

No. 644,297.

Patented Feb. 27, 1900.

R. METCALF.
TOP HANGER FOR STEAM BOILERS.

(Application filed Oct. 30, 1899.)

(No Model.)

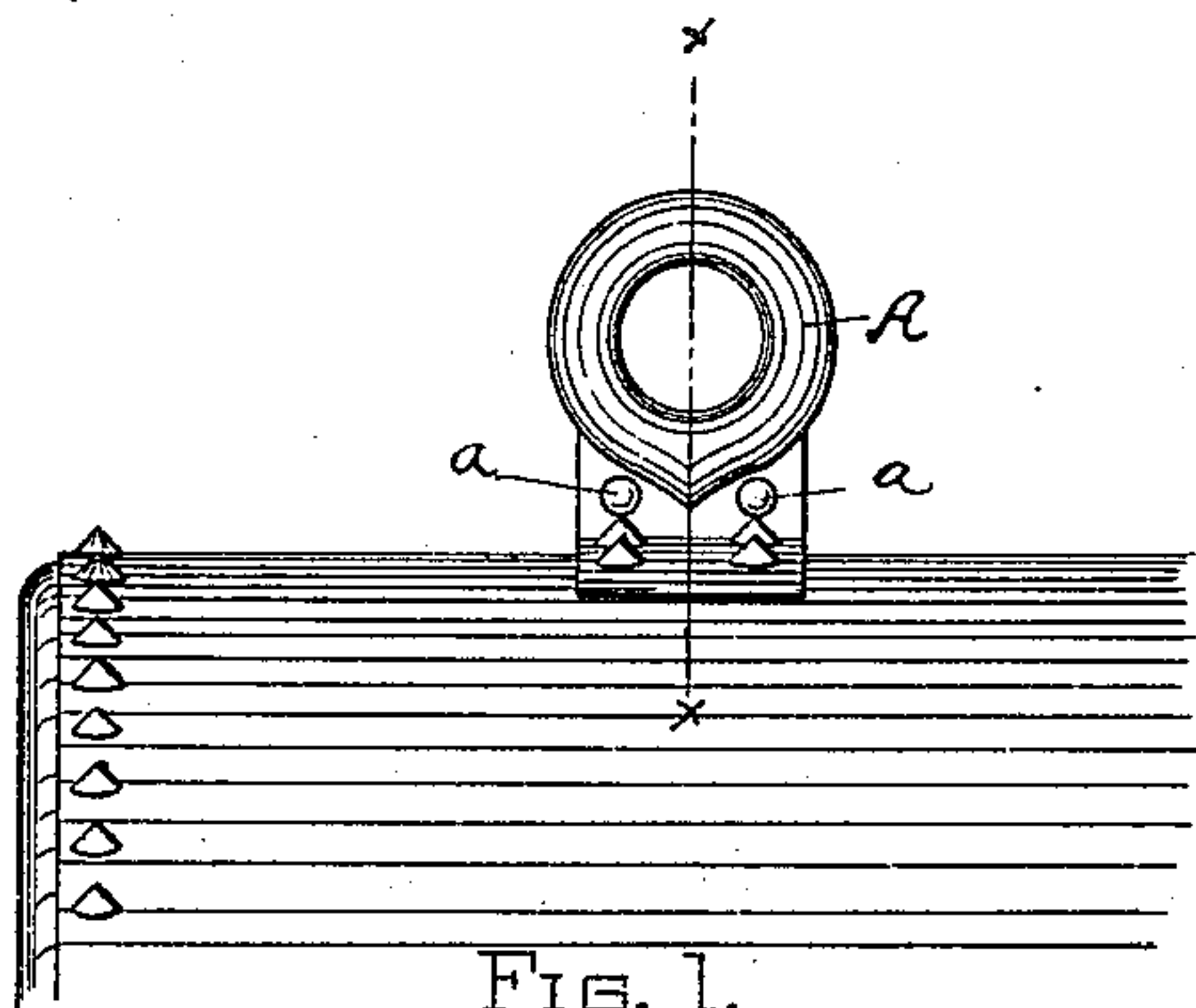


FIG. 1.

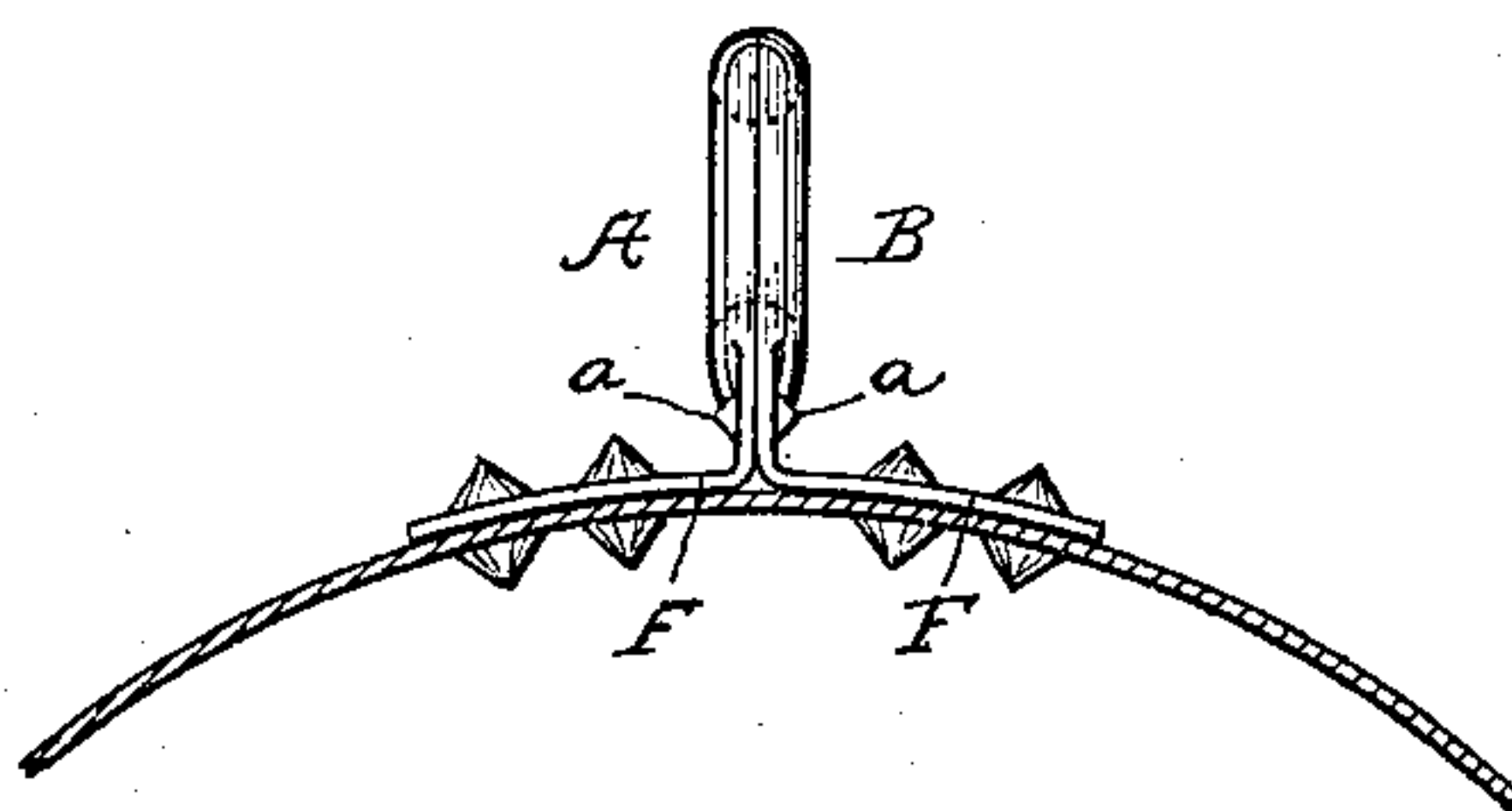


FIG. 2.

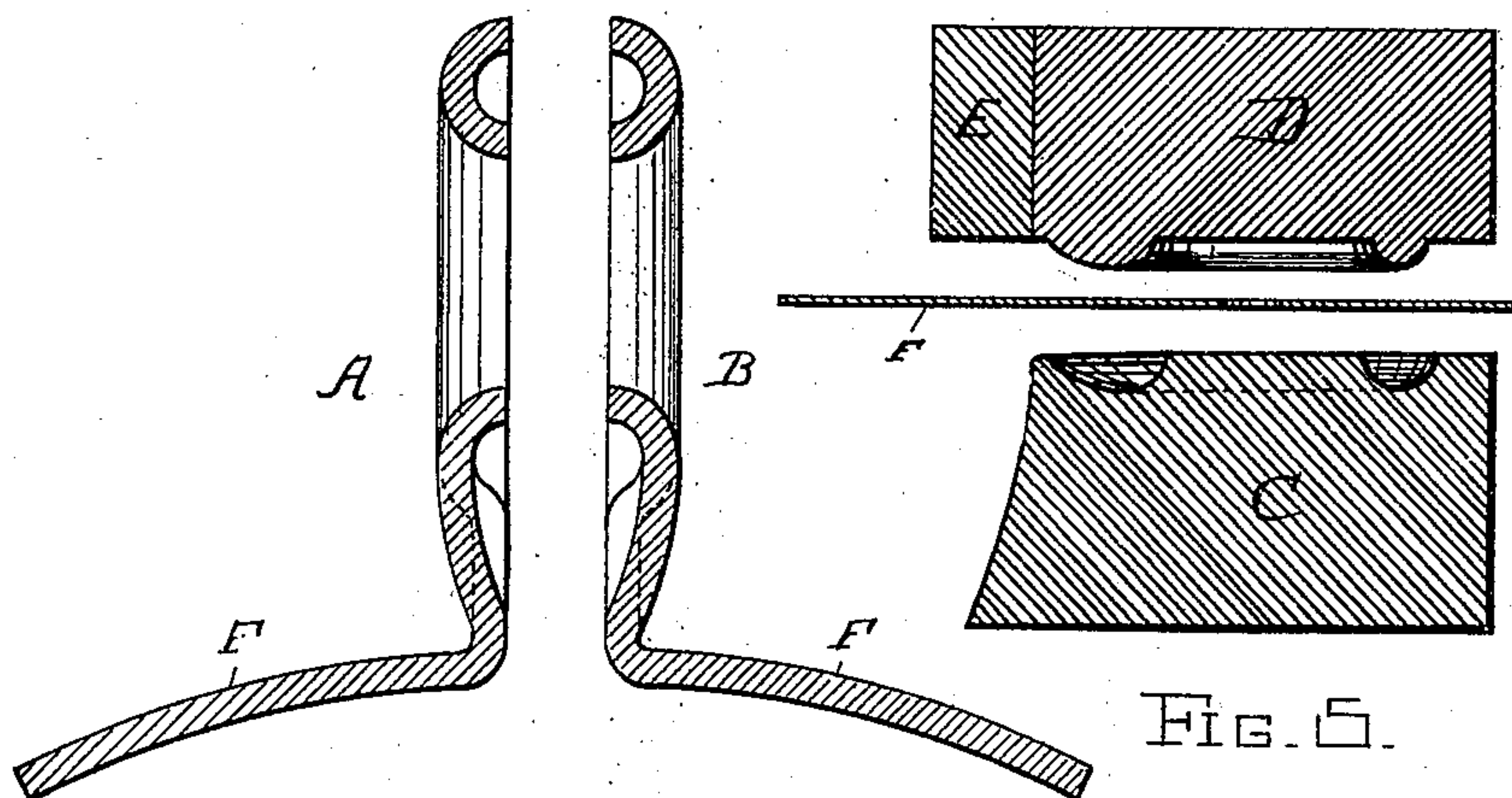


FIG. 3.

FIG. 5.

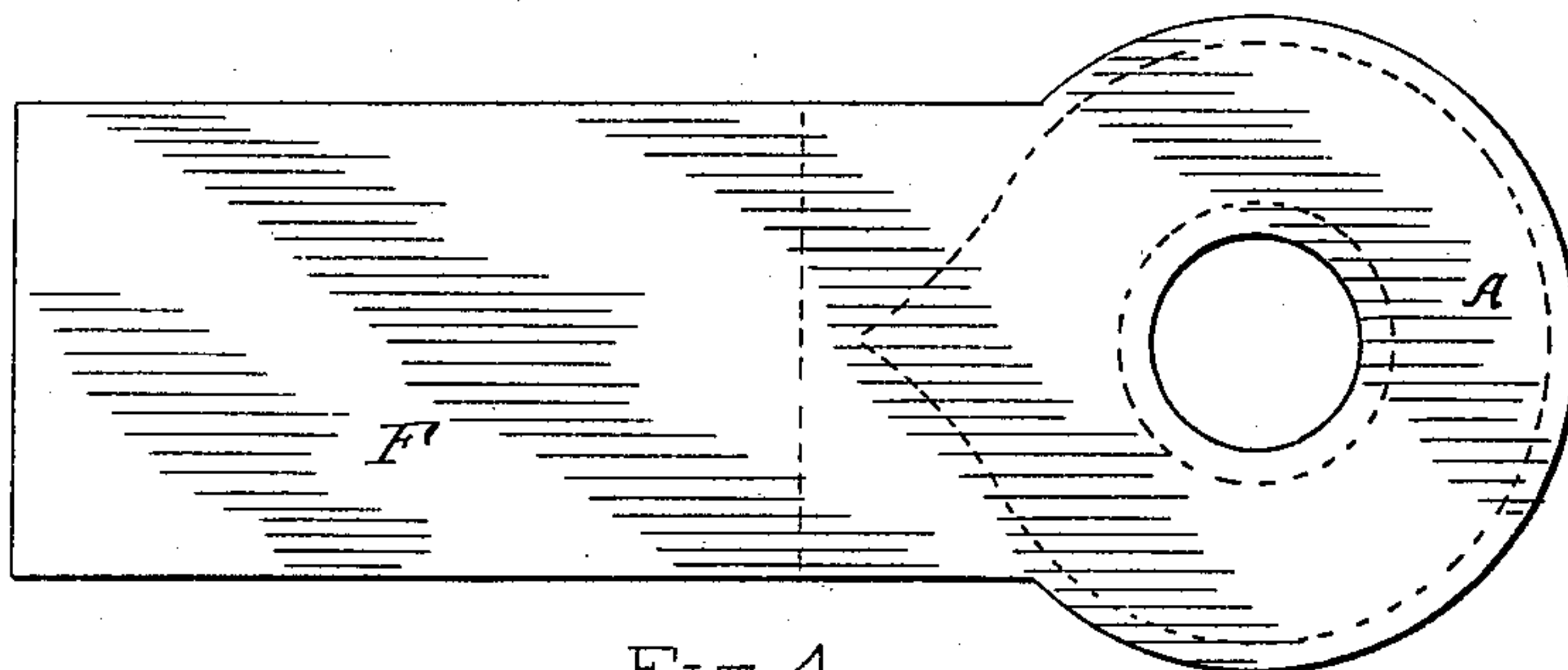


FIG. 4.

WITNESSES;

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TOP HANGER FOR STEAM-BOILERS.

SPECIFICATION forming part of Letters Patent No. 644,297, dated February 27, 1900.

Application filed October 30, 1899. Serial No. 735,246. (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 Top Hangers for Steam-Boilers; 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 improvements in boiler-hangers; and it consists in the construction of a top hanger for supporting steam-boilers, the said hanger being made from two separate parts or sections, which are formed by means of suitable dies and assembled and united in a manner hereinafter described.

One object of the invention is to provide a top hanger of unusual strength and one which will maintain its shape under the most severe strain.

A further object of the invention is to provide a hanger of the above type the parts of which are made ready for assembling or uniting by a single operation of the forming-dies.

A further object of the invention is to utilize the small pieces of boiler plate or scrap which have heretofore been consigned to the scrap-pile.

The hanger and the manner of its formation will be readily comprehended by referring to the accompanying drawings in connection with the following specification.

In said drawings, Figure 1 is a view showing the hanger in side elevation attached to the top of a boiler. Fig. 2 is a front or edge view of the same, showing a portion of the boiler in section. Fig. 3 is an enlarged sectional view on the line $x x$ of Fig. 1, showing the two sections separated. Fig. 4 is a plan view of the blank from which the sections are formed. The broken lines indicate the lines on which the dies bend the blank. Fig. 5 is a side sectional elevation of the dies.

The hanger is constructed of two parts or sections A and B from blanks having the shape or configuration as shown in Fig. 4.

By forming said hanger from two sections it is possible to utilize smaller pieces of boiler-plate. Hence many scraps of such metal are saved for a useful purpose that would otherwise be consigned to the waste-pile, and, furthermore, considerable time and labor are saved in the construction of the hanger, owing to the fact that each part or section is formed and completed in a single operation of the dies. The scrap or plate from which the blank is prepared for the dies is suitably stamped, as shown in Fig. 4, and is then placed in a position between the dies, as is shown in Fig. 5. The female die C is provided with an annular groove or trough, and the male die D is likewise provided with a corresponding offset or annular projecting portion, which, coming in contact with the upper side of the blank, forms a semitubular ring or eye, as is shown in Fig. 3. An adjacent die E, moving downwardly, bends said blank transversely, as is indicated by the dotted line in Fig. 4, into a suitable curvature to provide an attaching-flange F to fit the rounded form of the boiler and by means of which the two sections when united into a single hanger are attached to said boiler. There are suitable flat surfaces provided between the lower side of the rings or eyes and the points where the flanges F begin to enable the two sections to be secured together by rivets a . By constructing the hanger in this manner there is a complete eye or ring formed, through which the hook passes to which the chain is attached that supports the boiler. When the two sections are formed and assembled with the eye or ring portions arranged in parallel relation and in contact with each other, as in Figs. 1 and 2, a section cut through said ring or eye will describe a complete circle or tube. As before stated, the sections are united securely to each other by riveting them just below the ring or eye and above the bend, from which the flanges F extend. This manner of attaching the sections supplements the attachment of the said sections to the boiler, and the result is a hanger of more than usual strength is obtained, and the strain due to the great weight will not affect or change the shape of the hanger or permit any relaxation in the supporting-chain. The tension of said support-

ing-chain exerts an inward pressure at all times on the rounded sides of the upper portion of the ring or eye, and thus prevents any possibility of the upper portion of the ring or
5 eye from separating in the least.

Having described my invention, I claim—

1. A top hanger for steam-boilers, the same being formed of boiler-plate, and consisting of a ring, tubular in cross-section, and
10 having flanges extending in opposite directions from the lower portion of said ring, by means of which said hanger is attached to a boiler.

2. A top hanger for steam-boilers, consisting of two parts, correspondingly formed in
15 rings with extended flanges, the said rings being semitubular in cross-section and of uniform inner and outer circumference so that when brought together a complete ring,
20 tubular in cross-section, is formed, and means

for attaching the two parts below the ring, substantially as shown and described.

3. A top hanger for steam-boilers, comprising two sections each of which consists of a semitubular ring with an attaching-flange
25 extending from the lower part thereof, the said sections being assembled with the hollow sides of the rings together so as to form a complete ring, hollow in cross-section, and from the lower parts of which attaching-
30 flanges extend, and the two sections being secured to each other between the lower part of the rings and the flanges, substantially as described.

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

RICHARD METCALF.

Witnesses:

JOHN W. KALBFUS,
R. J. McCARTY.