

E. E. PARKER.  
FITTING FOR RADIATORS.  
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1,092,385.

Patented Apr. 7, 1914.

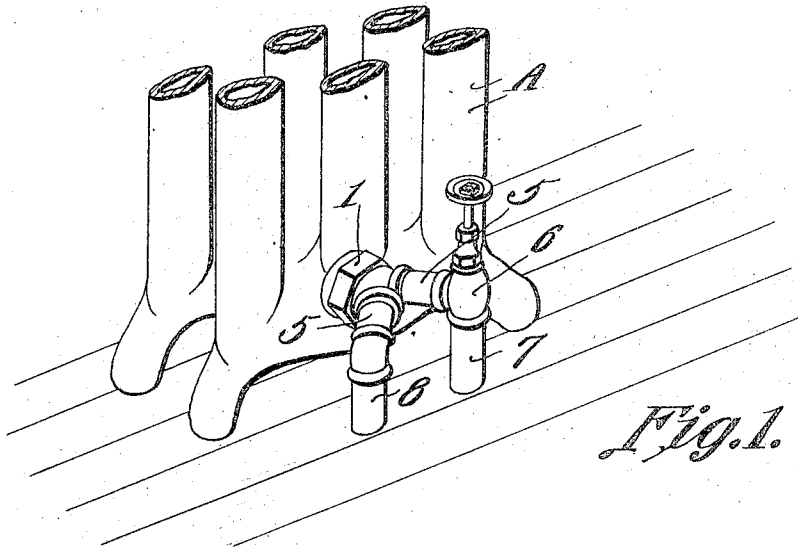


*Fig. 1.*

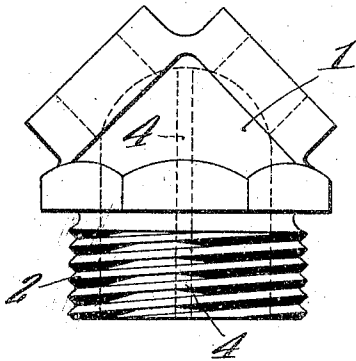


*Fig. 2.*

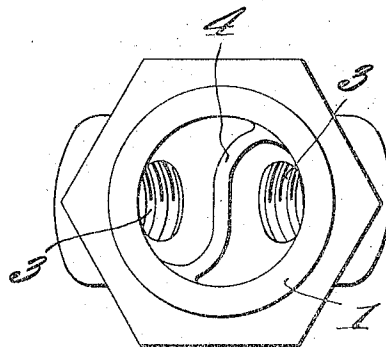


*Fig. 3.*

Witnesses

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# UNITED STATES PATENT OFFICE.

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## FITTING FOR RADIATORS.

1,092,385.

Specification of Letters Patent.

Patented Apr. 7, 1914.

Application filed February 11, 1911. Serial No. 608,056.

*To all whom it may concern:*

Be it known that I, EDWARD E. PARKER, a citizen of the United States, residing at Woburn, in the county of Middlesex and State of Massachusetts, have invented a new and useful Fitting for Radiators, of which the following is a specification.

This invention relates to a fitting for use in connection with hot water radiators and by means of which it becomes necessary to utilize but a single tapping. Heretofore it has been the practice to provide a tapping at each end of a radiator and to connect separate pipes to the two tappings, this often necessitating tearing up floors in order that pipes might be extended to both ends of the radiator. Such an arrangement is also objectionable because it is impossible to add to or subtract from the number of radiator sections employed without changing the pipe connections.

It has been found in practice that the foregoing objections can be eliminated by having two tappings, one beside the other, in one end of the radiator, and connecting separate pipes to each. This, however, is objectionable because of the additional expense involved.

One of the objects of the present invention is to provide a fitting for use in connection with a single tapping, to which the flow and return pipes may be connected, said fitting being so constructed as to direct the hot water into the radiator where it will rise without mixing to an appreciable extent with the discharging cool water, thus materially reducing the cost of installing hot water radiators and permitting the work of roughing in the piping to be done with absolute accuracy.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings, the preferred form of the invention has been shown.

In said drawings: Figure 1 is a perspective view of a portion of a radiator and showing the fitting applied thereto and con-

nected to the flow and return pipes. Fig. 2 is a plan view of the fitting. Fig. 3 is an end elevation of the fitting viewed from that end thereof to be connected to a radiator.

Referring to the figures by characters of reference 1 designates a Y fitting having a threaded end 2 adapted to be screwed into a single tapping in one end of a radiator A while the branches of the fitting are interiorly screw threaded, as shown at 3 and open into the fitting at opposite sides of an S-shaped diaphragm 4 extending longitudinally within the fitting and sub-dividing it into two noncommunicating compartments. As shown in Fig. 2, this diaphragm does not extend beyond the open end of the fitting but terminates flush therewith. The branches of the fitting are adapted to be connected, as by nipples 5 to the valve 6 of the hot water flow pipe 7 and to a return pipe 8. It will be noted that the intermediate portion of the diaphragm 4 is perpendicular to the plane occupied by the axes of the branches of the fitting so that as long as these branches are disposed in the same horizontal plane, the diaphragm will always have its intermediate portion extended vertically. As a result, as hot water passes through the fitting to the interior of the radiator, it will rise above the cooler water leaving the radiator through the fitting, thus insuring the discharge of the water through that branch of the fitting opening into the return pipe 8 without it mixing, to an objectionable extent, with the hot water entering the radiator through the other compartment within the fitting. This circulation is insured primarily because of the fact that the greater portion of the area of the compartment communicating with the return pipe is located below the center of the fitting whereas the greater portion of the area of the feed compartment of the fitting is located above the center of the fitting. The hot water will thus enter in a large stream above the outflowing current of cooler water and will rise promptly to the top of the radiator with but little interference.

It is to be understood that this device does not require the use of any particular form of valve or valve connection or any change in the construction of the radiator. It is to be applied to the usual type of radiator and to the ordinary tapping employed in con-

nection therewith, the branches of the fitting being connected to the ordinary valve, 6 and to the feed and return pipes commonly used. It will be apparent that, by employing a fitting such as described, the size of the radiator can be changed at will without requiring any change in the piping. The entire device is formed in but a single piece, and as the S-shaped diaphragm starts the hot water into the radiator in such position and transverse contour as to practically avoid the outflowing cooler current, it becomes unnecessary to extend the diaphragm or any other part into the radiator. While the same advantages cannot be gained by using this fitting for connecting the flow and return pipes to a single opening in a steam radiator, since the usual method of connecting steam radiators is to dispense with the return pipe and allow the condensed water to return to the boiler in the bottom of the same pipe in which the steam is conveyed to the radiator, the same fitting could be used if two pipe work should be desirable.

What is claimed is:—

1. A radiator fitting including branches, and an S-shaped diaphragm extending longitudinally within the fitting and forming noncommunicating compartments opening into the respective branches, one of said

compartments overhanging the other compartment throughout its length.

2. A radiator fitting including branches, a diaphragm extending longitudinally within the fitting and forming noncommunicating compartments opening into the respective branches, said diaphragm being S-shaped in cross sectional contour throughout its length, one of the compartments in the fitting overhanging the other compartment.

3. A fitting for radiators, including branches, a diaphragm straight from end to end and extending longitudinally within the fitting from one end thereof to a point between the branches, said diaphragm being S-shaped in cross sectional contour throughout its length and forming opposed similar compartments straight from end to end, one of the compartments overhanging the other compartment throughout its length irrespective of the position to which the diaphragm is rotated.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

EDWARD E. PARKER.

Witnesses:

EDWARD JOHNSON,  
JESSIE E. KEATING.