(No Model.)

R. W. APPLEGARTH.

INLET COCK FOR WATER COIL BOILERS.

No. 421,224. Patented Feb. 11, 1890.

Fig. 1.

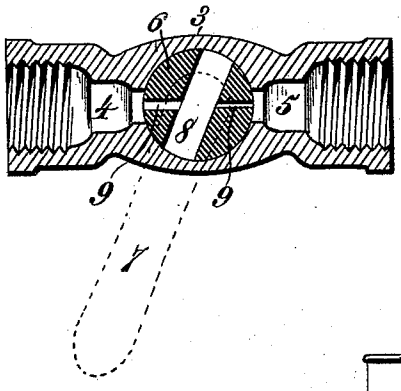


Fig. 2.

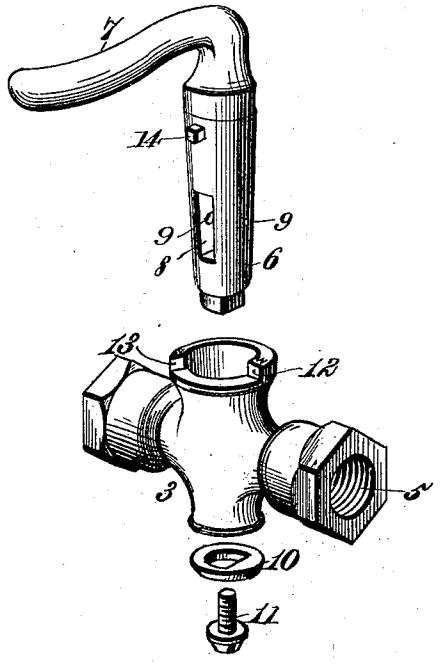
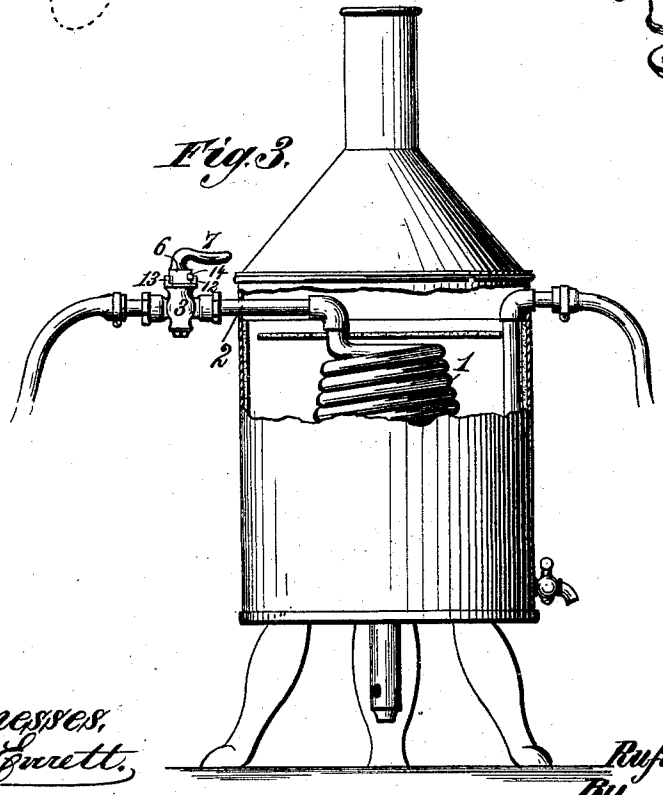


Fig. 3.



Witnesses,
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UNITED STATES PATENT OFFICE.

RUFUS W. APPLEGARTH, OF BALTIMORE, MARYLAND.

INLET-COCK FOR WATER COIL BOILERS.

SPECIFICATION forming part of Letters Patent No. 421,224, dated February 11, 1890.

Application filed November 2, 1889. Serial No. 329,020. (No model.)

To all whom it may concern:

Be it known that I, RUFUS W. APPLEGARTH, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented new and useful Improvements in Inlet-Cocks for Water Coil Boilers, of which the following is a specification.

It is the object of my invention to provide a water coil boiler with an inlet-cock of such construction that the quantity of water admitted to the steam-generating coil can be readily controlled from time to time as required, and so that while the heated coil is in use for generating steam it will receive only the small volume or stream of water necessary for that purpose.

To this end my invention consists in the combination, with a water coil boiler, of an inlet-cock provided with a valve-plug having two passages of different capacity, one for a large stream of water when it is desired to flood the coil to obtain hot water, and the other for a small stream or spray when the heated coil is to be used for generating steam.

In the annexed drawings, illustrating the invention, Figure 1 is a sectional view of my improved inlet-cock for water coil boilers. Fig. 2 is a view of the several parts of the cock detached. Fig. 3 is a view of a water coil boiler with my improved inlet-cock applied.

Referring to the drawings, the numeral 1 designates the water-heating and steam-generating coil of a water coil boiler, adapted as a portable steam-generator and water-heater for bath-tubs, vapor-baths, and other purposes.

In the inlet-pipe 2 of the coil 1 is inserted a valve-casing 3, having inlet-port 4 and outlet-port 5, preferably in line with each other, as shown. The valve-plug 6 is in the form of an ordinary tapering turn-plug, and is provided at one end with a handle 7, as usual. This valve-plug 6 is provided with a large transverse passage 8, adapted to deliver the full quantity of water that can enter the inlet-port of the valve-casing. The valve-plug 6 is also provided with a small transverse passage 9, that intersects the large passage 8 diagonally. The valve-plug 6 is secured in place by a washer 10 and a set-screw 11 at its lower end.

On the upper part of the valve-casing 3 is a stop 12, in line with the ports 4 and 5, and a stop 13, that is located diagonally to one side of the valve-casing top. On the valve-plug 6, between the stops 12 and 13, is a stud or projection 14, adapted to be brought in contact with either of said stops when the plug is turned to open the passage 8 or 9, as the case may be.

By turning the valve-plug 6 until the stud 14 comes in contact with the stop 12 the large plug-passage 8 will be brought in line with the inlet and outlet ports of the valve-casing 3, and the coil 1 will thus receive a large volume of water. When the coil 1 is to be used for heating water, the valve-plug 6 will be turned to the position just described.

In using the coil 1 for generating steam it is desirable to supply the heated coil with only a small stream or volume of water, and this can be readily done by turning the valve-plug 6 until the stud 14 comes in contact with the stop 13, thereby closing the large passage 8, and bringing the small plug-passage 9 in line with the inlet and outlet ports of the valve-casing.

If it is desired to cut off the supply of water entirely, the valve-plug will be turned sufficiently to bring the stud 14 about midway between the stops 12 and 13, and as the plug-passages 8 and 9 intersect each other diagonally they will both be thus carried out of line with the valve-casing ports, and no water will pass through the cock.

The stops 12 and 13 can be marked "Hot water" and "Steam," respectively, and a suitable mark or index can also be provided to indicate the position of the stud 14 when the supply of water is to be entirely cut off.

By means of this inlet-cock the proper supply of water to the coil 1, either for generating steam or for providing hot water only, can be readily controlled without requiring any skill on the part of the operator.

What I claim is—

In a water coil boiler, the combination, with the water-heating and steam-generating coil, of a water-inlet cock provided with a valve-plug having large and small intersecting passages, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

RUFUS W. APPLEGARTH.

Witnesses:

JAMES L. NORRIS,

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