(No Model.)

S. A. PRATT.

METHOD OF MAKING BOILER MOON BRACES.

No. 533,140. Patented Jan. 29, 1895.

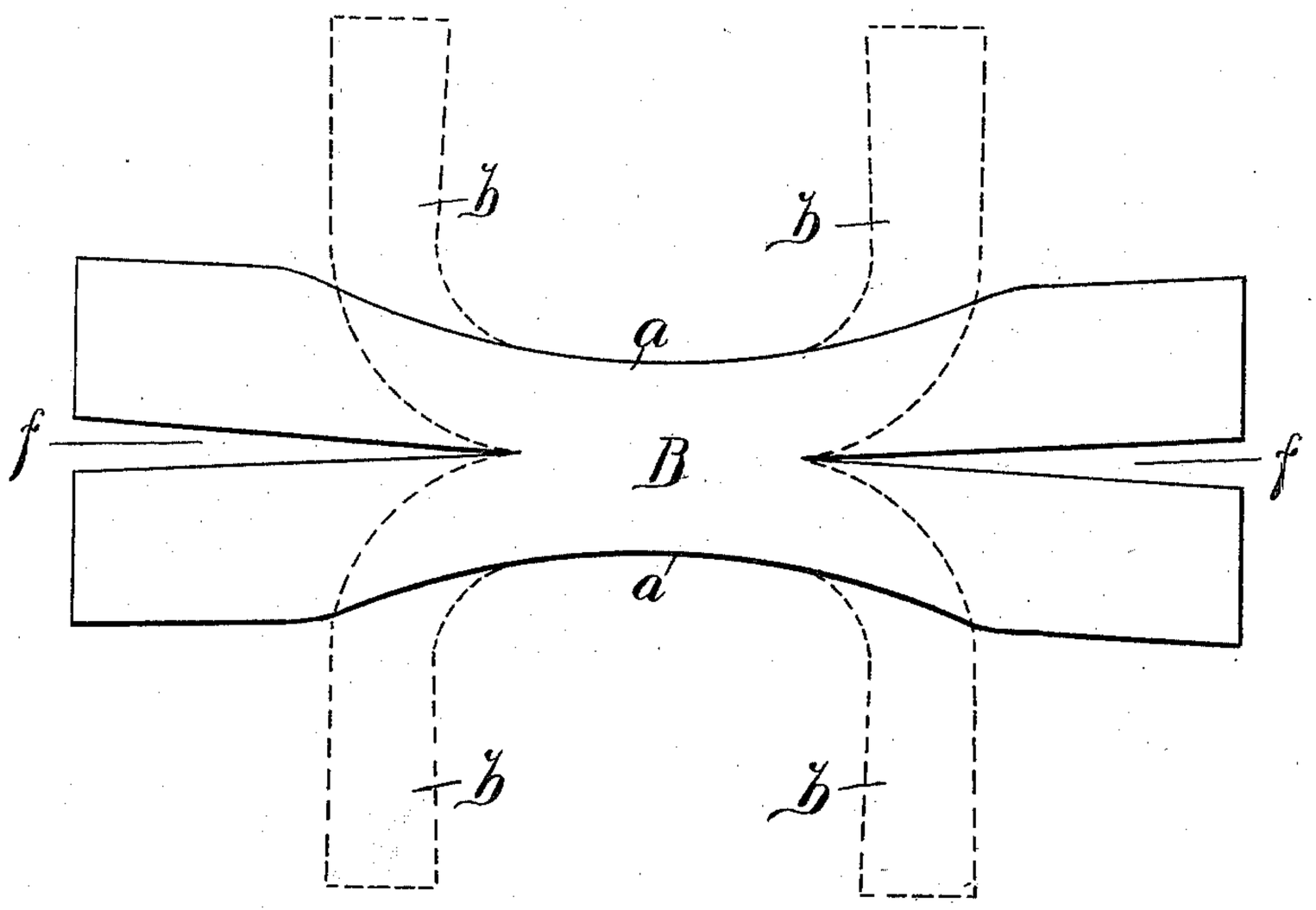

Fig. 1.

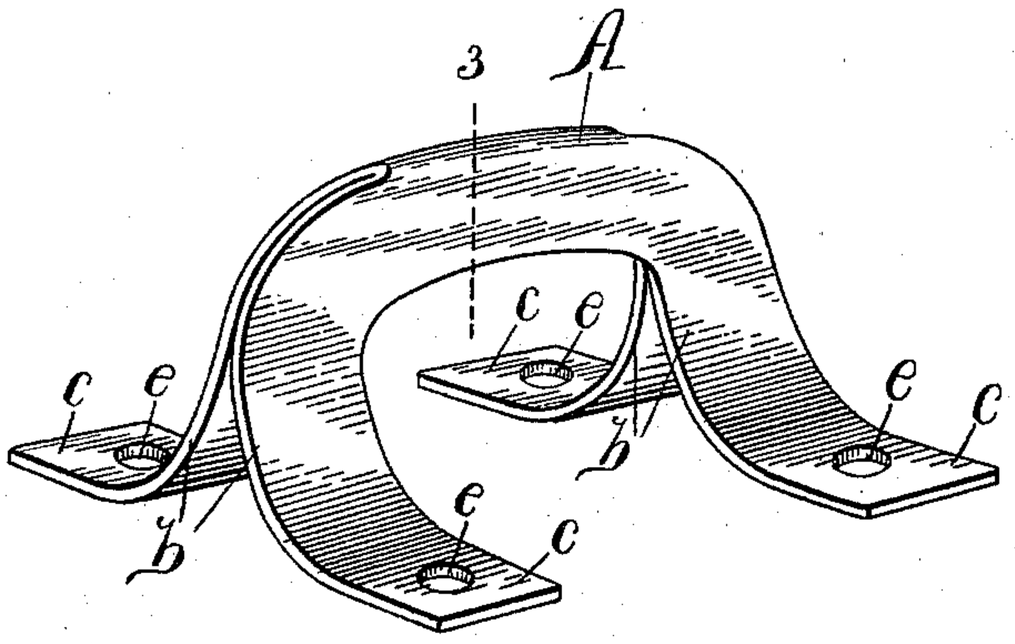

Fig. 2.

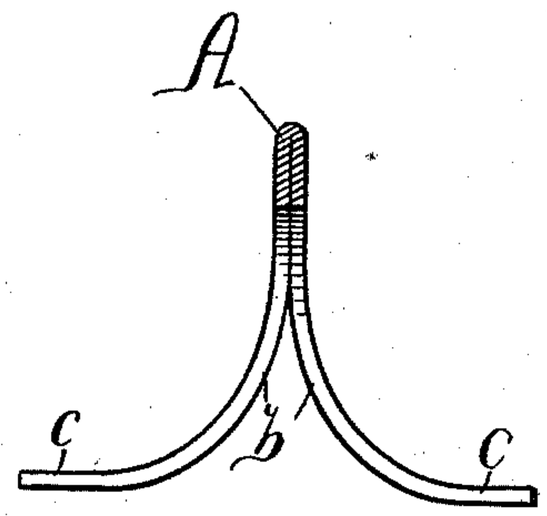

Fig. 3.

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METHOD OF MAKING BOILER MOON-BRACES.

SPECIFICATION forming part of Letters Patent No. 533,140, dated January 29, 1895.

Application filed November 10, 1893. Serial No. 490,532. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN A. PRATT, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Methods of Making Boiler Moon-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 letters of reference marked thereon, which form a part of this specification.

This invention relates to the art of manufacturing moon braces or stays for boilers, and consists in the construction and method of making, as will be hereinafter more fully set forth, the essential features of which being pointed out particularly in the claim.

The object of the invention is to produce a brace of this character from an integral blank of sheet metal, in such manner as to obviate welding and to form a brace of great strength that may be cheaply made. This object is attained by the device and method of making the same, as illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the blank from which the brace is made. Fig. 2 is a perspective of the completed brace. Fig. 3 is a sectional view on dotted line 3—3 of Fig. 2.

Referring to the letters of reference, A designates the arched portion of the brace which terminates in the curved legs *b*, having the extended feet *c*, which are provided with apertures *e* for the reception of rivets or bolts.

This brace is adapted more especially for sustaining the flat surfaces within the boiler, such for instance, as the fire-box, and is stayed to the opposite plate or shell by a bifurcated stay, whose forks sit astride of the arch of the brace and receive a bolt or pin through their ends that crosses under said arch.

The method of producing this improved brace is as follows: A sheet metal blank B of suitable form and thickness, and provided with the concave edges *a*, as shown in Fig. 1 is split longitudinally inward from each end as at *f*, forming divided end portions which are all united to the integral center of the blank. These divided ends are then heated and bent or drawn outward edgewise in the arc of a circle, so that their ends stand in opposite directions, forming U-shaped divisions united at their inner edges, as shown by stipple lines in Fig. 1. These U-shaped parts are then folded together upon the line of their union and the legs *b* curved outward to give the proper spread to the feet *c*, the plane of the face of which stands at a right angle to the vertical face of the arch of said brace.

It will be seen that by this method a brace of this character may be cheaply formed that affords great strength and in which the process of welding is entirely obviated.

It is evident that the blank from which the brace is formed may be stamped in the shape shown by stipple lines in Fig. 1, but the manner described is preferred, as a saving of material is thereby effected.

Having thus fully set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

An improvement in the art of manufacturing moon-braces for boilers which consists in splitting the ends of a suitable sheet metal blank, bending said divided ends in opposite directions so as to form substantially two opposed U-shaped parts united at their curved portions, folding said parts together on the line of their union and bending the free ends thereof outward to form the integral diverging legs and feet of the brace.

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

STEPHEN A. PRATT.

Witnesses:
E. S. WHEELER,
B. F. WHEELER.