(No Model.)

D. PYKE.

COMPOUND WATER GAGE FOR STEAM BOILERS.

No. 347,303. Patented Aug. 10, 1886.

Fig. 2.

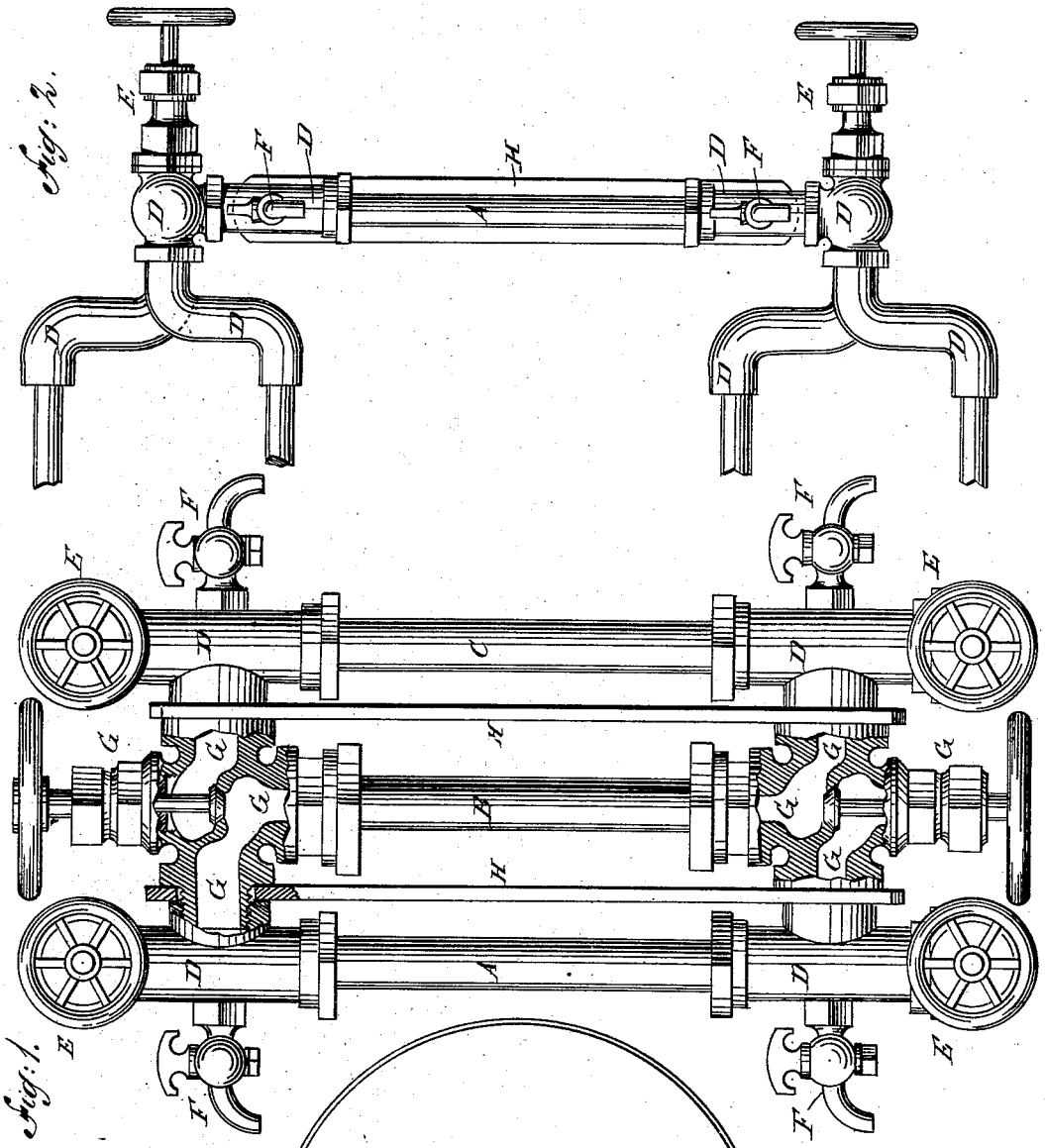

Fig. 1.

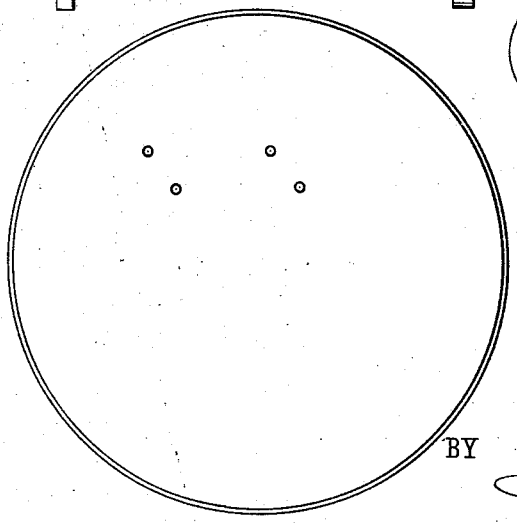

Fig. 3.

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DAVID PYKE, OF PHILADELPHIA, PENNSYLVANIA.

COMPOUND WATER-GAGE FOR STEAM-BOILERS.

SPECIFICATION forming part of Letters Patent No. 347,303, dated August 10, 1886.

Application filed November 27, 1885. Serial No. 184,098. (No model.)

To all whom it may concern:

Be it known that I, DAVID PYKE, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Compound Water-Gages for Steam-Boilers, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation, partly in section, of my compound water-gage. Fig. 2 is a side elevation of the same. Fig. 3 is a front elevation of a steam-boiler, showing the apertures for the attachment of the gage.

The object of this invention is to provide compound water-gages for steam-boilers, constructed in such a manner that they will indicate the true state of the water in the boilers at all times, even should one or more of the connections with the boilers become clogged.

The invention consists in the construction and combination of the various parts of the compound water-gage, as will be hereinafter fully described.

A B C represent three parallel glass tubes. The ends of the said tubes A C are connected with elbow-couplings D, the inner arms of which are connected with short pipes secured in perforations in the head of the steam-boiler. The inner arms of the couplings D of one of the side tubes, A C, are made with a downward offset, and the inner arms of the couplings D of the other side tube are made with an upward offset, as shown in Fig. 2, so that the boiler-connections of the couplings of the two tubes A C will be at different levels, and thus not liable to become clogged at the same time by impurities in the water. The couplings D are provided with valves E and cocks F, for use in trying the gage and in blowing out the said gage. The ends of the center tube, B, are connected with the center arms of the three-way globe-valves G, side arms of which are connected with the couplings D of the side tubes, A C. The globe-valves G are so arranged that when the said valves are both closed the lower end of one of the side tubes, A C, will be connected by an open passage with the upper end of the other tube, as shown in Fig. 1; and when both the valves G are opened the ends of the side tubes will be connected with each other, and with the ends of the center tube by open passages. With this construction, when the gage is in order the water will stand at the same level in the three tubes A B C. Should the water at any time stand at different levels in the three tubes, the engineer knows that something is wrong, and can soon find out, by operating the valves F G, where the trouble is, and can remedy it by blowing out the clogged connection, or otherwise clearing it. The side arms of the three-way globe valves G are connected by bars H, which are perforated to receive the said arms, and are secured in place upon them by the elbow-couplings D of the side tubes, A C. The bars H are made of a greater breadth than the diameter of the tubes A B C, as shown in Fig. 2. The bars H serve as connections to give firmness and strength to the compound gage, and as guards to prevent the glass tubes A B C from being accidentally broken.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A compound water-gage for steam-boilers, constructed substantially as herein shown and described, and consisting of the three parallel glass tubes A B C, the elbow couplings D, attached to the ends of the said tubes A C, having offsets in their inner arms, and provided with valves E and cocks F, and the three-way globe-valves G, connected with the ends of the center tube, B, and with the elbow-couplings of the side tubes, as set forth.

2. In a compound water-gage for steam-boilers, the combination, with the three glass tubes A B C, the elbow-couplings D, attached to the side tubes, A C, and the three-way globe valves G, connected with the center tube, B, and the elbow-couplings of the side tubes, of the connecting-bars H, substantially as herein shown and described, whereby greater firmness and strength are given to the gage, and the glass tubes are prevented from being accidentally broken, as set forth.

DAVID PYKE.

Witnesses:
A. C. KOLLOFRALTH,
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