C. L. DICKERSON.

WATER GAGE.

APPLICATION FILED JUNE 22, 1910.

977,375. Patented Nov. 29, 1910.

Fig. 1

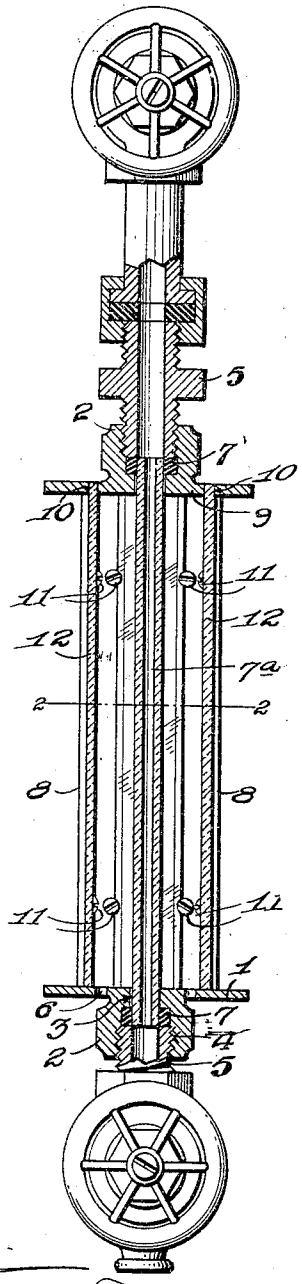


Fig. 2

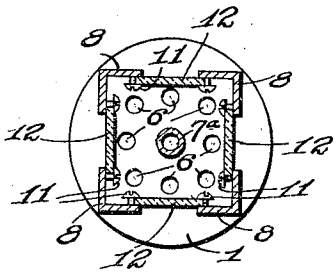


Fig. 3

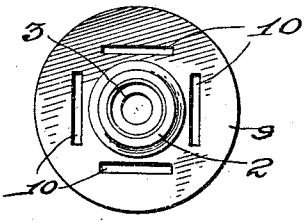


Fig. 4.

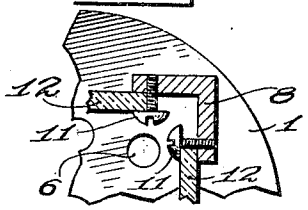
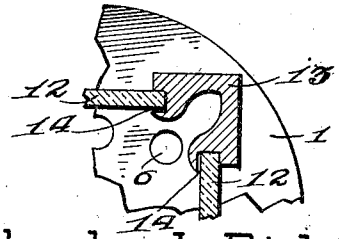


Fig. 5.



Witnesses

C. Everett Lancaster.

H. Joseph Doyle.

Inventor

Charles L. Dickerson,

By E. C. Groomes

his Attorney.

UNITED STATES PATENT OFFICE.

CHARLES L. DICKERSON, OF CLINTON, ILLINOIS.

WATER-GAGE.

977,375. Specification of Letters Patent. Patented Nov. 29, 1910.

Application filed June 22, 1910. Serial No. 568,313.

To all whom it may concern:

Be it known that I, CHARLES L. DICKERSON, a citizen of the United States of America, residing at Clinton, in the county of Dewitt and State of Illinois, have invented certain new and useful Improvements in Water-Gages, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to sight gages for steam boilers, and the principal object of the same is to provide a novel casing for inclosing the sight tube which will permit the same to be viewed from various angles and which is provided with means for permitting the steam and water to escape and also to prevent damage being done by the fragments of said tube in the event of said tube bursting.

Another object of the invention is to provide a gage which can be readily taken apart so that repairs and substitution of parts is facilitated.

In carrying out the objects of the invention generally stated above, it will be understood, of course, that the essential features thereof are necessarily susceptible of changes in details and structural arrangements, practical embodiments thereof being shown in the accompanying drawings, wherein:—

Figure 1 is a view in vertical section of the improved gage, the boiler connections and drain cock being shown in elevation. Fig. 2 is a horizontal sectional view taken on the line 2—2, Fig. 1. Fig. 3 is a plan view of the top of the casing. Fig. 4 is an enlarged fragmentary horizontal sectional view showing the manner of supporting the glasses of the casing. Fig. 5 is a view similar to Fig. 4, but showing a variation thereof.

The improved gage comprises a casing the bottom of which is formed of a plate 1, preferably in the form of a flat disk that is provided with a pendant centrally located nut-shaped lug 2 on its undersurface. Said plate is provided with a central opening 3 that extends into the lug 2 and communicates with a partially threaded recess 4 into which one end of a coupling 5 extends that connects with the usual lower boiler connections. Plate 1 is provided with an annular row of openings 6 which surround the central opening 3. A gasket 7 is seated on the end of coupling 5 within recess 4, and a glass tube 7^a has one end passed through the central opening 3 of plate 1 and held in communication with coupling 5 by the said gasket 7.

The body of the casing is formed by four vertically arranged angular corner strips 8, said strips having their upper ends covered by the top plate 9 that is a duplicate in all respects to plate 1 excepting that the annular openings 6 are omitted and in place thereof the central opening is surrounded by guide slots 10 the ends of which are adjacent the longitudinal edges of the corner strips 8. Said corner strips 8 are arranged in spaced relation to provide a rectangular body each side of which is provided with a longitudinal opening, and the inner surface of each strip is provided with suitably spaced removable guides, such as the screws 11 that are arranged adjacent the longitudinal free edges of said strips with the heads suitably spaced from said surfaces. A panel of glass or other transparent material 12 seals each side of the body, the panels being passed through the slots 10 and between the heads of the screws 11 and the inner surfaces of the strips 8, and are guided by said slots and screws to positions with their lower ends resting on the upper surface of plate 1, thereby sealing the body or casing, yet permitting the tube 6 to be viewed from all sides of the gage.

In the variation of the invention shown in Fig. 5, the corner strips 13 of the gage have their free longitudinal edges provided with guide grooves 14 for the transparent sheets. In all other respects, this form of the invention is the same as that shown in Figs. 1, 2, 3, and 4.

It will be understood from the foregoing that in the event of the tube 6 bursting, the steam and water will escape through the openings 6, and that the casing will prevent the glass from said tube injuring the attendant. It will also be understood, that the transparent panels can be readily removed to permit access to be had to the interior of the casing, and, further, that the gage can be readily removed from the boiler connections when necessary or desirable.

What I claim as my invention is:—

1. A gage comprising a bottom plate provided with escape openings, an upper plate, corner strips connecting said plates, removable guiding means carried thereby, a sight tube extending through said plates, and

transparent panels held in position to seal the openings between said strips by said guiding means.

2. A gage comprising a bottom plate provided with a central opening and a pendant centrally located nut-shaped lug, said lug provided with a threaded recess, a coupling for connecting said lug to a boiler fitting, a gasket held in said recess by said coupling, a top plate similarly connected to a boiler fitting, a sight tube connecting said plates and engaging the gaskets of the lugs thereof, corner strips connecting said plates and transparent panels carried by said plates and interposed between said strips.

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

CHARLES L. DICKERSON.

Witnesses:
R. A. LEMON,
LAURA FOX-WILLSON.