

J. M. REITER & H. L. DOUT.
BOILER CHECK.
APPLICATION FILED DEC. 1, 1909.

987,491.

Patented Mar. 21, 1911.
2 SHEETS—SHEET 1.

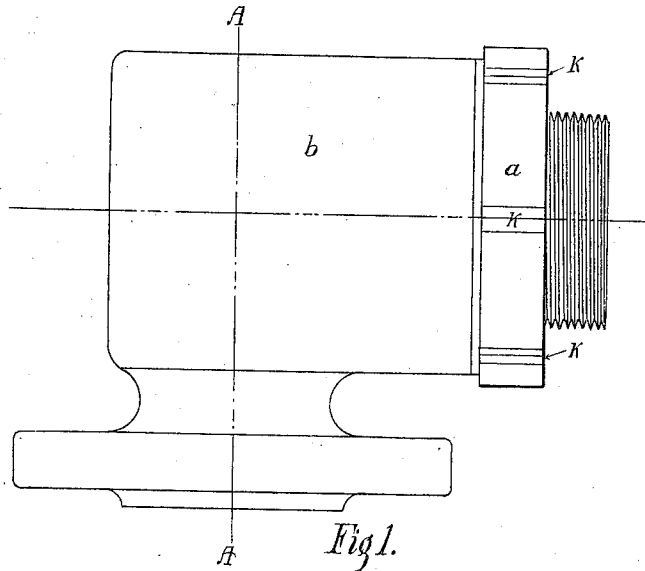


Fig 1.

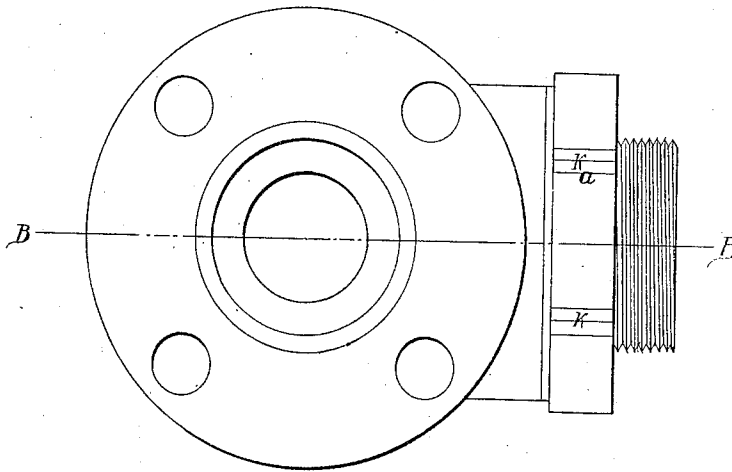


Fig 2.

WITNESSES

James H. Bonner
H. M. Mendenhall

INVENTORS

BY

John M. Reiter
Harry L. Dout
Victor J. Evans. ATTORNEY

J. M. REITER & H. L. DOUT.

BOILER CHECK.

APPLICATION FILED DEC. 1, 1909.

987,491.

Patented Mar. 21, 1911.

2 SHEETS—SHEET 2.

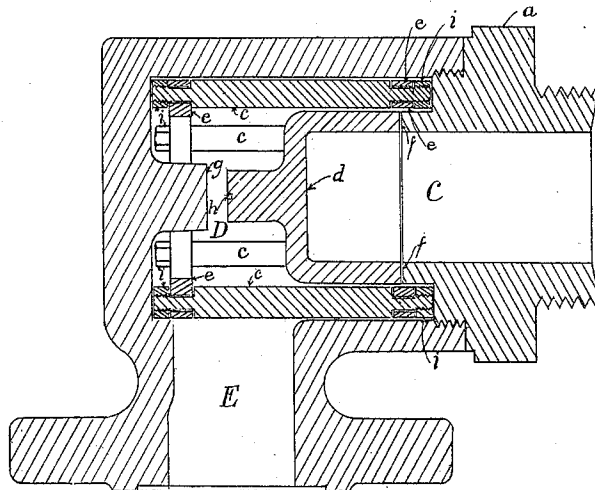


Fig. 3.

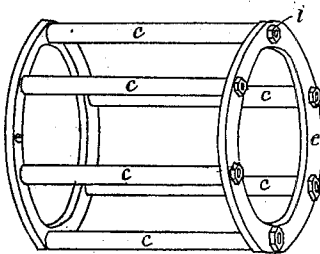


Fig. 4.

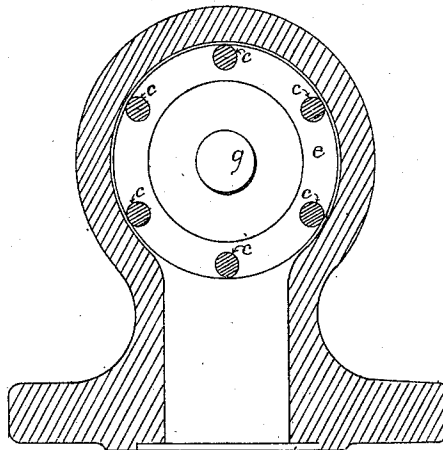


Fig. 5.

WITNESSES

James H. Bomer
J. M. Reiter

INVENTORS

BY

John M. Reiter
Harry L. Dout
Victor J. Evans ATTORNEY

UNITED STATES PATENT OFFICE.

JOHN M. REITER AND HARRY L. DOUT, OF MISSOULA, MONTANA.

BOILER-CHECK.

987,491.

Specification of Letters Patent. Patented Mar. 21, 1911.

Application filed December 1, 1909. Serial No. 530,777.

To all whom it may concern:

Be it known that we, JOHN M. REITER and HARRY L. DOUT, citizens of the United States, residing at Missoula, in the county of Missoula and State of Montana, have invented a new and useful Boiler-Check, of which the following is a specification.

Our invention relates to improvements in boiler checks in which the "cap" is eliminated and in which a spanner nut is used both as a seat for the check and to enable a person to save considerable time in taking the check apart for repairs and for seating the valve, also in which the combination of six rods of a hardened metal, connected at each end with a brass ring is used as a guide for the check as it moves up and down in a vertical direction and which in no way interferes with the flow of the steam or water. We attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of the entire machine; Fig. 2 a back view of same; Fig. 3 is a vertical section of the entire machine; Fig. 4 is a view in perspective of the combination of six rods and two rings as above referred to as a guide for the check and which is to be hereafter mentioned as a cage; Fig. 5 is a vertical section of the entire machine on the line A A in Fig. 1.

Similar letters refer to similar parts throughout the several views.

The cylinder *b* and the spanner nut *a* constitute the main framework of the machine. The check *d* reciprocates from the seat *f* to the face of the boss *g* and is kept in place by the guides *c c c c c c*. The steam or water on being allowed to enter the chamber C causes the check *d* to rise until arrested by the boss *g*. The valve as it leaves the seat *f* allows the steam or water to enter the chamber D from which there is a continuous passage into and through the port E. As the steam or water is turned off from enter-

ing the chamber C the back pressure of the steam or water in the chamber D causes the check *d* to slide back to its seat *f* and form a water or steam tight joint.

The check *d* being made of brass is much softer than the guides *c c c c c c* and therefore will not wear any abrasions in the guides and cause the check to stick or in any way to be retarded in its movements. Each rod *e* is held in place in the cage by the hexagon nuts *i i*, so that each rod may be replaced at will in case of a break. The groove *h* is provided in the check so that a screwdriver may be inserted to revolve it on its seat so that it will cause a steam tight joint.

We are aware that prior to our invention boiler checks have been made. We therefore do not claim such a combination broadly; but

We claim:

A cylinder having a longitudinal passage having a closed end provided with an inwardly projecting portion, the open end of the passage being threaded, a spanner nut engaging the said threads, said spanner nut having a central opening, a pair of ring members within the passage, a plurality of rods having each of their ends secured to the rings, a sliding check member mounted upon the rods, said check member being provided with a pocket alining with the passage of the spanner nut, the said check member having a reduced projecting portion alining with the projection formed upon the wall of the passage, means for removably securing the rods to the rings, and the cylinder being formed with an opening communicating with the passage.

JOHN M. REITER.
HARRY L. DOUT.

Witnesses:

JAMES H. BONNER,
W. W. KENNEDY.