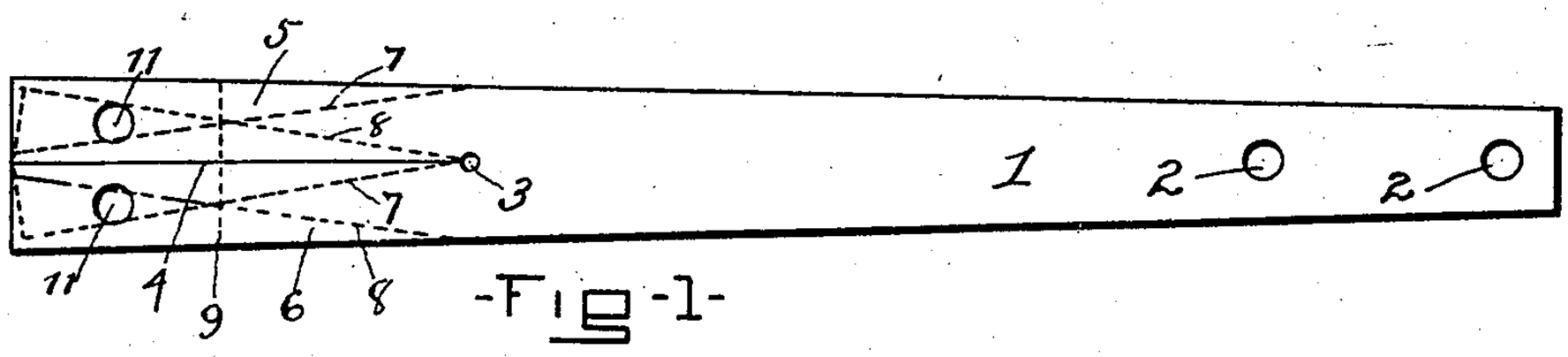
No. 724,533. PATENTED APR. 7, 1903.

J. P. BAUER.

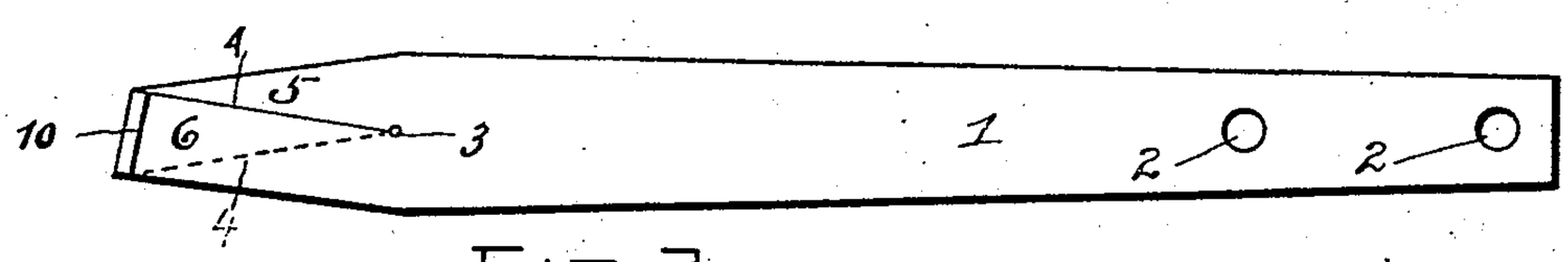
BOILER BRACE.

APPLICATION FILED JAN. 19, 1903.

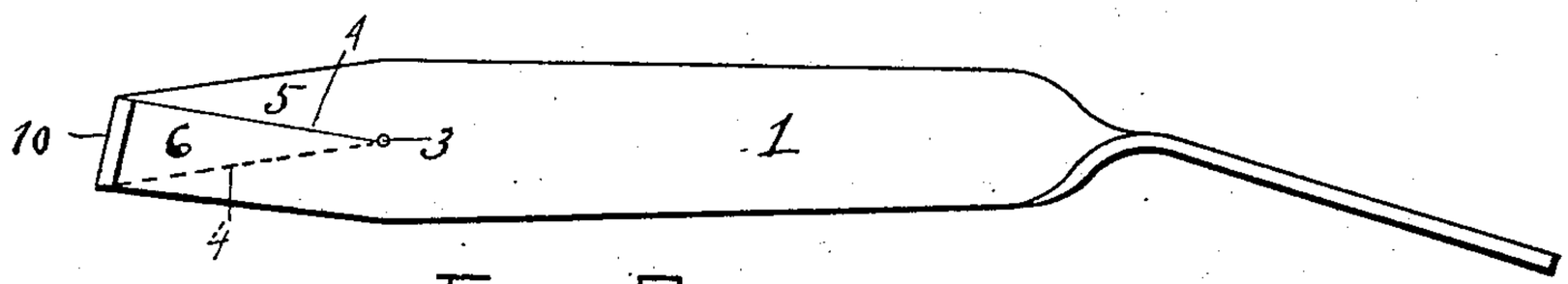
NO MODEL.



-Fig-1-



-Fig-2-



-Fig-3-

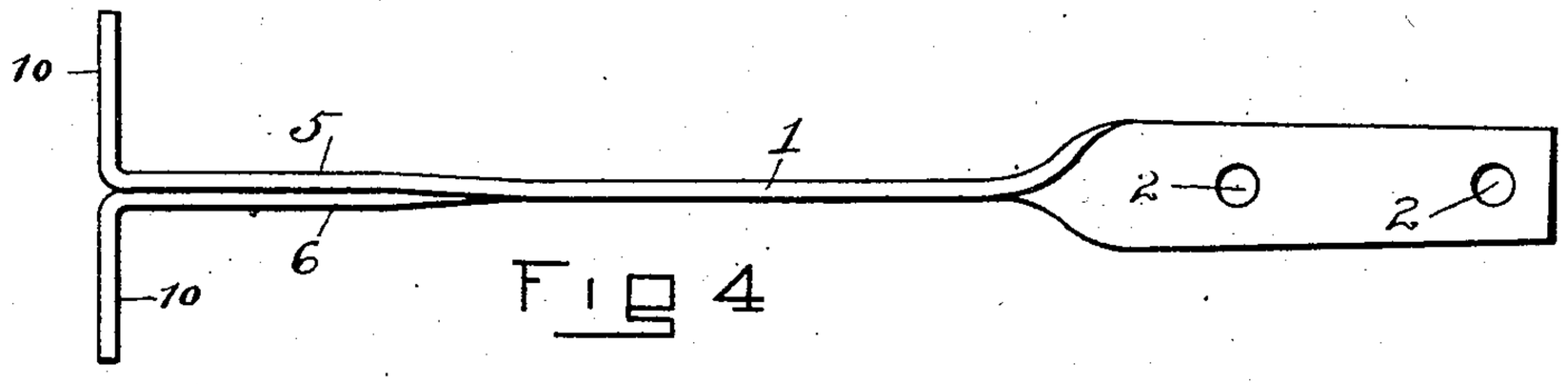
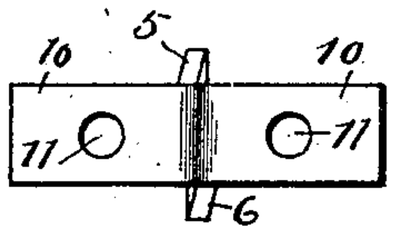


Fig 4



-Fig-5-

Witnesses.
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UNITED STATES PATENT OFFICE.

JOSEPH P. BAUER, OF DAYTON, OHIO.

BOILER-BRACE.

SPECIFICATION forming part of Letters Patent No. 724,533, dated April 7, 1903.

Application filed January 19, 1903. Serial No. 139,516. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH P. BAUER, 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-Braces; 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 figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in boiler-braces of the class that are employed for bracing the heads or other parts to the shell or body of the boiler proper.

The object of the invention is, first, to provide a boiler-brace which may be constructed without heating the metal for that purpose. With the usual boiler-braces or those that are commonly in use the metal from which the braces are made is required to be heated in the manufacture of the braces. This heating consumes much time—in fact, more time than is consumed in the making of the present brace. Heating the metal also weakens the material by removing some of the carbon therefrom.

Second. A further object of the invention is to provide a boiler-brace the tensile strain upon which is directed through the longitudinal center of the brace from end to end.

The essential features of the brace, therefore, comprise quickness in the manufacture thereof, simplicity in the construction thereof, and efficiency in the use thereof.

Preceding a more detailed description of the invention, reference is made to the accompanying drawings, of which—

Figure 1 is a plan view of a blank from which the brace is constructed by bending the parts, as hereinafter described. Figs. 2 and 3 are longitudinal elevations. Fig. 4 is an elevation looking at right angles to Fig. 3. Fig. 5 is a view of the end which is attachable to the boiler-head or other flat surface.

In a detail description of the invention similar reference characters indicate corresponding parts.

As hereinbefore stated, the brace is constructed without heating the metal. The blank 1, as indicated in Fig. 1, is cut by hand or in a regular shearing-machine, one end thereof being of less width than the other end and provided with a suitable number of rivet-holes 2, by means of which the brace is riveted to the interior side of a boiler-shell. As shown in Fig. 2, the said end is straight, while in Figs. 3 and 4 it is twisted to bring the faces thereof at right angles to the body of the brace. There are instances where both of these constructions are utilized. The end of the brace which is attached to the boiler-head or other flat surface is provided with a punched hole 3, from which there is a slit 4 cut through the metal and extending to the extreme end of the blank. The slit 4 divides that end of the blank into two equal parts 5 and 6, which are bent inwardly toward each other and toward the longitudinal center of the blank to such an extent that the said parts 5 and 6 overlap each other. The opening 3 enables the parts 5 and 6 to be bent in this manner. When the two parts 5 and 6 are thus bent toward each other, so as to overlap, as shown in Figs. 2, 3, and 4, the opening 3 is nearly closed. The longitudinal dotted lines 7 7 and 8 8 designate the bends in the blank after it is formed into the brace, as shown in Figs. 2, 3, and 4. The transverse dotted line 9 designates the points where the bends occur in the parts 5 and 6 to form the feet 10, by means of which the brace is attached to the boiler-head, rivets being passed through the openings 11. It will be understood from Figs. 2 and 3 that the longitudinal dotted line extending from the opening 3 is the concealed edge of the part 5, the two parts 5 and 6 overlapping each other, as before stated.

Having described my invention, I claim—

1. The herein-described boiler-brace consisting of a body portion having an end attachable to a boiler-shell and an end attachable to a boiler-head or other flat surface, the last-named end consisting of two flat parts which overlap each other and lie face to face, the extreme ends of said parts being bent at right angles in opposite directions to provide feet by means of which the attachment with a boiler-head or other part is effected.

2. A boiler-brace having an opening 3 with a slit or cut extending therefrom to an extreme end of said brace and providing two parts which are bent inwardly toward the longitudinal center of the brace so as to overlap each other, the said parts so bent having their extreme ends bent in opposite directions to provide feet by means of which the said brace is attachable to a boiler-head or other flat surface, substantially as set forth.

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

JOSEPH P. BAUER.

Witnesses:
R. J. McCARTY,
THOMAS B. HERRMAN.