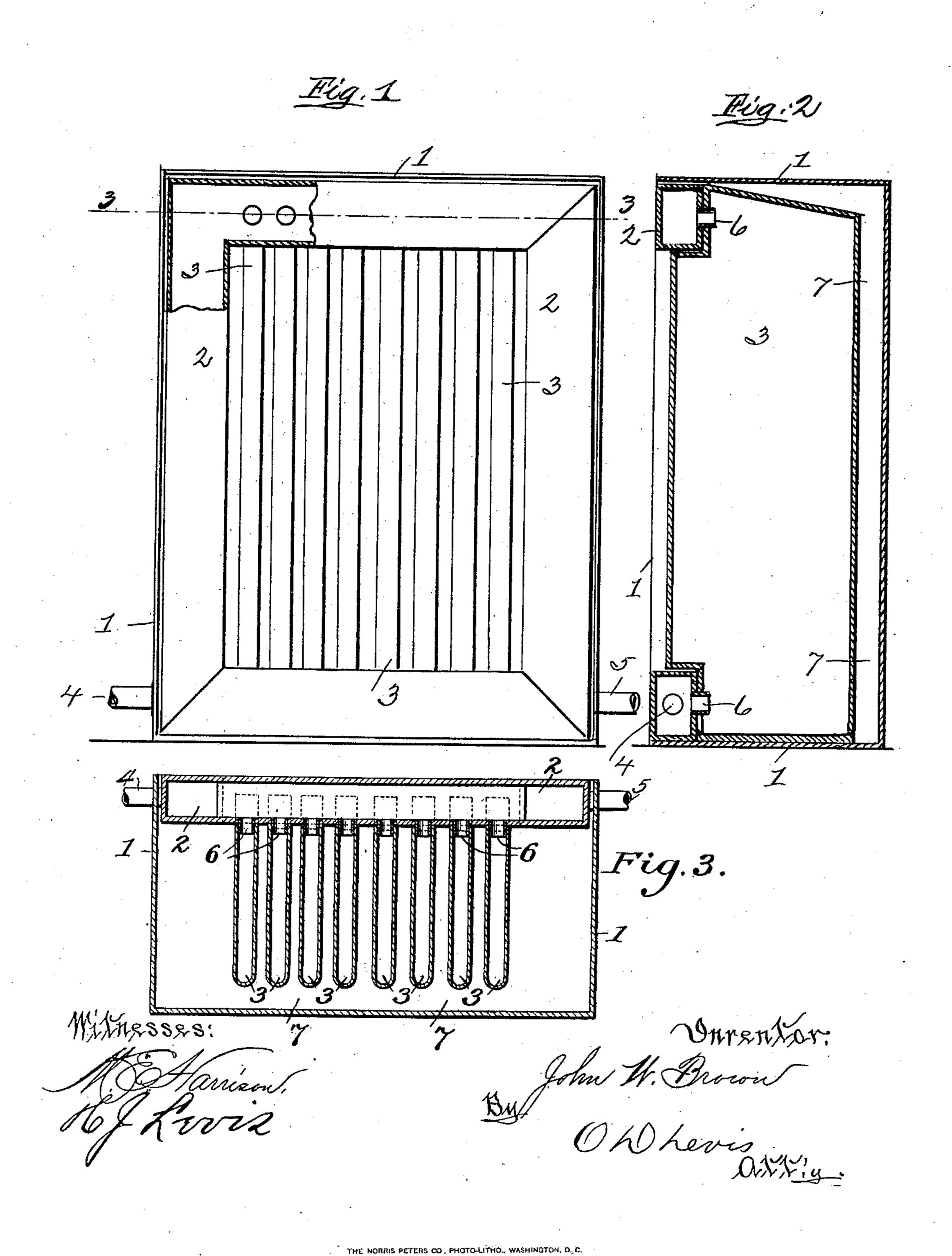
## J. W. BROWN. RADIATOR. APPLICATION FILED FEB. 21, 1903.

NO MODEL,



## United States Patent Office.

JOHN W. BROWN, OF LATROBE, PENNSYLVANIA.

## RADIATOR.

SPECIFICATION forming part of Letters Patent No. 763,591, dated June 28, 1904.

Application filed February 21, 1903. Serial No. 144,421. (No model.)

To all whom it may concern:

Be it known that I, John W. Brown, a citizen of the United States, residing at Latrobe, in the county of Westmoreland and State of Pennsylvania, have invented a new and useful Improvement in Radiators, of which improvement the following is a specification.

This invention relates to an improvement

in radiators.

The object of the invention is to provide a radiator that may be secured in the wall of a room or the like, so that its face will be flush with the surface of the wall, thus producing a radiator that is entirely out of the way and at the same time effective in its radiation of heat.

Finally, the object of my invention is to provide a device that will be strong, durable, and effective and one that will be simple and com-

20 paratively inexpensive to produce.

With the above and other objects in view the invention consists in the novel details of construction, a preferable embodiment of which is described in the specification and illustrated in the drawings, wherein—

Figure 1 is a front elevation of my improved radiator, the same being partly shown in section and removed from the opening or fireplace in the wall. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a horizontal sectional view taken on the lines 3 3 of Fig. 1.

In the drawings the numeral 1 designates the casing of the radiator, which is composed of sheet metal and which is provided with an inlet-pipe 4 and an outlet-pipe 5, both being provided with valves in the ordinary manner. These inlet and outlet pipes communicate di-

rectly with the hollow frame 2, which is fitted within the casing of the radiator and having its 40 outer face lying flush with the front thereof.

3 indicates flat tubes which are arranged in a series and are spaced from each other and from the rear and top walls of the casing, so as to provide a space 7, in which the heat is 45 equal. These tubes at their front ends have their upper and lower portions formed with angularly-inbent portions forming seats, in which are snugly received the adjacent portions of the upper and lower walls of the 50 frame 2.

6 indicates short pipes which are inserted through the walls of the frame 2 and the tubing 3, respectively, whereby free circulation of the heating fluid is permitted.

Having thus described my invention, what I claim, and desire to secure by Letters Pat-

ent, is—

A radiator comprising a casing, a hollow frame arranged within the forward end of 60 the casing, a series of flat tubes spaced apart one from the other and the rear and top walls of the casing thereby forming narrow airspaces, said tubes having their upper and lower portions inbent to form seats in which 65 the adjacent portions of the hollow frame are snugly received, and short pipes projecting from said frame into said tubes, substantially as and for the purpose specified.

In testimony whereof I have hereunto signed 70 my name in the presence of two subscribing

witnesses.

JOHN W. BROWN.

In presence of— M. E. Harrison, F. O. Henzi.