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Hossler

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(54) **REAR ILLUMINATED PANEL**

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(73) Assignee: **Tiffin Scenic Studios, Inc.**, Tiffin, OH (US)

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Related U.S. Application Data

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(51) **Int. Cl.**

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F21V 21/00	(2006.01)
F21V 1/00	(2006.01)
F21V 15/01	(2006.01)
F21V 21/112	(2006.01)
F21S 2/00	(2006.01)
F21V 3/04	(2006.01)
F21V 17/00	(2006.01)
F21W 131/406	(2006.01)
F21Y 101/02	(2006.01)
F21Y 103/00	(2006.01)
F21Y 113/00	(2006.01)
G09F 13/04	(2006.01)
G09F 13/22	(2006.01)

(52) **U.S. Cl.**

CPC . ***F21S 4/003*** (2013.01); ***F21V 1/00*** (2013.01); ***F21V 15/013*** (2013.01); ***F21V 21/112*** (2013.01); *F21S 2/00* (2013.01); *F21V 3/0436* (2013.01); *F21V 17/002* (2013.01); *F21W 2131/406* (2013.01); *F21Y 2101/02* (2013.01); *F21Y 2103/003* (2013.01); *F21Y 2113/007* (2013.01); *G09F 2013/0459* (2013.01); *G09F 2013/222* (2013.01)

USPC **362/249.02**; 362/223; 362/311.02; 362/330

(58) **Field of Classification Search**

CPC F21S 4/003; F21S 4/008; F21V 15/013; F21V 17/002; F21Y 2103/003; G06F 2013/222

USPC 362/217.01–217.02, 217.1–217.17, 362/223–225, 249.02, 311.02, 330, 612

See application file for complete search history.

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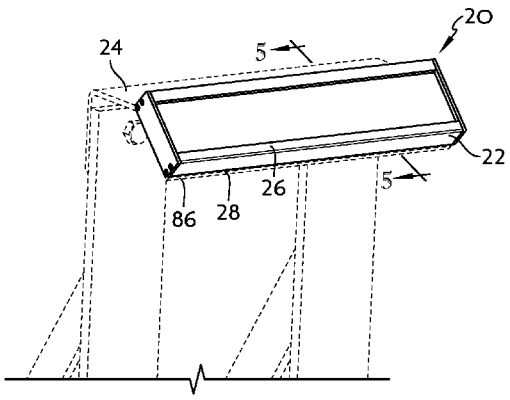
(57) **ABSTRACT**

A rear illuminated panel includes a base member having first and second opposing sides and a pair of guide grooves formed on the first side of the base member. The panel further includes a translucent thermoplastic sheet of material having rubber channel strips on opposing longitudinal sides of the sheet of material. The sheet of material is disposed within the guide grooves of the base member such that channel strips prevent vibration of the sheet of material within the guide grooves. The panel still further includes an LED strip having a plurality of LEDs and disposed within a cavity formed by the base member and the sheet of material, wherein light from the LEDs illuminates the sheet of material. The second opposing side of the base panel is adapted to be fastened to a structure. Exemplary suitable structures include a locking rail and an index light.

2 Claims, 12 Drawing Sheets



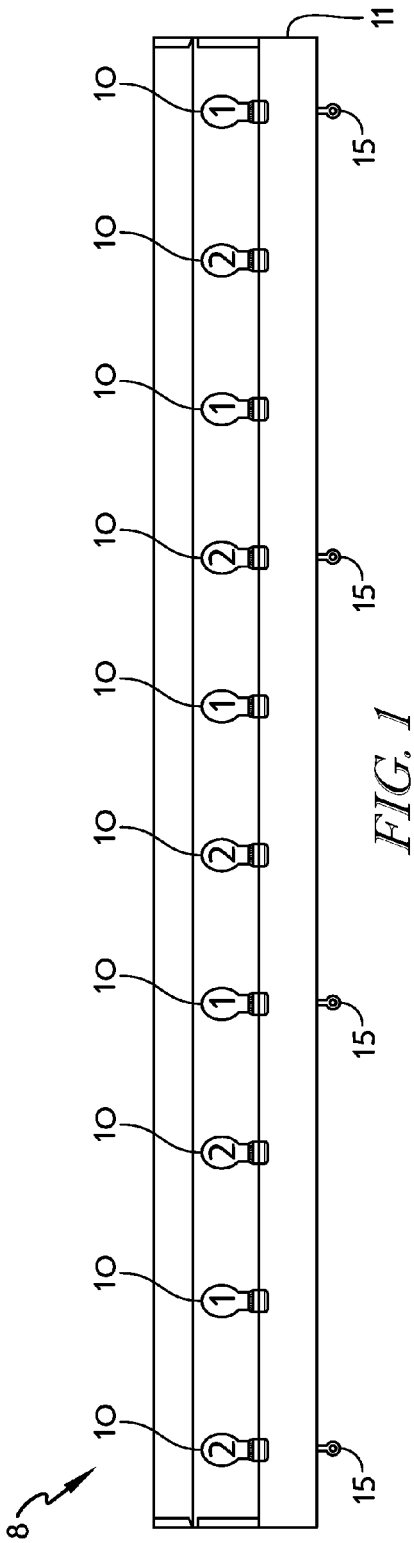


FIG. 1
(Prior Art)

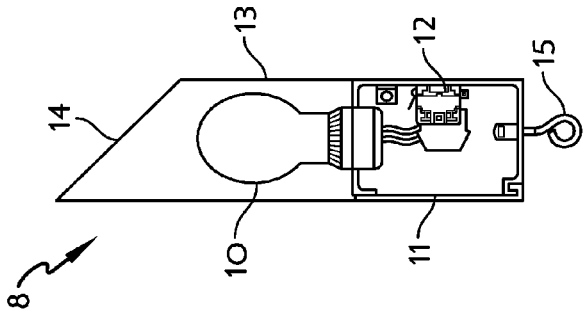


FIG. 2
(Prior Art)

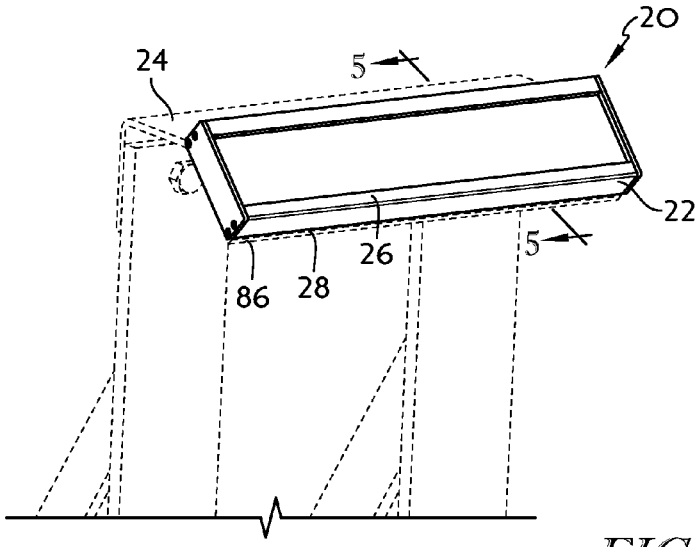

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FIG. 3

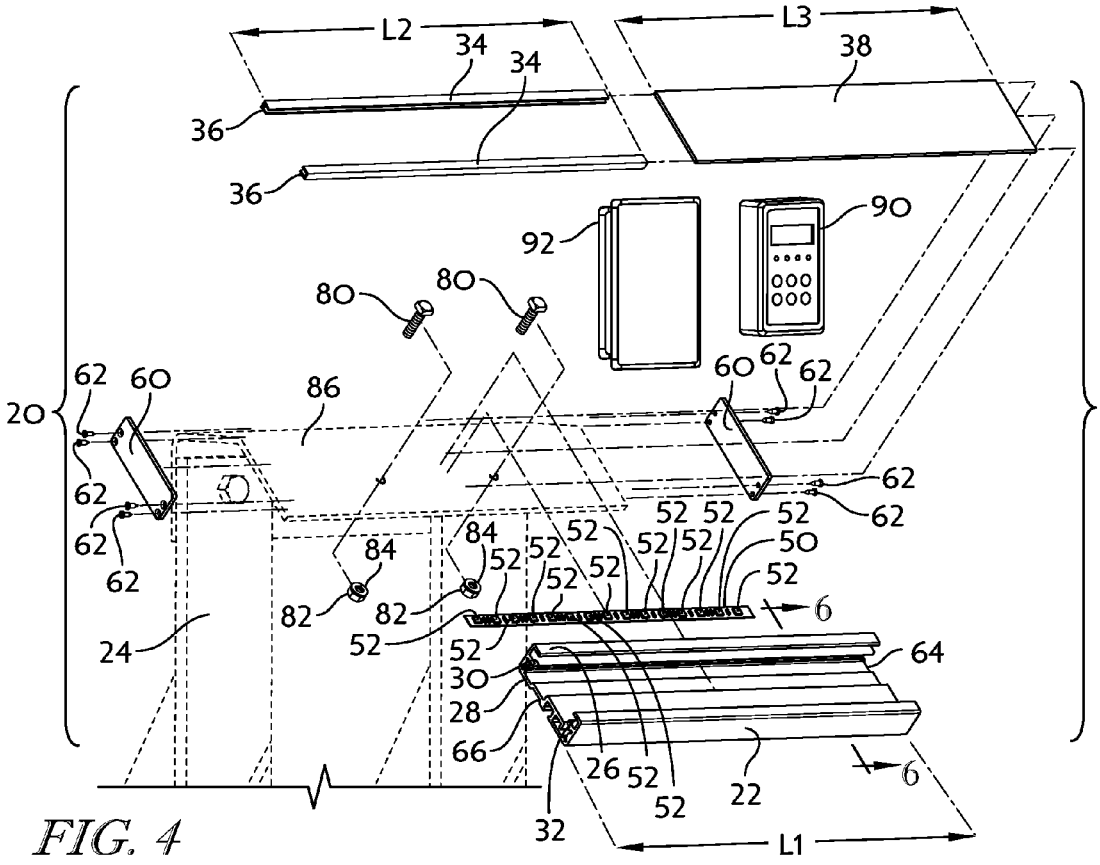
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FIG. 4

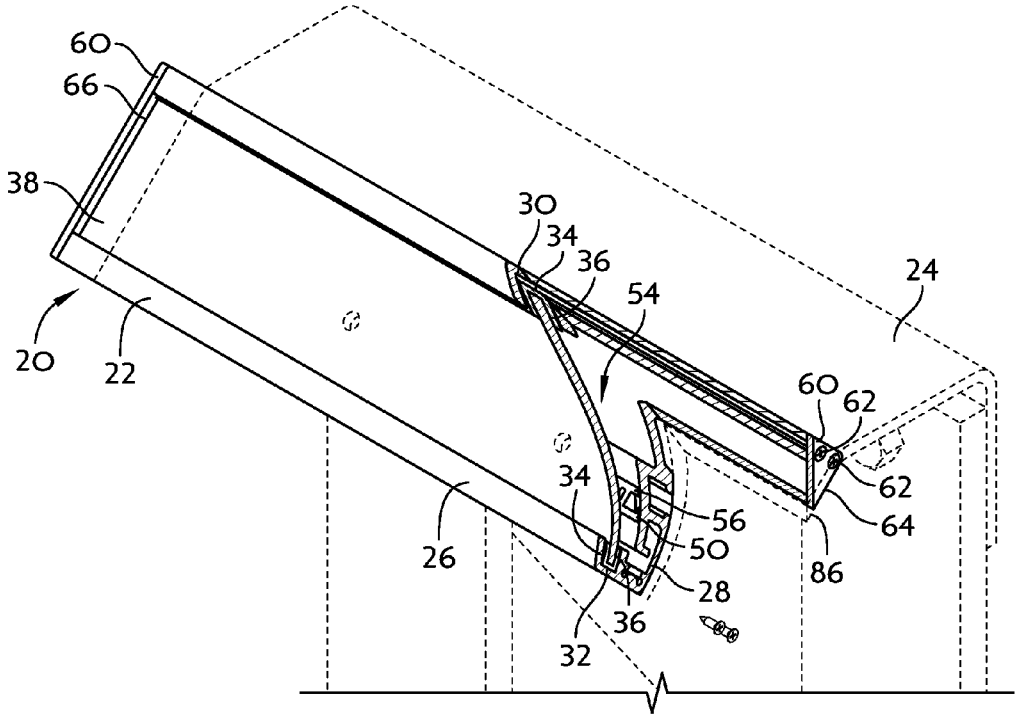
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FIG. 5

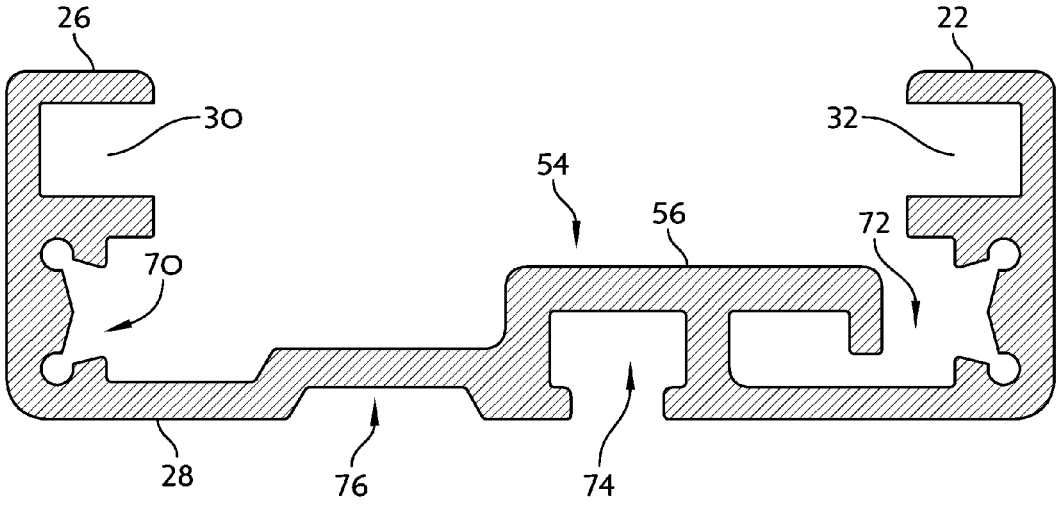
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FIG. 6

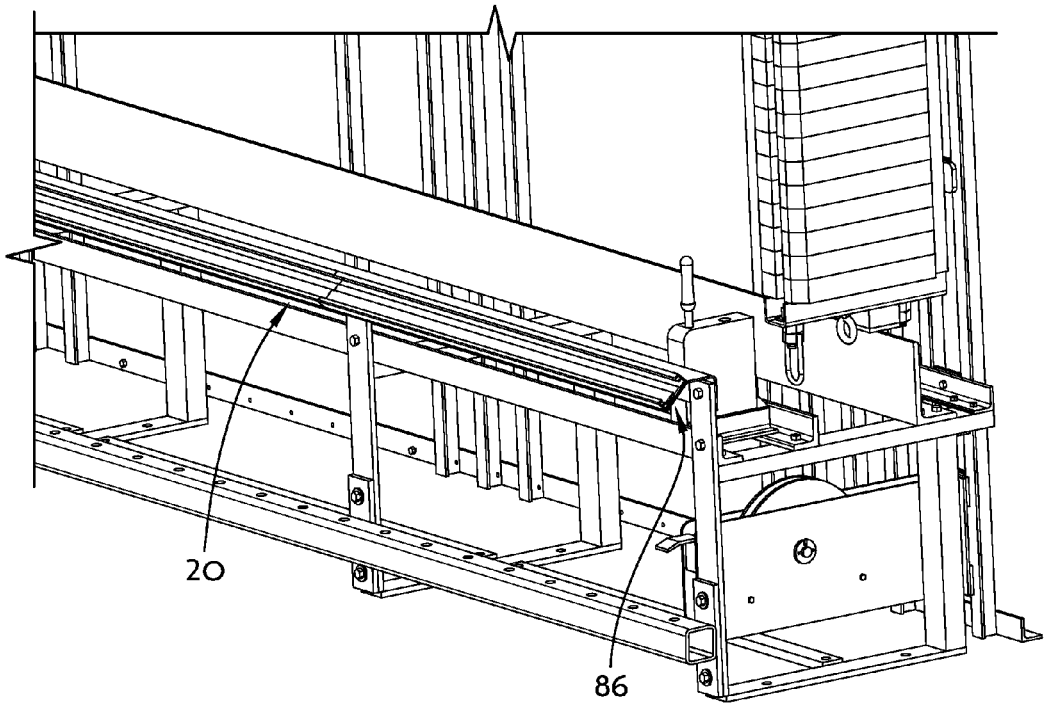
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FIG. 7

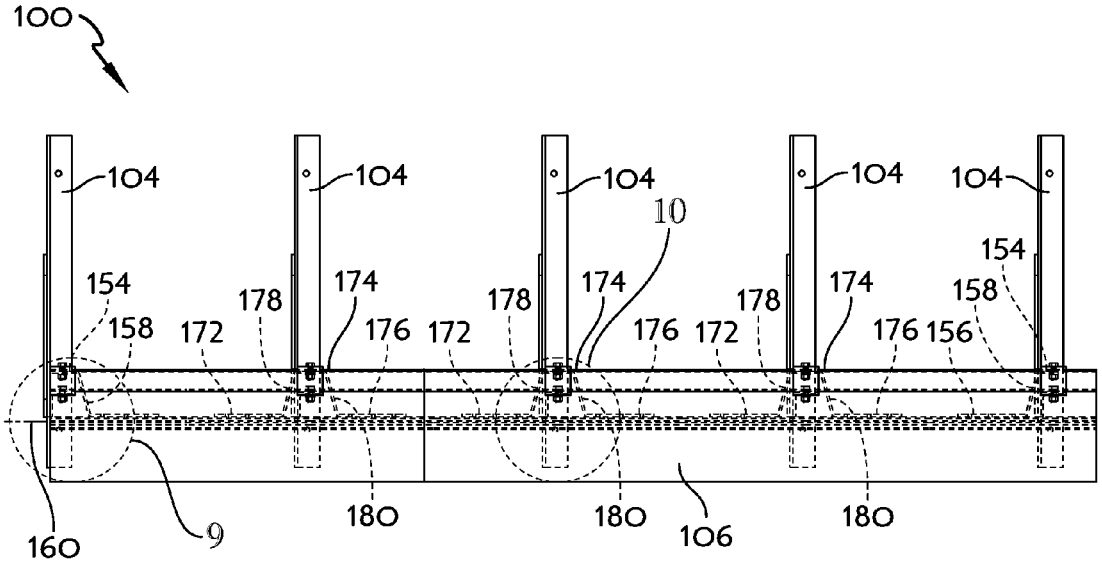
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FIG. 8

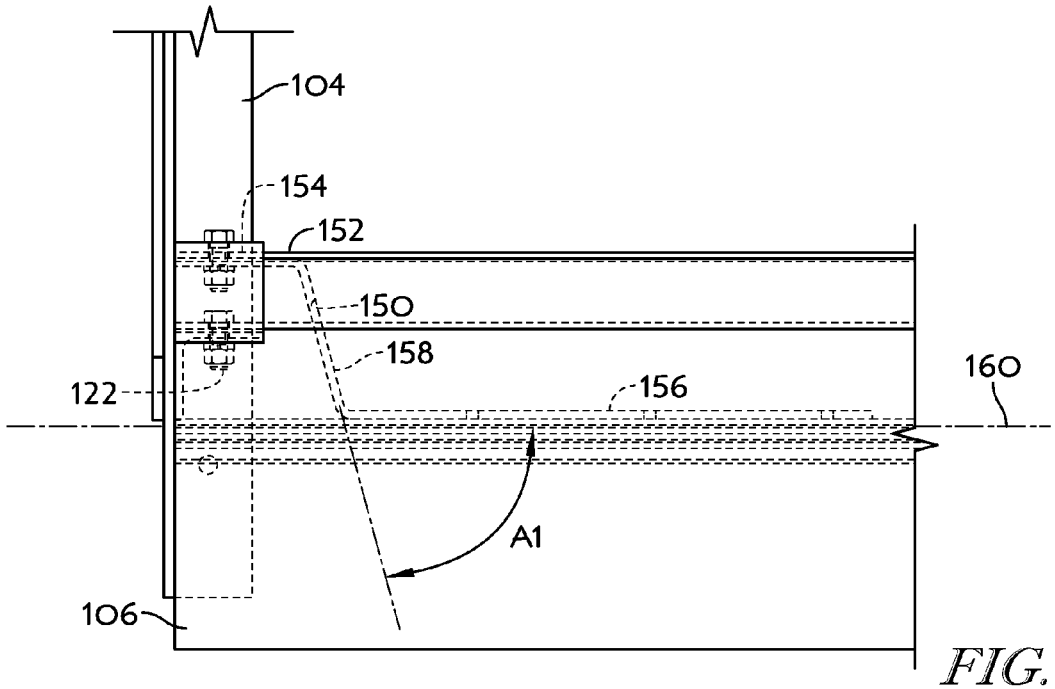
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FIG. 9

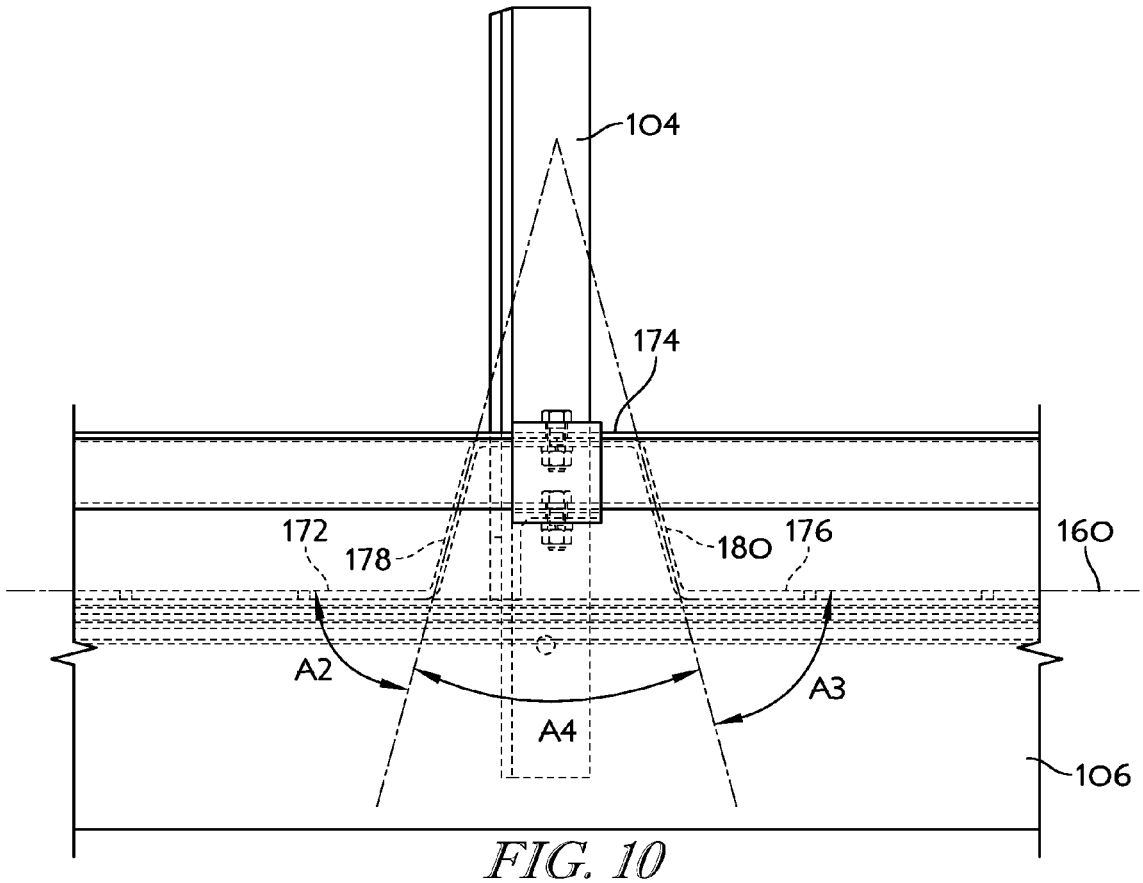
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FIG. 10

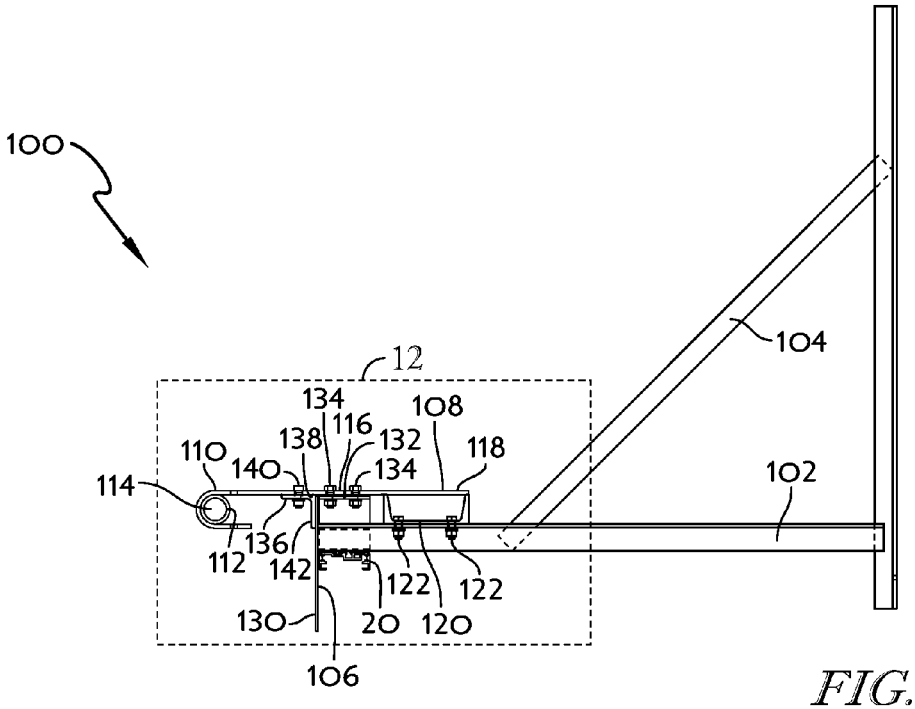
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FIG. 11

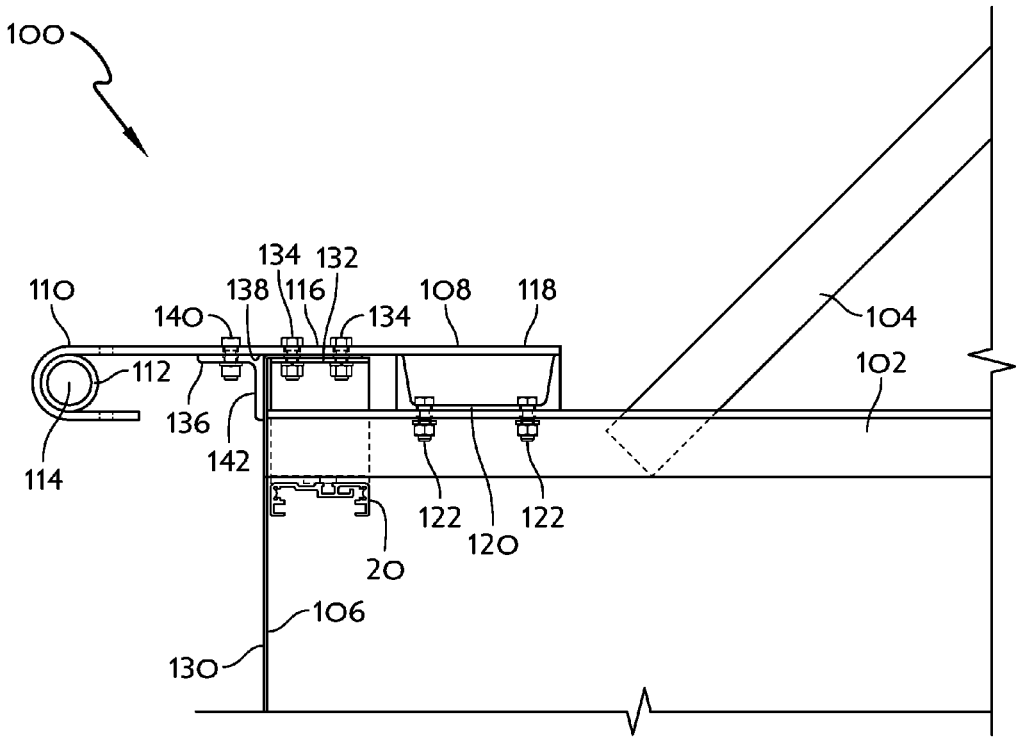
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FIG. 12

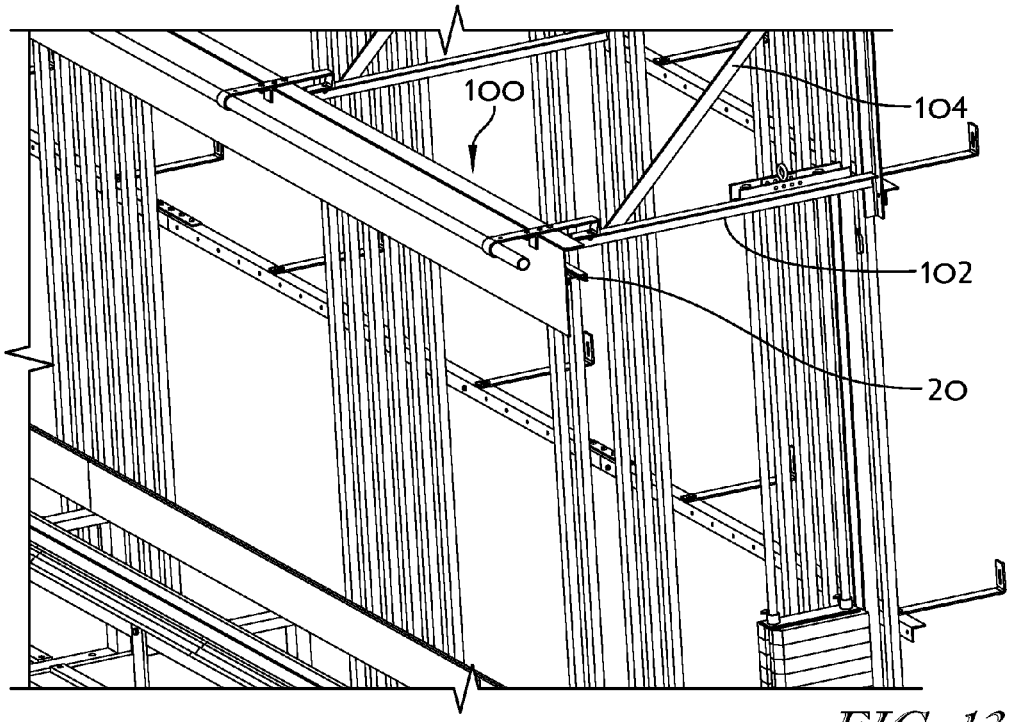

FIG. 13

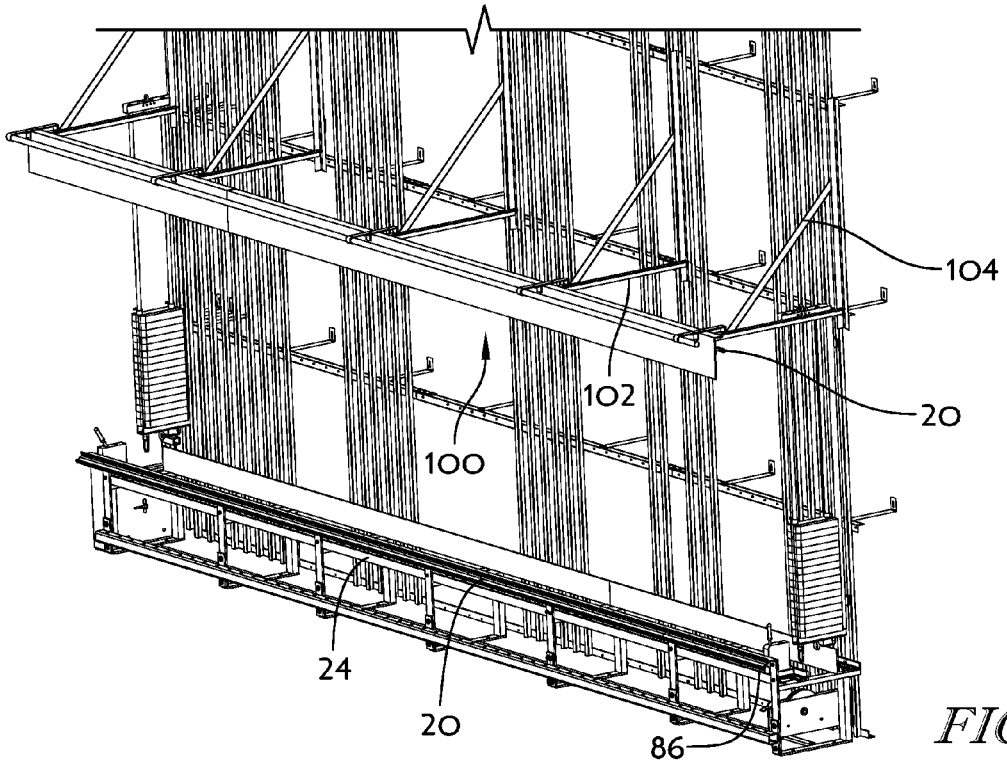

FIG. 14

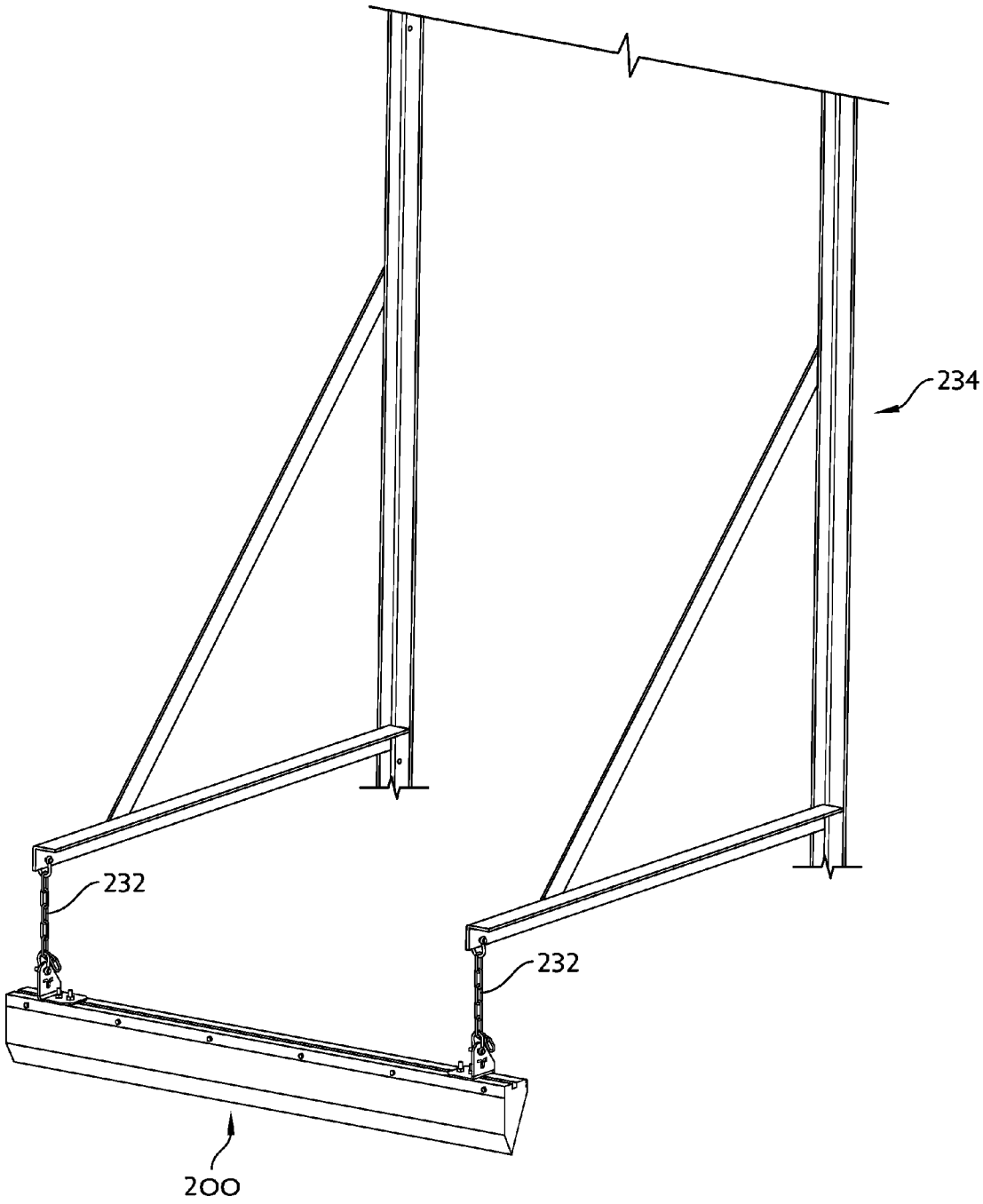

FIG. 15

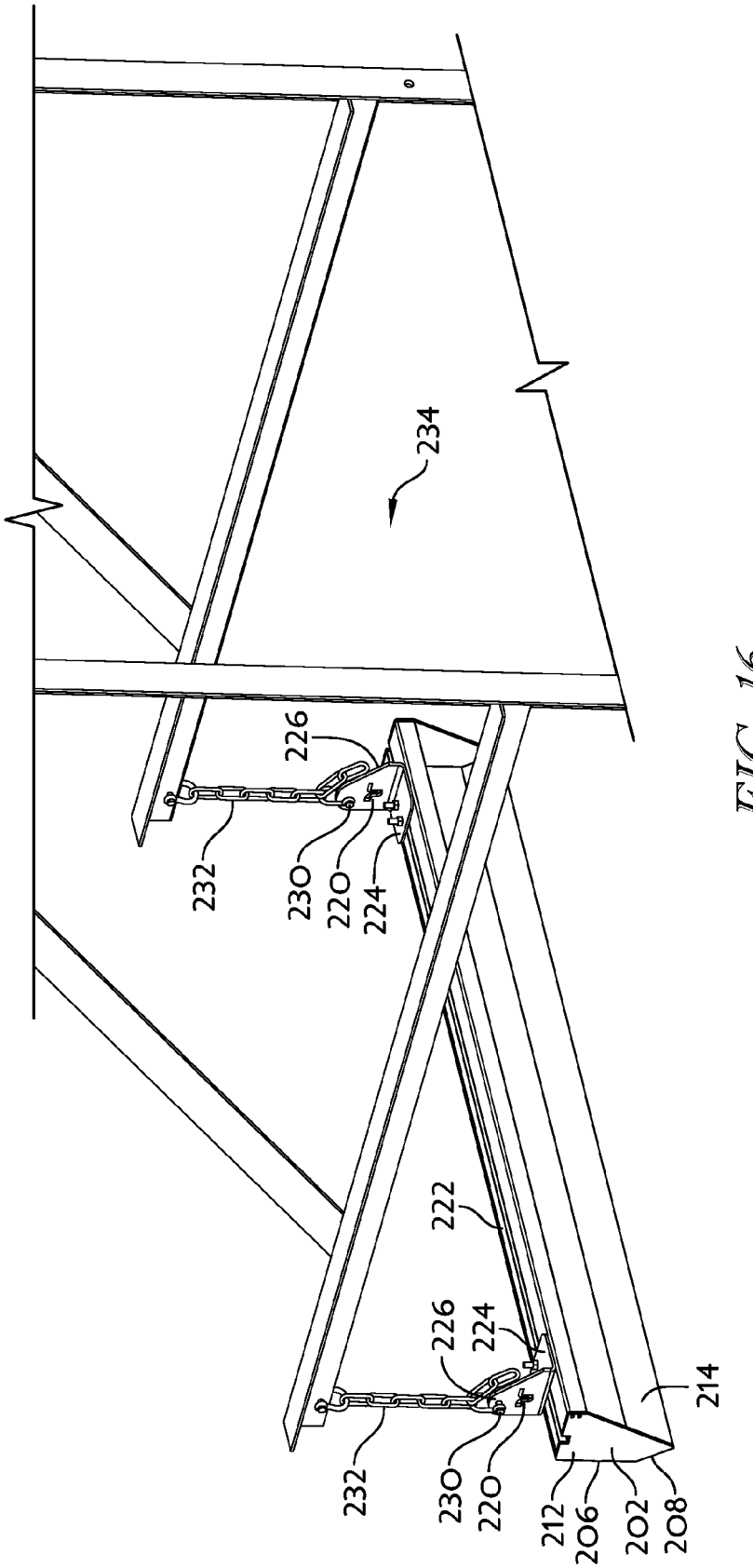
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FIG. 16

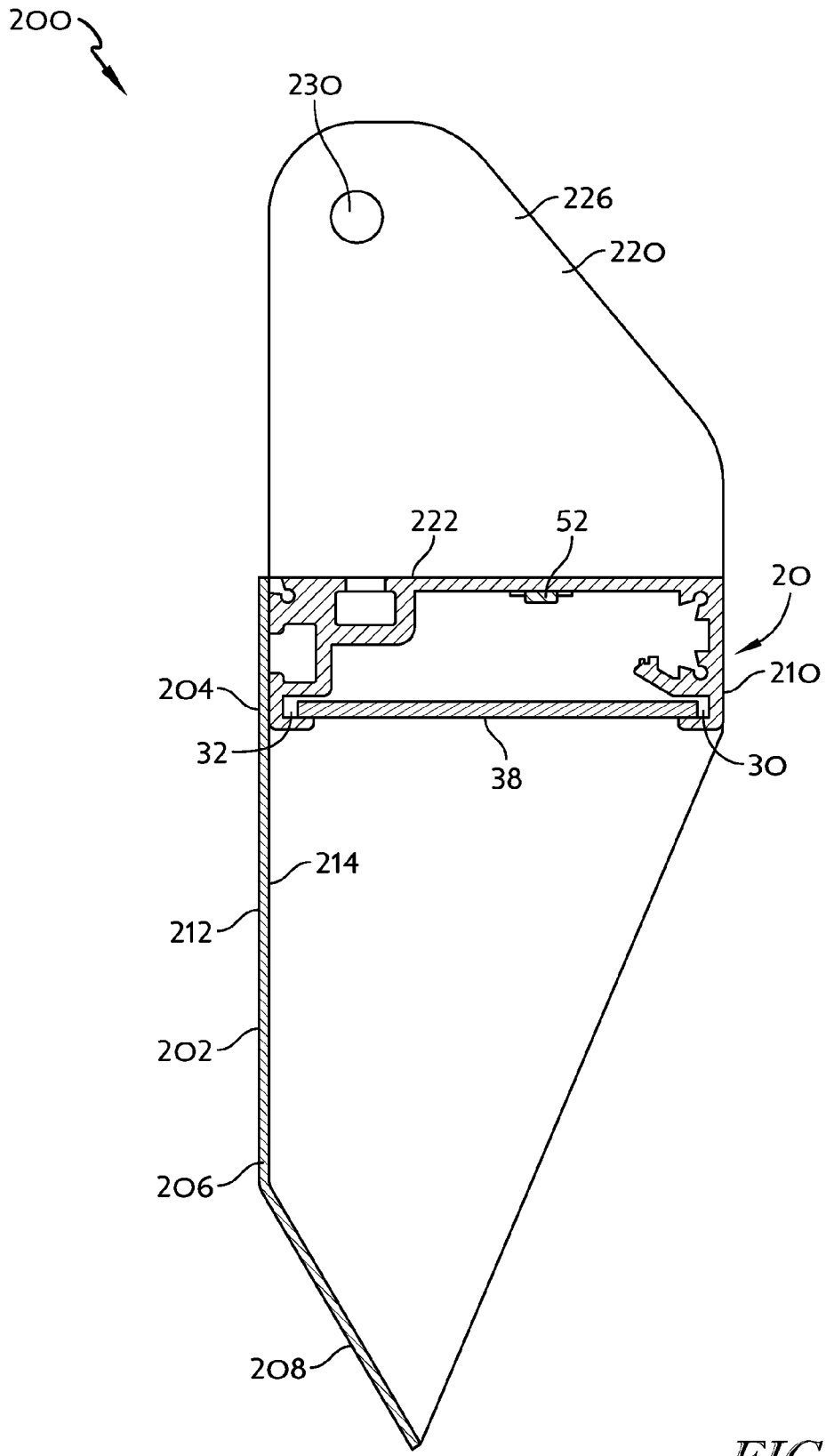

FIG. 17

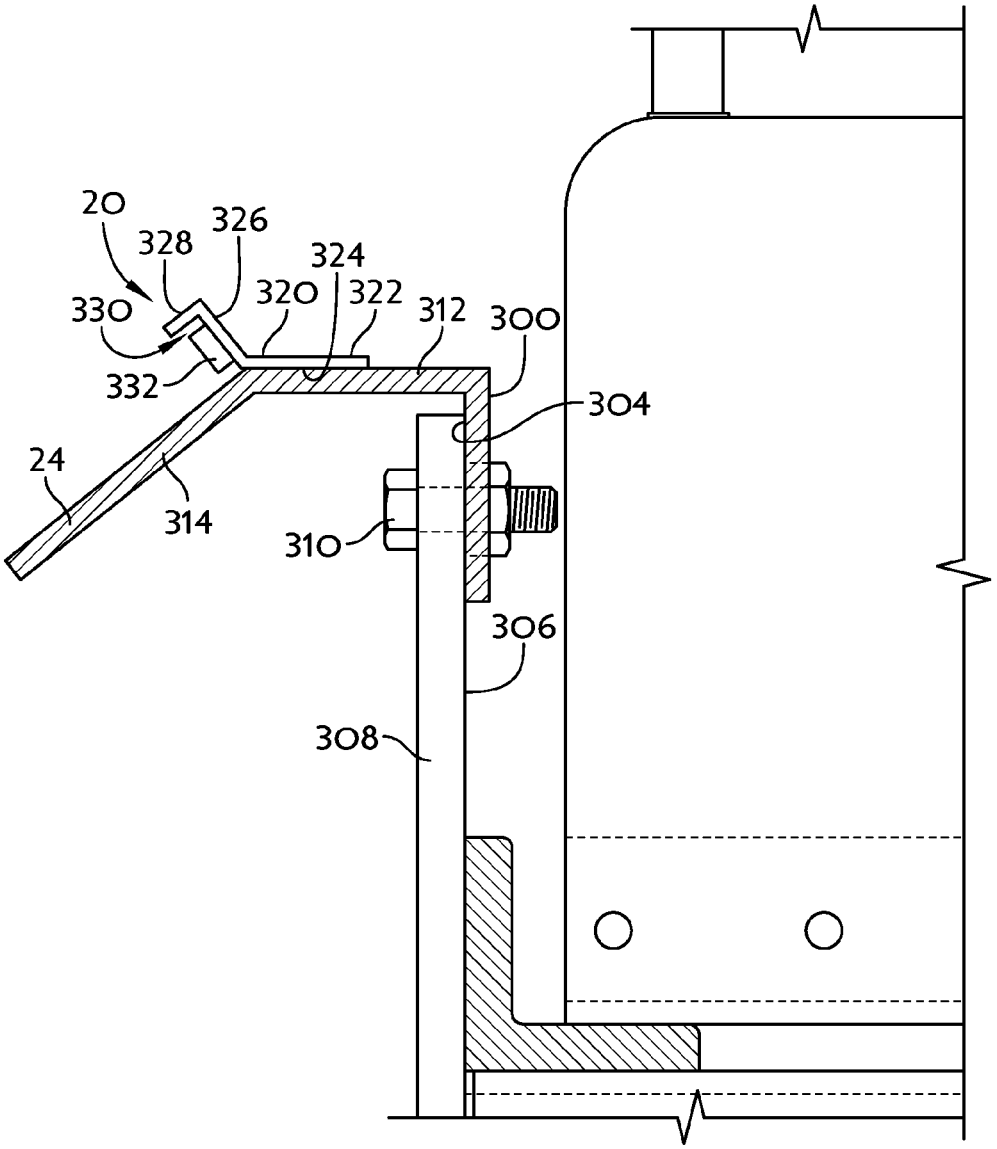

FIG. 18

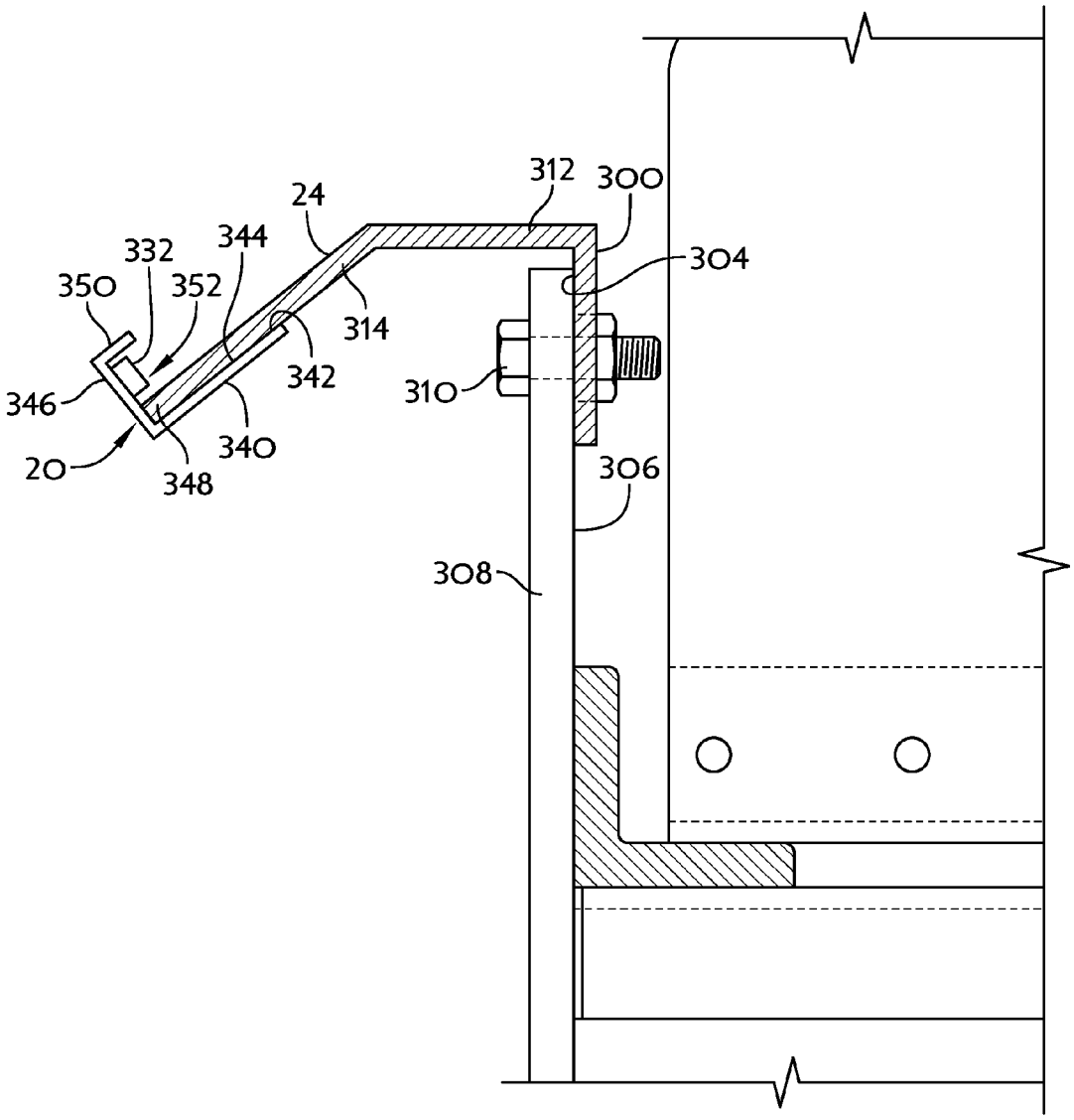

FIG. 19

REAR ILLUMINATED PANEL

RELATED APPLICATIONS

This application claims the benefit of U.S. Provisional Application Ser. No. 61/537,870 filed Sep. 22, 2011, and U.S. Provisional Application Ser. No. 61/611,860, filed Mar. 16, 2012, the disclosures of which are hereby incorporated by reference in their entireties.

FIELD OF THE INVENTION

The present invention is directed to an illuminated panel for use with a support structure, and more particularly to an illuminated panel for use in theater products and the like.

BACKGROUND

In theater productions, a locking rail is a piece of equipment that stretches a depth of a stage, along side of a stage, and/or along the front or back of a stage, and is located at the stage floor or on a fly gallery. The locking rail generally contains rope locks that are attached at approximately six inch intervals. These locks control the battens that run up, down, and over the stage, wherein the battens contain lights, scenery, drapery, etc. During performances, the battens need to be moved up and down, but during such performances, the lighting in the theater is oftentimes dim, and spotlights are utilized to highlight cast members and/or scenery to highlight portions of the production. Due to the dimming of many lights in the theater, it is oftentimes difficult to see behind scenery, and thus, it is difficult for users to determine which rope lock they need to open. During a performance, operation of an incorrect rope lock can not only be disastrous in that it can ruin the performance, but can also injure a performer, stagehand, bystander, or audience member.

As seen in FIGS. **1** and **2**, lighting systems **8** incorporating a plurality of lights **10**, such as 40 or 60 watt light bulbs, are routinely used to provide guidance to persons behind scenery or on a portion of a stage in a theater production. The systems **8** generally include a rectangular frame **11** for securing and holding the lights **10**, which extend outwardly of the frame **11**. The frame **11** also houses wiring and other electronic circuitry **12**. A housing **13** extends outwardly from the frame **11** to cover at least a portion of the lights **10**, wherein the housing **13** includes an opening **14** for light to emanate therethrough. Eye bolts, hooks, or other attachment mechanisms **15** extend from a side of the frame **11** opposite the housing **13** for hanging the system **8** from a structure. Index cards with writing thereon are utilized to provide directions, indicate location, or provide other information to someone behind the scenes. Lighting systems such as that shown in FIGS. **1** and **2** are difficult and time-consuming to use and allow the lighting to bleed into the performance area, and therefore, are not desired for many theater performances.

SUMMARY

In illustrative embodiments, an illuminated panel includes a base member having first and second opposing sides and a pair of guide grooves formed on the first side of the base member. The panel further includes a translucent thermoplastic sheet of material having rubber channel strips on opposing longitudinal sides of the sheet of material. The sheet of material is disposed within the guide grooves of the base member such that channel strips prevent vibration of the sheet of material within the guide grooves. The panel still further includes an LED strip having a plurality of LEDs and disposed within a cavity formed by the base member and the sheet of material, wherein light from the LEDs illuminates the sheet of material. The second opposing side of the base panel is adapted to be fastened to a structure. Suitable structures include a locking rail and an index light.

In further illustrative embodiments, an illuminated panel includes a base member having first and second opposing sides and a pair of grooves formed on the first side of the base member. The illuminated panel further includes a translucent sheet of material disposed within the grooves of the base member. An LED strip having a plurality of LEDs is disposed within a cavity formed by the base member and the sheet of material, wherein light from the LEDs illuminates the sheet of material. A light directing wall extends from the first side of the base member for directing light emitting by the LEDs.

In additional illustrative embodiments, an illuminated panel includes a support structure attached to a beam or other support and having a panel for illumination. The illuminated panel further includes a housing having a first wall attached to the support structure, a second wall extending at an angle with respect to the first wall, and a third wall extending at an angle from the second wall. The panel for illumination and the second and third walls form a cavity. An LED strip having a plurality of LEDs is disposed within the cavity for illumination of the panel for illumination.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a front elevational view of a prior art lighting system;

FIG. **2** is a side elevational view of the prior art lighting system taken generally from the lines **2-2** of FIG. **1**;

FIG. **3** is a top isometric view of a rear illuminated panel of the present disclosure attached to a support structure (in particular, a locking rail);

FIG. **4** is an exploded view of the rear illuminated panel of FIG. **1**;

FIG. **5** is a partial cross-sectional view taken generally along the lines **3-3** of FIG. **1** with portions of the rear illuminated panel removed for clarity;

FIG. **6** is a cross-sectional view taken generally along the lines **4-4** of FIG. **2** and depicting a base member of the rear illuminated panel;

FIG. **7** is a view of the rear illuminated panel of FIG. **1** attached to the support structure (locking rail) and installed in a theater;

FIG. **8** is a front elevational view of the rear illuminated panel of FIG. **1** attached to a support structure (in particular, an index light);

FIG. **9** is an enlarged view (see section **7** of FIG. **6**) showing how the rear illuminated panel is attached to the support structure at an end of the support structure;

FIG. **10** is an enlarged view (see section **8** of FIG. **6**) showing how the rear illuminated panel is attached to the support structure at center portions of the support structure;

FIG. **11** is a side elevational view of the rear illuminated panel attached to the index light of FIG. **8**;

FIG. **12** is an enlarged view (see section **10** in FIG. **11**) detailing an area where the rear illuminated panel is attached to the support structure;

FIG. **13** is a view of the rear illuminated panel attached to the support structure (index light) of FIG. **8**;

FIG. **14** is a view depicting the rear illuminated panels as seen in FIGS. **7** and **13**;

FIG. **15** is a top and front isometric view of an index light of the present disclosure suspended from a support structure;

FIG. **16** is an enlarged top and rear isometric view of the index light of FIG. **15**;

FIG. **17** is a cross sectional view of the index light of FIG. **15** taken generally along the lines **17-17** of FIG. **16**; and

FIGS. **18** and **19** are a further embodiments of an illuminated panel.

Other aspects and advantages of the present disclosure will become apparent upon consideration of the following detailed description, wherein similar structures have like or similar reference numerals.

DETAILED DESCRIPTION

The present disclosure is directed to a rear illuminated panel for attachment to a locking rail in one embodiment and an index light in another embodiment. Although the rear illuminated panels disclosed herein may be embodied in many different forms, several specific embodiments are discussed herein with the understanding that the present disclosure is to be considered only as an exemplification of the principles of the disclosure, and it is not intended to limit the disclosure to the embodiments illustrated.

Referring to the drawings, FIGS. **3-5** depict a rear illuminated panel **20** having a base member **22** that is formed of an aluminum extrusion. While aluminum is used for the base member **22**, those skilled in the art would understand that any other extrudable or non-extrudable materials may be utilized, for example, plastic, steel, and the like, or combinations of two or more materials. The base member **22** includes a plurality of grooves and cavities for retention of various components of the rear illuminated panel **20** and attachment of the panel **20** to one or more different support structures **24** (FIGS. **3** and **5**), such as an index strip or a locking rail, which will be discussed in detail hereinafter.

As seen in FIG. **4**, the base member **22** includes first and second lateral sides **26**, **28** with an opposing pair of guide grooves **30**, **32** being disposed on the first lateral side **26** of the base member **22** and extending an entire longitudinal length L**1** of the base member **22**. The rear illuminated panel **20** further includes a pair of rubber channel strips **34** that are generally U-shaped to form a channel **36** that can accommodate a sheet of translucent thermoplastic material **38**, such as Plexiglas. Preferably, although not necessarily, the thermoplastic material **38** is white in color and is adapted for writing thereon with a dry erase marker or other similar writing implement. Similarly, writing on the thermoplastic material **38** may be erased and/or illuminated so that a user can easily read writing on the material **38**. The thermoplastic material **38** provides an advantage over prior art systems in that index cards are no longer necessary. In prior art systems, the index cards could get lost or moved, thereby causing confusion and, possibly, mistakes.

The sheet of thermoplastic material **38** is inserted into the channels **36** formed by the rubber strips **34**. Preferably, the rubber strips **34** have a length L**2** that is the same as a length L**3** of the sheet of thermoplastic material **38**. The length L**3** of the sheet of thermoplastic material **38** is also about the same as the length L**1** of the base member **22**. After the rubber strips **34** are attached to the sheet of thermoplastic material **38**, the assembly is slid into the opposing grooves **30**, **32** formed in the base member **22**. In this manner, the rubber strips **34** fit within the grooves **30**, **32** with little space between the strips **34** and walls forming the grooves **30**, **32**. In one embodiment, a friction fit is created therebetween. Further, when assembled with the base member **22**, the rubber strips **34** retain the sheet of thermoplastic material **38** and position and prevent movement or vibration of the sheet of thermoplastic material **38**. Although the strips **34** are shown and described as being rubber, the strips **34** may be made of any flexible, compressible material that will hold the sheet of thermoplastic material **38** in place within the grooves **30**, **32**. Further, the sheet of thermoplastic material **38** may be replaced by any translucent semi-rigid material that would allow a user to write on a surface of the material, as will be discussed in greater detail hereinafter. Still optionally, a diffuser and/or a gel material may be used in combination with the thermoplastic material **38** or in place of the thermoplastic material **38**.

The rear illuminated panel **20** further includes a light-emitting diode (LED) strip **50**, as best seen in FIGS. **4** and **7**. The strip **50** includes a plurality of LEDs **52** extending along a length of the strip **50** and the strip **50** is positioned within a cavity **54** formed after insertion of the assembly of the sheet of thermoplastic material **38** and the rubber strips **34** is inserted into the base member **22**. In particular, the strip **50** is attached by adhesive, hook and loop fasteners, or any other attachment mechanism known in the art to a surface **56** within the cavity **54**. Optionally, the strip **50** may be attached to any surface within the cavity **54** that would allow light emitted from the LEDs **52** to project through and illuminate the sheet of thermoplastic material **38**. When the sheet of thermoplastic material **38** is illuminated, a user can view the content of what has been written on the sheet of thermoplastic material **39**. This is useful in a theater setting, for example, during a performance or rehearsal to indicate to a user of a locking rail which counterweight set to operate. Optionally, light from the rear illuminated panel **20** may be utilized in any other relatively dark setting, wherein a user needs to be notified of particular directions and the user is unable to see without an illuminated panel. The benefit of this rear illuminated panel is that the light is muted and the light does not bleed into a performance area. In particular, because the rear illuminated panel may illuminate rearwardly of the performance area, as opposed to downwardly or forwardly as seen in the prior art, the light projected by the rear illuminated panel does not bleed into the performance area. In addition, the use of LEDs **52** allows for control of the amount and direction of the light emitted therefrom. In one embodiment, a subset of the LEDs **52** may be illuminated depending on the amount of light needed.

The LEDs **52** in the LED strip **50** may be all of the same color, such as white, red, blue, green, etc., but alternatively, one or more of the LEDs **52** may be tri-color (red, green, and blue) LEDs. If multiple or all tri-color LEDs are utilized, up to 16 million different colors may be utilized (e.g., using a DMX controller).

After the rubber strips **34**, the sheet of thermoplastic material **38**, and the LED strip **50** are mounted within the base member **22**, end caps **60**, preferably made of the same material as the base member **22** are attached by mounting screws **62** (which are mounted within extruded holes in the base member **22**) to opposing ends **64**, **66** of the base member **22**, as seen in FIG. **4**. The end caps **60** retain the rubber strips **34**, the sheet of thermoplastic material **38**, and the LED strip **50** within the base member **22**, and also contain any wires or other elements disposed within cavities in the second lateral side **28** of the base member **22**, as discussed below.

Referring to FIG. **6**, the base member **22** includes cavities **70**, **72** contiguous with the cavity **54**. Further, the base member **22** includes a groove **76** and a generally C-shaped cavity **78** formed within the second lateral side **28**. At least one of the cavities **70**, **72**, **74** and the groove **76** are intended to support and house wiring for providing power to the LED strip **50**.

As seen in FIG. **4**, square head bolts **80** in combination with nuts **82** and washers **84** are utilized to attach the rear illumi-

nated panel **20** to a locking rail **86** of the support structure **24**. Preferably, extruded holes are disposed within the locking rail **86** for insertion of the square head bolts **80**. Optionally, the rear illuminated panel **20** may be attached to the lock rail **86** in any manner known in the art.

In one embodiment, as shown in FIG. **4**, a programmable controller **90** is utilized to control the LEDs **52**. The programmable controller **90** allows a user to remotely select a color, create a customized program for illuminating the LEDs, provide delays, dim the LEDs, and create color changing effects. The controller **90** may include any number of pre-programmed lighting effects or may allow a user to program any number of lighting effects or change lighting effects on the fly. In another embodiment, a wireless on/off and dimming switch **92** may be mounted into an electrical box that is attached to a wall, as seen in FIG. **4**. Optionally, the electrical box may be provided with a manual override switch or control. In yet another embodiment, both the controller **90** and the switch **92** may be utilized. If a wireless switch **92** or other controller is utilized, cords and wires may be eliminated from the rear illuminated panel **20**. The elimination of cords and wires reduces the risk of injury due to tripping over such components and provides a neater area surrounding the rear illuminated panel **20**.

In a further embodiment, as detailed in FIGS. **8-12**, the rear illuminated panel **20** includes a sheet of thermoplastic material **38**, such as Plexiglas, that is clear. As with other embodiments herein, the thermoplastic material **38** is adapted for writing thereon with a dry erase marker or other similar writing implement. In addition, in this embodiment, the base member **22** is preferably an aluminum extrusion with a mill finish and the LEDs **52** of the LED strip **50** are red, green, blue, white, and/or multi-colored (e.g., a tri-color LED of red/green/blue). The LEDs **52** may be controlled by a wall mount dimming switch **92**, which is not programmable. Optionally, a controller, such as a DMX controller, may be connected to a light board, for controlling operation of the LEDs. With an additional controller and/or a DMX controller and use of multi-colored LEDs, millions of different colors can be created.

Referring to FIGS. **8-14**, the rear illuminated panel **20** of this embodiment is attached to a support structure, in particular, an index light **100**. Specifically, the index light **100** includes a plurality of generally horizontal T-beams **102** held in place by multiple additional beams, including a plurality of diagonal beams **104**, each set of T-beams **102** and diagonal beams **104** spaced a distance apart, for example, between 5 and 8 feet. The index light **100** further includes an L-shaped panel **106** and an elongate bracket **108** that are attached to one another and the T-beams **102**. In particular, the bracket **108** includes a first end **110** that curves inwardly and downwardly to form a generally cylindrical cavity **112** for holding a pipe **114** or other elongate tubular structure or structures. A central portion **116** of the bracket **108** is generally planar and a second end **118** of the bracket **108** includes a downwardly and inwardly extending portion **120** that is attached to a T-beam **102** by one or more bolts **122** or other attachment mechanisms. The L-shaped panel **106** includes a first, longer portion **130** that extends downwardly from the index light **100** and a second, shorter portion **132** that is attached by bolts **134** or other attachment mechanisms to the bracket **108**. A first side **136** of an L-shaped bracket **138** is also attached to the bracket **108** by one or more bolts **140** or other attachment mechanisms, wherein a second side **142** of the bracket **138** prevents movement of the L-shaped panel **106**.

As best seen in FIG. **12**, the illuminated panel **20** is attached by an end bracket **150** to a lower surface **152** of the elongate bracket **108** by the bolts **134**. Specifically, the bolts **134** attach the shorter portion **132** of the panel **106**, the elongate bracket **108**, and the bracket **150**. Referring to FIG. **9**, at ends of the index light **100**, the brackets **150** include first and second planar portions **154**, **156** connected by an angled portion **158**. The first planar portion **154** is attached at the bolts **134** to the short portion **132** of the panel **106** and the elongate bracket **108** and the second planar portion **156** is attached to the illuminated panel **20** in any fashion known in the art. An angle **A1** formed by the angled portion **154** with respect to a longitudinal axis **160** of the index light **100**, wherein A1 is between about 45 degrees and about 60 degrees. End brackets **150** are disposed at ends of the index light **100**.

Central brackets **170** are utilized between ends of the index light **100** to attach the illuminated panel **20** to the index light **100**, as seen in FIG. **10**. In particular, the central brackets **170** include first, second, and third planar portions **172**, **174**, **176**, wherein the first and second planar portions **172**, **174** are separated by a first angled portion **178** and the second and third planar portions **174**, **176** are separated by a second angled portion **180**. The first and third planar portions **172**, **176** are attached to the illuminated panel **20** in any fashion known in the art and the second planar portion **174** is attached at the bolts **134** to the short portion **132** of the panel **106** and the elongate bracket **108**. Angles **A2** and **A3** are formed by the angled portions **178**, **180** with respect to the longitudinal axis **160**, wherein A2 and A3 are about 75 degrees. While A2 and A3 are shown as being similar, A2 and A3 may be different. In addition, an angle **A4** of about **30** degrees is formed between the angled portions **178**, **180** of the central bracket **170**.

FIGS. **15-17** depict an index light **200** incorporating a rear illuminated panel **20** similar to that disclosed in FIGS. **3-6**. The index light **200** further includes a light directing wall **202** extending from a first side **204** of the light **200** and having a first generally vertical segment **206** and a second segment **208** that is angled toward a second side **210** of the light **200**. An outer side **212** of the wall **202** is preferably black to blend in with dark scenery and an inner side **214** of the wall **202** is preferably white to reflect light emitted by the LEDs **52**. The second segment **208** of the wall **202** is angled rearwardly to transmit reflected light rearwardly, rather than downwardly. The index light **200** further includes at least two attachment mechanisms **220** attached to and extending upwardly from an outer or upper surface **222** of the rear illuminated panel **20**. As best seen in FIG. **16**, each attachment mechanism **220** is comprised of an L-shaped bracket having a first planar segment **224** that is attached by screws, bolts, or any other known attachment means to the outer surface **222** of the rear illuminated panel **20**. Each attachment mechanism **220** further includes a second segment **226** that is generally vertical and generally transverse to the first planar segment **224**. The second segment **226** includes a slot, aperture, or other connecting member **230** for attaching a chain **232** for connecting the attachment mechanism **220** and a structure **234** from which the index light **20** is to be suspended. The chain **232** may be adjustable in height and/or may be replaced by any other support mechanism known in the art. As described above, the index light **200** may be made in any length in that the rear illuminated panel **20** is modular. In addition, the additional components necessary for the index light **200** may be modular.

FIG. **18** depicts an illuminated panel **20** attached to a support structure **24**, such as an index strip or a locking rail. The support structure **24** includes a first generally vertical panel **300** having an inner surface **304** that is attached to an outer surface **306** of a beam or other support **308** by a bolt or other attachment mechanism **310**. A generally horizontal panel **312**

extends outwardly from the vertical panel **300** past the beam **308** and a diagonal panel **314** extends outwardly and downwardly from the horizontal panel **312**. The illuminated panel **20** includes a housing **320** with a generally horizontal portion **322** with a lower surface **324** attached to the horizontal panel **312** of the support structure **24**. The housing **320** further includes an angled portion **326** that extends away from the horizontal portion **322** and the diagonal panel **314** of the structure **24** and a lip **328** that, together with the angled portion **326** and the diagonal panel **314**, form a cavity **330**. One or more LEDs **332** are disposed within the cavity **330** for illuminating downwardly along the diagonal panel **314**. Index cards may be utilized with this embodiment, wherein the LEDs **332** provide illumination for viewing the index cards.

The embodiment an illuminated panel **20** of FIG. **19** is similar to the embodiment of FIG. **18**, and thus only the differences will be discussed. The illuminated panel **20** includes a first diagonal portion **340** having an upper surface **342** secured to a rear surface **344** of the diagonal panel **314** of the structure **24**. The illuminated panel **20** includes a second diagonal portion **346** generally perpendicular to the first diagonal portion **340** and which abuts a lower end **348** of the diagonal panel **314**. A lip **350** extends inwardly of the second diagonal portion **346** and is generally parallel to the first diagonal portion **340**. The lip **350**, the second diagonal portion **346**, and the diagonal panel **314** form a cavity **352** that houses one or more LEDs **332** that shine light upwardly along the diagonal panel **314**. Again, index cards may be utilized with this embodiment.

The illuminated panels **20** as disclosed herein are modular in nature. In particular, each panel **20** may be provided in, for example 8 or 10 foot segments. As one skilled in the art would recognize, any size segments may be utilized and/or multiple different size segments may be provided without departing from the scope of the present invention. Each segment would be provided, for example, in the form seen in FIGS. **3** and **4**.

If a user desires to create a rear illuminated panel **20** using two segments, adjacent end caps **60** may be removed and one or more connectors may be utilized to connect the panels **20**. Any connector may be utilized, for example, one or more clips, screws, bolts, an adhesive, tape, or combinations thereof. Optionally, one or more connectors may be formed in the shape of the grooves **30**, **32** (or any other grooves within the base member **22**, wherein the connector is slid into the grooves of adjacent panels **20** to retain the panels **20** adjacent one another. In such arrangement, one or more retaining means may be utilized to retain the connector in place within the base member **22**.

The modular rear illuminated panels **20** provide a compact, portable, and adjustable illuminated panel for use in almost any environment. Prior art panels are bulky, hard to move and manipulate, and do not provide adjustability.

Any of the embodiments described herein may be modified to include any of the structures or methodologies disclosed in connection with other embodiments.

Further, although directional terminology, such as front, back, upper, lower, etc. may be used throughout the present specification, it should be understood that such terms are not limiting and are only utilized herein to convey the orientation of different elements with respect to one another.

Numerous modifications to the present disclosure will be apparent to those skilled in the art in view of the foregoing description. Accordingly, this description is to be construed as illustrative only and is presented for the purpose of enabling those skilled in the art to make and use the embodiments of the present disclosure and to teach the best mode of carrying out same. The exclusive rights to all modifications which come within the scope of the appended claims are reserved.

The invention claimed is:

1. An illuminated panel, comprising:

a base member having first and second opposing sides;

a pair of grooves formed on the first side of the base member;

a translucent thermoplastic sheet of material having rubber channel strips on opposing longitudinal sides of the sheet of material, the sheet of material being disposed within the guide grooves of the base member such that channel strips prevent vibration of the sheet of material within the guide grooves; and

an LED strip having a plurality of LEDs and disposed within a cavity formed by the base member and the sheet of material, wherein light from the LEDs illuminates the sheet of material;

wherein the second opposing side of the base panel is adapted to be fastened to a structure.

2. The illuminated panel of claim **1**, wherein the illuminated panel is fastened to a structure selected from the group consisting of a locking rail and an index light.

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