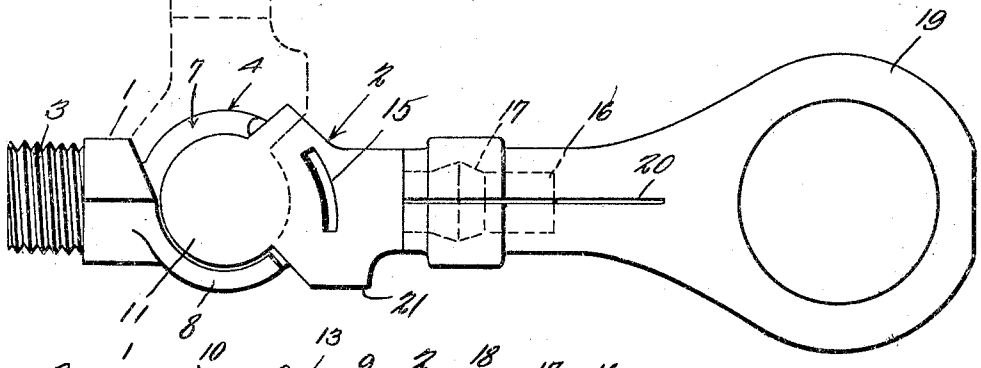
H. M. LEIDECKER.

WATER GAGE.

APPLICATION FILED APR. 23, 1919.

**1,326,459.** Patented Dec. 30, 1919.

*Fig. 1.*



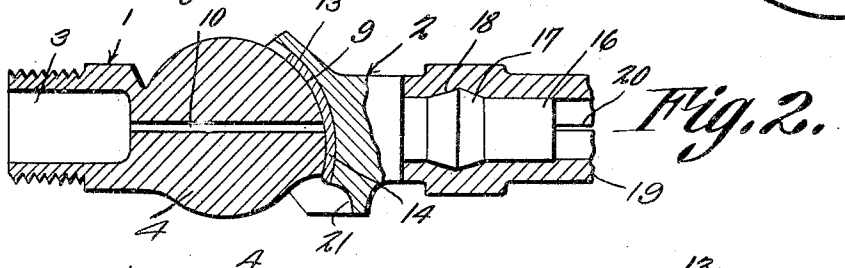




*Fig. 2.*

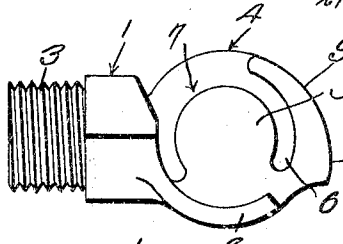



*Fig. 3.*

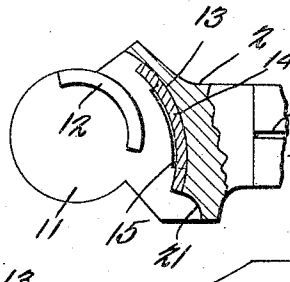



*Fig. 4.*

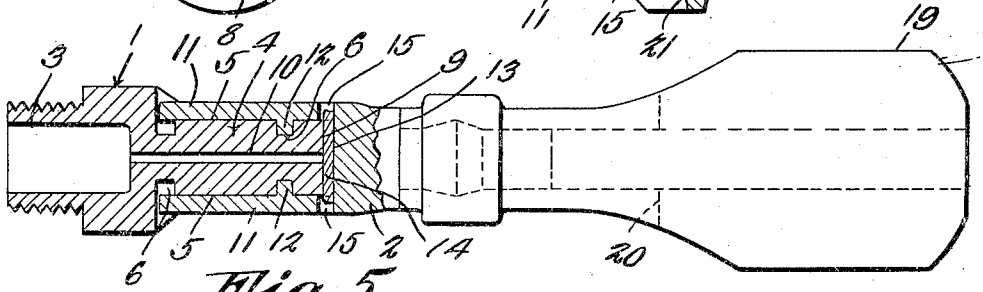



*Fig. 5.*

Inventor,

H. M. Leidecker

Witness

By C. A. Snow & Co.

Attorneys.

# UNITED STATES PATENT OFFICE.

HELMOTH M. LEIDECKER, OF WACO, TEXAS, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF FIVE-EIGHTHS TO FRANK W. LEIDECKER AND TWO-EIGHTHS TO W. W. JENKINS AND J. RAY BROWN, ALL OF OKMULGEE, OKLAHOMA.

## WATER-GAGE.

1,326,459. Specification of Letters Patent. **Patented Dec. 30, 1919.**

Application filed April 23, 1919. Serial No. 292,072.

*To all whom it may concern:*

Be it known that I, HELMOTH M. LEIDECKER, a citizen of the United States, residing at Waco, in the county of McLennan and State of Texas, have invented a new and useful Water-Gage, of which the following is a specification.

This invention relates to water gages for ascertaining the height of water in a steam boiler and more particularly to gages that are normally held closed by the weight of the operating handle and has for its object the provision of a gage that is simple in construction, with few parts and that may be manufactured with a minimum amount of skilled labor, another object is novel means of assembling the valve whereby the same may be readily taken apart for repairs without the use of tools and a further object is a novel form of valve seat and means for retaining the same in place.

With these and other objects in view as will appear as the description proceeds the invention resides in the novel combination and arrangement of parts, more particularly pointed out in the appended claims.

In the drawing:—

Figure 1 is a view in side elevation of a gage constructed in accordance with my invention;

Fig. 2 is a longitudinal sectional view of the same, parts being broken away;

Fig. 3 is a view in side elevation of the fixed member of gage;

Fig. 4 is a sectional side elevation of the movable or swinging member; and

Fig. 5 is a top plan view of the device, parts being in central longitudinal section.

Referring specifically to the drawing by characters of reference, the gage comprises two parts designated by the numerals 1 and 2. The part 1 consists of a threaded tubular stem portion 3, adapted to be attached to the boiler shell and an enlarged head portion 4, having parallel opposite side faces 5, each face being provided with a circular groove 6, the outer rim of which is cut away as shown at 7 to form an opening to the groove, for a purpose to be presently described.

A flange 8 projects from the face 5 at its lower edge and is concentric with the groove 6. An arcuate seating face 9 is formed on the periphery of the portion 4 and is eccentric to the groove 6. A small hole 10 is bored from the face 9 to communicate with the tubular portion 3.

The movable member 2 of the gage has oppositely disposed parallel cheek plates 11 each provided with an inturned segmental flange 12 adapted to seat in the groove 6, thus coacting to form a hinge for the two members. At the juncture of the cheek plates with an enlarged part of the member 2, an arcuate wall 13 is formed which is eccentric to the flange 12 and closely approximates the arcuate face 9. A strip of lead 14 or similar soft metal is fitted between the plates 11 and against the wall 13 to form a steam tight joint for the bore 10.

Segmental slots 15 are cut through the plates 11, the outer edges of said slots registering with the wall 13 and are adapted to receive a portion of the edge of the strip 14, when the same is swaged to its seat, as will presently appear.

A stem 16 is formed on the member 2 and is provided with an enlargement 17 adapted to fit a correspondingly shaped opening 18 in a weighted handle 19, the handle being split, as shown at 20, to permit the same to spring over the enlargement 17 and grip the stem.

By reference to Figs. 3 and 4 it will be seen the opening 7 and the flange 12 are approximately the same length, so that, when the member 2 is moved to the position shown in dotted lines in Fig. 1 the two parts may be separated for inspection and repair. In replacing the strip 14, which may be done while steam pressure is on the boiler, it is only necessary to place a new strip in position between the plates 11, connect the two members of the gage and proceed, with the aid of the weighted handle, to swage the strip to its seat, by forcing it against the face 13, this operation will force the soft metal of the strip to a perfect seat on the face 13 and also force a portion of the metal into the slots 15, thereby securely fastening the strip to the wall 13.

As the face 13 and closure strip 14 are eccentric to the hinge of the two members 1 and 2 the tendency of the weighted handle is to constantly exert pressure on the valve seat to keep it closed and a tight joint is always maintained.

A lip or flange 21 is formed on the mem-

ber 2 and serves to deflect the steam and water from the port 10 when the valve is opened and prevent the same from scalding the hand of the operator.

Having thus described the invention what is claimed is:

1. In a device of the class described comprising as coöperating parts; first and second members, the first member having an arcuate seating face and a port opening thereon, the first member being further provided with a circular groove, the wall of the groove having a cutaway portion; the second member having a closure for the port and a cheek plate provided with a segmental flange for engaging the circular groove in the first member, the flange being of the same length as the cutaway portion of the groove to permit separation of the two parts when the flange and cutaway portion are brought into register.

2. In a device of the class described, comprising as coöperating parts; a fixed member, having a threaded tubular portion and a head portion, the head having parallel side faces and an arcuate seating face, circular grooves in the side faces, said grooves being eccentric to the seating face and a bore extending from the tubular portion to open on the seating face; a movable member comprising a head, cheek plates extending from the head and having segmental lugs engaging the grooves in the fixed member, to adapt the two members for hinged movement, an arcuate wall on the head and between the cheek plates said wall being approximately parallel with the arcuate face of the fixed member, a flexible metal strip seated against the wall of the movable member and adapted to close the bore in the arcuate face of the fixed member and a stem projecting from the movable member, provided with a weighted arm for maintaining pressure on the arcuate face of the fixed member.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

HELMOTH M. LEIDECKER.

Witnesses:

D. E. HIRSHFIELD,

C. G. HALEY.