Sept. 27, 1932. DE WITT C. RUFF, 2D 1,879,519

RADIATOR HANGER

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Fig. 3

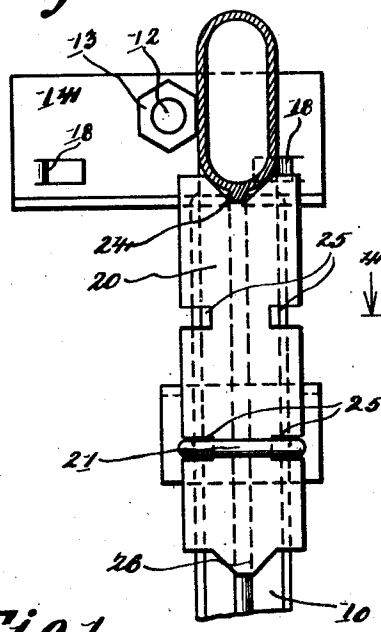


Fig. 2

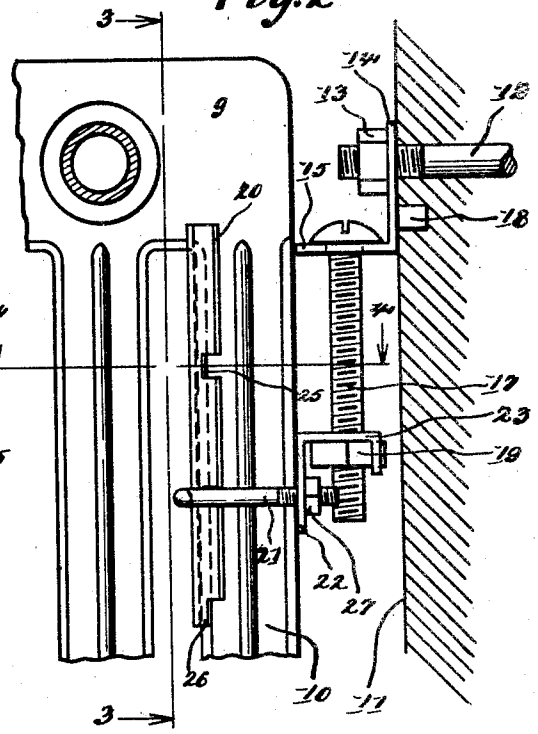


Fig. 1

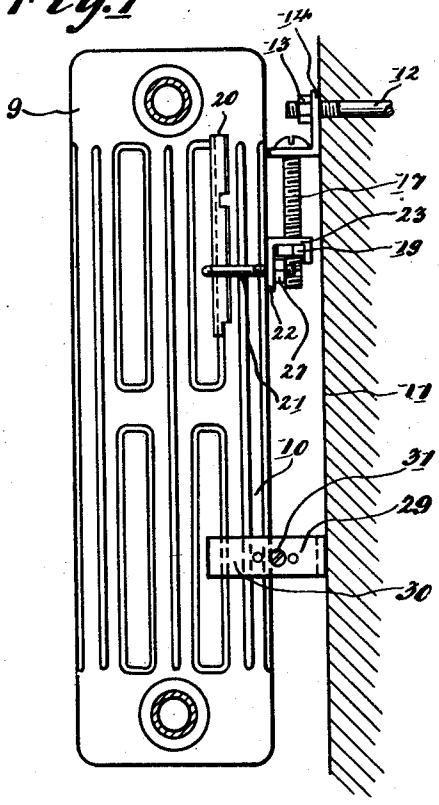
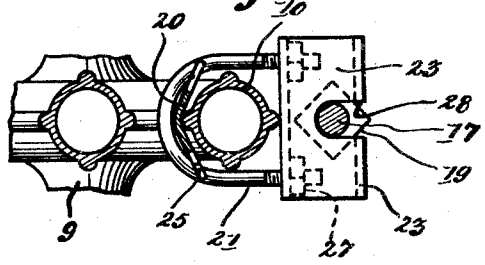


Fig. 4



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RADIATOR HANGER

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Fig.5

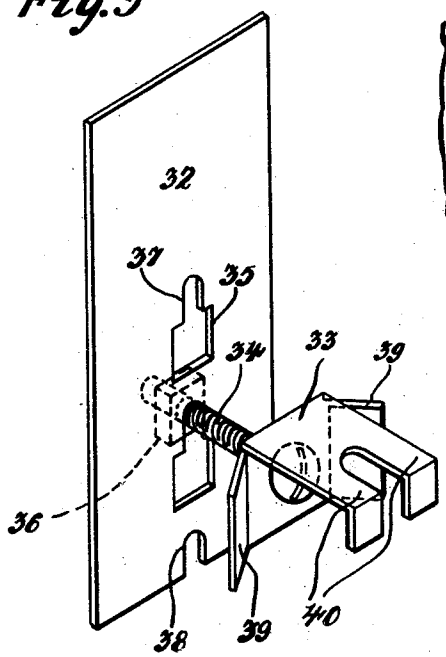


Fig.6

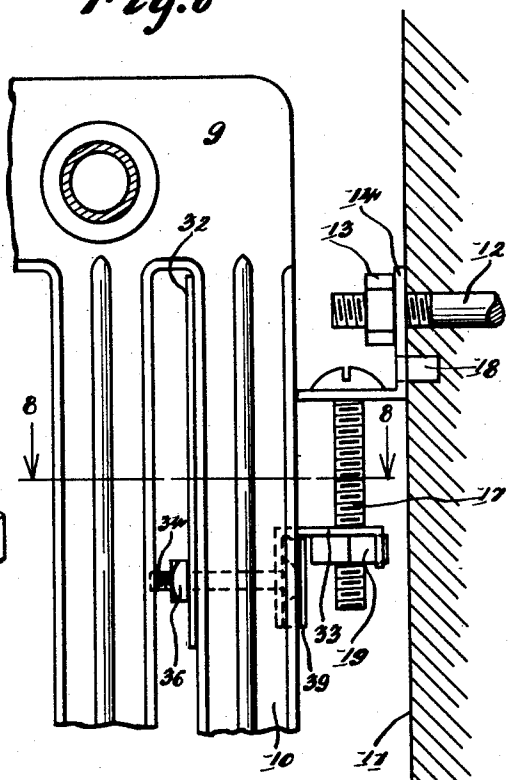


Fig.7

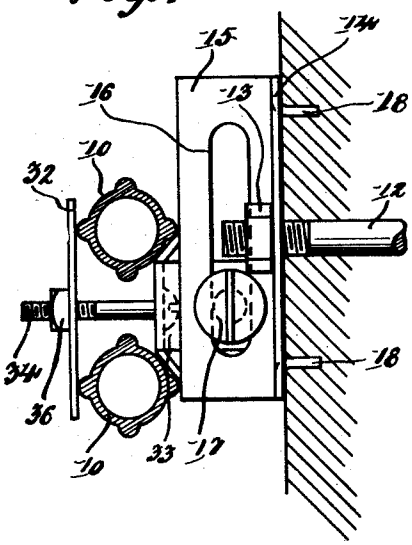
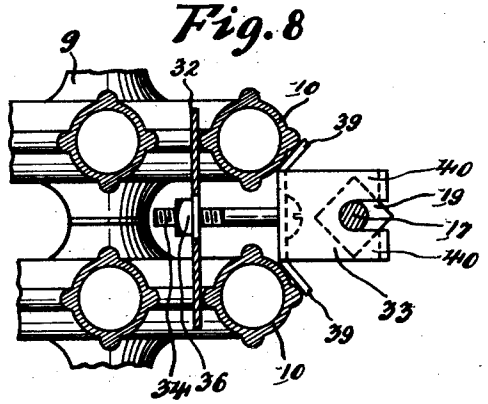


Fig.8



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UNITED STATES PATENT OFFICE

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RADIATOR HANGER

Application filed February 11, 1931. Serial No. 515,012.

It is my object to provide a novel and inexpensive hanger particularly, although not exclusively, adapted to facilitate the hanging of modern radiators of the multiple column type.

Radiators of this type are manufactured in widely varying widths, frequently having as many as eight rows of tubes in each section, the horizontal members or nipples connecting sections are located at widely varying distances from the back or wall side and each tube or column is relatively small in cross section as compared with the radiators of the older type. It will be evident that the hangers for such radiators, to avoid a wide range of adjustment, must engage a portion of the radiator which is located at substantially the same distance from the back or wall side in the radiators of various sizes. The device of the present invention has separate groups of elements adapted to be secured to the wall and to the radiator respectively, before the radiator is hung on the wall. By this arrangement, I make it possible to engage the radiator by elements which are practically concealed when in use, being located on portions of the radiator which are inaccessible after the radiator has been hung on the wall.

The invention will be best understood by reference to the accompanying drawings in which:

Figure 1 is a side elevation of one of my improved hangers attached to a radiator section and mounted on a wall;

Fig. 2 is an enlarged side elevation showing details of construction;

Fig. 3 is a vertical section taken on the line 3—3 of Fig. 2;

Fig. 4 is a horizontal section taken on the line 4—4 of Fig. 2;

Fig. 5 is a perspective view showing an alternate arrangement of the elements for separate attachment to the radiator;

Fig. 6 is a side elevation showing the alternate form attachment, radiator and support therefor;

Fig. 7 is a plan view of the alternate form of hanger with the adjacent portions of the wall and radiator tubes shown in horizontal section; and

Fig. 8 is a horizontal section taken on the line 8—8 of Fig. 6.

In the drawings, the numeral 9 indicates sections of a typical radiator of the multiple column type having series of vertical tubes. My improved radiator hanger is designed to engage one or more of the tubes 10 of the radiator which are located adjacent to the wall 11. An anchor bolt 12, of any suitable or common type, projects from the wall and has a nut 13 thereon to fasten a wall-engaging member 14 to the wall. A horizontal flange 15 projects along the lower edge of the wall-engaging member and is formed with an elongated slot 16 (Fig. 7) to adjustably receive a vertical bolt 17. Inwardly struck lugs 18 on the member 14 are provided to be embedded in the wall for preventing tilting of said member. The outer edge of the flange 15 is arranged to engage two or more of the tubes 10 of the radiator and the bolt 17 is threaded to receive a nut 19.

The elements of the hanger above described, including the anchor bolt 12, member 14, bolt 17 and nut 19, constitute a group designed to be secured to the wall before the radiator is hung thereon, and the same or similar elements are employed for both the preferred and alternate forms of the invention. A second group of elements is designed to be separately secured to the radiator. The preferred form of this second group, illustrated in Figs. 1 to 4 inclusive, comprises a plate 20, U-shaped bolt 21 and claw member 22, having a pair of fingers 23 adapted to engage the nut 19 and spaced apart to receive the bolt 17 between them. The upper end of the plate 20 is formed with a seat 24 for the radiator and the side edges of said plate have pairs of openings 25 therein to receive the bolt 21. At its lower end the plate 20 has a central projection 26 adapted to be gripped by the U-bolt 21 in cases where the maximum elevation of the radiator is desired. The claw member 22 is perforated to receive threaded ends of the bolt 21 and nuts 27 are placed on said ends to removably secure the member 22 to the radiator.

As best shown in Fig. 4, the space 28 be-

tween the fingers 23 is open toward the wall so that said fingers may be passed freely on opposite sides of the bolt 17 above the nut 19. The inner ends of the fingers 23 are bent downward to engage behind the nut 19, as shown in Figs. 1 and 2. To space the lower end of the radiator from the wall 11, a U-shaped spacer 29, having parallel ends 30, is retained in gripping engagement with a tube 10 by a bolt 31.

In the alternate form of the device shown in Figs. 5, 6, 7 and 8, the radiator is seated on the upper end of a rigid plate 32 and a pair of radiator tubes 10 are gripped between said plate and a claw member 33, a single, horizontally disposed, bolt 34 extending between two of the tubes 10 to connect said plate and claw member in clamping engagement with said tubes. A series of vertically spaced openings in the plate 32 have square portions 35 to allow the passage of a nut 36 on the bolt 34 and more restricted portions 37 to receive said bolt. An opening 38 in the lower edge of the plate 32 is provided to receive the bolt 34 in one of its positions. Wings 39 project from the side edges of the claw member 33 to engage a pair of the tubes 10 and said claw member is formed with spaced fingers 40, similar to the fingers 23 of the preferred construction, to engage the nut 19 on the bolt 17.

In use, the bolt 17 is suspended from the flange 15, as hereinbefore described, and the nut 19 is placed on the lower end of the bolt. Approximately the desired height of the radiator may be determined, with the device of the preferred construction, by placing the U-bolt in engagement with the plate 20 either at its lower end or in a suitable pair of openings 25. Now the plate 20 and U-bolt may be passed between sections of the radiator so as to embrace one of the tubes 10 and bring the plate 20 to the outer periphery or side of said tube. The claw member 22 is now placed in engagement with the inner or back periphery of the tube 10 and the parallel ends of the U-bolt 21 are passed through the openings in the plate 22 and secured therein by applying the nuts 27. Before tightening these nuts, the plate 20 is moved up on the radiator so as to bring the seat 24 in engagement therewith. The nuts 27 are then tightened to secure the claw member to the radiator, with the fingers 23 in horizontally spaced relation to each other. The spacer 29, or other suitable spring device, is secured to one of the tubes 10 and then the radiator is lifted and hung on the bolt 17 after passing the fingers 23 on opposite sides of the bolt 17 and lowering the radiator to cause the downwardly extending ends of the fingers 23 to engage behind the nut 19. The final or accurate adjustment of the height of the radiator may now be made by turning the head of the bolt 17. Obviously, when the head of the bolt 17 is turned, the nut 19 is raised or lowered (depending on the direction of rotation) together with the radiator. Two or more of the hangers may be employed in like manner to hang the longer radiators.

A similar procedure is followed in installing a radiator by the use of the device of the alternate form shown in Figs. 5 to 8 inclusive. Thus, the plate 32 is inserted adjacent to the outer side of a pair of the tubes 10 and the bolt 34, with the nut 36 thereon, is passed between said tubes, through one of the openings 35 or up from the bottom of the plate 32, so as to engage the plate 32 at the sides of the openings 37 or 38, the approximate height of the radiator being determined by the selection of an opening in the plate 32 at the desired height. The bolt 34 is now tightened to clamp a pair of the tubes 10 between the wings 39 of the claw member 33 and plate 32. Finally the radiator is hung by passing the fingers 40 into engagement behind the nut 19. Accurate adjustment of the height is secured by turning the bolt 17.

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

1. A radiator hanger having in combination a substantially vertical bolt, means for suspending said bolt from a wall, a vertically adjustable nut on said bolt, a radiator-engaging member formed with hook-like fingers to receive said bolt between them and to removably engages said nut and a U-shaped, horizontally disposed, bolt formed to embrace a tube of a radiator and to clamp the same against said radiator-engaging member.

2. A radiator hanger having in combination a substantially vertical bolt, means for suspending said bolt from a wall, a vertically adjustable nut on said bolt, a radiator-engaging member formed with hook-like fingers to receive said bolt between them and to removably engage said nut, a plate engaging an outer surface of a radiator tube and a horizontally disposed bolt adapted to pass between tubes of a radiator and to clamp the same against said radiator-engaging member.

3. A radiator hanger having in combination a substantially vertical bolt, means for suspending said bolt from a wall, a radiator supporting member vertically adjustable on said bolt, a claw member slotted to receive said bolt and formed to removably engage said supporting member, a plate formed with a long contact surface for a radiator tube and having a radiator seat at its upper edge and means for rigidly connecting said plate and claw member together in clamping engagement with a tube of a radiator.

4. A radiator hanger having in combination a wall-engaging member formed with a horizontally disposed flange, said flange having an elongated slot to receive a bolt, a vertically disposed bolt suspended from said

flange in said slot, a nut adjustable on said bolt, a claw member formed with fingers extending toward the wall, said fingers being spaced apart to receive said bolt between them and having down bent ends to engage said nut, a substantially vertically disposed plate having a radiator seat on its upper edge, said plate being perforated to receive a bolt and a substantially horizontal bolt connecting said plate and claw member for gripping a tube of the radiator between said plate and member.

5. A radiator hanger having in combination a wall-engaging member formed with a horizontally disposed flange, said flange having an elongated slot to receive a bolt, a vertically disposed bolt suspended from said flange in said slot, a nut adjustable on said bolt, a claw member having fingers extending toward the wall and spaced apart to receive said bolt between them, a plate for engagement with a radiator tube, said plate having a series of vertically spaced openings therein to selectively receive a bolt, a radiator seat at the upper end of said plate, and a substantially horizontal bolt connecting said plate and claw member for clamping a tube of the radiator between said plate and member, said plate, horizontal bolt and claw member being attachable to the radiator independently of said wall-engaging member and vertical bolt.

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

DE WITT C. RUFF, 2D.