March 3, 1931. J. C. FRANK 1,794,949

RADIATOR SUPPORT

Filed May 6, 1929

Fig. 1

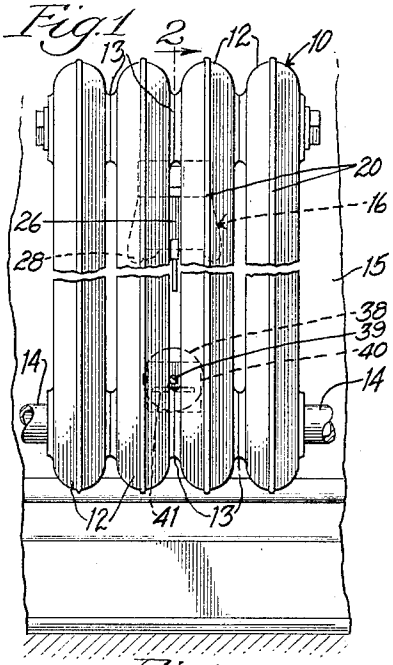


Fig. 2

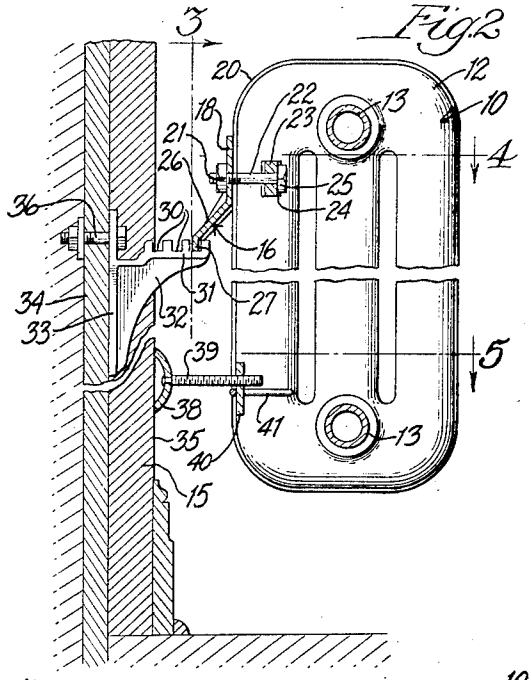


Fig. 3

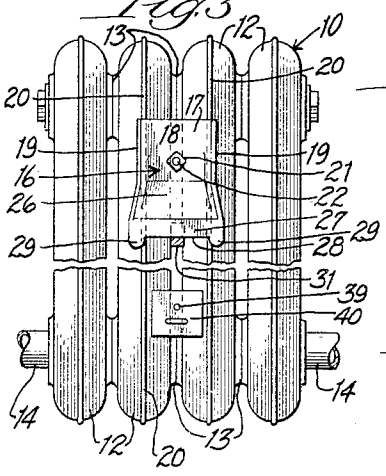


Fig. 4

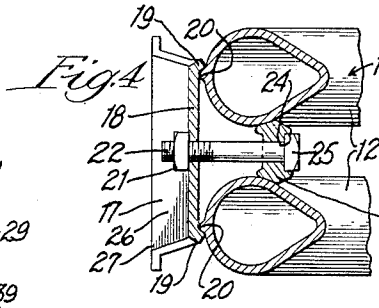


Fig. 5

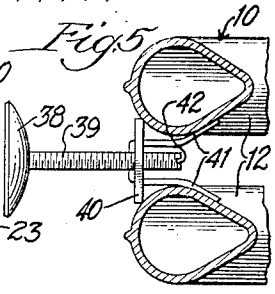


Fig. 6

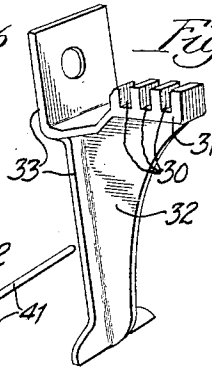


Fig. 7

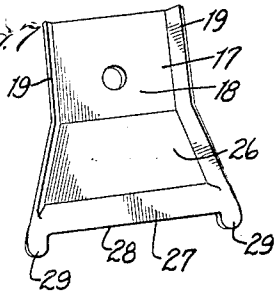
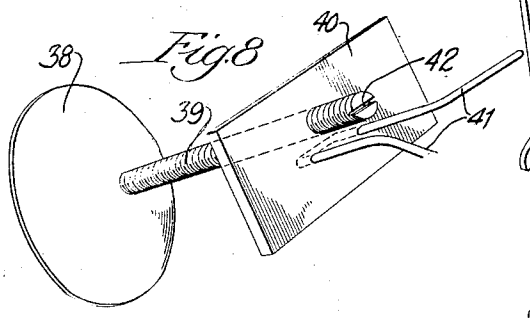


Fig. 8



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Patented Mar. 3, 1931 1,794,949

UNITED STATES PATENT OFFICE

JOHN C. FRANK, OF CHICAGO, ILLINOIS

RADIATOR SUPPORT

Application filed May 6, 1929. Serial No. 360,796.

This invention relates to a support for radiators, and the like, which is particularly adapted for supporting radiators on the vertical walls of buildings.

The primary object is to provide an improved radiator support of the character mentioned, by means of which the radiator may be supported any desired distance, within the operating limits, from the wall.

Figure 1 is a front elevational view of a radiator secured to a wall by a support embodying the invention.

Fig. 2 is a longitudinal sectional view taken on line 2—2 of Fig. 1.

Fig. 3 is a rear view taken on line 3—3 of Fig. 2.

Fig. 4 is a transverse sectional view taken on line 4—4 of Fig. 2.

Fig. 5 is a transverse sectional view taken on line 5—5 of Fig. 2.

Fig. 6 is a perspective view of the notched wall bracket.

Fig. 7 is a perspective view of the bracket which is secured to the radiator and which engages the wall bracket.

Fig. 8 is a perspective view of the support for the lower end of the radiator.

In the embodiment illustrated, 10 designates a heating type of radiator of a form commonly used in steam, vapor and hot-water heating systems, being made up of a number of similar hollow sections 12 secured together and in communication with each other, at the points indicated at 13, at the top and bottom, so that the heating medium flowing into the radiator 10 from one or more pipes 14 may freely circulate from one section to the other. Except at the points 13, these sections 12 are spaced apart, as shown in the drawings.

The radiator 10 is shown supported on a wall 15 by means of the support of this invention, the support being indicated, as a whole, at 16.

The support 16 includes a bracket 17 formed with a flat portion 18 provided with a flange 19 on each of its sides to cause it to fit over the sharpened or beaded edges 20 of two adjacent sections 12 of the radiator, in the manner shown in Fig. 4. The bracket 17 is held in place by means of a nut 21 carried by a bolt 22 which passes through an aperture in the portion 18 of the bracket 17. The bolt 22 is secured to the radiator by means of a wedge 23 which is provided with an aperture through which the bolt 22 passes and a groove 24 which receives the squared or faceted head 25 of the bolt 22, whereby the latter is prevented from turning. The wedge 23 is sufficiently thin that it may be passed between the sections 12 of the radiator, but it is of sufficient width to wedge between the sections in the manner shown in Fig. 4.

The bracket 17 is provided with an outwardly and downwardly projecting offset portion 26 from below which projects a portion 27. The bottom edge 28 of the portion 27 is substantially straight. A pair of downwardly projecting ears 29 is formed at the sides of the portion 27, the ears 29 projecting below the edge 28.

The edge 28 is adapted to rest in one of a series of notches 30 which are provided in the upper surface of an arm 31 of a bracket 32. The bracket 32 is provided with a vertical rear wall 33 adapted to rest against the rough wall 34 which is ordinarily spaced some distance from the finished outer surface 35 of the wall 15 of the building. The bracket 32 may be secured to the rough wall 34 by means of a bolt 36. However, it is to be understood that the bracket 32 may be secured to the wall merely by embedding it therein, or in any other suitable manner. In either case, the notched arm 31 projects beyond the surface of the wall, as shown in Fig. 2.

To mount the radiator 10 upon the wall, it is only necessary to lift it to the desired position and engage the lower edge 28 of the bracket 17, carried by the radiator, with one of the notches 30 in the arm 31 of the bracket 32 secured to the wall 15. The radiator may be set at varying distances from the wall depending upon what particular notch 30 the bracket is brought into engagement.

While it will be noted that I have illustrated a radiator hung by only one of my supporting means, it is to be understood that

any number of such supporting means may be employed, depending, of course, upon the length and width of the radiator.

In order to prevent the lower end of the radiator from swinging towards the wall, I have provided the following structure. A circular plate 38 has rotatably secured to it a threaded rod 39, the end of the rod 39 engaging a centrally disposed aperture formed in the plate 38. The threaded rod 39 and the plate 38 are adjustably secured to the radiator by means of a rectangular plate 40 which is adapted to be detachably mounted upon the lower portion of the radiator, the threads on the rod 39 engaging a threaded aperture formed in the plate 40. The rod 39 and the plate 38 are thus so supported that the plate 38 will rest against the wall 15 in the manner shown in Fig. 2. The plate 40 is provided with a pair of protruding spaced spring wires 41, the outer ends of which are flared outwardly, whereby the flared ends of the wires 41 may be passed between a pair of sections 12 and then turned a quarter of a revolution to cause the flared ends of the spring wires 41 to engage the inner surfaces of the adjacent sections 12, the spring action of the wires drawing the plate 40 into the desired wedged position between the adjacent sections 12 as shown in Fig. 5.

Thus, when it is desired to adjust the lower support in order to move the radiator 10 into vertical alinement, after the radiator has been roughly set into place, the rod 39 may be screwed into or out of the plate 40. This adjustment may be easily accomplished by passing a screw-driver between the radiator sections and engaging it with the slot 42 in the end of the threaded rod 39.

From the foregoing detailed description, it will be seen that this particular structure or assembly provides a simple and secure supporting means for mounting a radiator upon a vertical wall, which supporting means is adapted to permit the radiator to be hung at varying distances from the wall.

The foregoing detailed description has been given for clearness of understanding only and no unnecessary limitations should be understood therefrom, but the appended claims should be construed as broadly as possible, in view of the prior art.

What I claim as new, and desire to secure by Letters Patent, is:

1. In apparatus of the character set forth, the combination of means for supporting a radiator built up of spaced sections, upon a vertical wall, said supporting means being secured to the upper portion of said radiator, and adjustable means secured to the lower portion of the radiator for holding the radiator a predetermined distance from the wall, said adjustable means comprising a plate adapted to contact a pair of sections of said radiator, said plate being provided with a pair of spaced spring elements having outwardly flared free ends, the ends of said spring elements being adapted to protrude between and engage opposed surfaces of a pair of adjacent sections of the radiator, whereby the said plate is retained in contact with said radiator, and supporting means carried by said plate and contacting the wall.

2. In apparatus of the class set forth, the combination of means for supporting a radiator, built up of spaced sections, upon a vertical wall, said supporting means being secured to the upper portion of said radiator, and an adjustable means secured to the lower portion of the radiator for holding the radiator a predetermined distance from the wall, said adjustable means comprising a plate adapted to be wedged between the outer surfaces of two adjacent sections of the radiator, said plate being provided with a pair of spaced protruding spring elements having free ends adapted to extend between the said adjacent radiator sections, said spaced spring elements having their ends outwardly flared to engage the inner surfaces of the said adjacent radiator sections, whereby the said plate is secured in wedged position between said adjacent radiator sections, and an adjustable supporting means carried by said plate and contacting the wall.

In testimony whereof, I have hereunto set my hand this 27th day of April, 1929.

JOHN C. FRANK.