No. 813,245. PATENTED FEB. 20, 1906.

J. P. SNEDDON.

HEADER CONNECTION.

APPLICATION FILED NOV. 11, 1904.

Fig. 1.

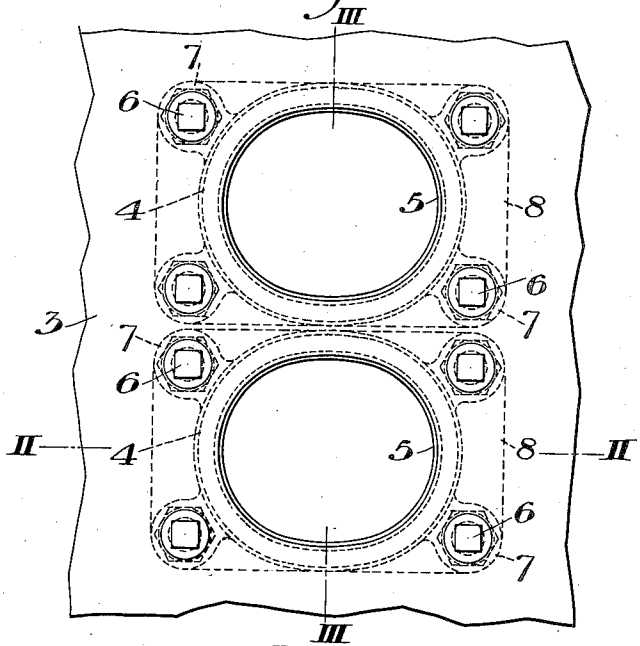


Fig. 2.

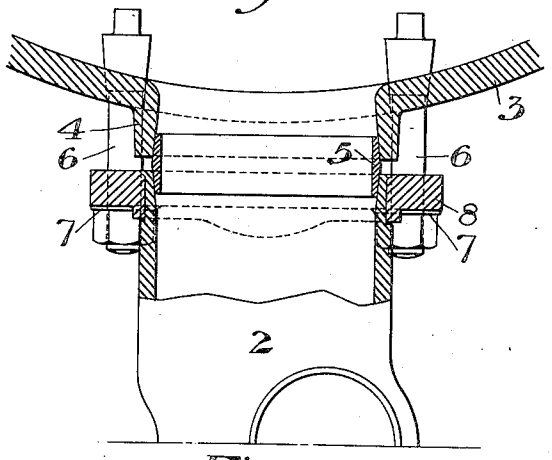
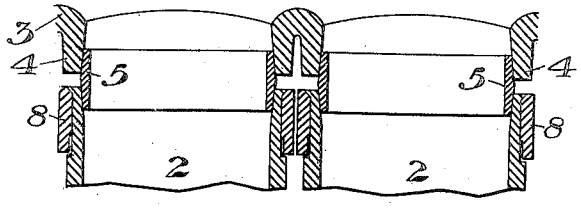


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

JAMES P. SNEDDON, OF BARBERTON, OHIO, ASSIGNOR TO THE STIRLING CONSOLIDATED BOILER COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

HEADER CONNECTION.

No. 813,245. Specification of Letters Patent. Patented Feb. 20, 1906.

Application filed November 11, 1904. Serial No. 232,333.

To all whom it may concern:

Be it known that I, JAMES P. SNEDDON, of Barberton, Summit county, Ohio, have invented a new and useful Header Connection, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top plan view showing a portion of a boiler-drum with the header connections. Fig. 2 is a longitudinal vertical section on the line II II of Fig. 1, and Fig. 3 is a similar section on the line III III of Fig. 1.

My invention relates to the connecting of boiler-headers with an upper drum or drums, and particularly to such connection in the Niclausse boiler. Heretofore these connections have been of circular form, which in the practical construction of the boiler limits the area of the opening to a certain amount. As it has been found that the capacity of such a boiler is controlled to a great extent by the area of this nipple connection between the header and the drum, it has become important to make the area of this connection as large as possible.

My invention consists in forming the opening of elliptical shape, since thereby the area of the opening can be increased and the capacity of the boiler improved without injuring the strength of the connection.

In the drawings, 2 represents the header; 3, the shell of the drum; 4, the depending flange; 5, the double-coned nipple, and 6 the securing-bolts. These bolts extend through lugs 7 of the securing-rings 8, extending around the upper ends of the headers. When the bolts are screwed up, the double-coned nipple is forced over the inclined inner faces of the header-hole and the flange of the drum, thus providing a tight joint.

In Fig. 1 I have shown the arrangement of the two headers side by side, the smaller diameters of the ellipses being in line with each other.

The advantages of my invention result from the elongated or elliptical form of the header-openings, which increase the area of the channel connecting the drum and the headers. This increased area increases the capacity and does not injure the strength of the connections, the flanges 4 being integral with the drum and extending outwardly therefrom. By providing the header-hole and flange on the drum with inclined inner faces and drawing the parts together over a douple-coned nipple I am enabled to provide a very tight joint.

Variations may be made in the form and arrangement of the header, the drum, and the shape of the elongated opening without departing from my invention.

I claim—

1. A header having an elongated hole at its end, a drum having a corresponding elongated hole and having an integral flange provided with inclined inner faces and a coned nipple engaging said inclined faces; substantially as described.

2. A header having an elongated hole at its end, and a drum having a similar elongated hole in alinement therewith, said holes having inclined inner faces, and a double-coned nipple engaging said inclined faces; substantially as described.

3. A header having an elliptical hole at its end, a drum having a corresponding elliptical hole having an outwardly-flaring flange secured in registry therewith, and a nipple fitting in the registering holes, and means for drawing the parts together; substantially as described.

4. The combination with a drum having elongated holes arranged side by side with their minor axes substantially in line and having outwardly-flaring flanges, of headers having correspondingly-elongated holes registering with the holes in the drum, and nipples having inclined sides fitting in the registering holes; substantially as described.

5. A header having an elongated hole at its end, a drum having a similarly-shaped hole secured in registry therewith, a double-coned nipple fitting in the registering holes, and connections for drawing the parts together; substantially as described.

In testimony whereof I have hereunto set my hand.

JAMES P. SNEDDON.

Witnesses:

J. E. BELL,

JOHN PRENTICE.