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C. WEHNER, C. MALTNER & F. BANSEN.

WATER GAGE.

APPLICATION FILED JUNE 11, 1902.

NO MODEL.

Fig. 1.

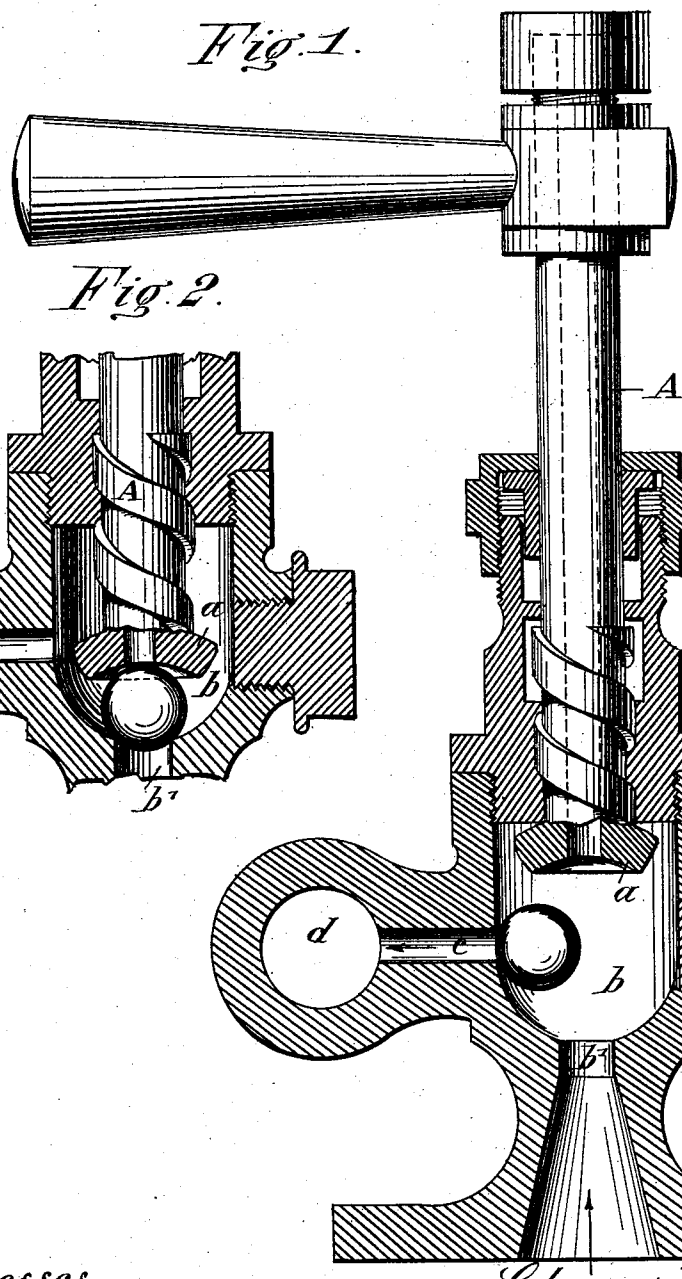


Fig. 2.

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UNITED STATES PATENT OFFICE.

CLEMENS WEHNER, CARL MALTNER, AND FRITZ BANSEN, OF LEIPZIG, GERMANY.

WATER-GAGE.

SPECIFICATION forming part of Letters Patent No. 721,763, dated March 3, 1903.

Application filed June 11, 1902. Serial No. 111,126. (No model.)

To all whom it may concern:

Be it known that we, CLEMENS WEHNER, CARL MALTNER, and FRITZ BANSEN, subjects of the German Emperor, and residents of Leipzig, Germany, have invented certain new and useful Improvements in Water-Gages, of which the following is a specification.

The object of our present invention is to provide a water-gage for steam-generators or the like which acts with the same means of a metal ball, first, in closing automatically the orifice to the gage-glass when the glass is breaking; secondly, in closing positively the inlet-passage from the steam-generator.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 shows a cross-section of the head of a water-gage, the metal ball being shown in its automatically-closed position after the breaking of the glass. Fig. 2 shows a portion of Fig. 1, but with the ball closing the communication with the generator by positive means.

The gage-head is fitted with a screw-spindle A, having a high pitch, and a cup-shaped inner end *a*, located in a chamber *b*, spherical or cup-shaped at its opposite portion, as indicated in the figures. The cup-shaped end of the said spindle and the spherical or cup-shaped portion of the chamber *b* are arranged opposite each other and normally allow free play to a ball of metal and of a diameter larger than the inlet-passage *b'*. When the spindle, with its cup-shaped end *a*, is screwed outward, the ball lies freely in the chamber *b* and so allows water or steam to pass through the orifice *c* into the gage-glass *d*. So soon as the glass breaks the boiler-pressure will at once force the ball against the orifice *c*, and thereby prevent any further egress of water or steam to the broken gage-glass. (See Fig. 1.) When the inlet-passage from the steam-generator is to be closed, the screw-spindle A is screwed inward, and in this manner the cup-shaped end *a* catches the ball and forces it rearward into the cup-shaped end of the chamber *b*, as shown in Fig. 2, and by thus pressing the ball tightly against the orifice *b'* of said chamber an absolutely tight joint is insured even for very high steam-pressures.

Having now fully described our said invention, what we claim, and desire to secure by Letters Patent, is—

A water-gage provided with a casing having an inlet from the boiler and an outlet to the gage-glass, a ball in the casing automatically closing the outlet when the gage-glass breaks, and a spindle extending into the casing having a cup-shaped head thereon adapted to engage the ball and force the same to the inlet.

In testimony whereof we have hereunto set our hands in presence of witnesses.

CLEMENS WEHNER.
CARL MALTNER.
FRITZ BANSEN.

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