No. 643,773. Patented Feb. 20, 1900.

R. METCALF.

BOILER BRACKET.

(Application filed Oct. 30, 1899.)

(No Model.)

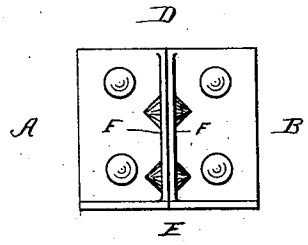


FIG. 1.

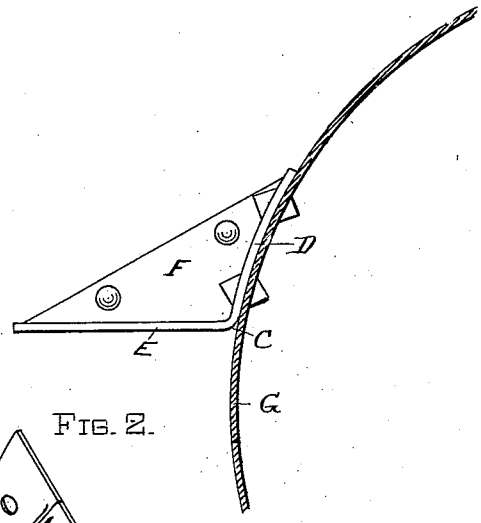


FIG. 2.

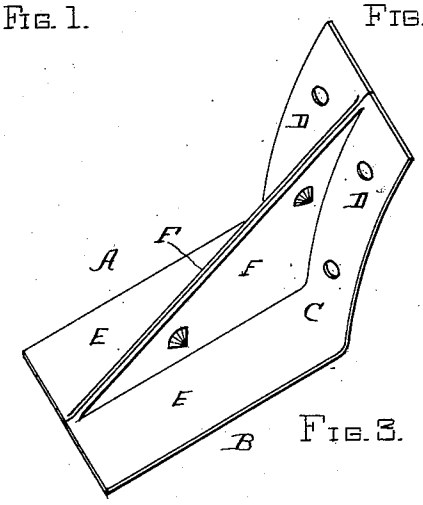


FIG. 3.

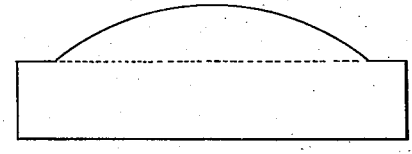


FIG 6

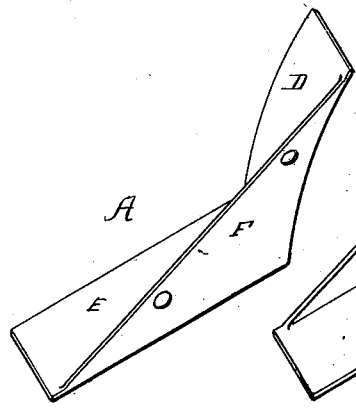


FIG. 4.

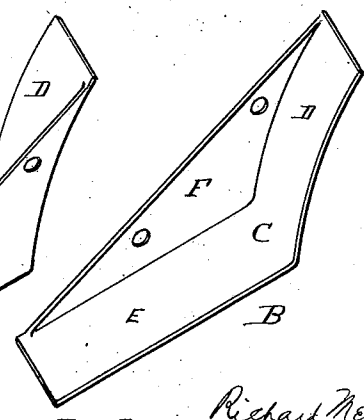


FIG. 5.

Richard Metcalf

INVENTOR;

WITNESSES;

C. J. Brennan

John W. Halbfus

BY, R J M'Carty

ATTORNEY

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

RICHARD METCALF, OF DAYTON, OHIO, ASSIGNOR TO THE BROWNELL & COMPANY, OF SAME PLACE.

BOILER-BRACKET.

SPECIFICATION forming part of Letters Patent No. 643,773, dated February 20, 1900.

Application filed October 30, 1899. Serial No. 735,245. (No model.)

To all whom it may concern:

Be it known that I, RICHARD METCALF, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Boiler Brackets or Lugs; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in boiler lugs or brackets for supporting boilers in position. Heretofore boiler-supporting lugs have been constructed both of cast metal and sheet or plate metal. The former has been found objectionable owing to the difficulty experienced in attaching them to the boiler and the variable natures of the two metals—to wit, the cast metal and the boiler-plate—and, further, to the necessity of having to make the castings excessively heavy in order that the lugs may possess the necessary strength. In the case of the sheet-metal lugs, owing to the great weight that the lugs are required to sustain, a sheet-metal lug, while possessing the required lightness in weight, it has been found difficult to provide the requisite strength to support the heavy weight. The strain is mainly concentrated at the bend in the lug or in a transverse line across the middle of said lug. It therefore becomes necessary to reinforce this portion of the lug in a suitable manner to meet the requirements, which manner will be described hereinafter.

To provide a boiler-lug devoid of the above difficulties is the main object of this invention. Owing to the lug being made in two parts, or, rather, from two parts, as will hereinafter appear, much of the small pieces or scraps which are found to be useless around boiler-shops may be utilized in the production of this most useful and necessary article, the boiler-lug.

My invention will be readily understood by referring to the accompanying drawings, of which—

Figure 1 is a front elevation of my improved boiler-lug. Fig. 2 is a side elevation showing my improved boiler-lug attached to a boiler, a portion of said boiler appearing in section. Fig. 3 is a perspective view of my improved boiler-lug. Figs. 4 and 5 are two sections, respectively, by the union of which the lug is produced. Fig. 6 is a plan view of the blank from which the sections shown in Figs. 4 and 5 are produced.

As is apparent from the drawings above described, the lug is made of two parts or sections A and B, which are correspondingly shaped. The blank from which each of said parts is formed is sheet metal or boiler-plate, and, as before stated, the blanks may be stamped from small pieces of boiler plate or scrap, and thus the scraps about the boiler-shop may be utilized. The requisite shape is given each section A and B by means of specially-constructed punches or dies, and which shape consists in bending the blanks transversely at or near the center C to provide two angularly-disposed parts D and E and in further providing a marginal wall or flange F on one side of each of the said parts A and B, which when the parts are brought together extends throughout the longitudinal center of the lug. This wall or flange F increases in depth from the ends thereof inwardly, and is essentially of a greater depth at the point where the bend in the lug occurs in order that greater strength may be given the lug at that point, which, as before stated, is called upon to meet a maximum amount of the strain.

The sections A and B, formed in the above-described manner, are united by placing the walls or flanges F against each other, as is shown in Fig. 3, and in riveting or otherwise securing them together. When the sections are thus united, there is formed a lug which has a strengthening-rib formed by the flanges F, extending throughout its longitudinal center and possessing a thickness which is twice that of the remaining parts of the lug and which, as before stated, has a greater depth from the point where the bend in the lug occurs. The upright portion D of the lug is riveted to the boiler G in the usual manner, and the horizontal part E is designed to rest

upon the masonry or other support in a manner well known to those familiar with the uses and purposes of boiler-lugs.

In the construction of a boiler-lug in accordance with the foregoing description there is provided a sheet-metal lug that possesses a maximum amount of strength and one that calls for the least expense in point of manufacture.

Having described my invention, I claim—

1. A boiler-lug constructed of two uniform sections, said sections having corresponding upright and horizontal portions, and each section having a marginal wall extending throughout one side thereof, the wall of each section being brought in contact throughout and united to form a double or reinforced rib extending throughout the longitudinal center of the lug, substantially as described.

2. A supporting-lug for boilers, constructed of two separate blanks of uniform shape bent near their centers to provide two angularly-disposed portions, and a marginal wall or flange on one side of each blank which are brought in contact throughout their surfaces to form a single lug, the said walls or flanges forming, when the parts are united, a central longitudinal strengthening-rib of greater thickness than the remaining portions of the lug, and all points of which receive alike the strain due to supporting a boiler, substantially as described.

3. A boiler-lug constructed from sheet metal or boiler-plate from two sections which are uniformly bent to provide attaching and supporting portions D and E, said sections being also provided with marginal walls F which are brought together to form a single lug in which the said walls or flanges form a central longitudinal strengthening-rib of greater thickness than the remaining portions of the lug, and which has a greatly-increased depth at the point where the outer edge of said wall or flange is in a more direct line with the bend in the lug so that the said bend is suitably reinforced, substantially as described.

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

RICHARD METCALF.

Witnesses:
JOHN W. KALBFUS,
R. J. MCCARTY.