

[54] **WALL RAILS FOR FIXING OF WALL PANELS AND FOR INTERIOR FITTINGS**

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[51] **Int. Cl.**..... **A47b 96/14, A47f 5/08**

[58] **Field of Search** 52/378, 36, 585, 376, 283, 52/370, 732; 248/243

[56] **References Cited**

UNITED STATES PATENTS

754,270	3/1904	Wittekind et al.	52/732
919,526	4/1909	Belcher	248/243
1,954,954	4/1934	Shugart	52/585

2,212,982	8/1940	Drain et al.	52/732
2,263,282	11/1941	Welch et al.	52/36

FOREIGN PATENTS OR APPLICATIONS

991,057	5/1965	Great Britain	248/243
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[57] **ABSTRACT**

A wall rail for fixation of wall panels and interior fittings such as shelves, pendant cupboards, etc. has two essentially parallel shanks situated close together with a flanged section roughly at right angles thereto and projecting only to one side, having fixing holes for attachment of the wall rail to an underlying wall there being arranged between the parallel shanks bracket-carriers at regular short intervals and element-carriers at regular long intervals, the longer interval constituting a whole multiple of the shorter interval.

2 Claims, 5 Drawing Figures

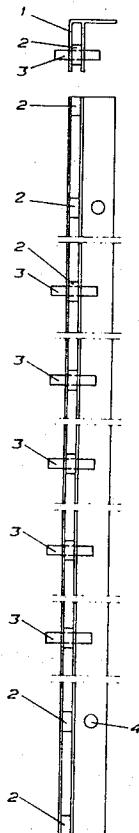


FIG. 1

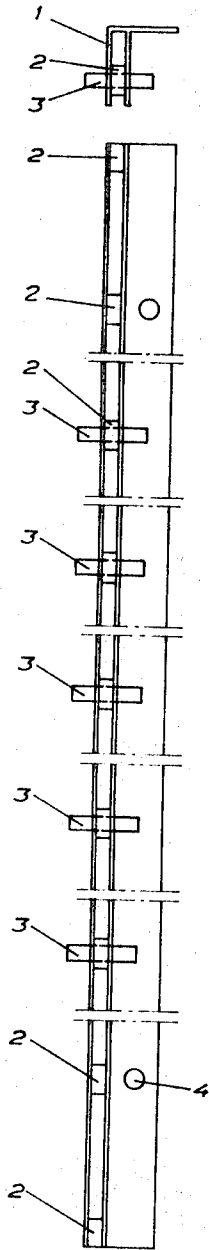


FIG. 2

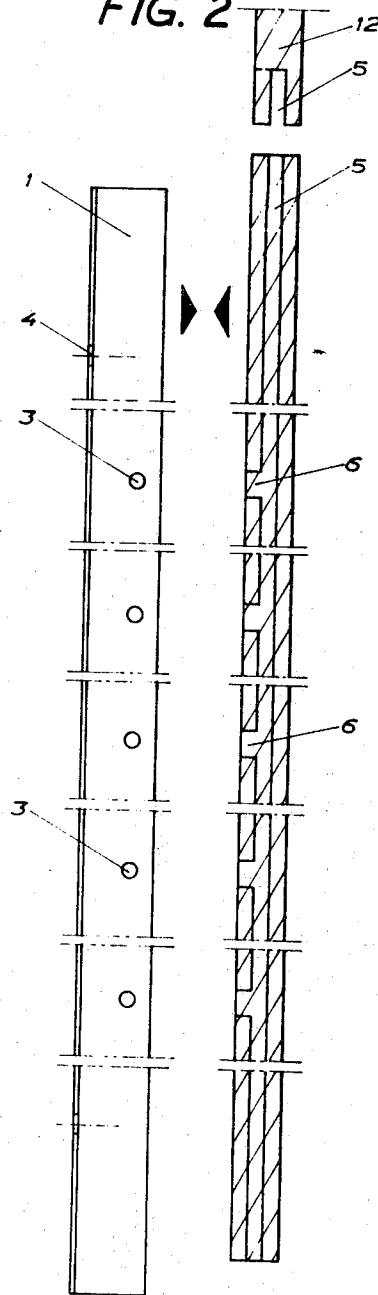


FIG. 3

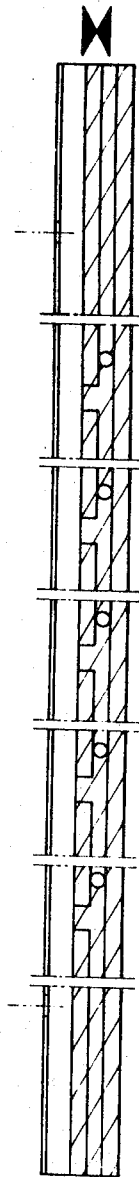
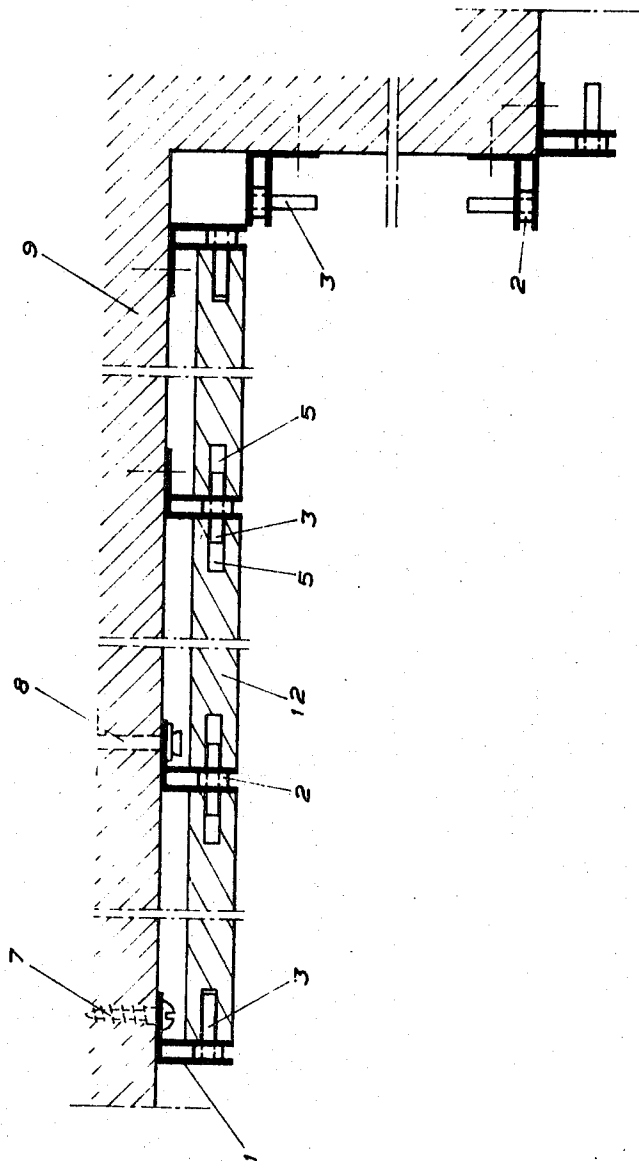


FIG. 4



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WALL RAILS FOR FIXING OF WALL PANELS AND FOR INTERIOR FITTINGS

The invention relates to a wall rail for the support and fixing of wall panels and/or interior fittings such as shelves, pendant cupboards etc.

Wall rails of several types are known for attachment of brackets to interior fittings. These wall rails are fastened to an underlying wall, with the points of attachment visible, and serve as carriers for brackets for shelves, pendant cupboards, drawers etc. These wall rails, owing to their comparatively large width, are rather conspicuous and as a rule hardly decorative.

Panels are also known which themselves take over the function of the wall rail and have fastenings for shelf brackets etc. countersunk in them. These panels, however, are fairly expensive and require to be specially manufactured or processed for the particular application.

Finally, wall rails are known which both permit suspension of wall elements and serve as carriers for brackets or the like for furnishing systems, cupboards, shelves and certain other fittings which are usually attached to walls.

Said wall panels are used as coverings chiefly for inner walls of houses, offices, shops and other buildings.

The present invention relates to the latter category and thus has the object of permitting fixation of wall elements and/or interior fittings of the aforesaid kinds. The invention also has the object of producing a wall rail which can be easily series-manufactured, is usable as intermediate rail and both as right-hand and left-hand terminal rail, is visible only to a very small extent, and is easily and simply erected. Among other features are that the wall rail shall be easily adaptable to different heights of panel.

This is achieved according to the invention through the fact that the wall rail has two essentially parallel shanks situated close together, with a flange roughly at right angles thereto and preferentially projecting only to one side, that the flange has fixing holes and is intended for attachment to an underlying wall or the like, that in the narrow space between the parallel shanks are arranged bracket-carriers at regular short intervals and element-carriers at regular long intervals, that the longer interval constitutes a whole multiple of the shorter interval, and that the element-carriers are laterally stiffly displaceable. According to a preferred embodiment of the invention every element-carrier is arranged in and encompassed by a bracket-carrier. The bracket-carriers of the wall rail have in such case preferably a circular or polygonal outer cross-section.

The invention will now be described with reference to the attached drawings.

FIG. 1 shows a wall rail according to the invention, viewed from in front and in a horizontal section,

FIG. 2 a wall rail according to the invention and, beside it, a panel element for fixing to the wall rail,

FIG. 3 the wall rail and panel element of FIG. 2 joined together,

FIG. 4 a horizontal section, the wall rail being fixed to an underlying wall, with panel elements inserted between some wall rails, and the arrangement of the wall rail at inner corners and outer corners,

FIG. 5 a vertical section from floor to ceiling with shelf brackets, cupboard fittings and ceiling and floor mouldings (intimated) attached to the wall rail.

The wall rail 1 consists, as appears best from the section in FIG. 1, of two essentially parallel shanks situated close together, with a flanged section roughly at right angles thereto and projecting to one side. The flanged section has fixing holes 4 and is designed for attachment to an underlying wall 9 or the like. Between the two parallel shanks of the wall rail, annular bracket-carriers 2 are arranged at regular short intervals. Element-carriers 3 are also arranged at regular long intervals. In the embodiment shown the element-carriers 3 are arranged in and encompassed by the bracket-carriers 2. This is made possible by the fact that the interval between the element-carriers is a whole multiple of the interval between the bracket-carriers. As appears best from FIG. 4, the element-carriers are arranged laterally stiffly displaceable in the bracket-carriers. This permits the use of the wall rail according to the invention not only as intermediate rail but also as right-hand or left-hand terminal rail.

The wall rail 1 can be easily series-manufactured and cut to standard or special lengths. It is designed to be attached to an underlying wall 9 with wall screws 7 or bolt gun nails 8 through the fixing holes 4. This fixation is simply effected by, for example, first attaching the wall rail at the top, bottom and centre with the necessary lateral distance, after which the remaining points of attachment can be arranged even by non-trained personnel without changing the position of the rail.

As appears from FIGS. 2, 3 and 4, in the vertical edges of the wall elements 12 there are milled longitudinal slots 5 and a number of horizontal slots 6 at centres suited to the distance between the element-carriers 3 in the wall rail 1. As shown in FIG. 2, the wall element 12 is raised up between the wall rails 1 so that the horizontal slots 6 come opposite the element-carriers 3, after which the wall element is inserted between the wall rails and then slightly lowered, whereby the element-carrier 3, after passing through the horizontal slot 6, enters the vertical element slot 5. Naturally the attachment of the panel can also be done by first inserting the wall elements between the wall rails and then raising them up, possibly flush with the ceiling, and then wedging them from below, finally fitting a floor moulding 10.

The slots may also be formed by other means to suit the wall rail according to the invention. The aforesaid horizontal slots 6, for instance, may be replaced by slots directed obliquely upwards. These may be of limited length and either be straight or terminate in a vertical part of a slot replacing the vertical, longitudinal slot 5. Through this arrangement of the slots it can be advantageously attained that the element-carriers, and so the wall rail, hold the panel in position but are relieved of the weight of the panel. The wall rail can therefore be calculated and dimensioned for the load due merely to interior fittings attached to it, such as shelves, pendant cupboards, etc., without having to take into account the weight of the panel. The horizontal slots 6 can be entirely eliminated if the the panel sections can be inserted from above between the wall rails according to the invention. In such cases the panel may also be advantageously veneered with fine wood or the like on both sides, for example, for detached panels visible from both sides.

FIG. 5 shows how shelf brackets 11, cupboard fittings 13, etc. are inserted between the parallel shanks of the wall rail 1, so that fixation is effected on the bracket-carriers 2, some of which may enclose element-carriers 3. At the upper edge of the panel wall in the embodiment shown in this figure a ceiling moulding 14 is arranged, while at the bottom of the panel wall there is a floor moulding 10. These can be attached in the conventional way.

As appears from the drawing, a space is formed between the panel and underlying wall, which permits some ventilation.

This space can also be used for concealment of, for example, electric cables, pipes, telephone cables, wall terminals etc. Very thin panels can also be used, with edging strips in which there are the necessary slots 5, 6 etc. Among the advantages of this are that the space will be extra deep and the panel extra light. The construction of the wall rail allows in general a great freedom of choice as regards the thickness of the panel. One is not bound, for instance, to a single or only a few special panels for the wall rail but, within fairly wide limits, may choose a thickness of panel greater or less than the depth of the wall rail.

Furthermore the panel always conceals almost the entire wall rail and its fastenings, so that only a very small part of the wall rail, for example in the form of a strip only a few millimetres wide, is visible between the panel sections. In this strip are inserted shelf brackets and similar fastenings for interior fittings.

Objects of different kinds can, of course, also be fitted on the actual panel sections, which is often both easier and simpler to perform on a dismantled panel section than on a fixed wall, which may be a valuable advantage for the erection of, for example, electrical apparatus or objects and certain wiring, display of sample collections, for which purpose the panel sections can be replaced by others with a different collection, and so on.

Finally it may be mentioned that the attachment both

of panel sections and of interior fittings to the wall rails does not require the use of any tool.

Although the invention has been described with reference to one of its embodiments, it may be arbitrarily varied within the scope of the subsequent claims.

What I claim is:

1. Wall rail for fixation of wall panels and/or interior fittings such as shelves, pendant cupboards etc., characterized in that the wall rail has two essentially parallel shanks situated close together with a flanged section roughly at right angles thereto and preferentially projecting only to one side, that the flanged section has fixing holes and is designed for attachment of the wall rail to an underlying wall or the like, that between the parallel shanks are arranged bracket-carriers at regular short intervals and element-carriers at regular long intervals, that the longer interval constitutes a whole multiple of the shorter interval, and that the element-carriers are laterally stiffly displaceable; and wherein every element-carrier is arranged in and encompassed by a bracket-carrier.

2. A wall rail for the supporting and the fixation of wall panels, comprising, in combination:

at least two substantially parallel shanks arranged close together;

said shanks being provided with a plurality of fixing holes for the attachment of said wall rail to an underlying wall;

a plurality of bracket-carriers and a plurality of laterally projecting element-carriers are arranged at regular intervals between said substantially parallel shanks; and

said laterally projecting element-carriers are constructed to cooperate and mate with slots provided in the edges of said wall panels; and wherein each said element-carrier is arranged in and encompassed by an associated one of said bracket-carriers.

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