

IMPROVEMENTS IN OR RELATING TO FASTENERS

This invention relates to fasteners and is concerned with fasteners for releasably connecting two structures.

Each structure may comprise a half of a divan base.

Divan bases for two people are traditionally made in one piece but with the facility to fold, in order to ensure ease of access through doorways and up stairways.

Houses currently being built are of smaller size than in the past, and it is becoming increasingly apparent that even divan bases which fold cannot be taken into houses without risk of damage to the divan or to the interior of the house.

According to the present invention, a fastener for releasably connecting two structures comprises first and second parts hinged together, the first part of each member being formed so that said first parts can cooperate with each other in interdigital relationship, and removable means for interconnecting, in a pivotal manner, said first parts when so co-operating.

The present invention further comprises a pair of structures provided with a fastener as set forth in the preceding paragraph, for releasably connecting the structures, one of the structures being formed with a recess, wherein a said member of the fastener is attached to said one structure by way of the second part of said member, said member being foldable into said recess by means of the action of the hinge between the first and second parts of said foldable members.

The members may be secured in the folded condition by any suitable means, but preferably the member is adapted to maintain the folded condition by means of friction in the hinge.

The various aspects of the present invention will now be described, by way of example only, with reference to the accompanying drawings, wherein:

Figure 1 is a view in perspective of a releasable fastener,

Figure 2 is a plan view of the fastener,

Figure 3 is an 'exploded' plan view thereof, to a reduced scale,

Figure 4 is a view of the joint between two divan base halves showing an end view of the fastener with a part of the fastener which is inside one half of the divan base shown by a cutaway section, and

Figure 5 is a cutaway section of a divan base showing an end view of a respective hinged member of the fastener shown in its stowed condition.

With reference to the figures, a divan base 1 (Figure 4) having castors 20 is of two-part form comprising first and second structures or parts 2 and 3 connected to each other by a releasable fastener 4 or, more usually, two releasable fasteners 4.

The fastener 4 comprises first 5 and second 6 hinged members of elongated form when viewed in plan. Each of the members 5, 6 incorporates a hinge, namely piano-type hinges 7 and 8 respectively.

A second member 6 is attached to an inward facing surface of a frame member 21 of divan part 3, and first member 5 is similarly attached to a frame member of divan part 3. Wood screws are used for this attachment, employing fixing holes 9, 10.

For storage purposes the castors 20 may be removed, the respective parts 2, 3 of the divan base 1 may be separated, and the hinged members 5 and 6 folded back into the space 22 within each frame of

the respective divan base parts 2 and 3, as shown with respect to hinged member 6 and base part 3 in Figure 5. This stowed condition prevents damage occurring by portions of the hinged members being exposed when the separated parts are moved.

Piano-type hinges 7 and 8 are tightly assembled and therefore stiff such that hinged members 5 and 6 are retained in the stowed condition by friction.

The members 5, 6 each comprise first and second parts hinged together. The first part of each member is formed with a castellated edge whereby the first parts of the members can interfit one with the other. That is to say, the said first parts can co-operate with each other in interdigital relationship. The castellated edge of member 5 defines apertures 15 and the castellated edge of member 6 defines apertures 16. The second parts of the members 5, 6 define the screw fixing holes 9, 10. On assembly of the divan base 1, divan parts 2 and 3 are positioned on edge next to each other to enable the hinged members 5, 6 of each fastener to be unfolded and their castellated edges interfitted (or interdigitate) such that the apertures 15 and 16 are vertically aligned with each other. Movement of the hinges assists in the alignment. A pin 17 is then removably inserted into the aligned apertures 15, 16 so as to interconnect the members 5, 6 in a pivotable manner.

The pin 17 has a handle 18 which enables the pin to be inserted and released with ease. When the pin 17 is in position, the handle 18 can be turned so as to co-operate with an upstanding finger 19, so as to semi-lock the members 5, 6 together.

In a preferred embodiment the upstanding finger 19 is resiliently biased against the handle 18 so as to retain the handle securely.

Once the pin 17 of each fastener is in position, castors 20 are inserted and the divan base is lowered to the floor for use.



CLAIMS

1. A fastener for releasably connecting two structures comprising first and second members, each member comprising first and second parts hinged together, the first part of each member being formed so that said first parts can cooperate with each other in interdigital relationship, and removable means for interconnecting, in a pivotal manner, said first parts when so cooperating.
2. A fastener as claimed in claim 1, wherein the first part of each member has a castellated edge whereby said first parts can interdigitate, the edges defining apertures which, when interdigitation takes place, are aligned with each other, said removable means comprising a pin which can be removably inserted into the aligned apertures, so as to interconnect.
3. An arrangement comprising a pair of structures, provided with a fastener as claimed in claim 1 or 2 for releasably connecting the structures, one of the structures being formed with a recess, wherein a said member of the fastener is attached to said one structure by way of the second part of said member, said member being foldable into said recess by means of the action of the hinge between the first and second parts of said foldable members.
4. An arrangement as claimed in claim 3, in which the foldable member is adapted to maintain the folded condition by means of friction in said hinge.
5. A fastener substantially as described herein with respect to the accompanying drawings.
6. A divan base of two-part form, each part being releasably connectable to the other by a fastener as claimed in any one of claims 1, 2 and 4.
7. The arrangement of claims 3 or 4, wherein the pair of structures form a divan.