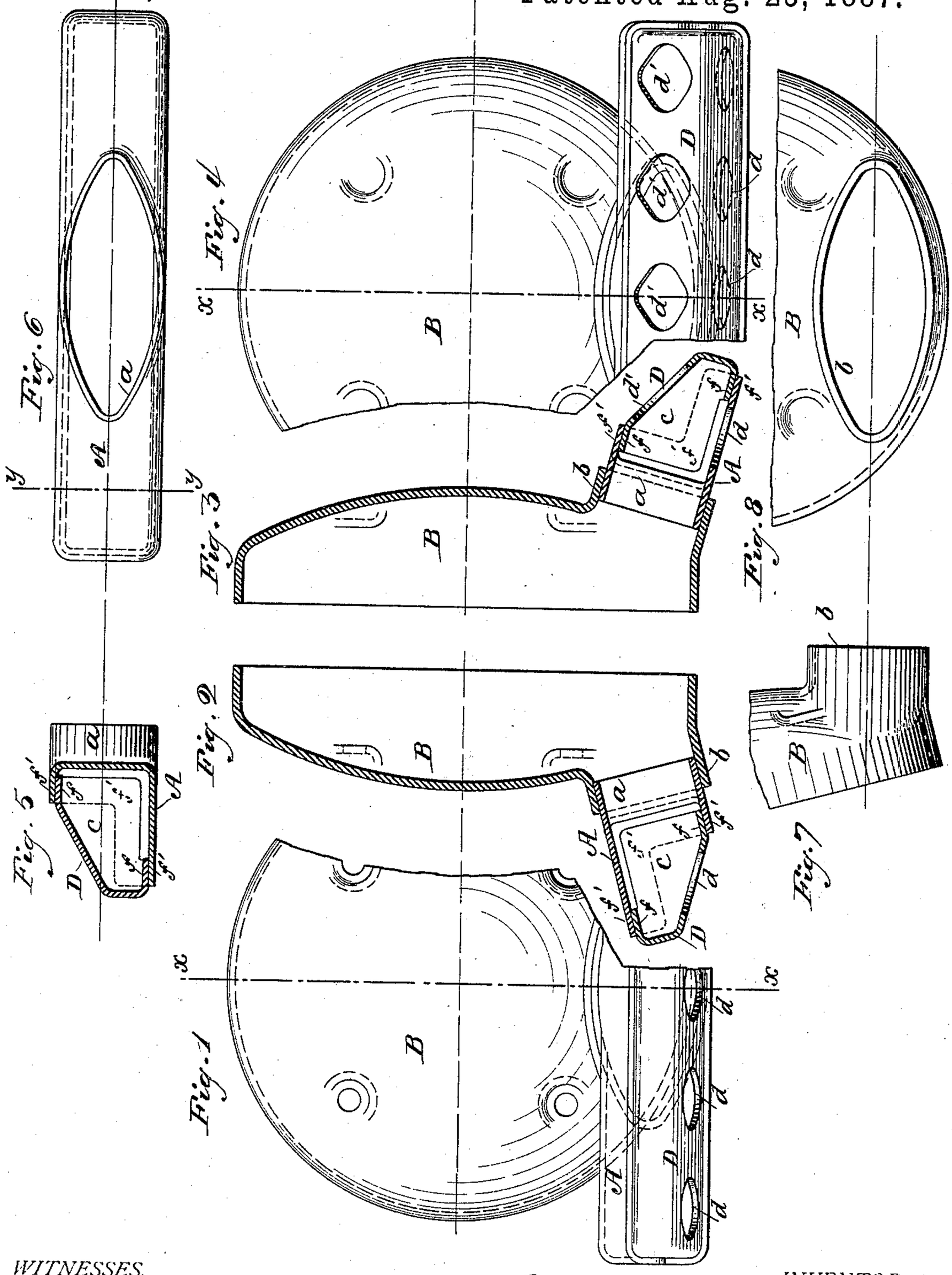
(No Model.)

C. P. HIGGINS.

DRUM HEAD MANIFOLD FOR SECTIONAL STEAM BOILERS.

No. 368,585. Patented Aug. 23, 1887.



WITNESSES.

Aug. Sperling

W. W. Weston

INVENTOR.

Campbell P. Higgins

by Chas. M. Forbes

ATTORNEY.

UNITED STATES PATENT OFFICE.

CAMPBELL P. HIGGINS, OF BROOKLYN, NEW YORK.

DRUM-HEAD MANIFOLD FOR SECTIONAL STEAM-BOILERS.

SPECIFICATION forming part of Letters Patent No. 368,585, dated August 23, 1887.

Application filed March 3, 1887. Serial No. 229,582. (No model.)

To all whom it may concern:

Be it known that I, CAMPBELL P. HIGGINS, a citizen of the United States, residing at Brooklyn, county of Kings, State of New York, have invented certain new and useful Improvements in Drum-Head Manifolds for Sectional Steam-Boilers, of which the following is a specification.

This invention relates to the construction of manifolds for use in making connection between a drum and a series of water-tubes of sectional water-tube steam-boilers; and the said invention consists in applying certain novel features of construction to the said manifolds for the purpose of producing the same from wrought metal.

In order to enable others skilled in the art to which my invention appertains to understand and use the same, I will proceed to describe the features of its construction, having reference to the accompanying drawings, and subsequently point out in the appended claims its novel characteristics.

Figure 1 is an elevation, partly broken away, of a front drum-head with a manifold connected thereto; Fig. 2, a vertical central section (*x x*, Fig. 1) of the front drum-head and manifold; Fig. 3, a vertical central section (*x x*, Fig. 4) of the rear drum-head and manifold; Fig. 4, an elevation, partly broken away, of the rear drum-head and manifold; Fig. 5, a cross-section, *y y*, of Fig. 6; Fig. 6, a back view of a manifold, the perforations being omitted; Fig. 7, a side view of the flanged portion of a drum-head, and Fig. 8 a side view of the same.

The manifold embodying the present invention is constructed of two separate pieces of wrought sheet metal pressed into trough-like form, A and D, and riveted or welded together by means of their overlapping flanges *f f'*, composing a prismatic box. The ends of the manifold are composed of the upturned ends *c* of the piece D, overlapped at their edges by the edges or flanges *f'* of the piece A.

The flanged opening *a* of the piece A, by means of which the manifold is transversely fixed upon the corresponding-flanged opening *b* of the drum-head B, is of symmetrical oval or oblong form, whereby the said manifold may be connected in either one or the other of the reversed positions shown by Figs. 2 and 3—a feature which is shown in a separate application filed simultaneously herewith—the series of circular tube-perforations *d* being made upon the side of the manifold thus placed lowermost, and inclined thereby in the desired direction to the axis of the drum.

In the case of the rear drum-head, when it is desirable that the connecting-tubes be accessible by a tube-cleaning implement through the approximately-opposite flattened side of the manifold, the said opposite side is for that purpose provided with perforations *d'*, corresponding to the perforations *d*, and having a form suitable for the introduction of the hand-hole plates.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A wrought-metal manifold for a water-tube boiler, made of two pieces bent into shape and riveted or welded together so as to form a prism, having two of its opposite sides at an angle to each other, substantially as described.

2. A prismatic wrought-metal manifold for a water-tube boiler, made of two pieces riveted or welded together, having two of its opposite sides at an angle to each other, and a flanged opening on another of the sides thereof, substantially as described.

3. The combination of a prismatic wrought-metal manifold made of two pieces riveted or welded together, having two of its opposite sides at an angle to each other, and a flanged opening on another of the sides thereof, with a boiler-head having a corresponding flanged opening at an angle to the axis of the head intermediate to the angle of the two sides of the prismatic manifold, substantially as described.

CAMPBELL P. HIGGINS.

Witnesses:

CHAS. W. FORBES,

AUG. CREVELING.