# United States Patent [19]

**Thom**

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[54] **COVER ASSEMBLY FOR STRUCTURAL JOINTS**


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[52] **U.S. Cl.** ..... **52/469,** 52/466, 52/396

[51] **Int. Cl.** ..... **E04b 1/68**

[58] **Field of Search** ..... 52/466, 468, 469, 396, 52/760; 85/79, 80; 404/56, 57, 58



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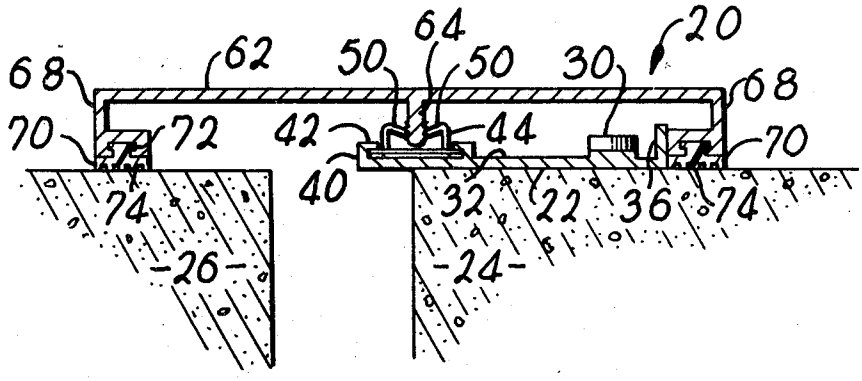
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[57] **ABSTRACT**

A low cost cover assembly for structural joints is provided having base structure adapted to be mounted on one structural section and serving as an anchor for an overlying joint cover plate. Unique connector components are provided on the face and cover, respectively, permitting easy press fit installation of the cover in conforming relationship to the structural sections even though there may be slight elevational and spacing irregularities therebetween. The components and cover plate are capable of flexing as necessary to insure a tight fit of the cover over the joint regardless of the direction of subsequent relative movement of the structural sections. The connector components of the base structure include an integral outwardly facing channel which slidably receives a number of yieldable, spring metal, U-shaped clips which are held in position within the channel by I-shaped retainers. An elongated, continuous, longitudinally serrated connection tongue projecting from the inner face of the cover plate is adapted to be received in and held by the clips so that adequate tension is maintained on the cover plate to bias the latter toward the structural sections.


**30 Claims, 12 Drawing Figures**



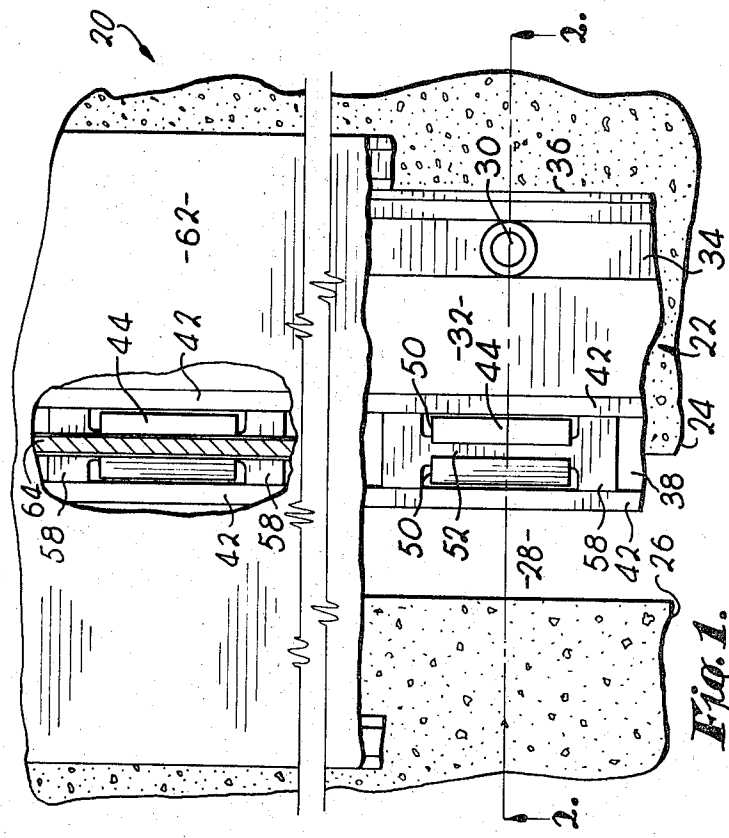



Fig. 1.

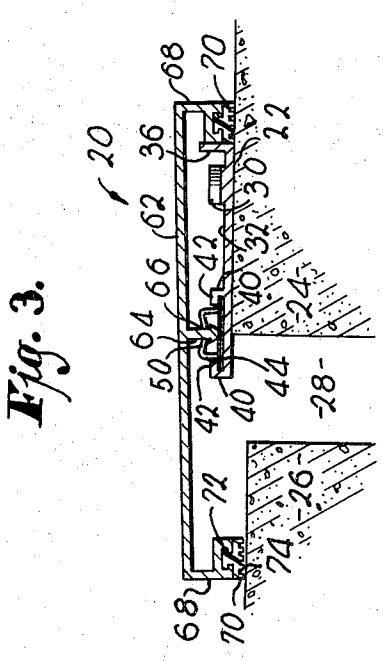



Fig. 3.

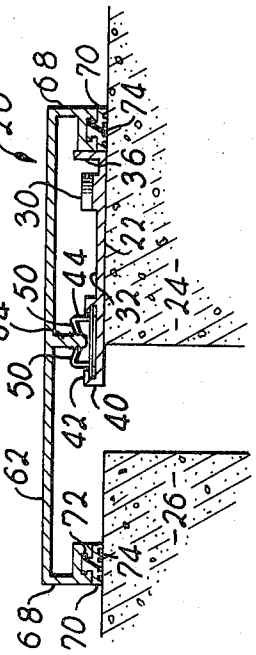



Fig. 2.

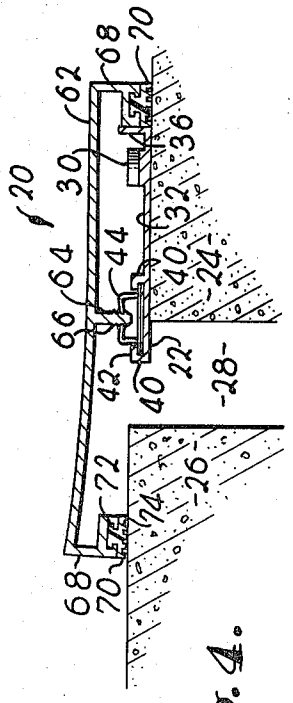



Fig. 4.

Fig. 6.




Fig. 7.




Fig. 12.




Fig. 11.




Fig. 5.

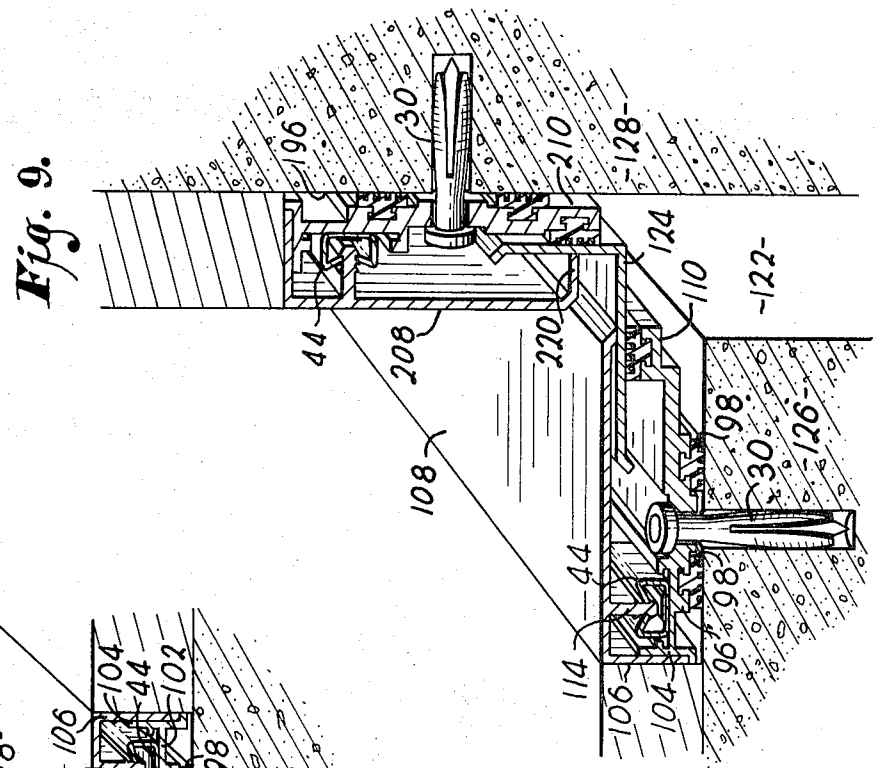



Fig. 9.

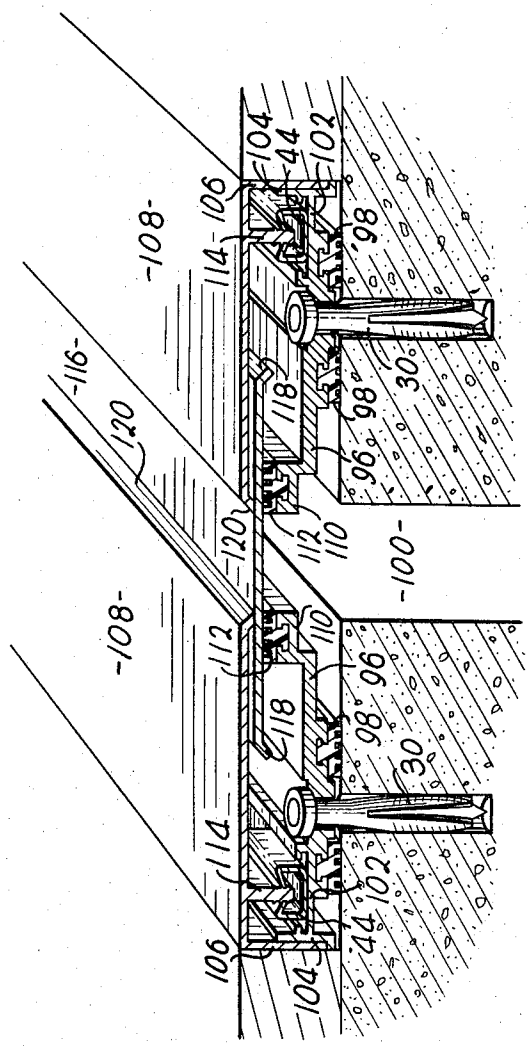



Fig. 8.

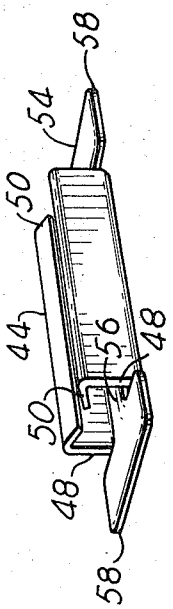



Fig. 10.

# COVER ASSEMBLY FOR STRUCTURAL JOINTS

## BACKGROUND

This invention relates to a cover assembly for use in covering the joint defined by elongated, adjacent, spaced, shiftable structural sections. More particularly, it is concerned with such an assembly that is capable of maintaining an effective covering function during all normal relative shifting movements of the structural sections, and may be manufactured at relatively low cost and easily installed in the field.

In the art, cover assemblies which are adapted to maintain their complemental engagement with the underlying structural sections defining an expansion joint during coplanar as well as transverse relative movements of the structural sections are commonly referred to as "four-way" joint covers. These typically have included relatively expensive components such as leaf and coil springs in order to provide a continuously applied bias to the cover plate associated therewith in covering relationship to the joint. For example, one such prior device employs a covering plate having a series of centrally positioned, spaced depending studs. A leaf spring is slidably journaled on each stud and extends into engagement with separate connection structure attached to each of the laterally spaced structural sections. Additionally, a coil spring is positioned about the stud below the leaf spring in order to insure that the cover plate is operatively biased to shift and tilt in unison with the structural sections therebelow.

Thus, four-way cover assemblies heretofore provided have been expensive to manufacture and tedious and time-consuming to install. For example, in the assembly described above, it is necessary to include threaded anchoring structure in the respective structural members during manufacture of the latter, this being required so that the connection components of the cover assembly may be securely affixed thereto. The provision of such anchoring structure extending from the structural members also makes it necessary to carefully handle and mount the latter so that the outwardly extending bolts do not become bent or broken, and, thus, inoperative. Moreover, by virtue of the complexity of such devices, it has heretofore been necessary to make certain that skilled workers properly install the assemblies in the field.

Hence, there is a need in the art for a structural joint cover assembly which is fabricated from relatively inexpensive components, is capable of maintaining a complemental covering function under all normal movements of underlying structural sections, and can quickly be installed in the field by personnel with ordinary skills.

## SUMMARY

Accordingly, it has been found that a cover assembly exhibiting the characteristics outlined above can be produced by provision of a base structure designed to be fixedly secured to at least one of the structural sections or members presenting the joint and having an elongated channel or track defined by spaced, upstanding sidewalls. Yieldable connector means of lesser transverse dimensions than the channel are seated therewithin and are shiftably and tiltably retained therein by means of separate retainer structure. A cover is disposed above the base structure and joint and includes an elongated connection tongue extending from the inner face thereof. The cover is tensionably maintained in complemental covering disposition over the joint by the unique connector means covered by the base structure.



As the adjacent structural sections shift and move with respect to one another, the orientation of the cover plate relative to the base structure is altered accordingly, and the forces developed thereby are, in turn, harmlessly transmitted to the yieldable spring clip connector means. The latter are capable of shifting, tilting or deflecting within the channel therefor, and, hence, these components safely absorb potentially damaging forces. In this manner, the assembly is not prone to buckling or breaking during relative shifting of the structural members, but rather it shifts and tilts in unison therewith in order to provide the desired complemental covering function.

In particular, the device preferably comprises an elongated, generally flat base structure configured to be secured to one of the structural sections by means of conventional fasteners such as externally serrated expansible nails. The base structure includes an elongated, continuous channel portion adapted to be disposed in substantially parallel relationship to the joint and defined by a pair of laterally spaced, elongated, integral, upstanding walls having a continuous, inwardly extending lip along the top thereof. Retainer means are removably and sidably positioned in the channel and include a series of separate, integral clip members composed of spring metal, each having a transverse bight segment which seats within the described channel structure and is of lesser transverse dimensions than the latter. These members also include upstanding sidewalls along the distal longitudinal edges of the bight segment, and each sidewall is further provided with an inwardly extending, downwardly inclined portion which cooperatively define an elongated connection slot therebetween.

A plurality of such clip members are positioned within the channel structure at spaced intervals and are each retained therein by a generally I-shaped retainer preferably fabricated from aluminum stock. The relatively narrow, elongated body portion of the retainer is adapted to be inserted within a corresponding spring clip member with the distal ear portions of the retainer being dimensioned to fit beneath the separate opposed lip portions of the channel portion. In this fashion, the respective spring clips are retained against removal within the channel, but can shift and tilt as required to absorb the forces developed by relative movement of the structural sections.

In one embodiment, the cover means comprises an integral plate which is adapted to cover both the base structure and joint. The plate is provided with a longitudinally serrated connection tongue extending from its inner face and positioned to interlock with the separate, spaced spring clips retained within the channel as described. The plate also includes integral longitudinal support structure along the respective longitudinal edges thereof which slidably engage the underlying structural sections to provide additional support and sealing for the plate.

In another preferred embodiment, separate, elongated base structures are fixedly secured to each structural section adjacent the joint, each base having parallel channel-defining portions as previously described, in conjunction with a series of spaced spring clip con-

nector means therealong. A separate cover plate is then snapped into place over each of the base structures in conjunction with a separate joint-covering plate operatively positioned and maintained between the separate cover plates in order to shift and tilt in unison therewith. In all of the aforementioned embodiments, it is also possible to cover a corner or wall-to-ceiling expansion joint by merely providing a generally L-shaped cover means which is identical in all other respects to the generally flat cover plates described.

During installation of the assemblies, the worker first secures the base structure to the structural members as required with the spring clips and associated retainers positioned therealong at spaced intervals. Installation is completed simply by placing the cover plate over the base structure and joint with the internal, serrated connection tongue proximal to the slotted spring clips. The worker then press fits the plate into place by forcibly inserting the connection tongue within the spring clips along the length of the joint, as by hammering with a non-damaging tool such as a rubber or plastic headed hammer. In this manner, the downwardly sloping portions of the sidewalls of the respective clips thus engage the upwardly tilted shoulders of the connection tongue serrations, thereby insuring a tensioned holding of the plate in its proper covering disposition. Moreover, because of the yieldable nature of the connector clips, any tilting or shifting thereof required to compensate for previously misaligned structural members is automatically accomplished by the forcible insertion of the connection tongue therewithin. Hence, the cover assemblies disclosed herein are capable of automatically conforming upon installation to the relative positions of the adjacent structural members thereunder.

## DRAWINGS

FIG. **1** is a fragmentary, top plan view of a cover assembly in accordance with the invention, partially cut away to show the base and channel structure of the assembly with yieldable spring clips retained within the channel;

FIG. **2** is a vertical sectional view of the assembly taken along line 2—2 of FIG. **1** showing the normal relative position of the structural sections to be covered and defining a joint therebetween;

FIGS. **3** and **4** are vertical sectional views similar to FIG. **2**, showing the compensatory shifting and tilting action of the spring clips caused by relative shifting of the structural members;

FIG. **5** is a vertical sectional view of an assembly in accordance with the invention adapted for use in covering a corner joint or the like;

FIGS. **6** and **7** are vertical sectional views similar to that of FIG. **5**, showing the manner in which the corner joint cover assembly compensates for two other types of relative shifting of the structural sections;

FIG. **8** is an oblique, vertical sectional view of another embodiment of the present invention wherein identical base structures are secured to each of the structural sections adjacent the joint defined thereby, with a separate joint plate located between the base structures;

FIG. **9** is an oblique, vertical sectional view of a corner joint cover assembly similar to that shown in FIG. **8**, with a generally L-shaped joint plate engaging the respective base structures;

FIG. **10** is a perspective view of the preferred spring clip connector means for use with the present invention, with a generally I-shaped retainer element inserted within the spring clip prior to installation along the channel of a base structure.

FIG. **11** is a front elevational view of the retainer element shown perspectively in FIG. **10**, and showing the preferred longitudinal bow formed in the element; and

FIG. **12** is a perspective view of the spring clip as shown in FIG. **10**, prior to insertion of the retainer element therein.

## DETAILED DESCRIPTION

One type of joint cover assembly as contemplated by the present invention is shown in plan in FIG. **1** and generally designated by the numeral **20**. It includes elongated, generally flat, plate-like base structure **22** constructed in a manner for mounting on elongated, structural section or member **24**. The latter and the adjacent structural member **26** cooperatively define an expansion joint **28** therebetween which is necessary to accommodate the relative shifting of members **24** and **26** due to thermal expansion and contraction or the like.

The assembly shown is particularly adapted for use in covering wall or ceiling joints, but the assembly can be modified for floor use without difficulty, primarily by simply making the component of slightly heavier material than shown.

Integral base structure **22** includes an elongated, relatively flat planar mid-segment **32** with an elongated, apertured, upstanding ridge **34** for the reception of fasteners such as expansion nails **30** which are adapted to securely affix the base structure to section **24**.

Adjacent to ridge **34** is a generally vertical stop wall **36** which is important for purposes to be made clear hereinafter. An elongated, continuous channel structure **38** is laterally spaced from stop wall **36** and is in generally parallel disposition with respect to joint **28**. Channel structure **38** is defined by a pair of spaced, upstanding sidewalls **40** which are integral with the overall base structure **22** and have an inwardly extending, continuous lip **42** along top thereof.

A series of spaced spring clip connector means **44** are positioned within channel structure **38** and are of lesser transverse dimensions than the distance defined by the opposed, inwardly extending lips **42**. spring clips **44** are preferably composed of spring steel and as best shown in FIG. **12**, they each include a transverse bight portion **46** with a pair of integral, elongated upstanding sidewalls **48**. Each adjacent sidewall **48** is also provided with an inwardly extending, downwardly sloping segment **50** which cooperatively define a slot **52** centrally disposed between the sidewalls **48**.

Each of the spaced clips **44** are shiftably and tiltably retained within the channel structure **38** by means of a generally I-shaped retainer element **54**. Referring specifically to FIG. **10**, the element **54** comprises an integral member having an elongated, relatively narrow body segment **56** which is adapted to be inserted within clip **44** by slipping the segment **56** through slot **52** provided in the latter. Integral, relatively wider eared portions **58** provided at opposed distal ends of the body segment **56** are adapted to be slidingly inserted beneath the opposed lips **42** of the channel structure **38** to provide the requisite hold-down function for the respective spring clips **44**. As depicted in FIG. **11**, the element **54**

preferably is fabricated of spring steel of 0.026-inch thickness and having a slight bow referred to by the numeral **60** along the length thereof.

During installation procedures, an element **54** is inserted within a clip **44** in the manner described, with the concave face of element **54** facing downwardly. The associated components are then slidably inserted within channel structure **38** and shifted into a desired operative position. For this purpose, it has been found advantageous to dimension the eared portions **58** of retainer element **54** to facilitate such sliding insertion and positioning. As will be more fully explained below, a somewhat loose-fitting, slidable, arrangement of these components does not detract from the overall integrity of the cover assembly, and, in fact, can enhance the ultimate fastened integrity of the cover plate.

After the spring clips **44** have been positioned within the channel structure **38** as described, a cover plate **62** is positioned thereover and snapped into its final operative position. Plate **62** is preferably composed of extruded aluminum material and includes an integral, elongated connection tongue **64** extending from the inner face thereof and positioned to interlock with the respective spring clips **44.** For this purpose, tongue **64** is provided with a series of elongated, continuous, spaced, upwardly inclined serrations **66.** As can be appreciated from a study of FIGS. **2–4,** these serrations are adapted to interengage with the respective slot-defining segments **50** of the spring clips **44.** In this manner, plate **62** can be initially positioned in covering relationship to base structure **22** and joint **28** with tongue **64** proximal to the elongated slots **52** in each of the spring clips **44.** Attachment of plate **62** is completed by forcing tongue **64** into connective interengagement with each of the clips **44.** This can be accomplished most easily by holding the plate in the position described and forcing the latter into its completed, locked position.

It is to be understood that by virtue of the slight flexibility of cover **62** and the yieldable nature of the spring clips **44,** misaligned structural members can be complementally covered without difficulty. That is, as the connection tongue **64** is forced into its operative position, the inwardly extending, downwardly inclined portions **50** of spring clips **44** can engage different levels of the upwardly disposed serrations **66** on the respective sides of the tongue. In this manner the clips **44** shift or tilt as necessary to compensate for previous misalignment of the adjacent structural members. Hence, the cover assemblies automatically align themselves in conformity to the configuration of the underlying structural sections by the expedient of simply forcing the cover toward the joint throughout its length with force applied therealong being sufficient to cause the cover to complementally engage the structural sections regardless of their relative positions.

Elongated, integral, continuous support structure **68** is provided along the distal longitudinal edges of plate **62** and is adapted to slidingly engage with each of the respective structural sections **24** and **26.** For this purpose, a resilient pad member **70** is interposed between support structure **68** of plate **62** and the exterior surfaces of the structural members. Pad **70** is preferably composed of synthetic rubber-like material and has a relatively stiff upper flange **72** which is adapted to be slidably inserted within complementary slot structure provided along each of the supports **68.** The lower flexible portion of pad **70** is provided with a series of elongated, continuous ribs **74** which are in direct engagement with the surfaces of structural members **24** and **26.**

As outlined previously, the cover assemblies of the present invention are capable of maintaining a fully complemental covering function during vertical as well as horizontal shifting of the underlying structural members. Referring now to FIG. **2,** it can be seen that during horizontal shifting of structural sections **24** and **26,** the leftmost support structure **68** associated with plate **62** will slide along the surface of structural member **26,** thus insuring that the joint **28** remains covered at all times. Relative sliding movement of right-hand support structure **68** is effectively precluded by means of the attachment between tongue **64** and spring clips **44,** as well as the abutment of this stop structure against upstanding wall **36.**

During relative vertical shifting of the adjacent structural sections, the following is believed to occur. As shown in FIGS. **3** and **4,** the plate **62** is first altered from its generally horizontal alignment by virtue of the forces developed during such shifting transmitted through the respective support structures **68.** Such forces, which would normally cause buckling or perhaps even breakage of plates **62,** are in turn safely and effectively transmitted to the yieldable spring clips **44.** In response, the clips **44** are deflected or can shift or tilt as necessary within channel structure **38** in order to absorb the potentially destructive forces. Because each spring clip **44** is of lesser transverse dimension than the distance between the opposed lips **42,** transverse shifting is possible; moreover, because the elongated body segment **56** of retainer element **54** is of substantially lesser width than the spring clips **44,** the latter can twist and tilt about the axis defined by elongated, relatively narrow body segment **56.** Thus, the separate spring clips **44** can assume any orientation necessary to maintain a continuing tight covering function of the assembly.

In this connection, it should be noted that longitudinal shifting of clips **44** along channel structure **38** is effectively precluded after installation of plate **62.** This results from the fact that when tongue **64** thereof is inserted within the clips **44,** an upwardly directed biasing force is imparted to the latter. This biasing force is, in turn, transmitted to the retainer elements **54,** causing the eared portions thereof to snugly engage the underside of the opposed lips **42.** This causes a secure frictional fit of the elements **54** and thus insures that the associated clips **44** cannot be moved a significant distance longitudinally with respect to channel structure **38.**

When it is desired to cover a corner joint **76** (FIGS. **5–7**) defined by structural sections **78** and **80** having generally perpendicular surface planes, it has been found advantageous to employ an elongated generally L-shaped cover plate **82.** In this embodiment of the invention, base structure **84** is attached to vertically extending structural member **80** adjacent joint **76.** Base structure **84** is identical in all respects to that of structure **22** and, therefore, a detailed description thereof is omitted. However, L-shaped cover plate **82** includes a relatively short leg **86** having integral support structure **88** including pad **89** engaging structural member **80.** An integral, relatively elongated leg **90** with accompanying identical support structure **92** is also provided

and a continuous, elongated laterally extending serrated connection tongue **94** extends from leg **86** into operative interlocking relationship with the spring clips **44** received by base structure **84.**

As depicted in FIGS. **6** and **7,** the L-shaped cover plate **82** is similarly maintained in its operative covering disposition during all normal horizontal and vertical shifting of the structural members **78** and **80.** In general, this is accomplished in a manner identical to that described above in that the spring clips **44** serve to absorb the displacement forces transmitted to the cover plate during relative movements of the structural members.

In another embodiment of the present invention shown in FIGS. **8** and **9,** separate identical base structures **96** are secured to each of the adjacent structural sections along the length of the joint defined thereby. Each base structure **96** includes a pair of longitudinally ribbed pads **98** identical to the pads **70** inserted within complementary slot structure provided along the bottom face of base structure **96.** The latter is provided with a series of apertures along the length of the structure between the laterally spaced pads **98** which are adapted to receive externally serrated expandable fasteners **30** which securely mount the base structure to the respective structural sections. In this manner, the longitudinal ribs in pads **98** are in direct engagement with the surface of the structural members and are compressed somewhat to insure a tight sealing therebetween. At the end of the base structures **96** removed from joint **100** there is provided an elongated, continuous channel structure **102** which is likewise identical in all respects to channel structure **38** described previously, and is adapted to receive a spaced series of spring clips **44** and related componets employed in the present invention. A ledge **104** forms the outermost, upstanding edge of the base structure **96,** and is adapted to abuttably engage with integral depending skirt **106** of cover plate **108.** An elongated support section **110** vertically spaced from the underlying structural section is provided along the length of base structure **96** adjacent joint **100,** and is provided with an upwardly facing ribbed pad **112** identical to pads **70** and **98.**

Each of the described base structures **96** is covered by a separate plate **108.** The latter are connected to the respective base structures by means of a serrated tongue **114** extending from the inner surface thereof into locking engagement with the spaced spring clips **44.** A depending skirt **106** is provided along the longitudinal edge of plates **108** removed from joint **100** which is adapted to abut ledge **104** of the underlying base structure **96** to thereby preclude relative sliding movement of cover plate **108.** Thus, each base structure **96** and associated cover plate **108** are in effect a unit which moves in unison with the structural member to which they are connected.

The required four-way flexibility of this assembly is achieved by means of a separate joint covering plate **116** which is slidably gripped by the respective upwardly facing pads **112** associated with support structures **110** and the proximal, angularly depending ledges **120** of the plates **108.** An inclined stop ledge **118** is also provided along the distal longitudinal edges of plate **116** and serves to limit horizontal movement of the respective base structures **96** with respect to plate **116.**

Hence, during horizontal movements of the underlying structural members, plate **116** remains essentially stationary, while the units defined by the respective base structures **96** and cover plates **108** move in a horizontal direction relatively. During vertical or angular shifting of the structural members, the orientation of plate **116** is first altered in response thereto. The twisting or buckling forces transmitted to plate **116** are, in turn, transmitted to the respective plates **108** which cause the spring clips interconnected therewith to deflect, twist or shift as required in order to maintain the integrity of the overall assembly. Thus, as with the embodiment discussed above, an assembly is provided which is capable of maintaining a tensioned covering of a structural joint during all normal movements of the respective structural members.

Referring now to FIG. **9,** it will be seen that the present embodiment can also be adapted to cover a joint **122** defined by generally perpendicular structural members **126** and **128.** Base structure **96** identical to that discussed is secured to member **126,** with a cover plate **108** secured thereover. A modified base structure **196** is affixed to member **128,** the former differing from base structure **96** only in the vertical spacing of the support section **210** from the underlying structural member and the configuration of cover **208.**

In particular, support section **210** is relatively closer to member **128** than is corresponding section **110** of base structure **96** from member **126.** Additionally, cover **208** has an elongated depending leg **220** which is adapted to engage the outer face of joint-covering plate **124.** By provision of such a modified base structure **196,** sufficient space results between the perpendicularly aligned base structures to permit coverage of joint **122** during all normal expansion and contraction of members **126** and **128.** If it were attempted to employ identical base structures **96** in this instance, too little spacing therebetween would result, thereby severely limiting the relative sliding movements thereof along the plate **124.** This, of course, would diminish the effectiveness of the overall cover assembly.

Having described the invention, what is claimed as new and desired to be secured by Letters Patent is:

**1.** An assembly for complementally covering the open joint defined by a pair of elongated, spaced, adjacent, relatively shiftable structural members comprising:

base structure adapted to be fixedly secured to one of said structural members and presenting a section having an elongated, continuous channel substantially parallel to said joint and defined by a pair of spaced, substantially parallel, upstanding sidewalls, each of the latter being provided with an elongated, continuous, integral, inwardly extending lip along the top thereof;

yieldable connector means comprising a plurality of yieldable metallic spring clips positioned within said channel and spaced along the length thereof, said clips being of lesser transverse dimensions than the distance between said lips;

means for retaining said springs clips within said channel and permitting limited shifting and tilting therein by the spring clips;

cover means disposed in covering relationship to said spring clips and joint and having connection structure attached to the inner face thereof and extend-

ing therefrom into secure interlocking relationship with the underlying springs clips; and

support structure adapted to engage the other of said structural members for supporting the end of said cover means remote from said base structure.

**2.** The assembly of claim **1**, wherein each of said spring clips is an integral body of spring steel having a transverse bight portion engaging the transverse portion of said channel, and a pair of spaced, upstanding sidewalls each having an inwardly extending, downwardly sloping portion along the length thereof cooperatively defining an elongated slot therebetween.

**3.** The assembly of claim **2**, wherein said retainer means for each of said spring clips comprises an integral locking member of spring steel having a relatively narrow body portion of a length at least as long as said spring clip and dimensioned to be inserted between the upstanding sidewalls of the latter, and ear portions on the distal ends of said body portion operable to be slidably inserted within said channel and under the opposed, inwardly extending lips of the latter.

**4.** The assembly of claim **3**, wherein said locking members are bowed along the length thereof with the concave faces of the bows facing the transverse portion of the channel.

**5.** The assembly of claim **4**, wherein said locking members are composed of spring steel of approximately 0.026 inches thickness.

**6.** The assembly of claim **2**, wherein connection means comprise an integral, elongated, connection tongue extending from said cover means.

**7.** The assembly of claim **6**, wherein said tongue is provided with a series of elongated, spaced, continuous, upwardly inclined teeth along the opposed faces thereof, the latter being adapted to simultaneously interlock with adjacent edges of the respective downwardly sloping portions of the sidewalls of said spring clips to thereby tensionably lock the cover means in said covering relationship.

**8.** The assembly of claim **1**, wherein said base structure is adapted to be secured to said structural member by means of externally serrated expansion fasteners.

**9.** The assembly of claim **1**, wherein said covering means is an elongated, integral plate dimensioned to cover said base structure and joint, said plate being provided with integral, elongated support structure along the longitudinal edges thereof adapted to slidingly engage with the respective structural members.

**10.** The assembly of claim **9**, wherein an elongated, continuous strip of resilient material is connected to each of said support structures for engaging with said respective structural members.

**11.** The assembly of claim **10**, wherein each of said strips has a series of integral, laterally spaced, elongated, substantially parallel fins located to directly engage said structural members.

**12.** The assembly of claim **9**, wherein said base structure is provided with an integral, elongated, upstanding stop wall adapted to abut the proximal support structure of said plate and thereby limit the sliding movement thereof along the underlying structural member.

**13.** The assembly of claim **9**, wherein the surface planes of said structural members are substantially perpendicular to define a corner joint, said covering means being substantially L-shaped in cross-section and dimensioned to cover both the base structure and joint.

**14.** An assembly for complementally covering the open joint defined by a pair of elongated, spaced, adjacent, relatively shiftable structural members comprising:

first and second base structures adapted to be securely affixed to said structural members and each including a section having a transverse portion and defined by spaced, upstanding sidewalls;

yieldable connector means seated within each of said sections and of lesser transverse dimensions than the latter;

means for retaining said connector means within said sections and permitting limited shifting and tilting therein by the connection means;

separate cover plates disposed in spaced covering relationship to said first and second base structures, and connection structure attached to the inner faces of said cover plates and extending into secure interlocking relationship with the underlying connector means; and

a joint covering plate overlying said joint and moveably engaging each of said cover plates.

**15.** The assembly of claim **14**, wherein each of said sections is an elongated, continuous channel defined by a pair of spaced, substantially parallel, upstanding sidewalls, said channels being generally parallel to the joint.

**16.** The assembly of claim **15**, wherein said sidewalls are each provided with an elongated, continuous, integral, inwardly extending lip along the top thereof.

**17.** The assembly of claim **16**, wherein said connector means comprises a plurality of yieldable metallic spring clips positioned with each of said channels and spaced along the length thereof, said clips being of lesser transverse dimensions than the distance between said lips.

**18.** The assembly of claim **17**, wherein each of said spring clips is an integral body of spring steel having a transverse bight portion engaging the transverse portions of said channels, and a pair of spaced, upstanding sidewalls each having an inwardly extending, downwardly sloping portion along the length thereof cooperatively defining an elongated slot therebetween.

**19.** The assembly of claim **18**, wherein said retainer means for each of said spring clips comprises an integral locking member of spring steel having a relatively narrow body portion of a length at least as long as said spring clip and dimensioned to be inserted between the upstanding sidewalls of the latter, and ear portions on the distal ends of said body portion operable to be slidably inserted within said channels and under the opposed, inwardly extending lips of the latter.

**20.** The assembly of claim **19**, wherein said locking members are bowed along the length thereof with the concave faces of the bows facing the transverse portions of the channels.

**21.** The assembly of claim **18**, wherein said connection structure comprises integral, elongated, connection tongues extending from the inner faces of said cover plates.

**22.** The assembly of claim **21**, wherein said tongues are provided with a series of elongated, spaced, continuous, upwardly inclined teeth along the opposed faces thereof, the latter being adapted to simultaneously interlock with adjacent edges of the respective downwardly sloping portions of the sidewalls of said spring clips to thereby tensionably lock the cover plates in

said covering relationship to the underlying base structure.

**23.** The assembly of claim **14,** wherein said first and second base structures are adapted to be secured to said structural member by means of externally serrated expansion nails.

**24.** The assembly of claim **14,** wherein said covering means is an elongated, integral plate dimensioned to cover said base structure and joint, said plate being provided with integral, elongated, support structure along the longitudinal edges thereof adapted to slidingly engage with the respective structural members.

**25.** The assembly of claim **14,** wherein said first and second base structure each include upwardly facing support sections adapted to engage the inner face of said joint covering plate.

**26.** The assembly of claim **25,** wherein an upwardly facing resilient pad is attached to each of said support sections.

**27.** The assembly of claim **26,** wherein said cover plates include depending ledges along the longitudinal edge thereof proximal to said joint adapted to engage the outer face of said joint covering plate.

**28.** The assembly of claim **27,** wherein said ledges and resilient pad are configured and positioned to cooperatively slidably grip said joint covering plate therebetween.

**29.** The assembly of claim **28,** wherein said joint is defined by a pair of structural members whose surface planes are generally perpendicularly aligned, said support sections being positioned at relatively different vertical distances with respect to the underlying support members therebelow, said joint covering plate being generally L-shaped in cross-section and having stop structure along the distal longitudinal edges thereof adapted to limit the sliding of said base structures and associated cover plates therealong.

**30.** An assembly for complementally covering the open joint defined by a pair of elongated, spaced, adjacent, relatively shiftable structural members and comprising:

base structure adapted to be secured to one of said members and presenting a section defined by a pair of spaced upstanding sidewalls;

connector means comprising at least one yieldable spring clip positioned within said section and of lesser transverse dimensions than the latter;

means for retaining said spring clip within said section and permitting limited shifting and tilting therein by the spring clip;

cover means disposed in covering relationship to said spring clip and joint and having connection structure attached to the inner face thereof and extending therefrom into secure interlocking relationship with the underlying spring clip; and

support structure adapted to engage the other of said structural members for supporting the end of said cover means remote from said base structure.

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