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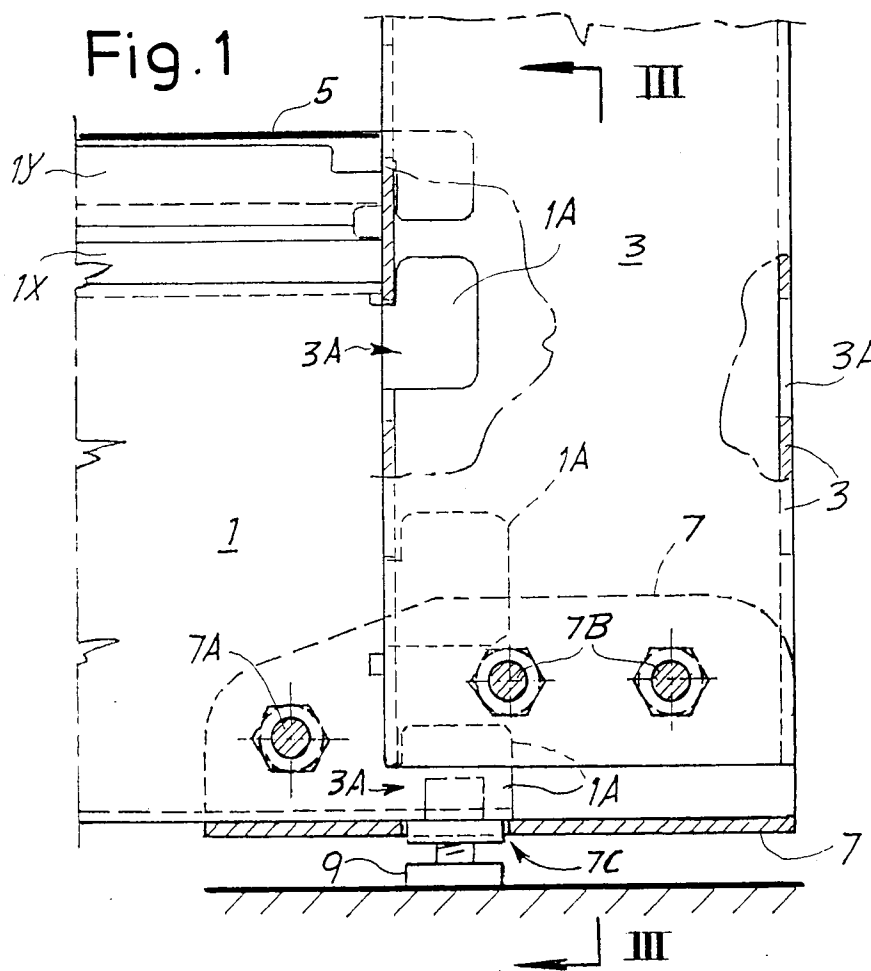
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(54) **Joining and reinforcing piece for joining together base and upright of metal shelving units**

(57) The piece is basically shaped like a length of metal U channel (7) into which one end of at least one

base component (1) and the bottom end of an upright (3) can be placed, and it is fixed to the base component and to the upright by means of bolts (7A, 7B) or the like.



Description

The innovation relates to certain metal shelving units that comprise base components having a box structure and shaped so as to accommodate uprights inserted into them and serving to support shelves, generally supported along one side only; this kind of structure can be placed against a supporting wall or joined in pairs to form so-called gondolas as used in shops and the like to offer two fronts on which items can be arranged, generally for display purposes. These shelving units have to satisfy requirements of strength and also of aesthetic appearance, besides being economical to produce.

The present innovation relates in particular to a shelving unit according to the applicant's earlier application for a property right in respect of an industrial design No. FI91 U4 dated 7/1/91, in which uprights are fitted into base pieces by means of sockets in order to support side-supported metal shelves for shopfitting or other purposes. According to the innovation, in order to increase the stability of the shelving unit, a reinforcing joining piece is fitted between the base and the upright, said joining piece being basically shaped like a length of metal U channel into which at least one base and the bottom end of an upright can be placed, said joining piece being fixed to the base(s) and to the upright by means of bolts and nuts, screws or the like.

Such a joining piece can be fitted either to single shelving units or to double shelving units, known as gondolas, with features which will be explained in the following description.

The drawing shows one possible embodiment of the innovation, and in particular:

Figs. 1 and 2 show side elevations of two embodiments of the innovation on a vertical cutting plane parallel with a base piece; and

Fig. 3 is a partial sectional view on a vertical plane marked III-III in Fig. 1.

In the drawing the numeral 1 denotes box-type base components for shelving units of the aforesaid type. These components are designed to accommodate upright metal sections 3 formed with slots for accommodating and supporting shelves 5 set apart from each other by suitable vertical distances and extending along the front of the shelving unit, being generally supported along one side only.

A base component 1 (Fig. 1) basically takes the form of a piece of continuous metal sheet shaped in the form of a U at the bottom and closed above by bending the sides in near their upper ends at 1X and welding them together. The top edges 1Y of these sides diverge to provide a support for the shelves of the shelving unit. The base component 1 ends in lugs 1A which fit into holes 3A in the uprights, the shape of the lugs enabling the uprights 5 to be fixed to the base pieces 1, as de-

scribed in the earlier property right application cited above. The connection between the base pieces and the uprights can however become loose because of the inevitable inaccuracies in manufacture, or possible subsidence or other causes. In order to overcome these problems, according to the innovation a joining piece 7 is fixed by means of bolts 7A, 7B to both the base piece 1 and the upright 3.

Said joining piece is made from a metal U channel (Fig. 3) able to accommodate with slight play one end of a base component 1 and one end of an upright 3 fitted to each other; when the screws or bolts 7B with their nuts 7D are tightened, the two sides of the joining piece bend and thus fix it securely to the end of the upright 3. The stable connection between the joining piece 7 and the base component 1 is provided by a bolt 7A and nut 7D screwed together.

In the bottom of the joining piece 7 is a hole 7C through which passes the threaded shank of an adjustable supporting foot 9 fixed to the bottom end of the base piece 1, and shims connected to it.

In a second embodiment of the innovation (Fig. 2), a joining piece 107 made out of metal U channel is long enough to accommodate the ends of two base components 1 on opposite sides of an upright 3, with similar fixings to those described above.

Alternatively, said adjustable supporting feet 9 may be fixed directly to the joining piece 7, 107.

Claims

1. Joining piece for joining together base components (1) and uprights (3) for metal shelving units, especially for shopfitting or other purposes, the base components having connecting lugs (1A) which fit into the uprights, characterized in that it is basically shaped like a length of metal U channel (7) into which one end of at least one base component (1) and the bottom end of an upright (3) can be placed, said joining pieces (7) being fixed to the base component(s) and to the upright by means of bolts (7A, 7B) or the like.
2. Joining piece according to Claim 1, characterized in that the upright (3) is fixed to the joining piece approximately in the latter's centre, and in that two base components (1) are placed in and fixed to the joining piece (7) on either side of the upright (3) for a gondola-type shelving unit.
3. Joining piece according to one of the previous claims, characterized in that it has one or more holes (7C) in the bottom of the U through which adjustable supporting feet fixed to the base piece(s) can pass.
4. Piece according to Claim 1 or 2, characterized in

that an adjustable supporting foot (9) is fixed to it underneath the bottom of the U.

5. Joining piece for joining together base pieces and uprights of metal shelving units; the whole being as described above and as illustrated in the accompanying drawing.

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