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(54) **INSTALLABLE TOP ACCENT PANELS FOR A BARRIER SYSTEM**

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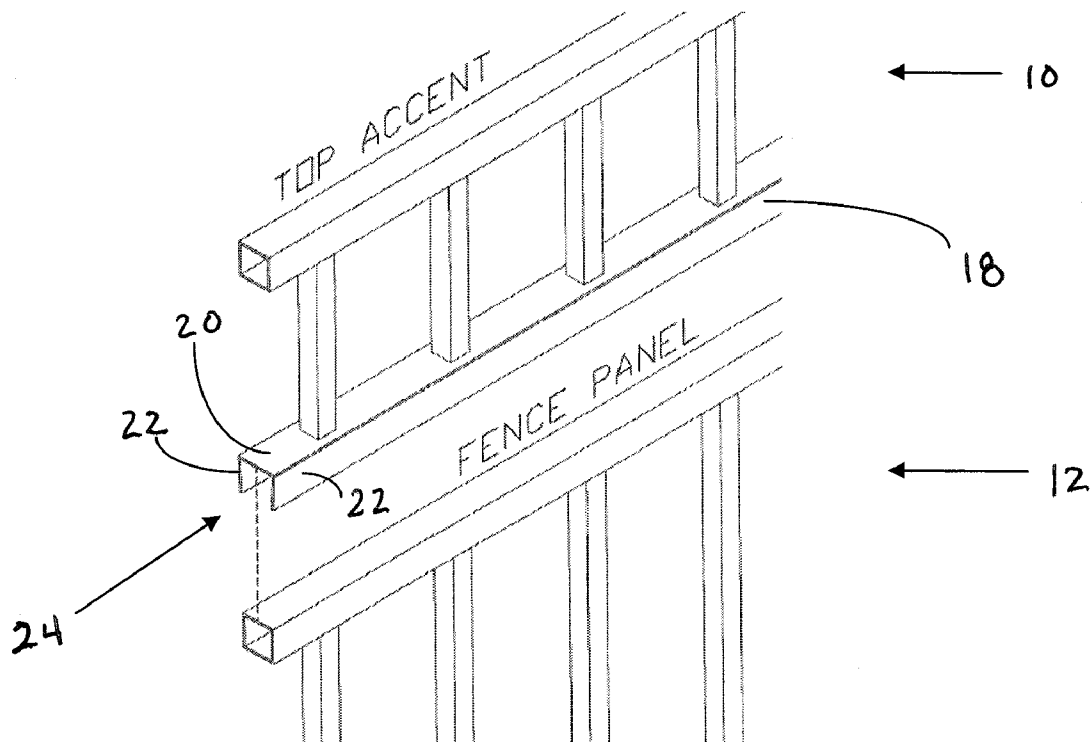
(52) **U.S. Cl.** ..... **256/24**

(57) **ABSTRACT**

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An accent top panel is selectable installed on a base panel. The installation is made using one of a number of techniques, including, press-fit, clamp fit and clip fit. The base panel can be one of a fence panel, railing panel or gate.

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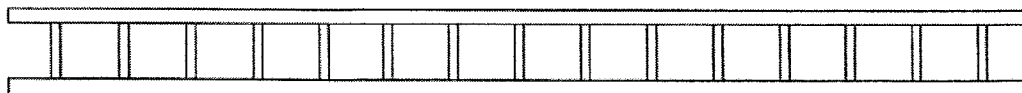


FIG. 1



FIG. 2



FIG. 3



FIG. 4

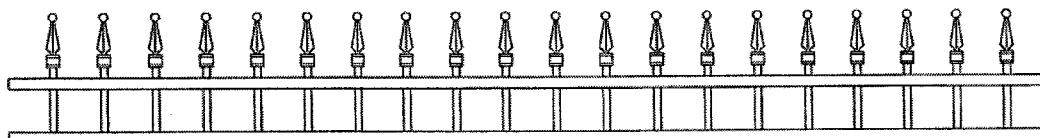


FIG. 5

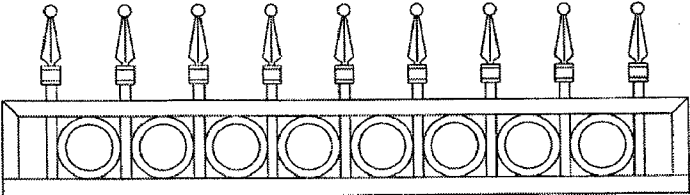


FIG. 6

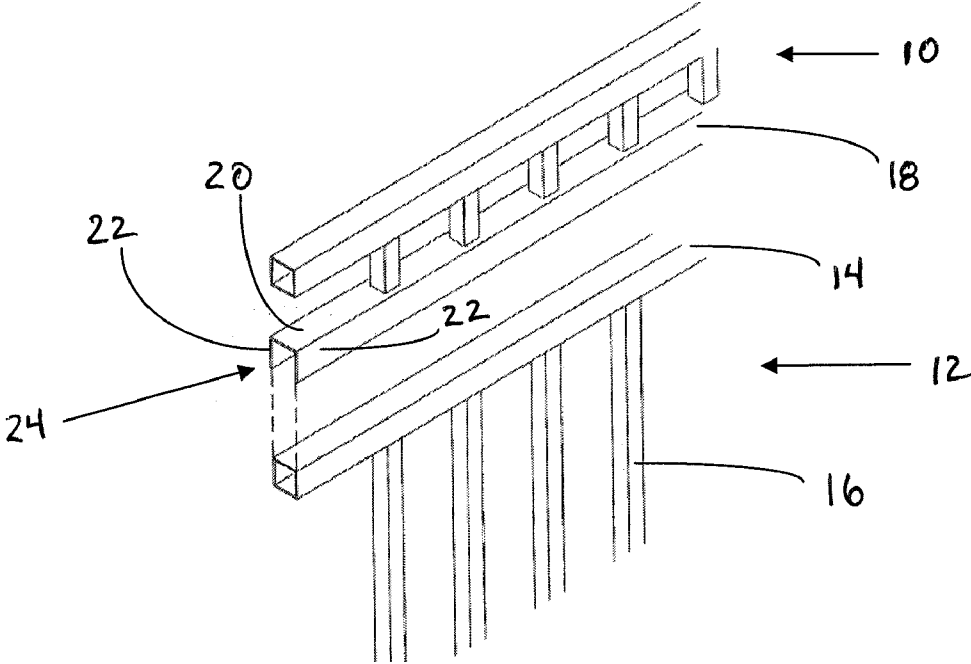


FIG. 7

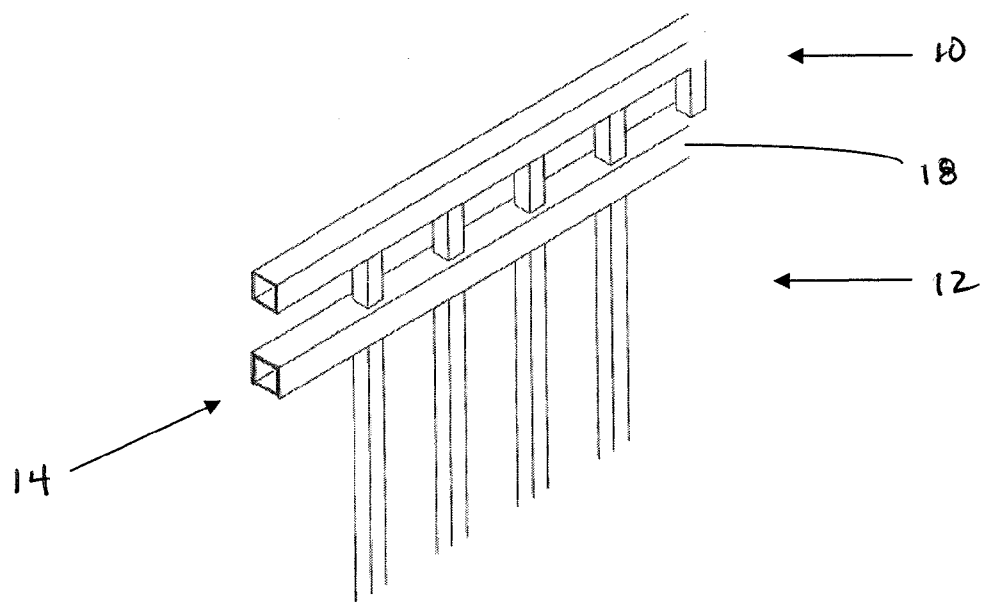


FIG. 8

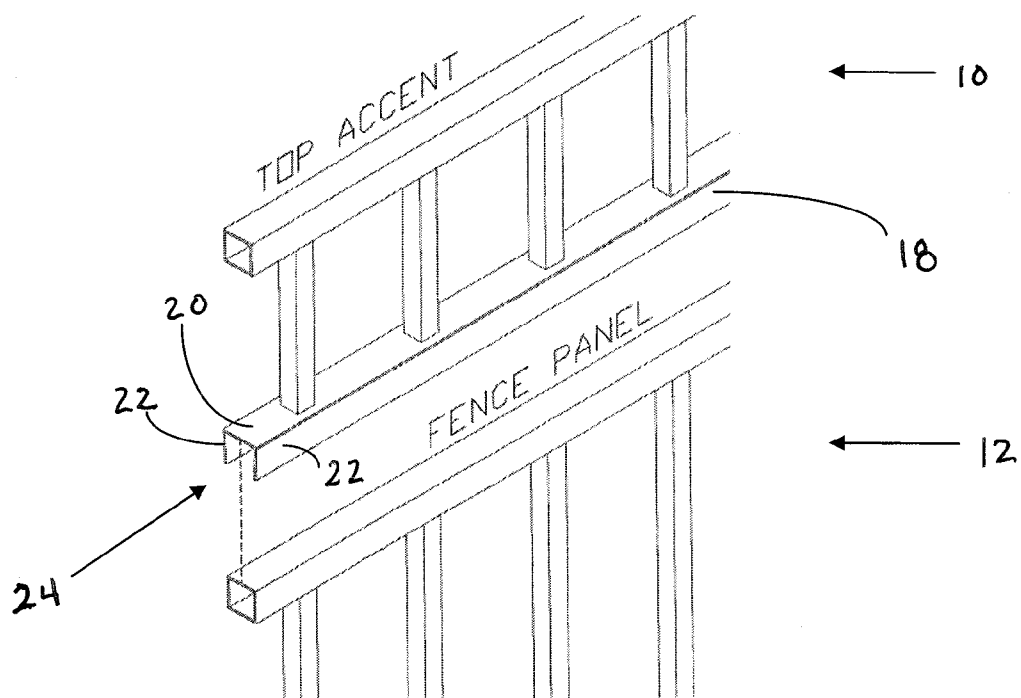
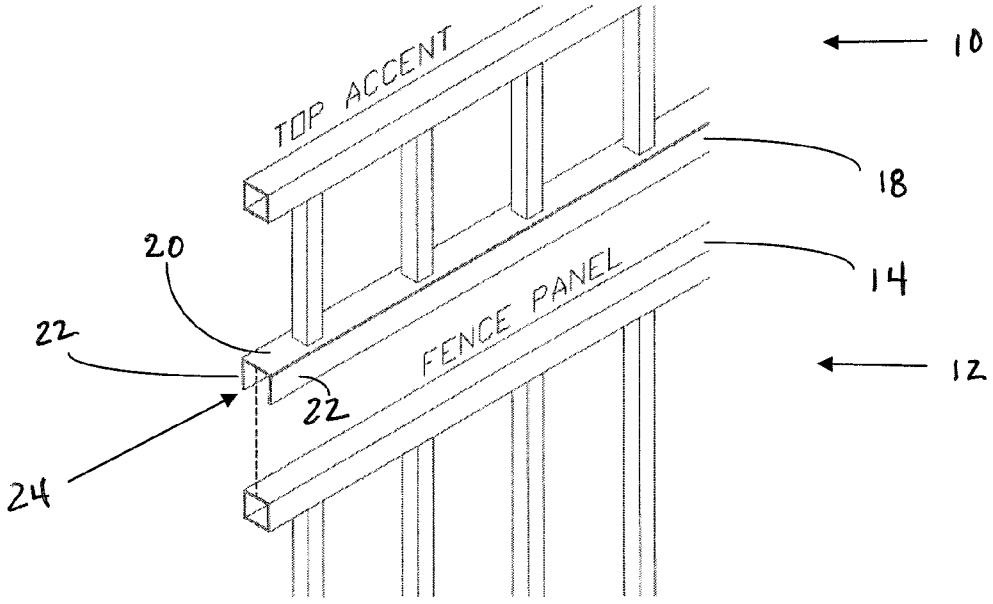
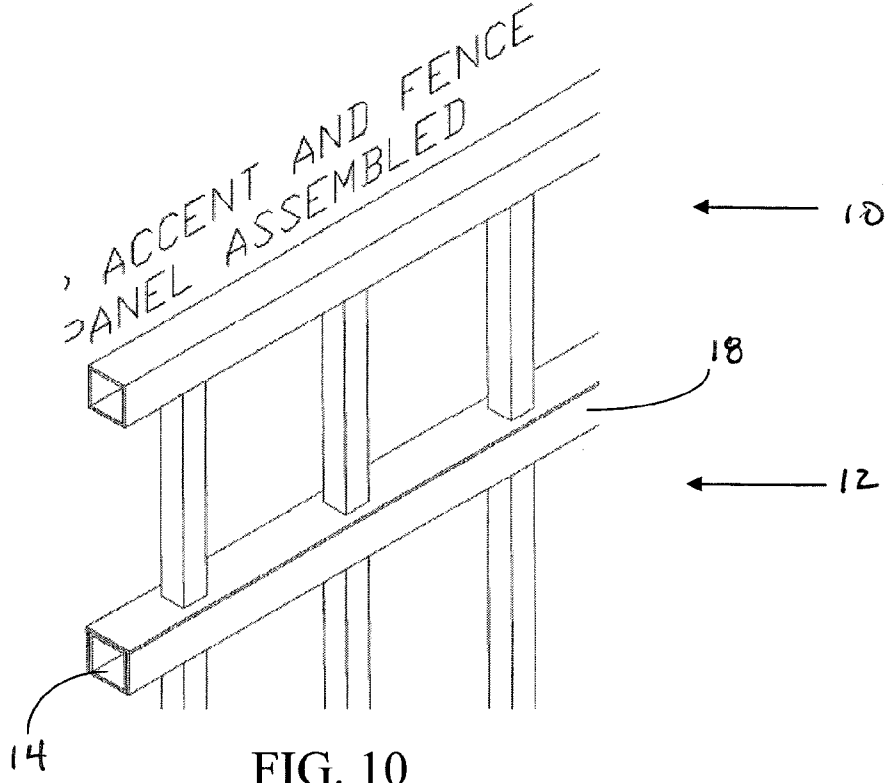


FIG. 9



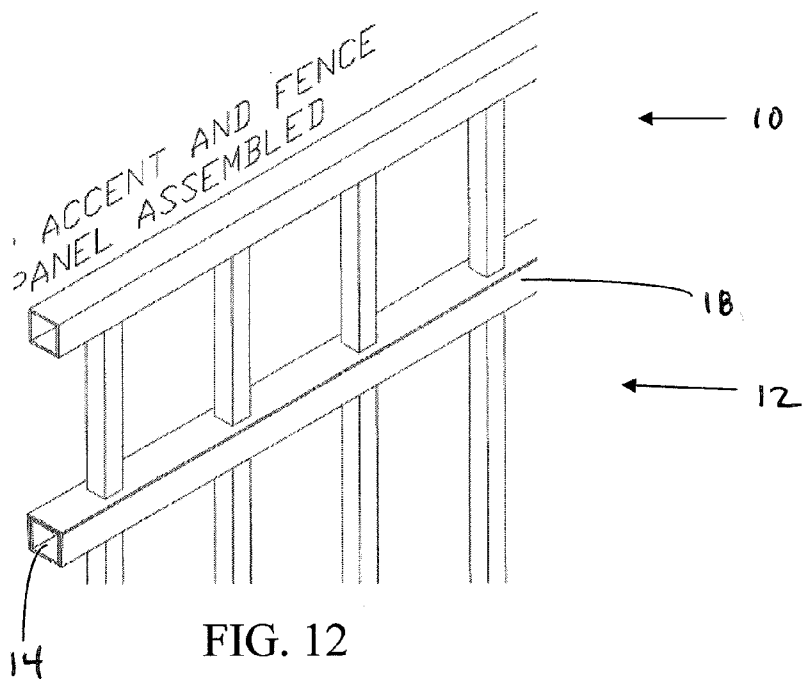


FIG. 12

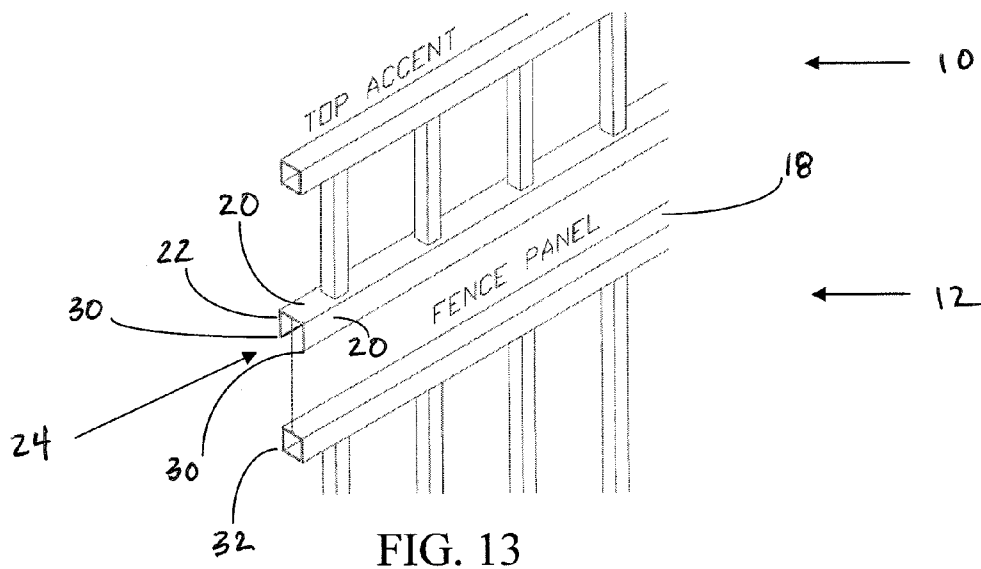


FIG. 13

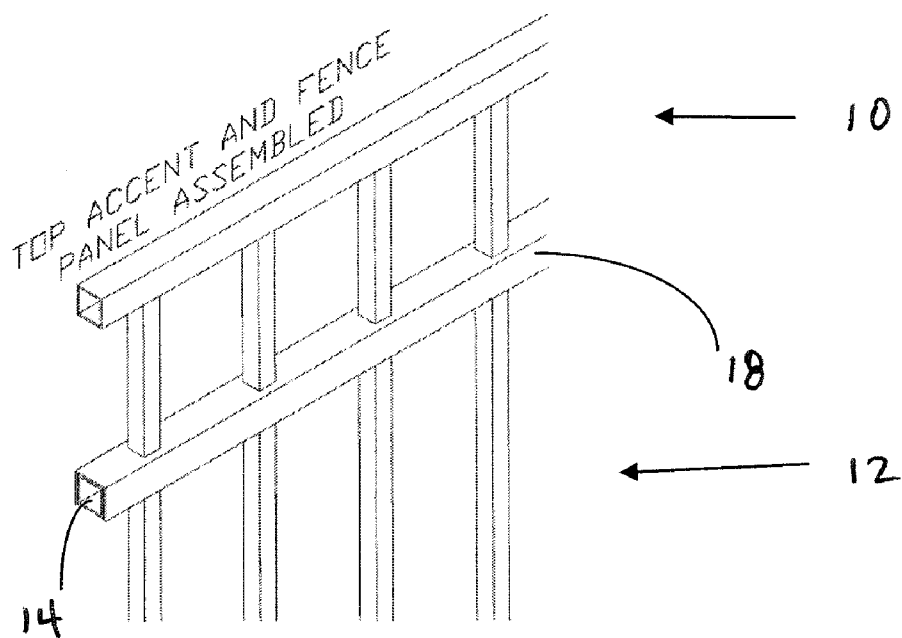


FIG. 14

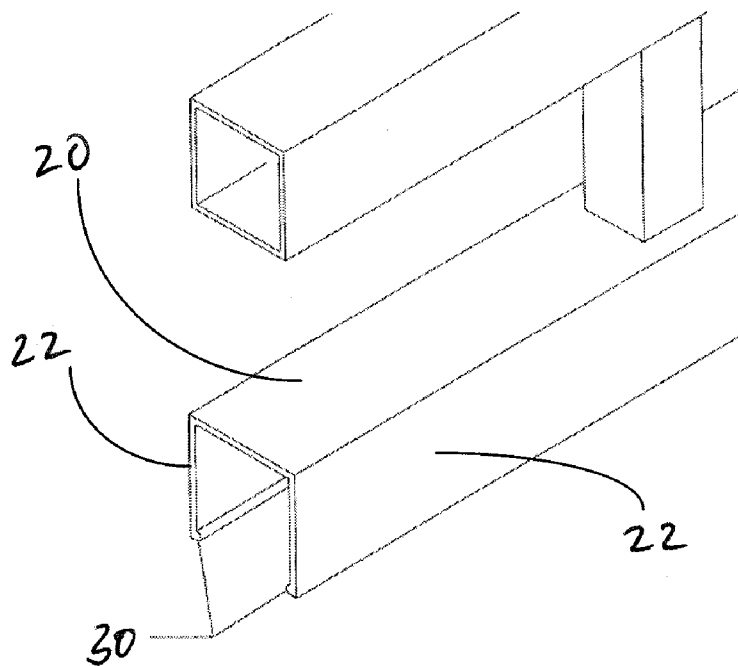


FIG. 15

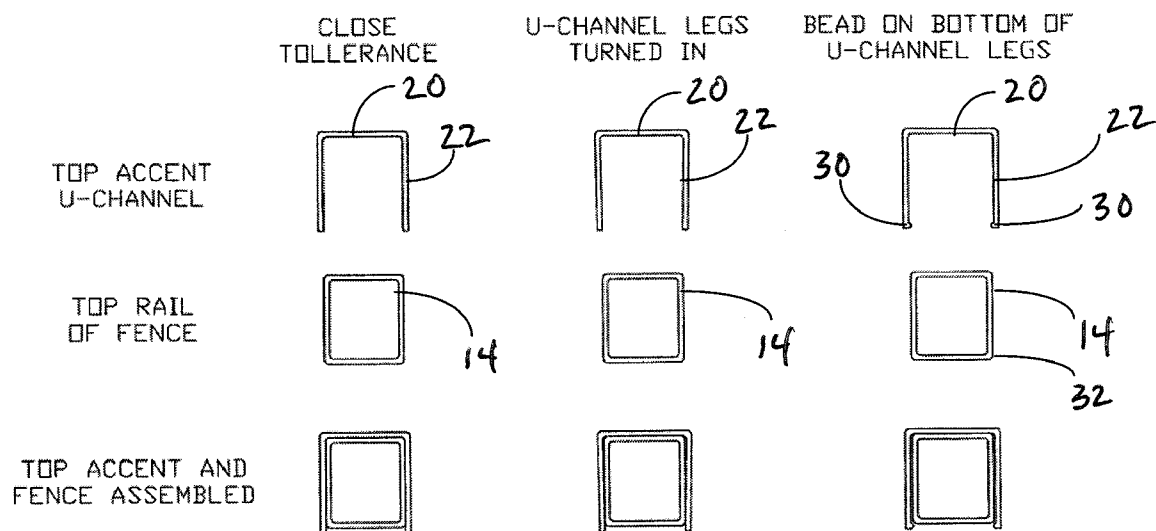


Fig. 16



**INSTALLABLE TOP ACCENT PANELS FOR A BARRIER SYSTEM**

**CROSS REFERENCE TO RELATED APPLICATION**

[0001] This application claims the benefit of U.S. Provisional Application for Patent No. 60/992,560 of the same title filed on Dec. 5, 2007.

**FIELD OF THE INVENTION**

[0002] The present invention relates generally to barriers to pedestrians or vehicles, and more particularly to fences and fence components, as well as railings and railing components, which have a selectably installable top accent panel.

**SUMMARY**

[0003] The present invention comprises a barrier formed from a set of elongate rails and a set of vertical upright members. An accent top panel is selectably installable on a top-most positioned one of the elongate rails of the barrier. The accent top panel includes a base rail having a flat web and a pair of opposed side walls which extend from the web to define a rail channel. The decorative accent features of the top panel are mounted to and above the base rail. The base rail is sized and shaped to fit over the top one of the elongate rails such that the elongate rail is received by the rail channel.

[0004] In one implementation, the base rail is designed with dimensions and manufacturing tolerances such that the opposed side walls snugly contact the opposed sides of the top elongate rail in a press-fit manner.

[0005] In another implementation, the base rail is designed with a geometry such that the opposed side walls are angled slightly inwardly to form a biasing clamp against the opposed sides of the top elongate rail.

[0006] In another implementation, the base rail is designed such that an inner surface of the opposed side walls includes an inwardly projecting bead (or detent) which either engages a bottom edge of the opposed sides of the top elongate rail or snugly contacts the opposed sides of the top elongate rail in a press-fit manner.

[0007] An embodiment of the present invention comprises an accent top panel (alone) having any of the configurations discussed above.

**BRIEF DESCRIPTION OF THE DRAWINGS**

[0008] FIGS. 1-6 illustrate in an exemplary manner certain architectural or ornamental motifs with can be used for accent top panels.

[0009] FIGS. 7-8 generally illustrate how an accent top panel having a selected architectural or ornamental motif is installed onto a fence panel, railing panel or a gate.

[0010] FIGS. 9-10 illustrate press-fit installation.

[0011] FIGS. 11-12 illustrate biasing clamp installation.

[0012] FIGS. 13-15 illustrate bead/detent clip or snap installation.

[0013] FIG. 16 illustrates installation options.

**DETAILED DESCRIPTION OF THE DRAWINGS**

[0014] Accent top panels are decorative additions selectably attached to the top of a fence panel, railing panel, or a gate. The accent top panels are used to convert a plain fence or railing installation into an installation capable of matching or

establishing a particular architectural or ornamental motif. The top panels also provide added height to the fence panel, railing panel, or a gate which may be needed in order to meet certain building codes or provide an added level of security. Reference is made to FIGS. 1-6 which illustrate in an exemplary manner certain architectural or ornamental motifs with can be used for accent top panels. The architectural or ornamental motif features of the accent top panels are not a part of the present invention. Rather, it will be understood that any desired architectural or ornamental motif can be selected for use with the accent top panels of the present invention. For ease of description and illustration, the architectural or ornamental motif illustrated in FIG. 1 will be used, without any limitation, in connection with the description of a unique way of installing and attaching the accent top panel to a fence panel, railing panel or a gate.

[0015] Reference is now made to FIGS. 7 and 8 will generally illustrate how an accent top panel 10 having a selected architectural or ornamental motif is installed onto a fence panel, railing panel or a gate (referred to herein as a base panel 12). The base panel 12 includes an elongate top rail 14 and at least one vertical upright member 16. The accent top panel 10 includes a base rail 18 having a flat web 20 and a pair of opposed side walls 22 which extend downwardly from the web to define a rail channel 24. The rail channel has a geometry (size and shape) which would allow for the elongate top rail of the base panel to be received therein (see, FIG. 8). Since the base panel 12 is subject to movement, and the accent top panel 10 is a separate piece, it is important to secure the base rail 18 of the accent top panel to the elongate top rail 14 of the base panel. It is known in the art to use welding, gluing or screws in order to make this secure attachment. These mechanisms are not always successful in satisfactorily securing the accent top panel to the base panel. Additionally, several known securing mechanisms suffer from the drawback that the securing means can damage, deform or deface the accent top panel (especially the base rail thereof). Additionally, some of these securing mechanisms can allow for rusting to occur.

[0016] Reference is now made to FIGS. 9 and 10 wherein there is shown a first implementation for an accent top panel 10 including improved means for securing the accent top panel to a base panel 12. Again, the accent top panel 10 includes a base rail 18 having a flat web 20 and a pair of opposed side walls 22 which extend from the web to define a rail channel 24. The decorative accent features (architectural or ornamental motif features) of the top panel are mounted to and above the base rail. The base rail is sized and shaped to fit over the top one of the elongate rails 14 such that the elongate rail is received by the rail channel. In particular, FIGS. 9 and 10 illustrate that the base rail is designed with dimensions and manufacturing tolerances such that the opposed side walls snugly contact the opposed sides of the top elongate rail in a press-fit manner. Preferably, the depth of the pair of opposed side walls is chosen such that the elongate top rail is received fully within the rail channel. In other words, from a horizontal point of view, after the accent top panel has been installed, one would not be able to see the sides of the elongate top rail. This is an aesthetic feature which preserves the illusion that the accent top panel and base panel are a single panel. It is also a structural feature in that it helps to retain the accent top panel on base panel. The structure further provides added height to

the fence panel, railing panel, or a gate which may be needed in order to meet certain building codes or satisfy an added level of security.

[0017] Reference is now made to FIGS. 11 and 12 wherein there is shown a second implementation for an accent top panel 10 including improved means for securing the accent top panel to a base panel 12. Again, the accent top panel includes a base rail 18 having a flat web 20 and a pair of opposed side walls 22 which extend from the web to define a rail channel 24. The decorative accent features (architectural or ornamental motif features) of the top panel are mounted to and above the base rail. The base rail is sized and shaped to fit over the top one of the elongate rails 14 such that the elongate rail is received by the rail channel. In particular, FIGS. 11 and 12 illustrate that the base rail is designed with a geometry such that the opposed side walls are angled slightly inwardly to form a biasing clamp against the opposed sides of the top elongate rail. The inward angular degree of the opposed side walls of the base rail need only be a few degrees (taken with reference to vertical) in order to achieve the desired clamping function. In this implementation, the dimensions and manufacturing tolerances with respect to the opposed side walls need not be so precise as to snugly contact the opposed sides of the top elongate rail since the inward angular bias and clamp structure will serve to secure the accent top panel. Preferably, the depth of the pair of opposed side walls is chosen such that the elongate top rail is received fully within the rail channel. In other words, from a horizontal point of view, after the accent top panel has been installed, one would not be able to see the sides of the elongate top rail. This is an aesthetic feature which preserves the illusion that the accent top panel and base panel are a single panel. It is also a structural feature in that it helps to retain the accent top panel on base panel. The structure further provides added height to the fence panel, railing panel, or a gate which may be needed in order to meet certain building codes or satisfy an added level of security.

[0018] Reference is now made to FIGS. 13-15 wherein there is shown a third implementation for an accent top panel 10 including improved means for securing the accent top panel to a base panel 12. Again, the accent top panel includes a base rail having a flat web 20 and a pair of opposed side walls 22 which extend from the web to define a rail channel 24. The decorative accent features (architectural or ornamental motif features) of the top panel are mounted to and above the base rail. The base rail 18 is sized and shaped to fit over the top one of the elongate rails 14 such that the elongate rail is received by the rail channel. In particular, FIGS. 13-15 illustrate that the base rail is designed such that an inner surface of the opposed side walls includes an inwardly projecting bead (or detent) 30 which either engages a bottom edge of the opposed sides of the top elongate rail or snugly contacts the opposed sides of the top elongate rail in a press-fit manner. FIGS. 13-15 illustrate the former implementation where the inwardly projecting bead 30 is positioned at a bottom edge of each pair of opposed side walls. The bead is sized such that it will engage again the bottom edge 32. In this implementation, the dimensions and manufacturing tolerances with respect to the opposed side walls need not be so precise as to snugly contact the opposed sides of the top elongate rail since the inwardly extending bead will serve to secure the accent top panel. Preferably, the depth of the pair of opposed side walls is chosen such that the elongate top rail is received fully within the rail channel. In other words, from a horizontal

point of view, after the accent top panel has been installed, one would not be able to see the sides of the elongate top rail. This is an aesthetic feature which preserves the illusion that the accent top panel and base panel are a single panel. It is also a structural feature in that it helps to retain the accent top panel on base panel. This is of some importance in this implementation since the bead is located at the bottom edge.

[0019] FIG. 16 schematically shows each of the three implementations. At the left is the close tolerance implementation where a snug or press fit exists between the accent top panel and the base panel due to the careful selection of and control over dimensions and manufacturing tolerances. In the center is the clamp implementation where the opposed side walls are angled slightly inwardly to form a biasing clamp against the opposed sides of the top elongate rail. On the right is the bead implementation where the opposed side walls include an inwardly projecting bead at a bottom edge which engages a corresponding bottom edge of the top elongate rail.

[0020] In summary, the attachment of the accent top panel to the base panel (for example, fence panel, railing panel, or gate) is achieved by the depth of the sides of the rail channel being slightly longer than the depth of the sides of the top elongate rail, and by the use of close tolerances between the rail channel and the top elongate rail. The sides of the rail channel can be either straight or bent slightly inwards to create a close tolerance fit that prevents the accent top panel from being loose on the fence. This close tolerance also gives the connection between the accent top panel and the fence/railing/gate panel top elongate rail a snap type fit making the Top Accent tight and secure on the fence/railing/gate panel. Alternatively, the snap fit between the accent top panel and the elongate rail of the base panel is formed using a bead on the bottom edge of each side wall (leg) of the rail channel. These beads can run the full length of the rail channel legs or be small sections of bead spaced along the length of the rail channel. The beads snap over the bottom edge of the fence/railing/gate panel top elongate rail, securing the accent top panel to the base panel. If the leg is shorter than the depth of the elongate top rail, the bead can instead press against the side of the elongate rail.

[0021] It will be understood that fasteners, welding, brackets, or an adhesive may be used in addition to the securing means described above.

What is claimed is:

1. An accent top panel for selectable installation on a base panel including means for securing the accent top panel to the base panel including a U-shaped channel in the accent top panel which receives an elongate rail of the base panel.

2. The barrier of claim 1 wherein base panel can be one of a fence panel, a gate panel or a railing panel.

3. The barrier of claim 1 wherein the means for securing comprises the U-shaped channel supporting a press fit securing mechanism with respect to receipt of the elongate rail.

4. The barrier of claim 1 wherein the means for securing comprises the U-shaped channel supporting a clamp fit securing mechanism with respect to receipt of the elongate rail.

5. The barrier of claim 1 wherein the means for securing comprises the U-shaped channel supporting a snap fit securing mechanism with respect to receipt of the elongate rail.

6. The barrier of claim 1 wherein the snap fit securing mechanism comprises a bead structure extending along the U-shaped channel which engages an edge of the elongate rail of the base panel.

7. An accent top panel for selectable installation on a base panel, the accent top panel including a rail channel having means for securing the rail channel to the base panel.

8. The panel of claim 7 wherein the means for securing is a press fit securing mechanism.

9. The panel of claim 7 wherein the means for securing is a clamp fit securing mechanism.

10. The panel of claim 7 wherein the means for securing is a snap fit securing mechanism.

11. The panel of claim 7 wherein the means for securing comprises a base rail of the panel being designed with dimensions and manufacturing tolerances such that opposed side walls of the base rail snugly contact opposed sides of a top elongate rail in the base panel in a press-fit manner.

12. The panel of claim 7 wherein the means for securing comprises a base rail of the panel being designed with a geometry such that opposed side walls of the base rail are angled slightly inwardly to form a biasing clamp against opposed sides of a top elongate rail in the base panel.

13. The panel of claim 7 wherein the means for securing comprises a base rail of the panel being designed such that an inner surface of opposed side walls of the base rail includes an inwardly projecting bead (or detent) which engages against opposed sides of a top elongate rail in the base panel.

14. The panel of claim 13 wherein the bead engages a bottom edge of the opposed sides of the top elongate rail.

15. The panel of claim 13 wherein the bead snugly contacts the opposed sides of the top elongate rail in a press-fit manner.

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