July 29, 1924. 1,503,145

R. H. WENTORF

VALVE

Filed Aug. 8. 1921

Fig. 1

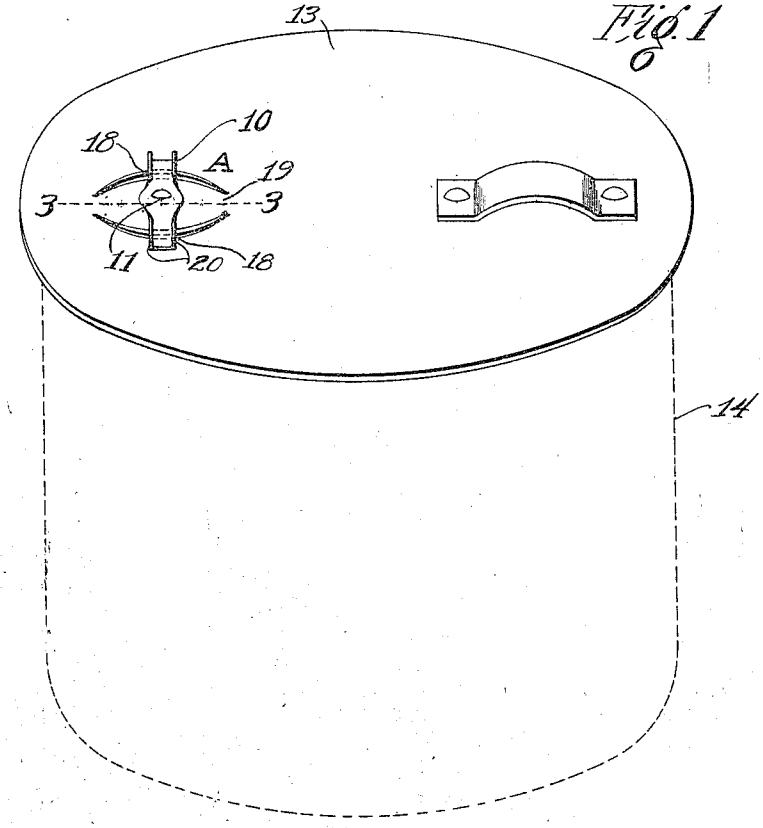


Fig. 3

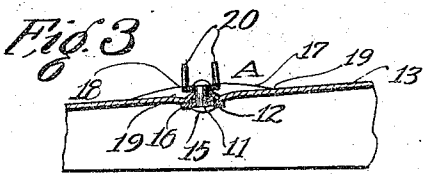


Fig. 4

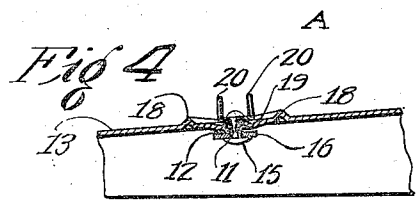
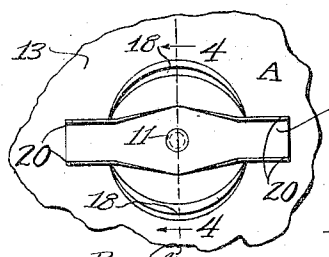


Fig. 2



Witness
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Patented July 29, 1924. 1,503,145

UNITED STATES PATENT OFFICE.

ROBERT H. WENTORF, OF WEST BEND, WISCONSIN, ASSIGNOR TO WEST BEND ALUMINUM COMPANY, A CORPORATION OF WISCONSIN.

VALVE.

Application filed August 8, 1921. Serial No. 490,748.

To all whom it may concern:

Be it known that I, ROBERT H. WENTORF, a citizen of the United States, residing at West Bend, in the county of Washington and State of Wisconsin, have invented certain new and useful Improvements in Valves, of which the following is a specification.

The invention relates to steam valves, and has for its primary object the provision of an escape valve for the steam from steam tight cooking vessels, such, for instance, as boilers.

A further object of the invention is to provide a valve that will be simple and positive in its operation.

A further object of the invention is to provide a valve that will be simple in construction and economical of manufacture.

Other objects of the invention will appear from the following description, which is directed to the preferred embodiment of the invention, reference being had to the accompanying drawings, forming a part of the specification and in which:

Fig. 1 is a perspective view of a boiler, the boiler proper being shown in dotted lines, showing my improved valve therein in full lines.

Fig. 2 is a fragmental section of the cover, showing my improved valve in plan view.

Fig. 3 is a vertical section taken on line 3—3 of Fig. 1.

Fig. 4 is a vertical section taken on line 4—4 of Fig. 2.

Reference character "A" represents the valve generally, which comprises a bar 10 having a pin 11 rigidly affixed to and extending downwardly from the approximate center thereof and through port 12 of the cover 13 of boiler 14, and carries at its inner end head 15. Washer 16 is carried by pin 11 intermediate head 15 and the inner face of cover 13 of boiler 14.

Surrounding port 12 and concentric therewith are two cam-shaped bead 17, upstruck from the material forming the cover and which are tapered downwardly or toward the outer face of the cover 13 at diametrically opposite portions thereof, thus forming cams 18, which provides a depression 19 between the cams 18, in which bar 10 is adapted to lie when the valve is in open position (see Fig. 4), which position permits pin 11 to drop downwardly, or away from cover 13, thereby releasing washer 16 from contact with the inner face of cover 13, and opening port 12 to allow the escape of steam therethrough.

By rotating bar 10 about the axis of pin 11 to a position at right angles to the position just described and causing the ends of bar 10 to move upwardly on cams 18 to the crowns thereof, pin 11 will be drawn outwardly of cover 13 and thereby close port 12 with washer 16 and head 15. The washer 16 may, if desired, be dispensed with and the closure of port 12 be accomplished by the forcing thereagainst of head 15. The washer 16 may be formed of any suitable material, though, for the purposes of illustration, I have shown it as formed of metal. Head 15 of pin 11, when forced into contact with washer 16, will prevent the passage of steam between pin 11 and the washer 16, should there become any play therebetween due to usage.

Bar 10 may be moved to any position intermediate the depression 19 and the crowns of cams 18 for the purpose of partially opening the valve, thereby limiting the escape of steam from the boiler to such extent as may be desired.

Bar 10 carries finger grips 20 for grasping with the fingers to rotate the bar.

Having thus described my invention, what I claim is:

1. In combination with the cover of a boiler, having a port therethrough, a bar, a pin carried by said bar and passing through said port, a head carried by said pin, a washer carried by said pin, and cams formed integrally with said cover and in operative relation to said bar.

2. In combination with the cover of a boiler, having a port therethrough, a cam on either side of said port, a bar, a pin carried by said bar and adapted to pass through said port, a head carried at the end of said pin, said bar being adapted to lie between said cams when in one position and overlie said cams with its ends when in another position.

3. In combination with the cover of a boiler, having a port therethrough and cams concentric therewith, a valve comprising a bar, a pin carried by said bar, a head carried by the end of said pin, said pin passing through said port, said bar being adapted to lie between said cams, when the valve is

in open position, and to overlie said cams with its ends when the valve is in closed position.

4. In combination with the cover of a boiler, having a port therethrough, a valve comprising a bar, a pin carried by said bar, having a head at one of its ends, said pin passing through said port, a washer carried by said pin intermediate said head and the inner face of said cover, cams formed integrally with said cover and in operative relation to said bar.

5. In combination with the cover of a boiler, having a port therethrough and cams adjacent said port, a bar, a pin carried by said bar and passing through said port, a head carried by said pin, and a washer carried by said pin intermediate said head and said bar.

6. In combination with the cover of a boiler, having a port therethrough and cams adjacent said port, a bar, a pin carried by said bar and passing through said port, a head carried by said pin, and a washer carried by said pin intermediate said head and said bar, and means for rotating said bar.

7. In combination with the cover of a boiler, having a port therethrough and cams thereon, a bar, a pin carried by said bar and passing through said port, a port closure element carried by said pin, and means for forcing said member into closing position.

8. In combination with the cover of a boiler, having a port therethrough and cams thereon, a bar, a pin carried by said bar and passing through said port, a port closure member carried by said pin, and cam means for forcing said member into closing position.

9. The combination of a boiler cover, having a port therethrough and cams adjacent and concentric to said port, with a bar, a pin carried by said bar and passing through said port, a head carried by the end of said pin, a closure member carried by said pin and interposed between said head and the inner face of said cover, and means for drawing said pin outwardly of said cover.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 22nd day of July, A. D. 1921.

ROBERT H. WENTORF.

Witnesses:

I. O. MUELLER,

A. C. KIECKHAFER.