

MODULAR PARTITION AND CEILING PELMET DUAL CLIP LOCK SYSTEMS

FIELD OF INVENTION

The present embodiment generally relates to pelmet dual clip lock systems. More particularly, the present embodiment relates to modular partition and ceiling pelmet dual clip lock systems.

SUMMARY OF THE PRIOR ART

A pelmet defines a strip made up of wood or any other material to hide curtain fittings or walls or ceilings. They provide aesthetic look to the curtain fittings or walls or ceilings. They are also configured to hold drawers or cupboards or hanger rods of the cupboards. There are a number of pelmets conventionally known. For example, the pelmet may be an integrated structure of a profile and more than one slab which may be big in size. Such an integrated structure may be difficult to carry and customize. Moreover, more and more screws and bolts may be visible, affecting aesthetic look of the ceilings or walls etc.

Few known structures of pelmets may be very complicated for assembling and handling. For example, France patent publication FR2353257A1 discloses a pelmet or masking fascia board for use in association with slotted box-section curtain rails and is fixed demountable to cantilever brackets. The detail of the brackets may vary depending on whether the rail is mounted on a wall or a ceiling, and the pelmet board may receive decorative veneers affixing by Velcro (R.T. M.) strip fasteners. For wall mounted rails the cantilever arm may be an extension of the bar of an inverted 'U' piece which straddles the rail. The free end of the cantilever returns down square to form a 'C' shape which houses the pelmet board section. For ceiling-mounted rails the cantilever bracket is simply a length of plate which returns down square at the free end, and which is clamped between the rail and the ceiling.

Therefore, there exists a need for developing pelmet structures which may be easy to assemble and handle, providing aesthetic look to the curtain fittings or walls or ceilings.

SUMMARY OF THE INVENTION

In view of the foregoing, an embodiment herein provides a pelmet panel unit (100). The unit (100) includes a first U-shaped member (102) defined by sharp corners and two arms- a first arm (102A) and a second arm (102B). The arms (102A, 102B) are configured such that the first arm (102A) is larger in length than that of the second arm (102B). The first arm (102) has a tip (102C) at open-end of each of the arms (102A, 102B) just extended in parallel to a first arm base portion (102D) thereof. The unit (100) further includes a second U-shaped member (104) also defined by sharp corners and two arms- a first arm (104A) and a second arm (104B) characterized such that the first arm (104A) being larger than that of the second arm (104B). The first arm (104A) has a tip (104C) at free end thereof extended to form a member (104C') with a raised helical thread running around thereof in parallel to the first arm (104A) and pointing away therefrom. Another member (104C'') with a raised helical thread running around longitudinally half portion thereof is in parallel to the second arm (104B). The member (104C'') extends out of a second arm base portion (104D) in proximity to the second arm (104B) thereby creating an empty space between the member (104C'') and the second arm (104B). The first member (102) is sized such that the second member (104) fits into the first member (102) in a way that the first arm (102A) covers the first arm (104A) thereby forming a side B, the first arm base portion (102D) covers the second arm base portion (104D) thereby forming a side A.

In another embodiment, a modular partition panel system (200) is disclosed. The system (200) includes at least one dual clip lock unit (100). The system (200) also includes at least two panels- a first panel (202A), and a second panel (202B). The system (200) is arranged such that the side A of one of the unit(s) (100) fastens to concrete wall while other two of the unit(s) fasten to floor and ceiling respectively through a L-shaped element (114). The side B of the unit(s) fasten to the first and second panels (202A, 202B). The system (200) involves slotting of the second panel (202B) into that of the first panel (202A) using the unit (100) such that the helical portion of the member (104C') fits into the helical portion of the member (104C'') filling the empty space between the member (104C'') and the second arm (104B), thereby interlocking the first and second panels (202A, 202B).

In an aspect, plurality of the arrangement of multiple units (100) fastened to wall, floor and ceiling can be attached to the first and second panels (202A, 202B) in parallel at a distance to each other.

In another embodiment, a modular ceiling pelmet panel system (300) is disclosed. The system (300) includes at least one dual clip lock unit (100). The system (300) further includes at least two panels- a first panel (302A), and a second panel (302B). The system (300) is arranged such that the side B of one of the plurality of the unit(s) (100) fastens to ceiling while another unit(s) fastens to concrete wall through a L-shaped element (114). Side A of the unit(s) fasten to each of the first and second panels (302A, 302B). The system (300) involves joining of the second panel (302B) to that of the first panel (302A) using the unit (100) such that the helical portion of the member (104C') fits into the helical portion of the member (104C'') filling the empty space between the member (104C'') and the second arm (104B), thereby interlocking the first and second panels (302A, 302B).

In an aspect, a method (400) for building a modular partition pelmet dual clip lock system (200) is disclosed. The method (400) includes fastening Side A of a dual clip lock unit (100) to a concrete wall. The method (400) involves fastening Side A of another two unit(s) (100) with a floor and a ceiling through L-shaped element(s) (114), followed by fastening Side B to a first panel (202A). Further, the Side B thereof undergoes fastening to a second panel (202B). The second panel (202B) is slotted into the first panel (202A), such that the helical portion of the member (104C') fits into the helical portion of the member (104C'') filling the empty space between the member (104C'') and the second arm (104B), thereby interlocking the first and second panels (202A, 202B) and forming the unified system (200).

In an aspect, the system (300) is attachable to a wardrobe. As there is an empty space between the adjacent interlocked units (100), a support for hanging clothes or other items can pass through the empty spaces.

In another aspect, a method (500) for building a modular ceiling pelmet dual clip lock system (300) is disclosed. The method (500) involves fastening Side B of a dual clip lock unit (100) to a ceiling wall. The method (500) further involves fastening Side B of another unit(s) (100) to a wall through L- shaped element(s) (114), followed by fastening Side A of the unit (s) (100) to a first panel (302A) and to a second panel (302B). Finally, the second panel (302B) is joined to the first panel (302A), such that the helical portion of the member (104C') fits into the helical portion of the member (104C'') filling the empty space between the member (104C'') and the second arm (104B), thereby interlocking the first and second panels (302A, 302B) and forming the unified system (300).

In an aspect, the first member (102) is made from metal, and the second member (104) is made from plastic. The first arms (102A, and 104A) and base portions (102D, 104D) of each of the first and second arms (102A, 104A) have at least one nick (106).

BRIEF DESCRIPTION OF THE DRAWINGS

Other objects, features, and advantages of the invention will be apparent from the following description when read with reference to the accompanying drawings. In the drawings, wherein like reference numerals denote corresponding parts throughout the several views:

Figures 1A, 1B, and 1C illustrate a metal profile (102), a plastic profile (104), and a dual clip lock unit (100), in accordance with an illustrative embodiment of a present invention;

Figure 2A illustrate attachment of one unit (100) to wall, Figure 2B shows a top view of attachment of the unit (100) with the ceiling; while Figures 2C and 2D show attachment of the unit(s) (100) with the ceiling and the floor through L-shaped element(s) (114), in accordance with the illustrative embodiment;

Figures 3A and 3B illustrate attachment of Side B of the unit(s) (100) to a first and second panels (202A, 202B); and Figure 3C shows a side view of a unified system (200) of slotting of the second panel (202B) into the first panel (202A), in accordance with the illustrative embodiment;

Figures 4A and 4B illustrate front view(s) of attachment of the unit (100) to ceiling and wall respectively, in accordance with another illustrative embodiment;

Figures 5A, and 5B illustrate front view(s) of a first panel (302A) to two of the unit(s) attached to the ceiling and the wall, and that of a second panel (302B) thereto, in accordance with the embodiment;

Figures 5C, and 5D illustrate front view(s) of the first panel (302A) joined with the second panel (302B) through the unit (100) forming a unified ceiling pelmet dual clip lock system (300), in accordance with the embodiment;

Figure 6A illustrates a flowchart depicting a method (400) for building a modular partition pelmet dual clip lock system (200); and Figure 6B illustrates a flowchart depicting a method (400) for building a modular ceiling pelmet dual clip lock system (300) in accordance with an aspect of the embodiment herein.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Reference will now be made in detail to the preferred embodiments, examples of which are illustrated in the accompanying drawings.

In the following description, numerous specific details are set forth in order to provide a thorough understanding of the invention. However, it will be understood by those of ordinary skill in the art that the invention may be practiced without these specific details. In other instances, well known methods, procedures and/or components have not been described in detail so as not to obscure the present embodiment.

The embodiment herein will be more clearly understood from the following description of the methods thereof, given by way of example only with reference to the accompanying drawings. In the descriptions that follow, like numerals represent like elements in all figures. For example, where the numeral (102) is used to refer to a particular element in one figure, the numeral (102) appearing in any other figure refers to the same element.

As mentioned there remains a need for developing pelmet panel structures which are easy to assemble and handle, providing more aesthetic look to the curtain fittings, walls, or ceilings.

The present embodiment discloses a dual clip lock unit (100). The unit (100) includes a first U-shaped member (102) defined by sharp corners and two arms- a first arm (102A) and a second arm (102B) as shown in Figure 1A. The arms (102A, 102B) are configured such that the first arm (102A) is larger in length than that of the second arm (102B). The first arm (102) has a tip (102C) at open-end of each of the arms (102A, 102B) just extended in parallel to a first arm base portion (102D) thereof. The first member (102) is made of hard materials such as including but is not limited to metals.

The unit (100) further includes a second U-shaped member (104) also defined by sharp corners and two arms- a first arm (104A) and a second arm (104B) characterized such that the first arm (104A) being larger than that of the second arm (104B), as shown in Figure 1B. The first arm (104A) has a tip (104C) at free end thereof extended to form a member (104C') with a raised helical thread running around thereof in parallel to the first arm (104A) and pointing away therefrom. Another member (104C'') with a raised helical thread running around longitudinally half portion thereof is in parallel to the second arm (104B). The member (104C'') extends out of a second arm base portion (104D) in proximity to the second arm (104B) thereby creating an empty space between the member (104C'') and the second arm (104B). The second member (104) is made from soft materials such as plastic

In an aspect, the first member (102) is sized such that the second member (104) fits into the first member (102) in a way that the first arm (102A) covers the first arm (104A) thereby forming a side B, the first arm base portion (102D) covers the second arm base portion (104D) thereby forming a side A, as shown in Figure 1C.

In another aspect, the first arms (102A, and 104A) and base portions (102D, 104D) of each of the first and second arms (102A, 104A) have at least one nick (106). In another aspect, the unit (100) is attachable to ceiling, wall, and a floor through fastener(s) such as screws (e.g. 112), as shown in Figure 2A.

In an embodiment, the unit (100) is attachable to ceiling, wall, and a floor, forming different systems such as Partition Pelmet dual clip system (200), and Ceiling Pelmet dual clip lock system (300). As shown in Figure 2A, the Side A of the unit (100) is attached to the wall through fastener(s) such as screws (120, 124) penetrating through aperture(s) (118, 122) respectively. As shown in Figures 2C and 2D, Side A of each of other two unit(s) are attached to floor and ceiling through a L-shaped element (114). The L-shaped element (114) defines a leg (114A) in perpendicular to a base (114B). In order to attach the unit (100) to a wall, the base (114B) may be drilled to allow a screw such as (116) running through an aperture of the base (114B), further through the base portions (102D, 104D), thereby connecting the L-shaped element (114) with the unit (100). The leg (114A) may further be screwed with the wall/ceiling, thereby attaching the unit (100) to the wall/ceiling.

As shown in Figures 3A and 3B, Side B of the plurality of the unit(s) attached with the wall, ceiling and floor as detailed hereinabove may be attached to a first panel (202A), and a second panel (202B). As shown in Figure 3C, the system (200) is arranged such that the side A of one of the unit(s) (100) fastens to concrete wall while other two of the unit(s) fasten to floor and ceiling respectively through a L-shaped element (114). The side B of the unit(s) fasten to the first and second panels (202A, 202B). The system (200) involves slotting of the second panel (202B) into that of the first panel (202A) using the unit (100) such that the helical portion of the member (104C') fits into the helical portion of the member (104C'') filling the empty space between the member (104C'') and the second arm (104B) (shown in 200'), thereby interlocking the fits and

second panels (202A, 202B).

In an aspect, plurality of the arrangement of multiple units (100) fastened to wall, floor and ceiling can be attached to the first and second panels (202A, 202B) in parallel at a distance to each other.

In another embodiment, a modular ceiling pelmet panel system (300) is disclosed as shown in Figure 5A. The system (300) includes at least one dual clip lock unit (100). The system (300) further includes at least two panels- a first panel (302A), and a second panel (302B). The system (300) is arranged such that the side B of one of the plurality of the unit(s) (100) fastens to ceiling (Figure 4A) while another unit(s) fastens to concrete wall through a L-shaped element (114) (Figure 4B).

As shown in Figures 5A and 5B, Side A of the unit(s) fasten to each of the first and second panels (302A, 302B). The system (300) involves joining of the second panel (302B) to that of the first panel (302A) using the unit (100) such that the helical portion of the member (104C') fits into the helical portion of the member (104C'') filling the empty space between the member (104C'') and the second arm (104B), thereby interlocking the first and second panels (302A, 302B) (Figures 5C and 5D).

In an aspect, the system (300) is attachable to a wardrobe. As there is an empty space between the adjacent interlocked units (100), a support, for example, a rod or a wire can be provided for hanging clothes or other items can pass through the empty spaces.

In Figure 6A, a method (400) for building a modular partition pelmet dual clip lock system (200) is disclosed. The sequence of steps of the method (400) may be exemplary for the persons skilled in the art to understand the embodiment. The method (400) includes fastening Side A of a dual clip lock unit

(100) to a concrete wall at step (402). The method (400) involves fastening Side A of another two unit(s) (100) with a floor and a ceiling through L-shaped element(s) (114) at step (404), followed by fastening Side B of the unit(s) (100) fastened to a first panel (202A) at step (406). Further, the Side B thereof undergoes fastening to a second panel (202B) at step (408). The second panel

(202B) is slotted into the first panel (202A) at step (410), such that the helical portion of the member (104C') fits into the helical portion of the member (104C'') filling the empty space between the member (104C'') and the second arm (104B), thereby interlocking the fits and second panels (202A, 202B) and forming the unified system (200).

In Figure 6B, a method (500) for building a modular ceiling pelmet dual clip lock system (300) is disclosed. The sequence of steps of the method (500) may be exemplary for the persons skilled in the art to understand the embodiment. The method (500) involves fastening Side B of a dual clip lock unit

(100) to a ceiling wall at step (502). The method (500) further involves fastening Side B of another unit(s) (100) to a wall through L-shaped element(s) (114) at step (504), followed by fastening Side A of the unit (s) (100) to a first panel (302A) at step (506) and to a second panel (302B) at step (508). Finally, the second panel (302B) is joined to the first panel (302A) at step (510), such that the helical portion of the member (104C') fits into the helical portion of the member (104C'') filling the empty space between the member (104C'') and the second arm (104B), thereby interlocking the fits and second panels (302A, 302B) and forming the unified system (300).

While the preferred embodiment of the present invention and its advantages has been disclosed in the above Detailed Description, the invention is not limited there to but only by the scope of the appended claim.

As will be readily apparent to those skilled in the art, the present invention may easily be produced in other specific forms without departing from its essential characteristics. The present embodiments is, therefore, to be considered as merely illustrative and not restrictive, the scope of the invention being indicated by the claims rather than the foregoing description, and all changes which come within therefore intended to be embraced therein.

Claims

1. A pelmet dual clip lock unit (100) comprising:

a first U-shaped member (102) defined by sharp corners and two arms- a first arm (102A) and a second arm (102B) characterized such that the first arm (102A) is larger in length than that of the second arm (102B), and each of the arms (102A, 102B) has a tip (102C) which extends in parallel to a first arm base portion (102D);

a second U-shaped member (104) also defined by sharp corners and two arms- a first arm (104A) and a second arm (104B) characterized such that the first arm (104A) being larger than that of the second arm (104B), and the first arm (104A) having a tip (104C) at free end thereof extended to form a member (104C') with a raised helical thread running around thereof in parallel to the first arm (104A) and pointing away therefrom, and another member (104C'') with a raised helical thread with half-circumference thread occupying entire length in parallel to the second arm (104B) and extended out of a second arm base portion (104D) in proximity to the second arm (104B) thereby creating an empty space between the member (104C'') and the second arm (104B); wherein

the first member (102) is sized such that the second member (104) fits into the first member (102) in a way that the first arm (102A) covers the first arm (104A) thereby forming a side B, the first arm base portion (102D) covers the second arm base portion (104D) thereby forming a side A.

2. A modular partition panel system (200) comprising:

at least one dual clip lock unit (100), the unit (100) further comprising:

a first U-shaped member (102) defined by sharp corners and two arms- a first arm (102A) and a second arm (102B) characterized such that the first arm (102A) is larger in length than that of the second arm (102B), and each of the arms (102A, 102B) has a tip (102C) which extends in parallel to a first arm base portion (102D);

a second U-shaped member (104) also defined by sharp corners and two arms- a first arm (104A) and a second arm (104B) characterized such that the first arm (104A) being larger than that of the second arm (104B) and the first arm (104A) having a tip (104C) at free end thereof extended to form a member (104C') with a raised helical thread

running around thereof in parallel to the first arm (104A) and pointing away therefrom, and another member

(104C'') with a raised helical thread with half-circumference thread occupying entire length in parallel to the second arm (104B) and extended out of a second arm base portion (104D) in proximity to the second arm (104B) thereby creating an empty space between the member (104C'') and the second arm (104B); wherein

the first member (102) is sized such that the second member (104) is fit into the first member (102) such that the first arm (102A) covers the first arm (104A) thereby forming a side B, and the first arm base portion (102D) covering the second arm base portion (104D) thereby forming a side A;

at least two panels- a first panel (202A), and a second panel(202B); wherein

the system (200) be arranged such that a side A of a first unit can be fastened to a concrete wall; a side B of the first unit and a side B of each a second and third unit can be fastened to the first panel wherein each of the second and third unit can be fastened to a floor and a ceiling through a first L-shaped element and a second L-shaped element, respectively; a side B of a fourth, a fifth and a sixth unit can be fastened to second panel; slotting of the second panel into the first panel such that each of the fourth, fifth and sixth unit can be fitted into one of the first, second and third units such that the helical portion of the member (104C') fits into a helical portion of the member (104C'') filling the empty space between the member (104C'') and the second arm (104B), thereby interlocking the fits and second panels (202A, 202B).

3. The system (200) of claim 2, wherein plurality of the arrangement of multiple units (100) fastened to wall, floor and ceiling can be attached to the first and second panels (202A, 202B) in parallel at a distance to each other.

4. A modular ceiling pelmet panel system (300) comprising:

at least one dual clip lock unit (100), the unit (100) further comprising:

a first U-shaped member (102) defined by sharp corners and two arms- a first arm (102A) and a second arm (102B) characterized such that the first arm (102A) is larger in length than that of the second arm (102B), and each of the arms (102A, 102B) has

a tip (102C) which extends in parallel to a first arm base portion (102D);

a second U-shaped member (104) also defined by sharp corners and two arms- a first arm (104A) and a second arm (104B) characterized such that the first arm (104A) being larger than that of the second arm (104B) and the first arm (104A) having a tip (104C) at free end thereof extended to form a member (104C') with a raised helical thread running around thereof in parallel to the first arm (104A) and pointing away therefrom, and another member (104C'') with a raised helical thread with half-circumference thread occupying entire length in parallel to the second arm (104B) and extended out of a second arm base portion (104D) in proximity to the second arm (104B) thereby creating an empty space between the member (104C'') and the second arm (104B); wherein

the first member (102) is sized such that the second member (104) is fit into the first member (102) such that the first arm (102A) covers the first arm (104A) thereby forming a side B, and the first arm base portion (102D) covering the second arm base portion (104D) thereby forming a side A;

at least two panels- a first panel (302A), and a second panel (302B); wherein the system (300) be arranged such that a side B of a first unit can be fastened to a ceiling; a side A of the first unit and a side A of a second unit can be fastened to the first panel wherein the second unit can be fastened to the wall through a L-shaped element; a side A of a third and a fourth unit can be fastened to second panel; joining of the second panel to the first panel such that each of the third and fourth unit can be fitted into the one of the first and second units; and joining of the second panel (302B) to that of the first panel (302A) using the unit (100) such that the helical portion of the member (104C') fits into a helical portion of the member (104C'') filling the empty space between the member (104C'') and the second arm (104B), thereby interlocking the first and second panels (302A, 302B).

5. The system (300) of claim 4, wherein the system (300) is attachable to a wardrobe.
6. The system (300) of claim 5, wherein there is an empty space between the adjacent interlocked units (100).
7. The system (300) of claim 5, wherein a support for hanging clothes or other items can pass

through the empty spaces.

8. A method (400) for building a modular partition pelmet dual clip lock system (200), the method (400) comprising:

fastening Side A of a dual clip lock unit (100) to a concrete wall, the unit (100) further comprising:

a first U-shaped member (102) defined by sharp corners and two arms- a first arm (102A) and a second arm (102B) characterized such that the first arm (102A) is larger in length than that of the second arm (102B), and each of the arms (102A, 102B) has a tip (102C) which extends in parallel to a base portion (102D);

a second U-shaped member (104) also defined by sharp corners and two arms- a first arm (104A) and a second arm (104B) characterized such that the first arm (104A)

being larger than that of the second arm (104B) and the first arm (104A) having a tip (104C) at free end thereof extended to form a member (104C') with a raised helical thread running around thereof in parallel to the first arm (104A) and pointing away therefrom, and another member (104C'') with a raised helical thread with half-circumference thread occupying entire length in parallel to the second arm (104B) and extended out of a base portion (104D) in proximity to the second arm (104B) thereby creating an empty space between the member (104C'') and the second arm (104B); wherein

the first member (102) is sized such that the second member (104) is fit into the first member (102) such that the first arm (102A) covers the first arm (104A) thereby forming a side B, and the first arm base portion (102D) covering the second arm base portion (104D) thereby forming a side A;

fastening Side A of another two unit(s) (100) with a floor and a ceiling through L-shaped element(s) (114);

fastening Side B of three unit(s) (100) to a first panel (202A);

fastening Side B of additional three unit(s) (100) to a second panel (202B);

slotting the second panel (202B) into the first panel (202A), wherein

the slotting be aligned such that the helical portion of the member (104C') fits into the helical portion of the member (104C'') filling the empty space between the member (104C'') and the second arm (104B), thereby interlocking the fits and second panels (202A, 202B) and forming the unified system (200).

9. A method (500) for building a modular ceiling pelmet dual clip lock system (300), the method

(500) comprising:

fastening Side B of a dual clip lock unit (100) to a ceiling, the unit (100) further comprising:

a first U-shaped member (102) defined by sharp corners and two arms- a first arm (102A) and a second arm (102B) characterized such that the first arm (102A) is larger in length than that of the second arm (102B), and each of the arms (102A, 102B) has a tip (102C) which extends in parallel to a base portion (102D);

a second U-shaped member (104) also defined by sharp corners and two arms- a first arm (104A) and a second arm (104B) characterized such that the first arm (104A) being larger than that of the second arm (104B) and the first arm (104A) having a tip (104C) at free end thereof extended to form a member (104C') with a raised helical thread running around thereof in parallel to the first arm (104A) and pointing away therefrom, and another member (104C'') with a raised helical thread with half-circumference thread occupying entire length in parallel to the second arm (104B) and extended out of a base portion (104D) in proximity to the second arm (104B) thereby creating an empty space between the member (104C'') and the second arm (104B); wherein

the first member (102) is sized such that the second member (104) is fit into the first member (102) such that the first arm (102A) covers the first arm (104A) thereby forming a side B, and the first arm base portion (102D) covering the second arm base portion (104D) thereby forming a side A;

fastening Side B of another unit(s) (100) to a wall through L-shaped element(s) (114);

fastening Side A of the unit (s) (100) attached to the wall and the ceiling to a first panel (302A);

fastening Side A of additional corresponding unit (s) (100) to a second panel (302B) correspondingly;

joining the second panel (302B) to the first panel (302A),
wherein

the joining be aligned such that the helical portion of the member (104C') fits into the helical portion of the member (104C'') filling the empty space between the member (104C'') and the second arm (104B), thereby interlocking the first and second panels (302A, 302B) and forming the unified system (300).

10. The unit (100) of claims 1, 2, 4, 8, and 9, wherein the first member (102) is made from metal.

11. The unit (100) of claims 1, 2, 4, 8, and 9, wherein the second member (104) is made from plastic.

12. The unit (100) of claims 1, 2, 4, 5, and 6, wherein the first arms (102A, and 104A) and base portions (102D, 104D) of each of the first and second arms (102A, 104A) have at least one nick (106).