ASSEMBLY FOR SUPPORTING CEILING PANELS AND CEILING SYSTEM INCORPORATING THE SAME

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application is a PCT International Application of United States Patent Application No. 14/554,869 filed on November 26, 2014. The disclosure of the above application is incorporated herein by reference.

FIELD

[0002] The present invention relates generally to ceiling systems comprising ceiling panels, struts, mounting brackets, and saddle brackets.

BACKGROUND

[0003] Many suspended ceiling systems have been proposed and are used extensively in building construction to improve the overall appearance of the office space, to allow access to the area above the ceiling where mechanical equipment and piping is often located, and to improve the acoustics of the space.

[0004] The problem with the prior art structures is that the main thrust has been to provide a fairly simple inexpensive suspended ceiling system for use in a variety of applications. However, these systems although inexpensive are suffer from problems of alignment of the edges of the panels to provide straight lines in both the length and width of the ceiling system; control of the level of the individual panels beneath the grid work within a fairly narrow range as variation in the height of the panels is easily recognized from beneath due to light variations; and an adequate air seal between the support grid and the ceiling panels.

[0005] The present invention is designed to alleviate the above problems of concealed suspended ceiling systems.

BRIEF SUMMARY

[0005a] According to a first aspect of the present invention, there is provided a grid assembly for hanging a ceiling panel, the grid assembly comprising:

a grid support comprising at least one strut comprising a flange portion, a web portion extending upward from the flange portion, a bulb portion on the web portion, the bulb portion comprising an undersurface;

a saddle bracket comprising a horizontal locking feature, a vertical locking feature, a panel mounting feature, and a web receiving cavity;

the saddle bracket mounted to the strut so that the web portion of the strut is disposed in the web receiving cavity and the vertical locking feature of the saddle bracket engages the undersurface of the bulb portion, thereby vertically locking the saddle bracket to the strut; and

the horizontal locking feature of the saddle bracket alterable between: (1) a first state in which the saddle bracket can slide horizontally along the strut while the saddle bracket remains vertically locked to the strut; and (2) a second state in which the horizontal locking element engages the web portion of the strut, thereby horizontally locking the saddle bracket to the strut.

[0005b] According to a second aspect of the present invention, there is provided a ceiling system comprising:

a grid support comprising a plurality of struts, each of the struts comprising a flange portion, a web portion extending upward from the flange portion, a bulb portion on the web portion, the bulb portion comprising an undersurface;

a ceiling panel mounted to the grid support by a plurality of connection assemblies, each of the connection assemblies comprising:

a mounting bracket assembly comprising:

a mounting bracket coupled to the ceiling panel; and

a resilient element coupled to the mounting bracket;

a saddle bracket comprising:

a saddle member defining a web receiving cavity;

a horizontal locking feature;

a vertical locking feature;

a support flange extending from the saddle member; and

the saddle bracket mounted to one of the struts so that: (1) the saddle member straddles the web portion of the strut and the web portion of the strut is disposed in the web receiving cavity; and (2) the vertical locking feature of the saddle bracket engages an undersurface of the bulb portion, thereby vertically locking the saddle bracket to the strut;

the horizontal locking feature of the saddle bracket alterable between: (1) a first state in which the saddle bracket can slide horizontally along the strut while the saddle bracket remains vertically locked to the strut; and (2) a second state in which the horizontal locking element engages the web portion of the strut, thereby horizontally locking the saddle bracket to the strut; and

the resilient element detachably coupled to the saddle bracket.

[0005c] According to a third aspect of the present invention, there is provided a saddle bracket for a ceiling system, the saddle bracket comprising:

a first wall plate extending from a first side edge to a second side edge, the first and second side edges of the first wall plate being free edges;

a second wall plate extending from a first side edge to a second side edge, the first and second side edges of the second wall plate being free edges;

a bight portion connecting the first and second wall plates, the bight portion, the first wall plate, and the second wall plate collectively defining a web receiving cavity that extends along a central vertical plane;

a first support flange extending from a lower end the first wall plate;

a second support flange extending from a lower end of the second wall plate;

a vertical locking feature extending into the receiving cavity and configured to engage an undersurface of a bulb portion of a strut to vertically lock the saddle bracket to the strut upon a web portion of the strut being inserted into the web receiving cavity; and

a horizontal locking feature comprising a barb portion configured to penetrate the bulb portion of the strut upon, the horizontal locking feature alterable between: (1) a first position in which the barb portion does not extend into the web receiving cavity; and (2) a second position in which the barb portion is located within the web receiving cavity.

[0005d] According to a fourth aspect of the present invention, there is provided a ceiling panel apparatus comprising:

a ceiling panel;

a plurality of mounting bracket assemblies coupled to the ceiling panel, each of the mounting bracket assemblies comprising:

a mounting bracket comprising:

a base plate comprising a multi-purpose aperture;

a hook member coupled to the base plate, the hook member comprising a free end;

a receiving slot formed between the free end of the hook member and an upper surface of the base plate;

a torsion spring comprising a ring portion, a first spring leg, and a second spring leg, the hook member of the mounting bracket extending through a central opening of the ring portion of the torsion spring to mount the torsion spring to the mounting bracket; and

a multi-purpose fastener alterable between:

a locked state in which the multi-purpose fastener: (i) extends through the multi-purpose aperture of the base plate and fastens the mounting bracket to the ceiling panel; and (ii) obstructs the receiving slot so as to prohibit the ring portion of the torsion spring from passing through the receiving slot, thereby locking the torsion spring to the mounting bracket; and

an unlocked state in which the multi-purpose fastener does not obstruct the receiving slot to allow the ring portion of the torsion spring to pass through the receiving slot.

[0005e] According to a fifth aspect of the present invention, there is provided a suspended ceiling system comprising:

a plurality of struts arranged in a grid support plane, each of the struts comprising a web portion and a flange portion;

a ceiling panel mounted to the struts by a plurality of connection assemblies, each of the connection assemblies comprising:

a mounting bracket comprising:

a base plate comprising a multi-purpose aperture;

a hook member coupled to the base plate, the hook member comprising a free end;

a receiving slot formed between the free end of the hook member and an upper surface of the base plate;

a torsion spring comprising a ring portion, a first spring leg, and a second spring leg, the hook member of the mounting bracket extending through a central opening of the ring portion of the torsion spring to mount the torsion spring to the mounting bracket;

a multi-purpose fastener alterable between:

a locked state in which the multi-purpose fastener: (i) extends through the multi-purpose aperture of the base plate and fastens the mounting bracket to the ceiling panel; and (ii) obstructs the receiving slot so as to prohibit the ring portion of the torsion spring from passing through the receiving slot, thereby locking the torsion spring to the mounting bracket; and

an unlocked state in which the multi-purpose fastener does not obstruct the receiving slot to allow the ring portion of the torsion spring to pass through the receiving slot; and

a mounting slot located in one of a flange portion of one of the struts or a saddle bracket that is coupled to one of the struts; and

the first and second spring legs of the torsion spring extending through the mounting slot.

[0005f] According to a sixth aspect of the present invention, there is provided a mounting bracket assembly for supporting a ceiling panel, the mounting bracket assembly comprising:

a mounting bracket comprising:

a base plate comprising a multi-purpose aperture;

a hook member coupled to the base plate, the hook member comprising a free end;

a receiving slot formed between the free end of the hook member and an upper surface of the base plate;

a torsion spring comprising a ring portion, a first spring leg, and a second spring leg, the hook member of the mounting bracket extending through a central opening of the ring portion of the torsion spring to mount the torsion spring to the mounting bracket; and

a multi-purpose fastener alterable between:

a locked state in which the multi-purpose fastener: (i) extends through the multi-purpose aperture of the base plate; and (ii) obstructs the receiving slot so as to prohibit the ring portion of the torsion spring from passing through the receiving slot, thereby locking the torsion spring to the mounting bracket; and

an unlocked state in which the multi-purpose fastener does not obstruct the receiving slot to allow the ring portion of the torsion spring to pass through the receiving slot.

[0005g] According to a seventh aspect of the present invention, there is provided a ceiling system comprising:

a grid support comprising a plurality of struts, each of the struts comprising a flange portion and a web portion extending upward from the flange portion, the flange portion having an upper surface and a lower surface;

a ceiling panel mounted to the grid support by a plurality of connection assemblies, each of the connection assemblies comprising:

a mounting bracket assembly comprising:

a mounting bracket coupled to the ceiling panel, the mounting bracket having a first upper surface portion and a second upper surface portion; and

a resilient element coupled to the mounting bracket;

a saddle bracket comprising:

a saddle member defining a web receiving cavity; and

a support flange extending from the saddle member, the support flange comprising a first lower surface portion and a second lower surface portion; and

the saddle bracket coupled to one of the struts so that: (1) the saddle member straddles the web portion of the strut and the web portion of the strut is disposed in the web receiving cavity; (2) the first lower surface portion overlies the upper surface of the flange portion of the strut; and (3) the second lower surface portion extends beyond an edge of the flange portion of the strut; and

the resilient element detachably coupled to the saddle bracket and biasing the mounting bracket, the flange portion of the strut, and the support flange of the saddle bracket together so that: (1) the first upper surface portion of the mounting bracket is in contact with the lower surface of the flange portion of the strut; (2) the first lower surface portion of the support flange of the saddle member is in contact with the upper surface of the flange portion of the strut; and (3) the second upper surface portion of the mounting bracket is in contact with the second lower surface portion of the support flange of the saddle member.

[0005h] According to an eighth aspect of the present invention, there is provided a grid assembly for hanging a ceiling panel, the grid assembly comprising:

a grid support comprising at least one strut comprising a flange portion and a web portion extending upward from the flange portion, the flange portion having an upper surface and a lower surface;

a saddle bracket comprising:

a saddle member defining a web receiving cavity; and

a support flange extending from the saddle member, the support flange comprising a first lower surface portion and a second lower surface portion that is vertically offset from the first lower surface portion; and

the saddle bracket coupled to one of the struts so that: (1) the saddle member straddles the web portion of the strut and the web portion of the strut is disposed in the web receiving cavity; (2) the first lower surface portion contacts the upper surface of the flange portion of the strut; and (3) the second lower surface portion extends beyond an edge of the flange portion of the strut and is substantially coplanar with the lower surface of the flange portion of the strut.

[0005i] According to a ninth aspect of the present invention, there is provided a saddle bracket for a ceiling system, the saddle bracket comprising:

a saddle member comprising a first wall plate, a second wall plate, and a bight portion connecting the first and second wall plates, the bight portion, the first wall plate, and the second wall plate collectively defining a web receiving cavity that extends along a central vertical plane; and

a first support flange extending from the first wall plate, the first support flange comprising a stepped lower surface comprising a first lower surface portion and a second lower surface portion that is vertically offset from the first lower surface portion.

[0005j] According to a tenth aspect of the present invention, there is provided a ceiling system comprising:

a grid support comprising a plurality of struts, each of the struts comprising a flange portion and a web portion extending upward from the flange portion;

a ceiling panel mounted to the grid support by a plurality of connection assemblies, each of the connection assemblies comprising:

a mounting bracket assembly comprising:

a mounting bracket; and

a resilient element coupled to the mounting bracket;

a saddle bracket comprising:

a saddle member defining a web receiving cavity; and

a stepped support flange extending from the saddle member;

the saddle bracket coupled to one of the struts so that the web portion of the strut is disposed in the web receiving cavity; and

the resilient element detachably coupled to the saddle bracket and biasing the mounting bracket, the flange portion of the strut, and the support flange of the saddle bracket together so that: (1) the mounting bracket and the stepped support flange of the saddle bracket are in contact with one another; and (2) the flange portion of the strut is sandwiched between and in contact with each of the mounting bracket and the stepped support flange.

[0005k] According to an eleventh aspect of the present invention, there is provided a ceiling system comprising:

a grid support comprising a plurality of struts, each of the struts comprising a flange portion and a web portion extending upward from the flange portion, the flange portion having an upper surface and a lower surface;

a ceiling panel mounted to the grid support by a plurality of connection assemblies, each of the connection assemblies comprising:

a mounting bracket assembly comprising:

a mounting bracket coupled to the ceiling panel, the mounting bracket comprising an upper surface and a wall surface; and

a resilient element coupled to the mounting bracket;

a saddle bracket comprising:

a saddle member defining a web receiving cavity; and

a support flange extending from the saddle member; and

the saddle bracket coupled to one of the struts so that: (1) the saddle member straddles the web portion of the strut and the web portion of the strut is disposed in the web receiving cavity; (2) the support flange is located above and spaced from the flange portion of the strut; and (3) a portion of the support flange extends beyond an edge of the flange portion of the strut; and

the resilient element detachably coupled to the saddle bracket and biasing the mounting bracket so that: (1) the upper surface of the mounting bracket contacts the portion of the support flange that extends beyond the edge of the flange portion of the strut to provide vertical registration between the ceiling panel and the grid support; and (2) the wall surface of the mounting bracket is located adjacent the edge of the flange portion of the strut to provide horizontal registration between the ceiling panel and the grid support.

[0006] Embodiments of the invention provide a ceiling system comprising a grid support, a ceiling panel, and a plurality of connection assemblies. The ceiling panel is mounted to the grid support by the plurality of connection assemblies.

[0007] The grid support comprises a plurality of struts, each of the struts comprising a flange portion and a web portion. The web portion extends upward from the flange portion, and the flange portion having an upper surface and a lower surface.

[0008] Each of the connection assemblies comprises a mounting bracket assembly and a saddle bracket. The mounting bracket assembly comprises a mounting bracket and a resilient element. The mounting bracket is coupled to the ceiling panel and has a first upper surface portion and a second upper surface portion. The resilient element is coupled to the mounting bracket.

[0009] The saddle bracket comprises a saddle member and a support flange. The saddle member defines a web receiving cavity. The support flange extends from the saddle member, and comprises a first lower surface portion and a second lower surface portion.

[0010] The saddle bracket is coupled to one of the struts so that the saddle member straddles the web portion of the strut and the web portion of the strut is disposed in the web receiving cavity. The saddle bracket is further coupled to one of the struts so that the first lower surface portion overlies the upper surface of the flange portion of the strut. The saddle bracket is also coupled to one of the struts so that the second lower surface portion extends beyond an edge of the flange portion of the strut.

[0011] The resilient element is detachably coupled to the saddle bracket. The resilient element biases the mounting bracket, the flange portion of the strut, and the support flange of the saddle bracket together. Specifically, the resilient element bias causes the first upper surface portion of the mounting bracket to be in contact the lower surface of the flange portion of the strut. The resilient element bias further causes the first lower surface portion of the support flange of the saddle member to be in contact with the upper surface of the flange portion of the strut. The resilient element bias also causes the second upper surface portion of the mounting bracket to be in contact with the second lower surface portion of the support flange of the saddle member.

[0012] In another embodiment, the present invention is directed to a grid assembly for hanging a ceiling panel, the grid assembly comprising a grid support and a saddle bracket.

purpose fastener does not obstruct the receiving slot to allow the ring portion of the torsion spring to pass through the receiving slot.

[0038] Embodiments of the present invention include another embodiment directed to a suspended ceiling system comprising a plurality of struts, a plurality of connection assemblies, and a ceiling panel. The ceiling panel mounted to the struts by the plurality of connection assemblies. The plurality of struts is arranged in a grid support plane.

[0039] Each of the struts comprising a web portion and a flange portion. Each of the connection assemblies comprises a mounting bracket, a torsion spring, a multi-purpose fastener, and a mounting slot.

[0040] The mounting bracket comprises a base plate, a hook member, and a hook member. The base plate comprises a multi-purpose aperture, a hook member, and a receiving slot. The hook member is coupled to the base plate and the hook member comprising a free end. The receiving slot is formed between the free end of the hook member and an upper surface of the base plate.

[0041] The torsion spring comprises a ring portion, a first spring leg, and a second spring leg. The hook member of the mounting bracket extends through a central opening of the ring portion of the torsion spring to mount the torsion spring to the mounting bracket.

[0042] The multi-purpose fastener alterable between a locked state and an unlocked state. In the locked state, the multi-purpose fastener extends through the multi-purpose aperture of the base plate and fastens the mounting bracket to the ceiling panel. In the locked state, the multi-purpose fastener also obstructs the receiving slot so as to prohibit the ring portion of the torsion spring from passing through the receiving slot, thereby locking the torsion spring to the mounting bracket. In the unlocked state, the multi-purpose fastener does not obstruct the receiving slot to allow the ring portion of the torsion spring to pass through the receiving slot.

[0043] The mounting slot is located in one of a flange portion of one of the struts or a saddle bracket that is coupled to one of the struts. The first and second spring legs of the torsion spring extending through the mounting slot.

[0044] Another embodiment of the present invention includes a mounting bracket assembly for supporting a ceiling panel. The mounting bracket assembly comprising a mounting bracket, a torsion spring, and a multi-purpose fastener.

[0045] The mounting bracket comprises a base plate, a hook member, and a receiving slot. The base plate comprises a multi-purpose aperture. The hook member is coupled to the base plate, and the hook member comprises a free end. The receiving slot is formed between the free end of the hook member and an upper surface of the base plate.

[0046] The torsion spring comprises a ring portion, a first spring leg, and a second spring leg. The hook member of the mounting bracket extends through a central opening of the ring portion of the torsion spring to mount the torsion spring to the mounting bracket.

[0047] The multi-purpose fastener alterable between a locked state and an unlocked state. In the locked state, the multi-purpose fastener extends through the multi-purpose aperture of the base plate. In the locked state, the multi-purpose fastener also obstructs the receiving slot so as to prohibit the ring portion of the torsion spring from passing through the receiving slot, thereby locking the torsion spring to the mounting bracket. In the unlocked state, the multi-purpose fastener does not obstruct the receiving slot to allow the ring portion of the torsion spring to pass through the receiving slot.

[0048] Embodiments of the present invention include an additional embodiment directed to a ceiling system comprises a grid support, a ceiling panel, and a plurality of connection assemblies. The ceiling panel is mounted to the grid support by the plurality of connection assemblies.

[0049] The grid support comprising a plurality of struts. Each of the struts comprises a flange portion and a web portion extending upward from the flange portion. The flange portion has an upper surface and a lower surface.

[0050] Each of the connection assemblies comprises a mounting bracket assembly and a saddle bracket. The mounting bracket assembly comprises a mounting bracket and a resilient element. The mounting bracket is coupled to the ceiling panel. The mounting bracket comprising an upper surface and a wall surface. The resilient element is coupled to the mounting bracket.

[0051] The saddle bracket comprises a saddle member and a support flange. The saddle member defines a web receiving cavity. The support flange extends from the saddle member. The saddle bracket is coupled to one of the struts so that the saddle member straddles the web portion of the strut and the web portion of the strut is disposed in the web receiving cavity. The saddle bracket is also coupled to one of the struts so that the support flange is located above and spaced from the flange portion of the strut. The

3. A ceiling system comprising:

a grid support comprising a plurality of struts, each of the struts comprising a flange portion, a web portion extending upward from the flange portion, a bulb portion on the web portion, the bulb portion comprising an undersurface;

a ceiling panel mounted to the grid support by a plurality of connection assemblies, each of the connection assemblies comprising:

a mounting bracket assembly comprising:

a mounting bracket coupled to the ceiling panel; and

a resilient element coupled to the mounting bracket;

a saddle bracket comprising:

a saddle member defining a web receiving cavity;

a horizontal locking feature;

a vertical locking feature;

a support flange extending from the saddle member; and

the saddle bracket mounted to one of the struts so that: (1) the saddle member straddles the web portion of the strut and the web portion of the strut is disposed in the web receiving cavity; and (2) the vertical locking feature of the saddle bracket engages an undersurface of the bulb portion, thereby vertically locking the saddle bracket to the strut;

the horizontal locking feature of the saddle bracket alterable between: (1) a first state in which the saddle bracket can slide horizontally along the strut while the saddle bracket remains vertically locked to the strut; and (2) a second state in which the horizontal locking element engages the web portion of the strut, thereby horizontally locking the saddle bracket to the strut; and

the resilient element detachably coupled to the saddle bracket.

4. The ceiling system according to claim 3 wherein for each of the connection assemblies, the saddle member comprises a first wall plate, a second wall plate opposing the first wall plate, and a bight portion connecting the first and second wall plates, the bight portion, the first wall plate, and the second wall plate collectively defining the web receiving cavity, and the support flange extending from the first wall plate, and

wherein each of the connection assemblies further comprises:

the vertical locking feature comprising a resilient element alterable between a locking state and an access state, the resilient element biased into the locking state;

the web receiving cavity of the saddle bracket comprising an entry section located below the resilient element and a bulb nesting section located above the resilient element;

wherein upon the web portion of the strut being inserted into the web receiving cavity, the resilient element: deflects from the locking state to the access state as a result of contact with the bulb portion as the bulb portion passes from the entry section to the bulb nesting section; and returns from the access state to the locking state to engage the undersurface of the bulb portion when the bulb portion is in the bulb nesting section.

5. A saddle bracket for a ceiling system, the saddle bracket comprising:

a first wall plate extending from a first side edge to a second side edge, the first and second side edges of the first wall plate being free edges;

a second wall plate extending from a first side edge to a second side edge, the first and second side edges of the second wall plate being free edges;

a bight portion connecting the first and second wall plates, the bight portion, the first wall plate, and the second wall plate collectively defining a web receiving cavity that extends along a central vertical plane;

a first support flange extending from a lower end the first wall plate;

a second support flange extending from a lower end of the second wall plate;

a vertical locking feature extending into the receiving cavity and configured to engage an undersurface of a bulb portion of a strut to vertically lock the saddle bracket to the strut upon a web portion of the strut being inserted into the web receiving cavity; and

a horizontal locking feature comprising a barb portion configured to penetrate the bulb portion of the strut upon, the horizontal locking feature alterable between: (1) a first position in which the barb portion does not extend into the web receiving cavity; and (2) a second position in which the barb portion is located within the web receiving cavity.

6. The saddle bracket according to claim 5 wherein the vertical locking feature comprising a resilient element alterable between: (1) a locking state in which the resilient element is located a first distance from the central vertical plane of the web receiving

cavity; and (2) an access state in which the resilient element is located a second distance from the central vertical plane of the web receiving cavity, the second distance being greater than the first distance, and the resilient element biased into the locking state.

7. A ceiling panel apparatus comprising:

a ceiling panel;

a plurality of mounting bracket assemblies coupled to the ceiling panel, each of the mounting bracket assemblies comprising:

a mounting bracket comprising:

a base plate comprising a multi-purpose aperture;

a hook member coupled to the base plate, the hook member comprising a free end;

a receiving slot formed between the free end of the hook member and an upper surface of the base plate;

a torsion spring comprising a ring portion, a first spring leg, and a second spring leg, the hook member of the mounting bracket extending through a central opening of the ring portion of the torsion spring to mount the torsion spring to the mounting bracket; and

a multi-purpose fastener alterable between:

a locked state in which the multi-purpose fastener: (i) extends through the multi-purpose aperture of the base plate and fastens the mounting bracket to the ceiling panel; and (ii) obstructs the receiving slot so as to prohibit the ring portion of the torsion spring from passing through the receiving slot, thereby locking the torsion spring to the mounting bracket; and

an unlocked state in which the multi-purpose fastener does not obstruct the receiving slot to allow the ring portion of the torsion spring to pass through the receiving slot.

8. The ceiling panel apparatus according to claim 7 wherein for each of the mounting bracket assemblies, when the multi-purpose fastener is in the unlocked state,

the multi-purpose fastener no longer extends through the multi-purpose aperture of the base plate and no longer fastens the mounting bracket to the ceiling panel.

9. A suspended ceiling system comprising:

a plurality of struts arranged in a grid support plane, each of the struts comprising a web portion and a flange portion;

a ceiling panel mounted to the struts by a plurality of connection assemblies, each of the connection assemblies comprising:

a mounting bracket comprising:

a base plate comprising a multi-purpose aperture;

a hook member coupled to the base plate, the hook member comprising a free end;

a receiving slot formed between the free end of the hook member and an upper surface of the base plate;

a torsion spring comprising a ring portion, a first spring leg, and a second spring leg, the hook member of the mounting bracket extending through a central opening of the ring portion of the torsion spring to mount the torsion spring to the mounting bracket;

a multi-purpose fastener alterable between:

a locked state in which the multi-purpose fastener: (i) extends through the multi-purpose aperture of the base plate and fastens the mounting bracket to the ceiling panel;

and (ii) obstructs the receiving slot so as to prohibit the ring portion of the torsion spring from passing through the receiving slot, thereby locking the torsion spring to the mounting bracket; and

an unlocked state in which the multi-purpose fastener does not obstruct the receiving slot to allow the ring portion of the torsion spring to pass through the receiving slot; and

a mounting slot located in one of a flange portion of one of the struts or a saddle bracket that is coupled to one of the struts; and

the first and second spring legs of the torsion spring extending through the mounting slot.

10. The ceiling system according to claim 9 wherein for each of the connection assemblies, the mounting bracket further comprises a wall plate extending upward from the upper surface of the base plate and an upper plate extending from the wall plate above the upper surface of the base plate, a space being formed between a lower surface of the upper plate and the upper surface of the base plate, wherein for each of the connection assemblies, the upper plate of the mounting bracket comprises a first upper plate section and a second upper plate section, the hook member located longitudinally between the first and second upper plate sections.

11. A mounting bracket assembly for supporting a ceiling panel, the mounting bracket assembly comprising:

a mounting bracket comprising:

a base plate comprising a multi-purpose aperture;

a hook member coupled to the base plate, the hook member comprising a free end;

a receiving slot formed between the free end of the hook member and an upper surface of the base plate;

a torsion spring comprising a ring portion, a first spring leg, and a second spring leg, the hook member of the mounting bracket extending through a central opening of the ring portion of the torsion spring to mount the torsion spring to the mounting bracket; and

a multi-purpose fastener alterable between:

a locked state in which the multi-purpose fastener: (i) extends through the multi-purpose aperture of the base plate; and (ii) obstructs the receiving slot so as to prohibit the ring portion of the torsion spring from passing through the receiving slot, thereby locking the torsion spring to the mounting bracket; and

an unlocked state in which the multi-purpose fastener does not obstruct the receiving slot to allow the ring portion of the torsion spring to pass through the receiving slot.

12. The mounting bracket assembly according to claim 11 further comprising:

the base plate comprising a longitudinal base plate axis extending from a first transverse edge to a second transverse edge;

the base plate comprising a transverse base plate axis extending from a first longitudinal edge to a second longitudinal edge; and

wherein the multi-purpose mounting aperture and the free end of the hook member are in transverse alignment.

13. A ceiling system comprising:

a grid support comprising a plurality of struts, each of the struts comprising a flange portion and a web portion extending upward from the flange portion, the flange portion having an upper surface and a lower surface;

a ceiling panel mounted to the grid support by a plurality of connection assemblies, each of the connection assemblies comprising:

a mounting bracket assembly comprising:

a mounting bracket coupled to the ceiling panel, the mounting bracket having a first upper surface portion and a second upper surface portion; and

a resilient element coupled to the mounting bracket;

a saddle bracket comprising:

a saddle member defining a web receiving cavity; and

a support flange extending from the saddle member, the support flange comprising a first lower surface portion and a second lower surface portion; and

the saddle bracket coupled to one of the struts so that: (1) the saddle member straddles the web portion of the strut and the web portion of the strut is disposed in the web receiving cavity; (2) the first lower surface portion overlies the upper surface of the flange portion of the strut; and (3) the second lower surface portion extends beyond an edge of the flange portion of the strut; and

the resilient element detachably coupled to the saddle bracket and biasing the mounting bracket, the flange portion of the strut, and the support flange of the saddle bracket together so that: (1) the first upper surface portion of the mounting bracket is in contact with the lower surface of the flange portion of the strut; (2) the first lower surface portion of the support flange of the saddle member is in contact with the upper surface of the flange portion of the strut; and (3) the second upper surface portion of the mounting bracket is in contact with the second lower surface portion of the support flange of the saddle member.

14. The ceiling system according to claim 13 wherein for each of the connection assemblies:

the second lower surface portion of the support flange of the saddle bracket is vertically offset from the first lower surface portion of the support flange of the saddle bracket; and

wherein the second lower surface portion of the support flange of the saddle bracket is substantially flush with the lower surface of the flange portion of the strut.

15. A grid assembly for hanging a ceiling panel, the grid assembly comprising:

a grid support comprising at least one strut comprising a flange portion and a web portion extending upward from the flange portion, the flange portion having an upper surface and a lower surface;

a saddle bracket comprising:

a saddle member defining a web receiving cavity; and

a support flange extending from the saddle member, the support flange comprising a first lower surface portion and a second lower surface portion that is vertically offset from the first lower surface portion; and

the saddle bracket coupled to one of the struts so that: (1) the saddle member straddles the web portion of the strut and the web portion of the strut is disposed in the web receiving cavity; (2) the first lower surface portion contacts the upper surface of the flange portion of the strut; and (3) the second lower surface portion extends beyond an

edge of the flange portion of the strut and is substantially coplanar with the lower surface of the flange portion of the strut.

16. The grid assembly according to claim 15 wherein the saddle bracket further comprises a mounting slot configured to receive spring legs of a torsion spring, wherein the support flange of the saddle bracket comprises a first plate portion comprising the first lower surface portion and a second plate portion comprising the second lower surface portion; and wherein the second plate portion comprises the mounting slot, and

wherein the first plate portion comprises a first upper surface portion of the support flange and the second plate portion comprises a second upper surface portion of the support flange, and wherein the first and second upper surface portions of the support flange are vertically offset from one another.

17. A saddle bracket for a ceiling system, the saddle bracket comprising:

a saddle member comprising a first wall plate, a second wall plate, and a bight portion connecting the first and second wall plates, the bight portion, the first wall plate, and the second wall plate collectively defining a web receiving cavity that extends along a central vertical plane; and

a first support flange extending from the first wall plate, the first support flange comprising a stepped lower surface comprising a first lower surface portion and a second lower surface portion that is vertically offset from the first lower surface portion.

18. The saddle bracket according to claim 17 wherein the first support flange comprises a first plate portion extending from a lower end of the first wall plate comprising the first lower surface portion and a second plate portion extending from the second plate portion and comprising the second lower surface portion, the second plate portion vertically offset from the first plate portion, wherein the first plate portion extends from a lower end of the first wall plate in a first direction substantially orthogonal to the central vertical plane and the second plate portion extends from the first plate portion in the first direction orthogonal to the central vertical plane.

19. A ceiling system comprising:

a grid support comprising a plurality of struts, each of the struts comprising a flange portion and a web portion extending upward from the flange portion;

a ceiling panel mounted to the grid support by a plurality of connection assemblies, each of the connection assemblies comprising:

a mounting bracket assembly comprising:

a mounting bracket; and

a resilient element coupled to the mounting bracket;

a saddle bracket comprising:

a saddle member defining a web receiving cavity; and

a stepped support flange extending from the saddle member;

the saddle bracket coupled to one of the struts so that the web portion of the strut is disposed in the web receiving cavity; and

the resilient element detachably coupled to the saddle bracket and biasing the mounting bracket, the flange portion of the strut, and the support flange of the saddle bracket together so that: (1) the mounting bracket and the stepped support flange of the saddle bracket are in contact with one another; and (2) the flange portion of the strut is sandwiched between and in contact with each of the mounting bracket and the stepped support flange.

20. A ceiling system comprising:

a grid support comprising a plurality of struts, each of the struts comprising a flange portion and a web portion extending upward from the flange portion, the flange portion having an upper surface and a lower surface;

a ceiling panel mounted to the grid support by a plurality of connection assemblies, each of the connection assemblies comprising:

a mounting bracket assembly comprising:

a mounting bracket coupled to the ceiling panel, the mounting bracket comprising an upper surface and a wall surface; and

a resilient element coupled to the mounting bracket;

a saddle bracket comprising:

a saddle member defining a web receiving cavity; and

a support flange extending from the saddle member; and

the saddle bracket coupled to one of the struts so that: (1) the saddle member straddles the web portion of the strut and the web portion of the strut is disposed in the web receiving cavity; (2) the support flange is located above and spaced from the flange portion of the strut; and (3) a portion of the support flange extends beyond an edge of the flange portion of the strut; and

the resilient element detachably coupled to the saddle bracket and biasing the mounting bracket so that: (1) the upper surface of the mounting bracket contacts the portion of the support flange that extends beyond the edge of the flange portion of the strut to provide vertical registration between the ceiling panel and the grid support; and (2) the wall surface of the mounting bracket is located adjacent the edge of the flange portion of the strut to provide horizontal registration between the ceiling panel and the grid support.