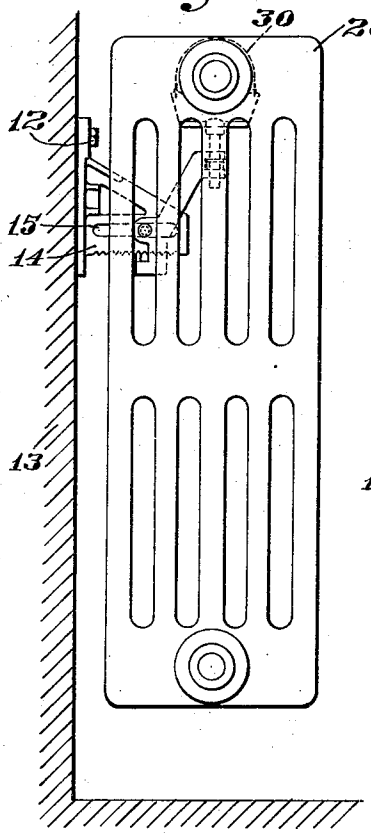
April 15, 1930. S. C. APPEL 1,755,093

RADIATOR BRACKET

Filed Jan. 24, 1929

Fig. 6.



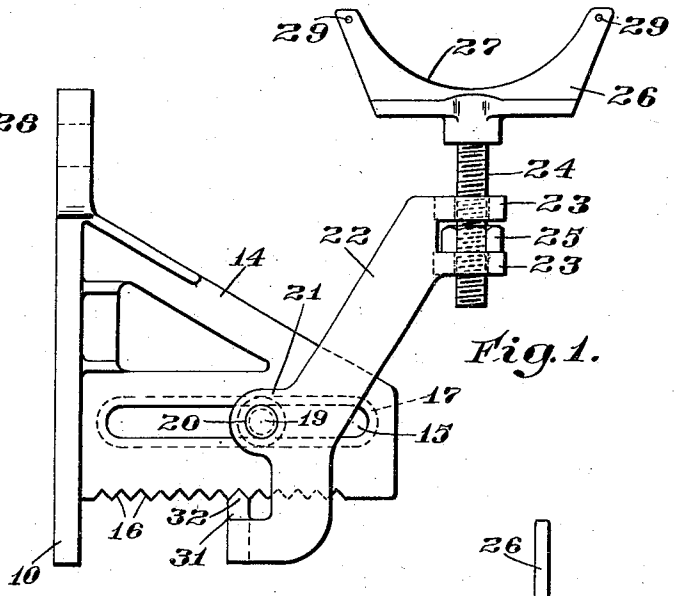


Fig. 1.

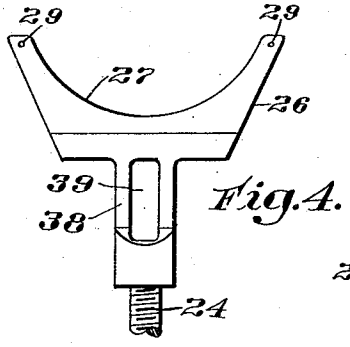


Fig. 4.

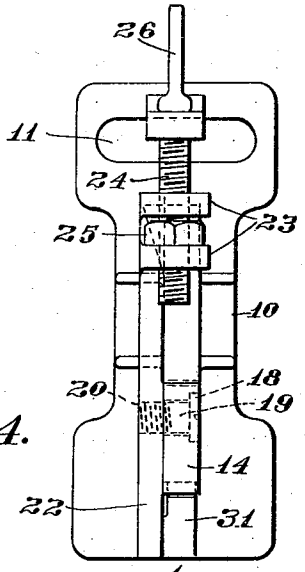
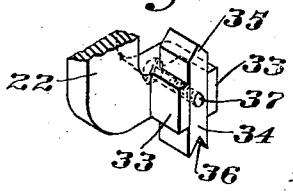


Fig. 2.

Fig. 5.



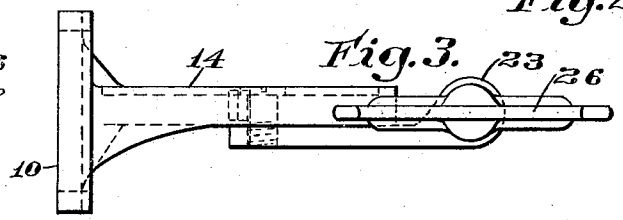


Fig. 3.

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UNITED STATES PATENT OFFICE

SAUL C. APPEL, OF MEDFORD, MASSACHUSETTS

RADIATOR BRACKET

Application filed January 24, 1929. Serial No. 334,615.

My present invention relates to supporting devices, and more particularly to an improved bracket for supporting legless tube radiators.

Heretofore as tube radiators were made in a plurality of different widths it has been necessary for the plumber or steamfitter to carry a different size radiator support for each different width of radiator, with the result that it tied up considerable capital and it was impossible to substitute one width radiator for another in any installation. Various attempts have been made to design a radiator support which will be universal and which will enable the plumber or steam-fitter to carry a minimum amount of stock. In my copending application, Serial No. 322,219, filed November 27, 1928, I have described and claimed a radiator bracket that has been found successful and the present invention is to be considered an improvement thereon.

In carrying out my invention I provide a plate portion adapted to be adjustably mounted on a wall or other support and which plate carries a laterally extending arm or bracket provided with a slot extending perpendicular to the wall and within said slot I arrange a pivot point for a supporting arm, means being associated with the slot and on the laterally extending portion for maintaining the supporting arm in any adjusted position. On the supporting arm and on the upper end thereof I provide an adjustable radiator supporting member and on which the radiator may be rested, such supporting member being provided with adjusting means for varying its height with respect to the supporting arm.

The object of my invention, therefore, is an improved radiator support.

In the accompanying drawings illustrating a preferred embodiment of my invention,

Fig. 1 is a side elevation;

Fig. 2 is a front elevation;

Fig. 3 is a plan view;

Fig. 4 is a detail view of a modification of the radiator supporting element;

Fig. 5 is an enlarged perspective view of a modified form of an adjusting device, and

Fig. 6 is an end elevation of the radiator shown supported on a wall by means of a bracket of my construction, the bracket being shown in side elevation.

Referring to the drawings, 10 designates a plate substantially rectangular in shape and provided at its upper end with an elongated transverse slot 11 and through which may pass a bolt 12 for adjustably securing the plate 10 to a wall 13 or other like support. Secured to or formed integral with the plate 10 and extending laterally outward therefrom and at one side thereof is a member 14, this member being provided with an elongated slot 15 extending substantially perpendicular to the plate 10. Below the slot 15 and on the lower edge of the laterally extending member 14 are a plurality of parallelly arranged serrations 16, these serrations being preferably cast.

The side of the laterally extending member 14 adjacent the slot 15 is cut away, as indicated at 17, to provide a recess for the head 18 of a screw 19, the body of such screw extending through the slot 15, and threading into a threaded hole 20 in a boss 21 formed integral with and intermediate the ends of a supporting arm 22. The screw 19, therefore, is employed to hold the arm 22 in association with the laterally extending member 14. The supporting arm 22 extends outwardly and upwardly with respect to the plate 10, as viewed in Fig. 1, and at its upper end is provided with a pair of enlarged portions 23 spaced apart from each other, these enlarged portions 23 being provided with alined perforations to receive a threaded member 24. Also, threaded on the member 24 is a nut 25 located, as will be apparent from an inspection of Figs. 1 and 2, between the enlarged portions 23 and such nut 25 acts as an adjusting device for the member 24. Secured to or formed integral with the member 24 and at the top thereof is a radiator supporting saddle 26, this saddle 26 being formed with a substantially semi-cylindrical seat 27 in its upper face to receive the upper rounded end or flanges between adjacent sections of a radiator 28. Preferably the upper ends of the arms forming the rounded portion 27 are drilled, as indicated at 29, to receive a bind-

ing wire 30, which assists in holding the radiator 28 temporarily in place under certain conditions to be hereinafter described. The lower end of the supporting arm 22 is provided with a laterally extending portion 31, the upper edge of such portion 31 being formed into a tooth 32 adapted to engage in the serrations 16 on the lower edge of the laterally extending member 14.

In utilizing my improved invention, the member 26 is adjusted outwardly from the wall 13 by the installer removing the screw 19 from the threaded hole 20, then moving the supporting arm 22 outwardly to bring the axis of the threaded member 24 in the right position with respect to the wall 13, this depending of course on the width of the radiator 28 being installed. The tooth 32 will now be in engagement with one of the serrations 16 and the installer will now reinsert the screw 19 in the threaded hole 20, locking the holding arm 22 in the position shown for example in Fig. 1.

The serrations 16 are preferably cast in the member 14 for reasons of economy and, therefore, such serrations are relatively large. It may sometimes happen, therefore, that with the member 31 it is not possible to accurately locate the vertical axis of the threaded member 24 with respect to the wall 13. For example, if the point 32 is in one of the serrations 16, the axis of the screw member 24 will be too far from the wall 13, while in the next succeeding serration 16 the axis of the threaded member 24 will be too close to the wall 16. Under such circumstances I have provided a means, shown in Fig. 5, to be associated with certain of the supporting arms 22 and in this device I have arranged the lower portion of the supporting arm 22 with a pair of laterally extending spaced members 33, in which is slidably mounted a member 34 provided at one end with a V end 35, and at the other end with a V notch 36. This member 34 is held in position on the arm 22 between the members 23 by a screw 37. The V end 35 is equivalent to the V end 32 on the laterally extending member 31, but if the graduation or adjustment to be obtained thereby is not fine enough, the operator will reverse the position of the member 34 in the arm 22, bringing the notched end 36 uppermost and therefore providing a graduation twice as fine as can be obtained by means of the V end 32 or the V end 35 alone. By utilizing the member 34, therefore, the V end 35 will fit in the serrations 16 and by using the V end 36 the ridge between serrations may be engaged.

Further, as it sometimes happens that the radiators 28 have their sections held together by a transverse rod, it may be that the form of saddle shown in Fig. 1 and indicated by 26, cannot be employed. Under such circumstances there is used a modified form of saddle, indicated in Fig. 4, with the hub of the saddle 26 being elongated, as indicated at 38, and this elongated end is provided with a slot 39 through which may pass the transverse rod of the radiator 28.

The above apparatus is utilized to support any screw nipple type of radiator and also may be used to support radiators provided with push nipples and held together with the usual two tie rods, the two tie rods lying one on each side of the screw member 24. When radiators with tie rods are used, the rods must necessarily be removed while hanging the radiator and can then be put in place after the radiator is in position on the bracket. Where a radiator in which a single rod is used is to be supported, the support shown in Fig. 4 is utilized, the rod in this case passing through the slot 39. On certain installations radiators having tie rods may have to be installed in a recess, which recess would prevent the putting of the tie rods in place in the radiator after such radiator is set on the bracket. To allow radiators to be installed under these conditions, it is necessary to tie the supporting saddle 26 to the radiator by passing a wire through the holes 29, as indicated in dotted line in Fig. 6. The adjusting nut 25 will then be placed on the screw member 24 and in the position to be above the enlarged members 23. The proper adjustment is first ascertained, the nut 25 properly placed on the threaded member 24, and the radiator with the supporting member 26 temporarily wired to it, the tie rods inserted in position in the radiator and the radiator is lifted onto the members 22, the bolts 24 passing through the perforations in the enlargements 23. After the radiator is set in place the temporary wiring 30 may be removed.

While I have necessarily shown the preferred embodiment of my invention somewhat in detail, it is to be understood that I may vary the size, shape, and arrangements of parts within wide limits without departing from the spirit of the invention.

Having thus described my invention, what I claim as new is:

1. In a device of the kind described, the combination of a base, a bracket member formed integrally therewith and extending laterally outward therefrom, said bracket member being provided with an elongated slot extending perpendicularly to the plane of the base, a plurality of parallelly arranged serrations formed in said bracket member and lying parallel to the slot, a supporting arm, means for associating said arm with the bracket, adjustable radiator supporting means mounted on the upper end of said arm, and means carried by the supporting arm and engaging with said serrations in the bracket to maintain the bracket in adjusted position.

2. In a device of the kind described, the combination of a base, a bracket formed integrally therewith and extending laterally outward therefrom, said bracket being provided with an elongated slot lying in a horizontal plane and perpendicular to the base, a plurality of parallelly arranged serrations formed at the lower edge of said bracket, a supporting arm, means for mounting said arm on said bracket in any position relative to the slot, means carried by said arm, and at the lower end thereof for engaging with the serrations on the bracket and to hold the supporting arm in adjusted position on the bracket, lugs formed at the upper end of said supporting arm, and a radiator supporting saddle adjustably mounted on said lugs.

3. In a device of the kind described, the combination of a base, a bracket formed integrally therewith and extending laterally outward therefrom, said bracket being provided with an elongated slot lying in a horizontal plane and perpendicular to the base, a plurality of parallelly arranged serrations formed at the lower edge of said bracket, a supporting arm, means for mounting said arm on said bracket in any position relative to the slot, means carried by said arm, and at the lower end thereof for engaging with the serrations on the bracket and to hold the supporting arm in adjusted position on the bracket, a pair of lugs formed at the upper end of said arm and spaced apart from each other, a radiator supporting saddle, a threaded member secured to said saddle and extending through perforations in the spaced lugs, and an adjusting nut screwed on said threaded member and lying between the pair of spaced lugs on the supporting arm.

In testimony whereof, I have signed my name to this specification.

SAUL C. APPEL.