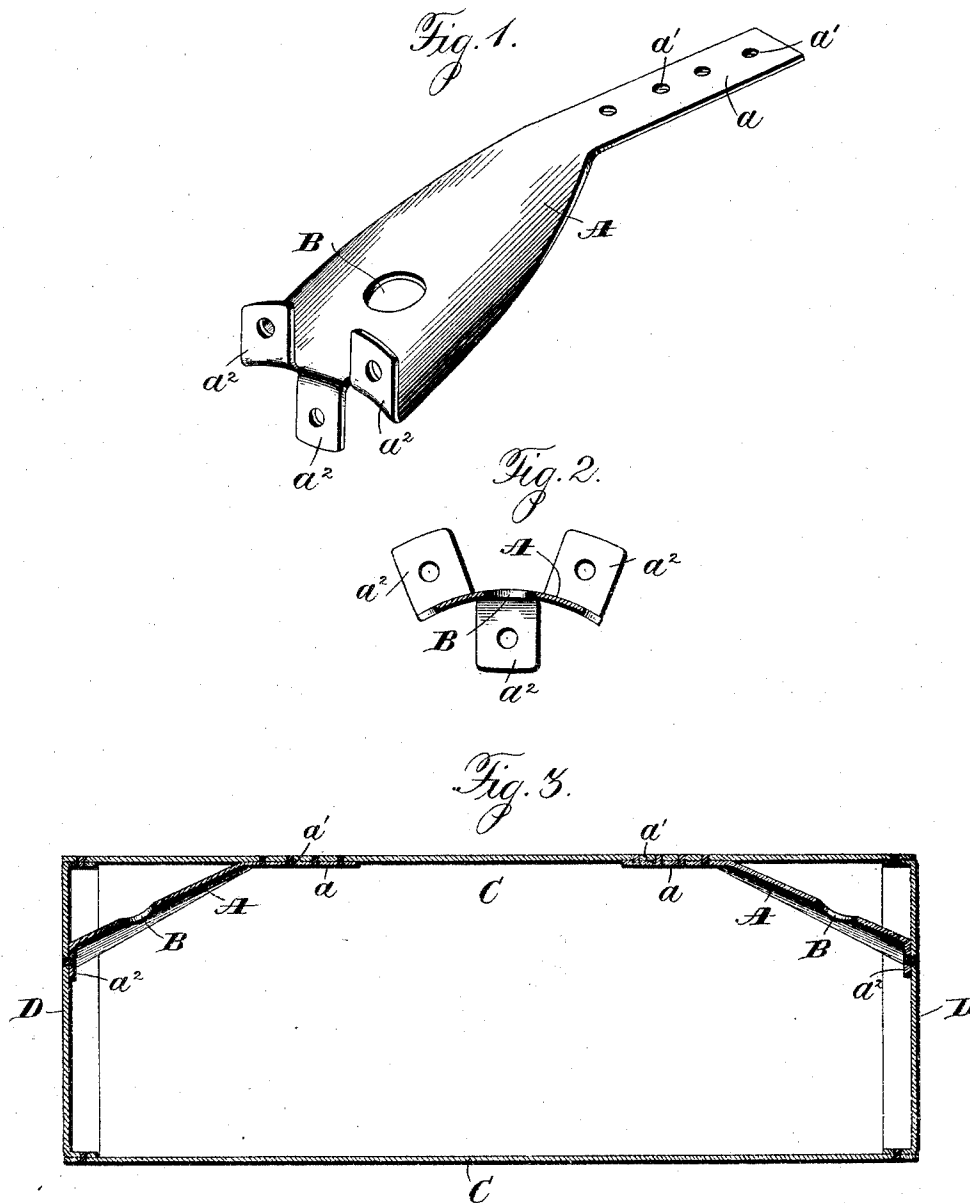


(No Model.)

J. M. WILSON.
BOILER STAY OR BRACE.

No. 503,514.

Patented Aug. 15, 1893.



Witnesses:
Jas. E. Hutchinson.
Chas. Williamson.

Inventor.
John M. Wilson, by
Crimble & Russell, his Attys

UNITED STATES PATENT OFFICE.

JOHN MILLER WILSON, OF OMAHA, NEBRASKA.

BOILER STAY OR BRACE.

SPECIFICATION forming part of Letters Patent No. 503,514, dated August 15, 1893.

Application filed February 23, 1893. Serial No. 463,445. (No model.)

To all whom it may concern:

Be it known that I, JOHN MILLER WILSON, of Omaha, in the county of Douglas, and in the State of Nebraska, have invented certain new and useful Improvements in Boiler Stays or Braces; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved boiler brace or stay; Fig. 2, a transverse section thereof, and Fig. 3 a longitudinal section of a boiler provided with my brace or stay.

Letters of like name and kind refer to like parts in the several views.

The object of my invention is to provide a brace or stay for the heads, or other flat surfaces of steam boilers, or other vessels subject to great pressure, which shall be very strong and susceptible of easy and cheap manufacture, and to this end, said invention consists in the brace or stay constructed substantially as and for the purpose hereinafter specified and claimed.

My brace or stay comprises a body portion A, shaped generally like a triangle, a straight, narrow extension a from the apex thereof provided with a row of rivet holes a' , and three lugs, or feet, a^2 , a^2 , a^2 at the base of the triangle. Two of the feet a^2 , those at the opposite sides of the body A, extend in the same direction and opposite the other which is between them, at the central portion of the body. Each foot is provided with a bolt or rivet hole. The body portion A with reference to the extension a inclines downwardly, and for a purpose to appear, has its upper surface curved convexly and is provided with an opening or perforation B.

In applying my brace or stay to a steam boiler, as shown in Fig. 3, the straight extension a is riveted to the inner side of the boiler shell C, and the three feet a^2 riveted to the head D. As the body A has a comparatively extended surface it is made convex to ren-

der difficult the lodgment of dirt and scales, which might otherwise collect upon it. The opening B in said body is provided also as a means to keep the brace clean, as the movement of the water over the body A in consequence of a circulation through said opening will obviously dislodge scales or other deposits.

I make my brace or stay, preferably from steel plates, although other metal than steel may be employed, and its structure is such as to enable it to be formed by stamping and bending, it being noted that the feet a^2 are simply bent from the body A to the proper angle. The brace thus consists of a homogeneous piece of metal, free from welds, and for its weight, possessing great strength. If it should be found desirable or necessary, instead of making but one opening B in the body A, more can be made.

Having thus described my invention, what I claim is—

1. A brace or stay for boilers, comprising a body portion whose upper surface is curved convexly, and through which is a perforation or opening, and attaching means at its opposite extremities, substantially as and for the purpose specified.

2. A brace or stay for boilers, comprising a body portion triangular in shape, with its upper surface curved convexly, and having an opening through it, attaching means at the apex of the triangle consisting of a straight extension of the body, and attaching means at the base consisting of two upwardly bent feet, and one downwardly bent foot located between the others, substantially as and for the purpose shown.

In testimony that I claim the foregoing I have hereunto set my hand this 10th day of January, 1893.

JOHN MILLER WILSON.

Witnesses:

HUGH W. WILLIAMS,
EDWD. L. BRADLEY.