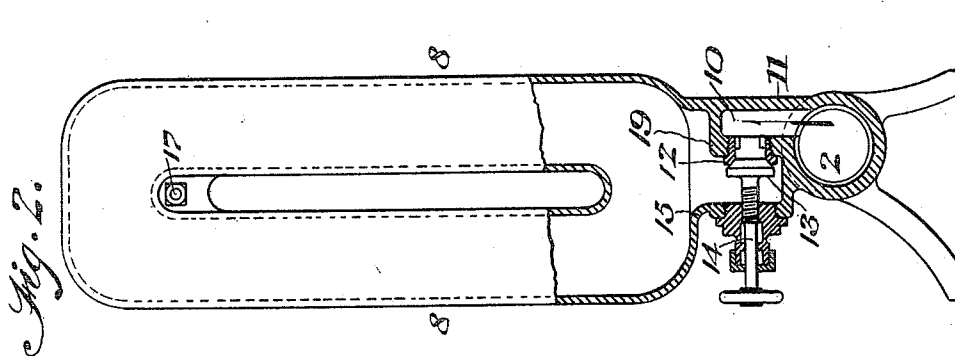
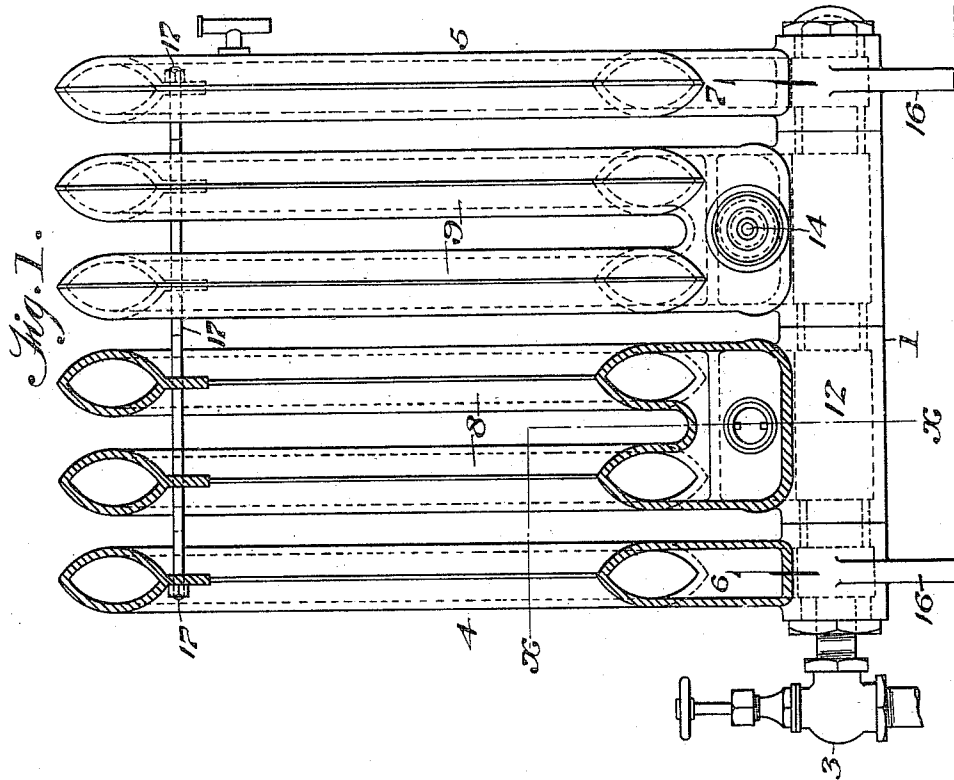


F. C. BIRCH.
RADIATOR.
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979,414.

Patented Dec. 27, 1910.



Witnesses
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RADIATOR.

979,414.

Specification of Letters Patent.

Patented Dec. 27, 1910.

Application filed December 24, 1909. Serial No. 534,822.

To all whom it may concern:

Be it known that I, FRANK C. BIRCH, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Radiator, of which the following is a specification.

My invention consists of a radiator which is adapted to be partly or entirely supplied by steam or other heating medium, so that the heating capacity of the radiator may be varied as desired, as more or less radiated-heat may be required, and other features are provided, as will be hereinafter set forth.

For the purpose of explaining the invention, the accompanying drawing illustrates a satisfactory reduction of the same to practice, but the important instrumentalities thereof may be varied, and so it is to be understood that the invention is not limited to the specific arrangement and organization shown and described.

Figure 1 represents a partial side elevation and partial vertical section of a radiator embodying my invention, Fig. 2 represents a partial side elevation and a partial vertical section, on line $x-x$, Fig. 1.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings:—1 designates the base of the radiator, the same being formed of metal or other material and being tubular, forming the steam-receiving chamber 2, said base being in sections, which are suitably united, adapting the chamber 2 to be continuous, the inlet end of the same having the supply valve 3 for evident purposes.

Rising from the base 1 on the opposite ends thereof, are the tubular sections or loops 4, 5, which are in communication with the chamber 2, as indicated by the arrows 6, 7. Intermediate of said sections 4, 5, are the tubular sections or loops 8 and 9, which are preferably formed in pairs, each pair being in communication at its lower end with the chamber 2 by means of the vertical passages 10, which are formed in the necks 11,

which rise from the base 1 and join said sections 8 and 9, the inner walls of said passages having openings therein, the same being occupied by the seats 12 of the valves 13, whose horizontally-disposed stems 14 are fitted in suitable stuffing boxes in the adjacent wall 15 of the neck 11, it now being seen that the valves 13 are adapted to open and close the passages 10, whereby steam may be admitted into the sections 8 and 9 or cut-off from the same, it being seen also that the seats 12 are screwed in position, whereby they are readily removable and restorable through the openings in which the stuffing boxes are removably secured, the seats being of less diameter than said openings.

The base 1 is provided with legs 16 for supporting the radiator, and the sections 4, 5, 8, 9 are perfectly coupled by the tie rod 17 for connecting and bracing the same. Owing to the base being formed in sections, the same may be increased or decreased in number, so as to lengthen or shorten the same, and thus adjust the dimensions of the radiator to the size or heat-capacity desired.

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

In a radiator, a base chamber, a hollow section, a neck connecting said chamber and section and having a longitudinal partition wall through it formed with an opening and an opposed opening in the side wall of larger diameter than the opening in the longitudinal partition, a valve seat removably secured in the opening in the partition wall, a stuffing box removably secured in the opening in the side wall, and a valve seating upon the valve-seat and having its stem passing through the stuffing-box, said valve and valve seat being removable through the opening in the side wall.

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Witnesses:

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