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(54) Monting assembly

(57) A mounting assembly (10) for mounting a radiator (12) on a wall (14), the assembly (10) comprising of a first part (16) mountable on the wall (14) and a second part (22) engageable with the radiator (12), the second part (22) being movable between a first position for holding the radiator (12) on the wall (14), and a second position clear of the radiator (12) such that the radiator (12) is movable away from the wall (14).

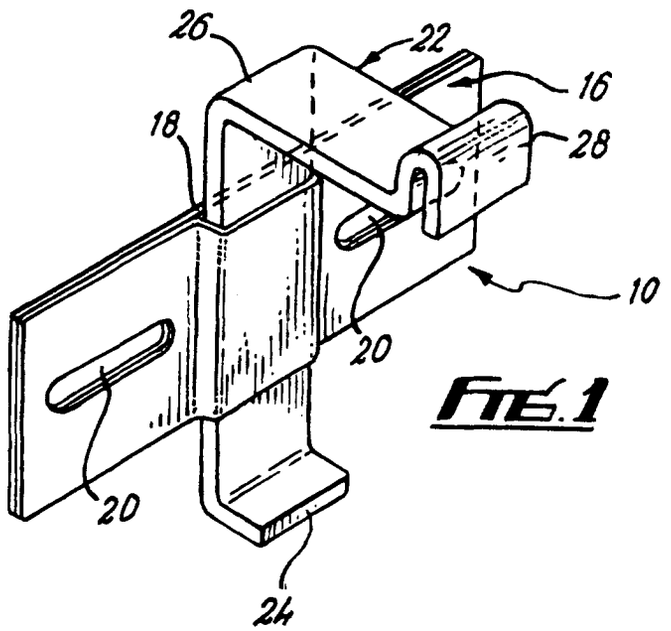

FIG. 1

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Description

[0001] This invention concerns a mounting assembly, and particularly but not exclusively an assembly for mounting central heating radiators on a wall.

[0002] With a conventional mounting of a central heating radiator, a plurality of brackets are provided on the rear side of the radiator with each bracket defining an upwardly extending channel. Wall mounted brackets are also provided each with an upstanding projection locatable in a respective channel to hold the radiator on the wall. To remove the radiator from the wall the inlet and outlet connections require total disconnection, and the radiator can then be lifted upwardly such that the channels are clear from the projections.

[0003] Systems have been devised whereby central heating radiators can be pivoted about the inlet and outlet connections away from the wall, for instance to allow decoration. The arrangements for mounting the radiator when upright on the wall have not always however proved satisfactory.

[0004] According to the present invention there is provided a mounting assembly for mounting a radiator on a wall, the assembly comprising a first part mountable on the wall and a second part movable relative to the first part; the second part being: engageable with the first part, engageable in a first position with a radiator to hold same on the wall, and movable to a second position clear of the radiator such that the radiator can be moved away from the wall.

[0005] The second part is preferably restrainably movable relative to the first part. The assembly may be arranged such that if free, to the second part will automatically move in use to the first position, and desirably by gravity.

[0006] The second part may be slidably movable relative to the first part, and the first part may define a channel through which the second part is slidably movable. The second part may be such that it cannot fully slide out of the channel in one or may be both directions. Projections or other formations which cannot pass through the channel may be provided towards one or both ends of the second part. The channel in use, is preferably aligned substantially vertically.

[0007] A formation may be provided on the second part engageable with a radiator, and desirably engageable with a mounting bracket on the radiator. The formation may have a substantially "n" shaped cross-section. The formation is preferably provided on an in use upper part of the second part.

[0008] The first part may be provided with one or more mounting holes. The first part may comprise two members connected together at end portions but spaced apart part way therealong to define the channel.

[0009] The second part may comprise an elongate member with the engaging formation at one end, the elongate member being bent at a point spaced from the engaging formation to provide the correct spacing of the radiator from the wall. The second part is preferably bent through substantially 90°. The elongate member may initially be supplied unbent such that the bend can be provided at a required distance from the engaging formation for particular locations. A formation which may comprise a further bend, is preferably provided towards the other end of the elongate member to prevent removal thereof from the passage.

[0010] Means may be provided for releasably locking the second part in the first position. The locking means may comprise a locking member movable, and desirably slidably, between a locked and an unlocked position.

[0011] The locking means may be arranged such that in the locked position the locking member is located on the opposite side of the second part from the channel to prevent the second part being slid outwardly from the channel.

[0012] The locking means may comprise a mounting member extending from the first part which movably mounts the locking member. A slot may be provided in the locking member through which extends a screw or other fastening means engaging with the mounting member.

[0013] An abutment member may be provided on the first part which extends on the opposite side of the locking member to the channel at least when said member is in a locked position, to substantially prevent movement of the locking member away from the channel.

[0014] The first part may comprise two members, with a forward one such member locatable towards a radiator in use, with the other rearward member therebehind. The rearward member preferably provides the mounting member and/or the abutment member.

[0015] The rearward member is preferably substantially planar except the mounting member and/or the abutment member, and the mounting member and/or the abutment member desirably extend substantially perpendicularly from the rearward member. The forward member may be shaped to define the channel in cooperation with the rearward member.

[0016] Preferably a plurality of assemblies are provided for each radiator.

[0017] The assembly may comprise a marking member engageable on a radiator such that when the radiator is located in a required position relative to a wall, the marking member marks the wall to indicate where the first part of the assembly should be mounted. The marking member may comprise a part engageable with a radiator and one or more pointed members extending therefrom to mark the wall.

[0018] Embodiments of the present invention will now be described by way of example only and with reference to the accompanying drawings, in which:-

Fig. 1 is a perspective diagrammatic view of part of a first mounting assembly according to the invention;

Fig. 2 is a diagrammatic side view of the assembly shown in Fig. 1 in use;

Fig. 3 is a diagrammatic rear perspective view of the assembly in the condition shown in Fig. 2;

Fig. 4 is a diagrammatic perspective front view of the assembly of Fig. 1 in a further condition;

Fig. 5 is a diagrammatic perspective view of a further part of the assembly of Fig. 1;

Fig. 6 is a perspective view of a similar part to that shown in Fig. 1 of a second mounting assembly according to the invention; and

Fig. 7 is an exploded view of the components of the parts shown in Fig. 6.

[0019] Figs. 1 to 5 of the drawings show a mounting assembly for mounting a radiator 12 on a wall 14 such that the radiator 12 can be pivoted away from the wall 14 to permit decorating and the like. The assembly 10 comprises a first part 16. The part 16 comprises two strips connected together one on top of each other at each end thereof but with a central portion where one strip is spaced from the other to define a rectangular section channel 18. Longitudinal mounting slots 20 are provided towards each end of the part 16.

[0020] The assembly 10 also comprises a second part 22 which is formed of a strip of material of a size to slidingly fit through the channel 18. A lower end 24 is turned through 90° and is of such a size that it cannot pass through the channel 18. A right angle bend 26 is provided part way along the part 22 and prevents the upper end thereof from passing through the channel 18. The upper end of the part 22 is turned through two bends to define a susbtantially "n" shaped cross-section formation 28.

[0021] Radiators 12 are conventionally provided with mounting brackets 30 on their rear facing sides. The brackets 30 are usually in the form of strips whose end parts are mounted to the radiator with a central portion bent away from the radiator to define a channel 32. The radiator 12 shown in the drawings is fitted with valves 34 which permit pivoting thereof relative to the wall 14.

[0022] In use, the first part 16 will be mounted to the wall 14 in a required position by screws extending through the slots 20. With the radiator 12 in an upright position the formation 28 engages into the channel 32 to hold the radiator 12 upright. To pivot the radiator 12 away from the wall 14 any required adjustments are first made to the valves 34. The second part 22 is then pulled upwardly to release the formation 28 from the channel 32 and therefore allow the radiator 12 to pivot. When the radiator is returned to an upright position the formation 28 can be replaced in the channel 32 and will fall thereinto under gravity.

[0023] Fig. 5 shows a marking member 36. The member 36 comprises a bent strip 38 which defines a lip engageable in the channel 32. Extending from the other end of the strip 38 is a spacer bar 40 from which extend two pointed fingers 42. The member 36 is used to mount the first part 16 on the wall 14 in the correct position. This is done by fitting the lip of the strip 38 in the channel 13 and pivoting the radiator 12 upwardly until the fingers 42 engage the wall 14 thereby marking it, to indicate where screws should be inserted to mount the first part 16.

[0024] Figs. 6 and 7 show an assembly 50 which is similar to the assembly 10 except as detailed below. The first part 52 again comprises two strips connected together but in this instance the mounting slots 54 extend vertically. The second part 56 is substantially identical to the second part 22.

[0025] A mounting projection 58 extends outwardly from the rearward strip 60 of the first part 52. A substantially vertically aligned threaded hole 62 is provided through the projection 58, and in which a mounting screw 64 is engageable. An abutment projection 66 is also provided extending outwardly from the rearward strip. The projections 58,66 are arranged to extend one on either side of the channel 68, and with the abutment projection 66 spaced a little above the projection 58.

[0026] The assembly 50 also comprises a locking member 70 in the form of a strip with a longitudinal slot 72, and an upturned end 74. The locking member 70 is mounted on the projection 58 with the screw 64 extending through the slot 72. The locking member 70 fits selectively beneath the abutment projection 66.

[0027] In use the assembly 50 can be fitted in a similar manner to the assembly 10. During fitting the locking member 70 will be clear of the abutment member 66 with the screw 64 engaging through the slot 72 at or near the end thereof spaced from the end 74.

[0028] Once the assembly 60 is firmly fitted on a radiator, with the screw 64 loosened the locking member 70 is slid towards and under the abutment member 66 until the screw 64 reaches the end of the slot 72 adjacent the upturned end 74. The screw 64 is now tightened to hold the locking member 70 in position. This therefore locks the assembly 50 in position to prevent unauthorised or inadvertant removal of the radiator from the assembly 50.

[0029] The assembly 50 may be formed with the two strips of the first part 52 bonded together, or the assembly 50 may be supplied as individual components as shown in Fig. 7, with the mounting of the first part 52 clamping together the two strips thereof.

[0030] Locking means other than the sliding locking member could be provided. For example, a rotatable locking member could be used. Different means could be provided for locking the sliding or other locking member in position.

[0031] There are thus described mounting assemblies for a pivotal radiator which permit the radiator to

be mounted on a wall and also subsequently pivoted relative thereto, without the requirement for any special tools. The assemblies are of relatively straightforward construction and can thus be inexpensively and robustly manufactured. The bend may not be provided in the second part when provided, so that this bend can be formed therein at a required position for each specific location.

[0032] Various other modifications may be made without departing from the scope of the invention. For example, the second part could engage differently with the radiator and could engage with a different part thereof. For example, the second part could engage with the top or side of the radiator. The second part could be spring urged into position to engage with a radiator. The first part may be differently formed and may be mountable on a wall at different points and/or by different means.

[0033] Whilst endeavouring in the foregoing specification to draw attention to those features of the invention believed to be of particular importance it should be understood that the Applicant claims protection in respect of any patentable feature or combination of features hereinbefore referred to and/or shown in the drawings whether or not particular emphasis has been placed thereon.

Claims

1. A mounting assembly (10, 50) for mounting a radiator (12) on a wall (14), the assembly (10) comprising a first part (16, 52) mountable on the wall (14) and a second part (22) movable relative to the first part (16) characterised in that the second part (22) is engageable with the first part (16, 52), engageable in a first position with a radiator (12) to hold same on the wall (14), and movable to a second position clear of the radiator (12) such that the radiator (12) can be moved away from the wall (14).

2. A mounting assembly according to claim 1, characterised in that the second part (22) is restrainably movable relative to the first part (16, 52).

3. A mounting assembly according to claim 2, characterised in that the assembly (10) is arranged such that if free, the second part (22) will automatically move in use to the first position, and desirably by gravity.

4. A mounting assembly according to any of the preceding claims, characterised in that the second part (22) is slidably movable relative to the first part (16, 52) and the first part (16, 52) may define a channel (18) through which the second part (22) is slidably movable.

5. A mounting assembly according to claim 4, characterised in that the second part (22) is such that it cannot fully slide out of the channel (18) in one direction and/or both directions.

6. A mounting assembly according to claims 5, characterised in that projections or other formations (24, 28) which cannot pass through the channel (18) are provided towards one or both ends of the second part.

7. A mounting assembly according to any of claims 4 to 6, wherein the channel (18) in use, is aligned substantially vertically.

8. A mounting assembly according to any of the preceding claims, characterised in that a formation (28) is provided on the second part (22) engageable with a radiator (12) which formation (28) may be engageable with a mounting bracket (30) on the radiator (12).

9. A mounting assembly according to claim 8, characterised in that the formation (28) has a substantially "n" shaped cross-section, and may be provided on an in use upper part of the second part (22).

10. A mounting assembly according to any of the preceding claims, characterised in that the first part (16, 52) is provided with one or more mounting holes (20).

11. A mounting assembly according to claim 4 or any of claims 5 to 10 when dependent on claim 4, characterised in that the first part (16, 52) comprises two members connected together at end portions but spaced apart part way therealong to define the channel (18).

12. A mounting assembly according to claim 8 or any of claims 9 to 11 when dependent on claim 8, characterised in that the second part (22) comprises an elongate member with the engaging formation (28) at one end, the elongate member being bent at a point spaced from the engaging formation (28) to provide the correct spacing of the radiator (12) from the wall (14), the second part (22) may be bent through substantially 90° (24).

13. A mounting assembly according to claim 12, characterised in that the elongate member is initially supplied unbent such that the bend (26) can be provided at a required distance from the engaging formation (28) for particular locations, and the formation (28) may comprise a further bend, is provided towards the other end of the elongate member to prevent removal thereof from the channel.

14. A mounting assembly according to any of the preceding claims, characterised in that means are pro-

vided for releasably locking the second part (22) in the first position, the locking means may be slidably movable between a locked and an unlocked position and may comprise a locking member (70) movable between a locked and an unlocked position.

15. A mounting assembly according to claim 14 when dependent on claim 4 or when dependent on any of claims 5 to 13 when also dependent on claim 4, characterised in that the locking means is arranged such that in the locked position the locking member (70) is located on the opposite side of the second part (22) from the channel (18) to prevent the second part (22) being slid outwardly from the channel (18).

16. A mounting assembly according to any of claims 14 or 13, characterised in that the locking means comprises a mounting member extending from the first part (16), and desirably the mounting member movably mounts the locking member (70).

17. A mounting assembly according to claim 16, characterised in that a slot (62) is provided in the locking member (70) through which extends a screw (64) or other fastening means engaging with the mounting member.

18. A mounting assembly according to claim 4 or any of claims 14 to 17 when dependent on claim 4 or when dependent on any of claims 5 to 13 when also dependent on claim 4, characterised in that an abutment member (66) is provided on the first part (16, 52) which extends on the opposite side of the locking member (70) to the channel (18) at least when said member (66) is in a locked position, to substantially prevent movement of the locking member (70) away from the channel (18).

19. A mounting assembly according to any of the preceding claims, characterised in that the first part (16, 52) comprises two members, with a forward one such member locatable towards a radiator (12) in use, with the other rearward member therebehind.

20. A mounting assembly according to claim 19 when dependent on any of claims 16 to 18, characterised in that the rearward member provides the mounting member (70) and/or the abutment member (66), the rearward member may be substantially planar except for the mounting member (70) and/or the abutment member (66), and the mounting member (70) and/or the abutment member (66) may extend substantially perpendicularly from the rearward member.

21. A mounting assembly according to any of claims 19 or 20 when dependent on claim 4 or when dependent on any of claims 5 to 18 when also dependent on claim 4, characterised in that the forward member is shaped to define the channel (18) in cooperation with the rearward member.

22. A mounting assembly according to any of the preceding claims, characterised in that a plurality of assemblies (10, 50) are provided for each radiator.

23. A mounting assembly according to any of the preceding claims, characterised in that the assembly (10, 50) comprises a marking member engageable on a radiator (12) such that when the radiator (12) is located in a required position relative to a wall (14), the marking member marks the wall (14) to indicate where the first part (16) of the assembly (10, 50) should be mounted.

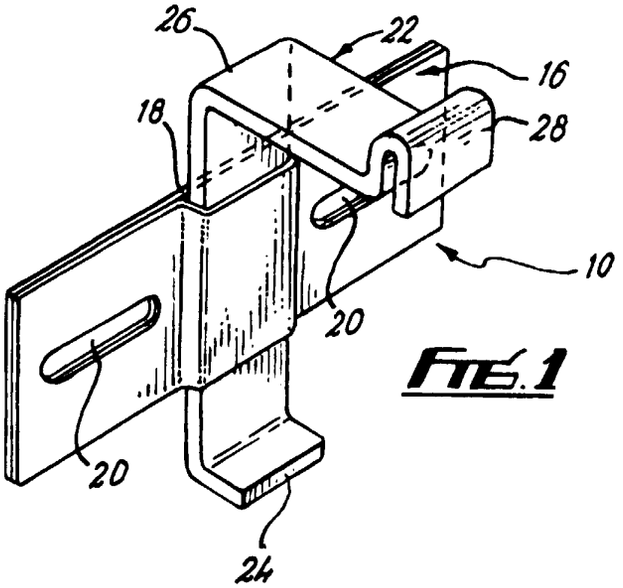

FIG.1

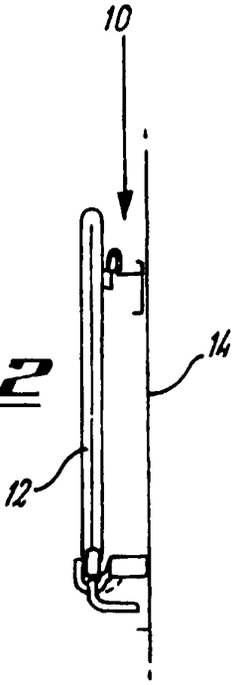

FIG.2

FIG.3

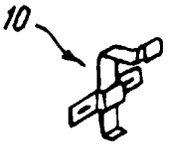

FIG.4

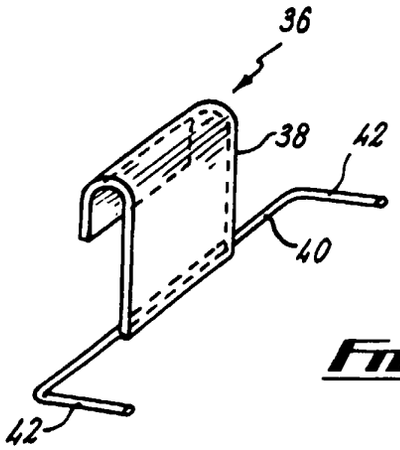

FIG.5

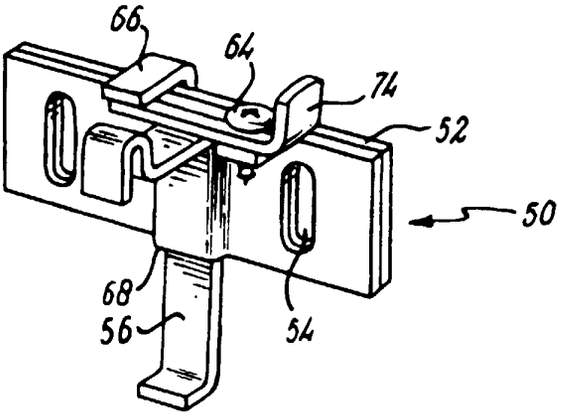

FIG.6

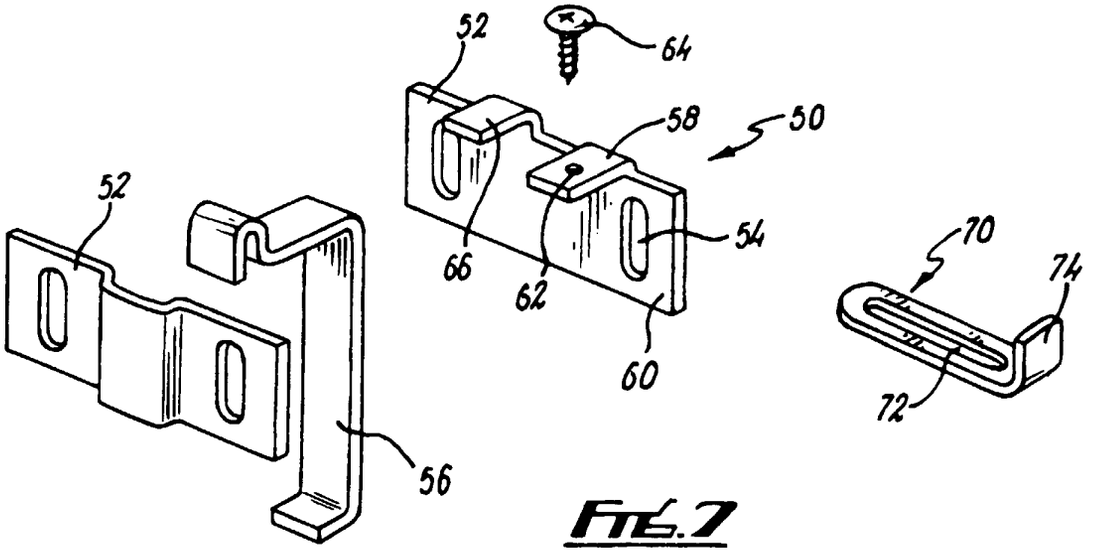

FIG.7