(No Model.)

G. J. WALLACE.

VALVE FOR RADIATORS.

No. 306,880. Patented Oct. 21, 1884.

Fig. I.

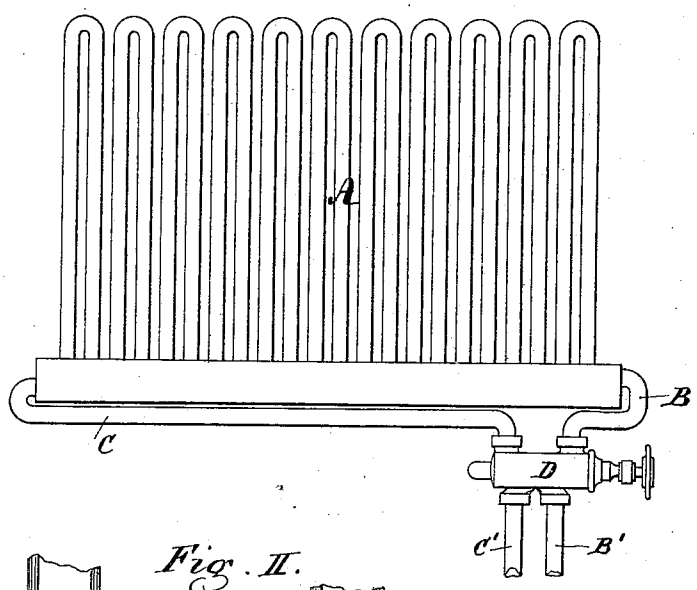
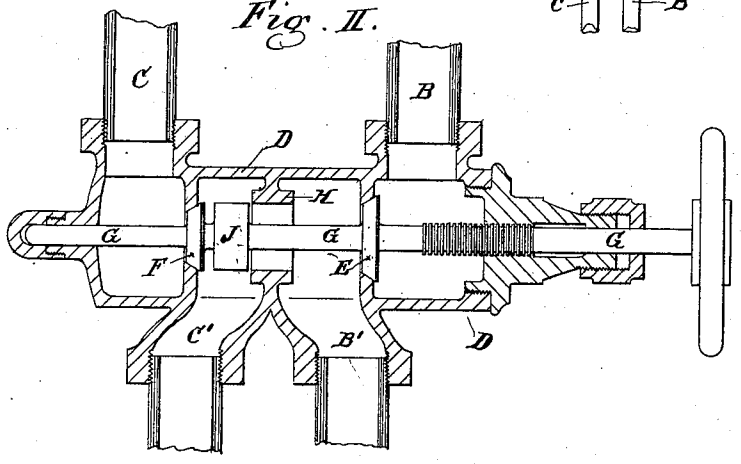


Fig. II.



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UNITED STATES PATENT OFFICE.

GEORGE J. WALLACE, OF NEW YORK, N. Y.

VALVE FOR RADIATORS.

SPECIFICATION forming part of Letters Patent No. 306,880, dated October 21, 1884.

Application filed April 2, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE J. WALLACE, a citizen of the United States, residing at New York, in the State of New York, have invented a new and useful Valve for Heaters or Radiators, of which the following is a specification.

The nature of my invention consists in the combination of an auxiliary piston-valve between the steam and return valves placed on the same stem, whereby when the steam and return passages of the radiator are closed a communication between the steam and return pipes will be made to prevent freezing or collection of condensation in steam or return pipes, and avoiding water-hammering in the pipes, securing thereby a noiseless operation of the same.

In the accompanying drawings, Figure I represents a radiator with my improved valve attached. Fig. II is an enlarged view of the valve in section.

Similar letters represent similar parts in the figures.

A represents a radiator arranged and constructed in any desired manner, where B is the pipe for admitting the steam into the same, and C the return-pipe arranged in the usual manner.

D is the valve chamber, to the ends of which the steam-pipe B and return-pipe C, leading to and from the radiator, are connected, and to the central part of which the main steam-pipe B′ and return pipe C′ from the steam-boiler (not shown in the drawings) are connected. The steam and return passages are arranged with suitable valves, E and F, situated upon the valve-stem G, arranged and operated in the usual manner. Between the main steam and return pipes or passages B′ C′ a valve-seat, H, is arranged in the case D, in which a piston-valve, J, attached to the valve-stem G, is made to operate. The three valves, E, F, and J, being placed upon the same valve-stem G, will be operated simultaneously. When steam is to be admitted into the radiator A, the valves E and F are opened at the same time and by the same operation, and at the same time the valve J is moved into its seat H, closing thereby the communication between the steam and return passages B′ and C′ and allowing the steam to enter through the valve E and pipe B into the radiator, while the return passes through pipe C, valve F, into the return pipe C′, in the usual manner. As soon as the valves E and F are closed the valve J will come out of its seat H, forming thus a passage between the steam-pipe B′ and return-pipe C′, maintaining thereby the circulation and preventing a collection of condensation in the same, preventing thereby any possible freezing, and at the same time avoiding any water-hammer in the pipes, thereby securing a perfectly noiseless operation.

What I claim as my invention, and desire to secure by Letters Patent, is—

In combination with the steam-valve E and return-valve F, the intermediate valve, J, placed upon one and the same valve-stem G in a suitable casing, D, and arranged to operate in combination with the steam and return pipes and a radiator, in the manner and for the purpose described.

GEORGE J. WALLACE.

Witnesses:

HENRY E. ROEDER,

WILLIAM P. SKIFFINGTON.