Aug. 25, 1970 V. PRINCIPE 3,525,494

WALL SUPPORT FOR RADIATORS AND THE LIKE

Filed April 9, 1968

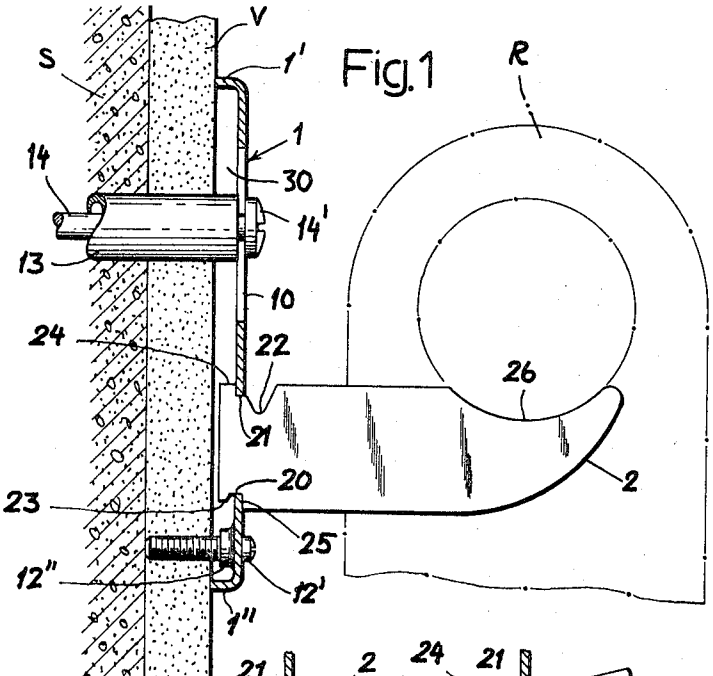


Fig. 1

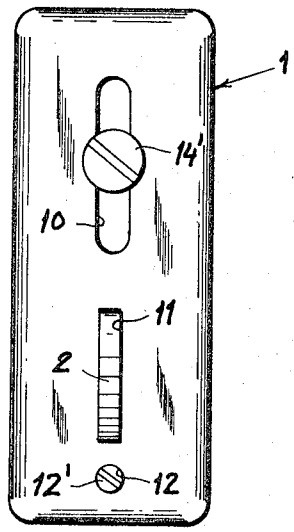


Fig. 2

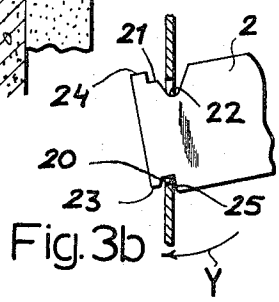


Fig. 3b

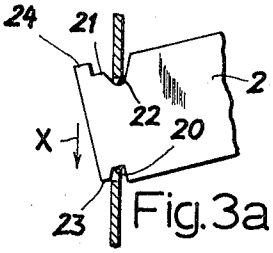


Fig. 3a

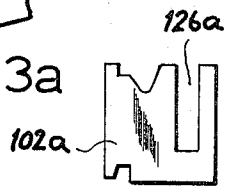


Fig. 5a

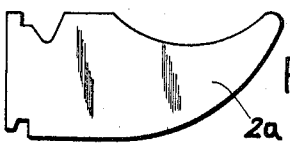


Fig. 4a

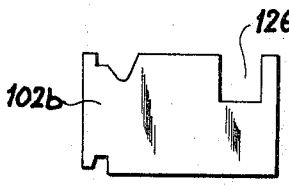


Fig. 5b

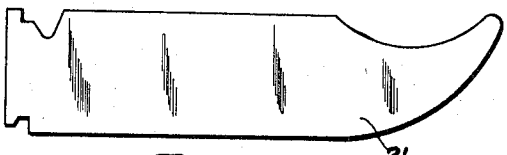


Fig. 4b

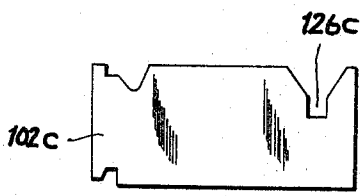


Fig. 5c

Victor Principe
INVENTOR.

BY

Karl F. Ross
Attorney

United States Patent Office 3,525,494 Patented Aug. 25, 1970

3,525,494

WALL SUPPORT FOR RADIATORS AND THE LIKE

Victor Principe, Romanshorn, Switzerland, assignor to Arthur Schmid, Romanshorn, Switzerland, a corporation of Switzerland

Filed Apr. 9, 1968, Ser. No. 719,902
Claims priority, application Switzerland, Apr. 10, 1967, 5,047/67
Int. Cl. F24h 9/06
U.S. Cl. 248—233 3 Claims

ABSTRACT OF THE DISCLOSURE

For the support of radiators, heating panels and the like on a wall, a vertical carrier plate with rearwardly curved edges is mounted on the wall and is formed with a vertical slot accommodating a cantilevered arm which is removably held therein by upper and lower lugs located in the narrow clearance between the wall surface and the body of the plate.

My present invention relates to a support for radiators, heating panels and other relatively bulky or heavy objects to be disposed next to a wall.

The general object of this invention is to provide means for facilitating the installations of radiators and similar devices in a manner which does not leave unsightly projections on the wall after the removal of such devices and which does not require extensive work on masonry, brickwork or the like where the repeated insertion and removal of screws would tend to weaken the hold of the fastener and to mar the wall surface.

This object is realized, pursuant to my present invention, by the provision of a vertical supporting plate with rearwardly extending abutting formations, such as bent-over edges, that bear upon a surface of a wall on which the plate is mounted so as to leave a narrow clearance between that surface and the body of the plate, a vertical mounting slot on the plate body accommodating a cantilevered arm which is removably lodged in this slot and is retained by upper and lower lugs extending within the aforementioned clearance.

In order to permit at least an initial vertical adjustment of the plate and therefore of the position of the cantilevered arm, the plate may also be provided with a second slot for the passage of a fastening bolt, preferably above the mounting slot and in line therewith. The definite positioning of the plate may be accomplished by means of a screw passing through a hole in the plate below the mounting slot.

An arrangement of this type, using one or more plates with one or more mounting slots each, enables the insertion of any desired number of arms at a predetermined level for the purpose of holding a radiator, a heating panel or a similar object in position adjacent the wall; upon the removal of that object, the holding arms may be quickly detached so as to expose only the mounting plate or plates which can be attractively finished to blend with the surrounding wall surface.

The invention will be described in greater detail with reference to the accompanying drawing in which:

FIG. 1 is a side-elevational view, partly in section, of a radiator support with a plate and an arm according to the invention;

FIG. 2 is a face view of the support of FIG. 1;

FIGS. 3*a* and 3*b* are fragmentary side views illustrating the assembly and disassembly of the elements shown in FIG. 1;

FIGS. 4*a* and 4*b* show, in side elevation, holding arms similar to that of FIG. 1 but of different lengths; and

FIGS. 5*a*, 5*b*, 5*c* are side views, similar to FIGS. 4*a* and 4*b*, of a modified holding arm shown in various lengths.

In FIG. 1 I have shown a wall S, e.g. of concrete, having a surface covered by a plaster coating V. A supporting plate **1** (see also FIG. 2) with rearwardly bent edges **1'** and **1''** contacts the plaster layer V so as to form therewith a narrow clearance **30**, being held in position by a threaded bolt **14** with slitted head **14'** which traverses a vertical slot **10** in the plate body and is shown surrounded by an expanding anchor **13** conventionally used in attaching objects to masonry. A tapped hole **12** in a rearwardly extending boss **12''** receives a grub screw **12'** which extends only through the relatively soft layer V and bears upon the solid wall S; screw **12'** is inserted only after the plate **1** has been positioned at the proper level before the final tightening of bolt **14**.

With the plate **1** thus firmly held against the surface of the composite wall S, V, a holding arm **2** is removably fitted thereon in cantilevered position. Plate **1** is provided for this purpose with a vertical mounting slot **11** positioned between slot **10** and hole **12** in alignment therewith. Arm **2** has a stepped rear end forming lower and upper indentations **20**, **21** ahead of a lower lug **23** and an upper lug **24** (see also FIGS. 3*a* and 3*b*). The upper indentation **21** is deepened to form a notch **22** spaced from the adjoining lug **24**.

In order to insert the arm **2** into the mounting slot **11** of plate **1**, the arm is tilted as shown in FIG. 3*a* so that the upper edge of slot **11** can be introduced into the notch **22** while the lug **23** clears the lower edge thereof. Next, the arm **2** is lowered (arrow X, FIG. 3*a*) whereupon its angle of tilt is reduced by a clockwise swing (arrow Y, FIG. 3*b*) so that the step of notch **21** comes to rest under the upper edge of slot **11** and lug **24** makes contact with the rear surface of plate **1**. In this position, illustrated in FIG. 1, the two lugs **23** and **24** lie within the clearance **30**, a drooping of the arm from its illustrated horizontal attitude being prevented by the lug **24** and by a shoulder **25** bounding the lower indentation **20**. It will be noted that lower lug **23** is beveled downwardly and rearwardly to facilitate an inclination of the arm into the position of FIG. 3*b* in which the notch **22** is aligned with the upper edge of slot **10**.

The front end of arm **2** has an upper recess **26** adapted to receive the upper header of a radiator R to be supported thereon. Shorter and longer holding arms **2***a* and **2***b*, of otherwise identical configuration, have been illustrated in FIGS. 4*a* and 4*b* and may be secured to plate **1** in lieu of arm **2**. Alternatively, arms **102***a*, **102***b* and **102***c* shown in FIGS. 5*a*, 5*b* and 5*c* may be used instead of the arms described above; the front ends of arms **102***a*, **102***b* and **102***c* have generally rectangular recesses **126***a*, **126***b* and **126***c* suitable for the support of the lower edges of heating plates or panels. These shapes are, of course, representative of a wide variety of configurations which may be given to the forwardly projecting ends of the cantilevered holding arms according to the particular use to which they are put.

I claim:

1. A support for an object to be disposed next to a wall, such as a radiator or heating unit, said support comprising:

a vertical plate having a generally flat portion adapted to extend parallel to said wall and rearwardly extending abutting formations engageable with said wall, said flat portion being formed with a vertical mounting slot;

fastening means securing said plate to said wall whereby said flat portion is held away from said wall at narrow clearance therefrom;

and a flat cantilevered arm removably received in said slot and of a thickness corresponding substantially

to the width of said slot, said arm having a rearward portion formed with an upwardly extending lug on an upper edge, and a downwardly extending lug on a lower edge of said rearward portion engageable behind said flat portion of said plate adjacent opposite ends of said slot, said upwardly and downwardly extending lugs being defined by a pair of recesses formed in the upper and lower edges of said arm, respectively, the roots of said recesses having a mutual spacing equal substantially to the length of said slot, said arm being further formed with an indentation in said upper edge adjacent the recess therein and deeper than the recess in said upper edge whereby said arm, upon being lodged in said slot, is tiltable about the lower end of said slot to swing the upper lug rearwardly and enable said arm to be lifted from said slot in the upwardly swung position of the arm, said upper lug being spaced from said indentation a distance less than the depth of said clearance.

2. A support as defined in claim 1 wherein said plate is provided with a second vertical slot aligned with the first-mentioned slot, said fastening means including a bolt member traversing said second slot and engageable with

said wall, said plate being further formed with a hole in line with said slots and traversable by a screw for affixing said plate to said wall.

3. The support defined in claim 2 wherein said plate has rearwardly bent edges constituting said abutment formations and said arm has a front end formed with a recess remote from said plate and adapted to receive an object to be supported.

References Cited

UNITED STATES PATENTS

3,089,675	5/1963	Lozier	248—242
3,398,786	8/1968	McNabney	248—232 XR

FOREIGN PATENTS

483,482	5/1952	Canada.

ROY D. FRAZIER, Primary Examiner

J. F. FOSS, Assistant Examiner

U.S. Cl. X.R.

248—223, 243