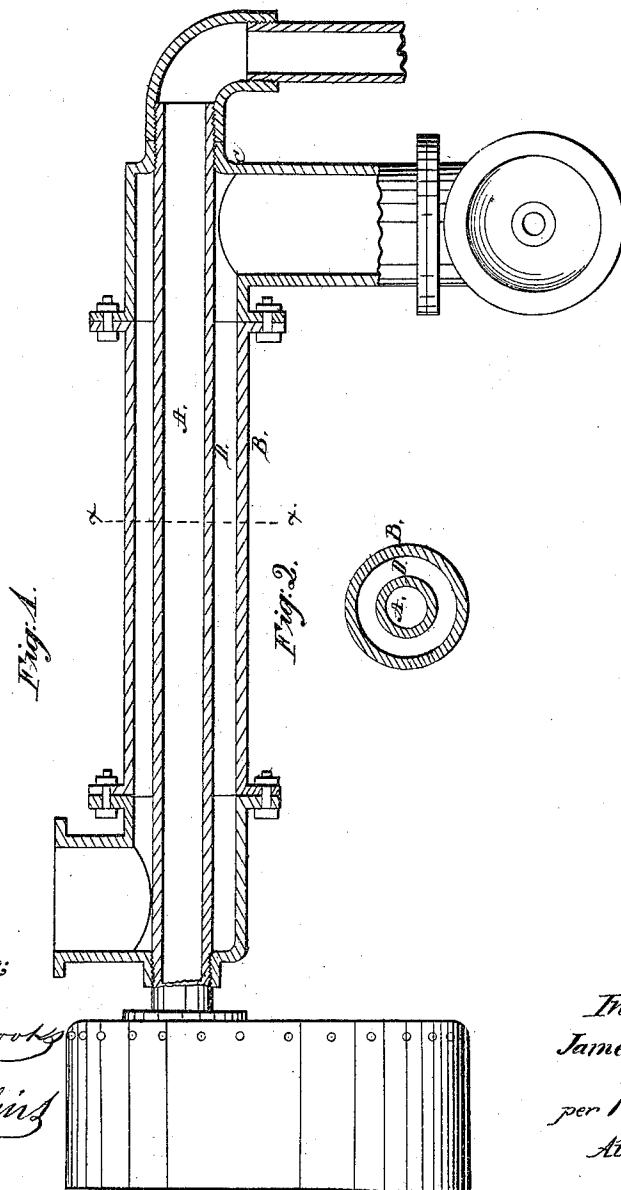


J McFarland.

Device for Preventing Radiation of Heat.

N^o 91,652.

Patented Jun. 22, 1869.



Witnesses:

D. A. Brooks

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Inventor:

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United States Patent Office.

JAMES McFARLAND, OF LOUISVILLE, KENTUCKY.

Letters Patent No. 91,652, dated June 22, 1869.

IMPROVEMENT IN DEVICE FOR PREVENTING RADIATION OF HEAT FROM STEAM-PIPES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, JAMES McFARLAND, of Louisville, in the county of Jefferson, and State of Kentucky, have invented a new and useful Improvement in Preventing the Radiation of Heat; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and useful device for preventing the condensation of steam in steam-pipes, in consequence of the radiation of heat therefrom, and for preventing the radiation of heat from steam-pipes, by the devices hereinafter described.

In the accompanying plate of drawings—

Figure 1 represents a longitudinal section of a steam-pipe connecting the boiler with the engine-cylinder, protected by a surrounding pipe, according to my invention.

Figure 2 is a cross-section of fig. 1, through the line *x x*.

Similar letters of reference indicate corresponding parts.

The steam-boiler and the cylinder of the engine are shown in red color.

A is the steam-pipe, which, as seen in the drawing,

is connected with the boiler, and which extends to the steam-chest of the engine.

B is the exhaust-pipe, which is connected with and surrounds the steam-pipe A.

This exhaust-pipe is connected with the steam-pipe A, by means of an elbow, as seen at C, and the exhaust steam is discharged into the annular space D, around the steam-pipe.

The steam is discharged from the pipe B, through the short tube G, as shown.

Any device may be employed for forming a steam-tight joint between the two pipes.

It will be seen that as the steam-supply pipe is surrounded with steam, no condensation can take place within the pipe where it is so protected, thus adding greatly to the efficiency of the steam-boiler, and, consequently, resulting in a saving of fuel.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

The arrangement of the surrounding exhaust-pipe B, elbow C, and tube G, with the steam-pipe A, connecting the boiler and steam-chest, as herein shown and described.

Witnesses: JAMES McFARLAND.

JOHN ASHERN,
JOSEPH KNIGHT.