C. H. YEAGER.

STEAM-TRAP.

No. 189,591. Patented April 17, 1877.

Fig. 1.

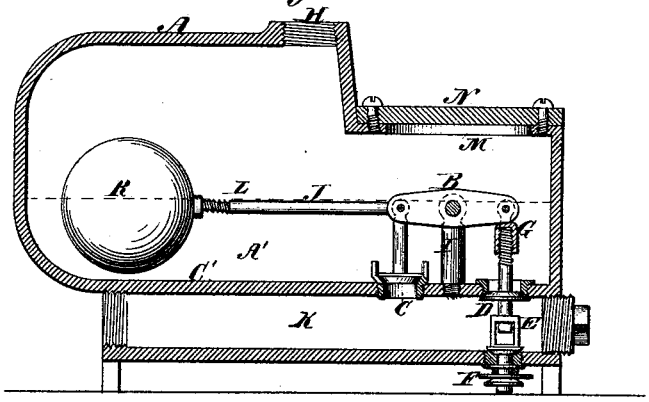


Fig. 2.

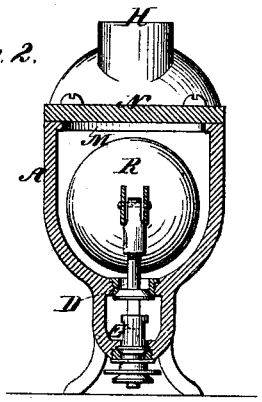
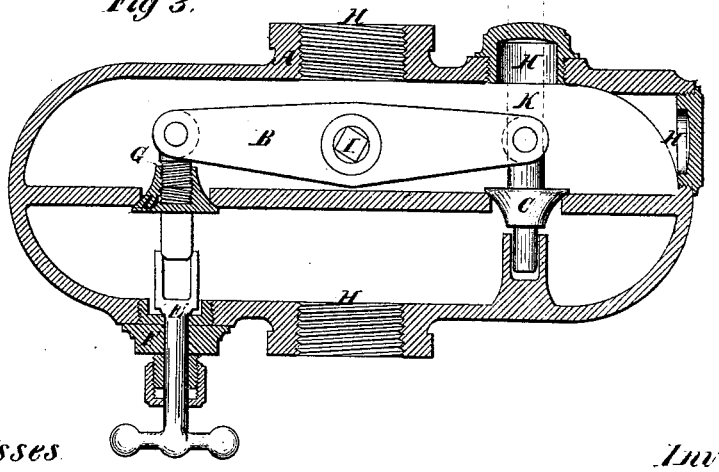


Fig 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

CHARLES H. YEAGER, OF ST. LOUIS COUNTY, MISSOURI.

IMPROVEMENT IN STEAM-TRAPS.

Specification forming part of Letters Patent No. **189,591**, dated April 17, 1877; application filed March 15, 1876.

To all whom it may concern:

Be it known that I, CHARLES H. YEAGER, of St. Louis county, in the State of Missouri, have invented an Improvement in Steam-Traps, of which the following is a specification:

The nature of my invention consists in so arranging two valves on a cross-beam that they will be opened together, and at one and the same time, and may be adjusted on their seats from the outside of the steam-trap or governor, in which they can be used.

Figure 1 of the drawing shows a side view of my steam-trap. Fig. 2 shows an end view of the same, and Fig. 3 shows a side view of my invention when used as a governor. The above are all sectional views.

A in Fig. 1 is the outside or casing of my steam-trap. N is a lid, fastened down by means of screws into the casing A. This casing A is all cast in one piece, and is provided with a partition, C′, making the discharge-chamber K, and is also provided with an opening, M, large enough to admit of the passage of the ball or float R. H is an ingress-pipe for the admission of steam into the steam-trap. A′ is a steam-chamber for the admission of steam and water, that may accumulate by the condensation of steam in piston-chests, to which it may be attached. C′ is a partition dividing the discharge-chamber K from the steam-chamber A′, and is cast in with the shell or casing A, as above described. It is provided with two valve-seats and valves, C and D, C opening up and D opening down. Valve C is attached to a cross-beam, B, by a common straight neck. D is a valve opening downward, and having a straight neck, and connected to the other end of the lever B by means of a screw, G, so that it may be adjusted on the beam B by turning the valve to the right or left. B is a common walking-beam, and works on the center on the pivot I.

The neck of the valve D, at the lower end, is square, to fit in the adjusting-wrench E, which is a long sleeve-like wrench, passing through the casing A directly under the valve neck or stem of D, and is provided with a handle, F, by means of which it may be turned at any time from right to left, thus raising or lowering the valve D at will, by means of which it can be adjusted with the valve C, so that they will both fit on their seats at the same time.

J is an arm extending out from the left end of the beam B, and is provided with a screw on the end, which screws into the hollow ball or float R. This hollow ball is made of any material, in such a manner that it will float on water.

L is the water-line in the steam-trap. Now, when the water from the condensed steam reaches this line it will cause the ball to float, and thus raise the valve C and depress the valve D, so that the surplus water may escape through the discharge-chamber K.

When it is to be used as a governor, the proper attachment must be made at the pivot I of the beam B in Fig. 3, and the arm J and float R are dispensed with.

The sediment of the trap may be blown out by lowering the valve D by means of the wrench E.

Having thus fully described my invention, what I claim, and for which I ask Letters Patent, is—

1. In combination with a wrench adapted to adjust the valves from the outside of the case, the valves C D and beam B, as and for the purposes set forth.

2. In combination with the wrench E, valves C and D, beam B, and float R, as and for the purposes set forth.

3. The combination of the water-chamber A, discharge-chamber K, partition C′, valves C and D, beam B, and float R, as and for the purposes set forth.

CHARLES H. YEAGER.

Witnesses:
WM. M. ECCLES,
JAS. MCFARLAND.