Jan. 19, 1932. J. A. BOHNSACK 1,842,144

PANEL UNIT CONNECTING CLIP

Filed Oct. 31, 1927

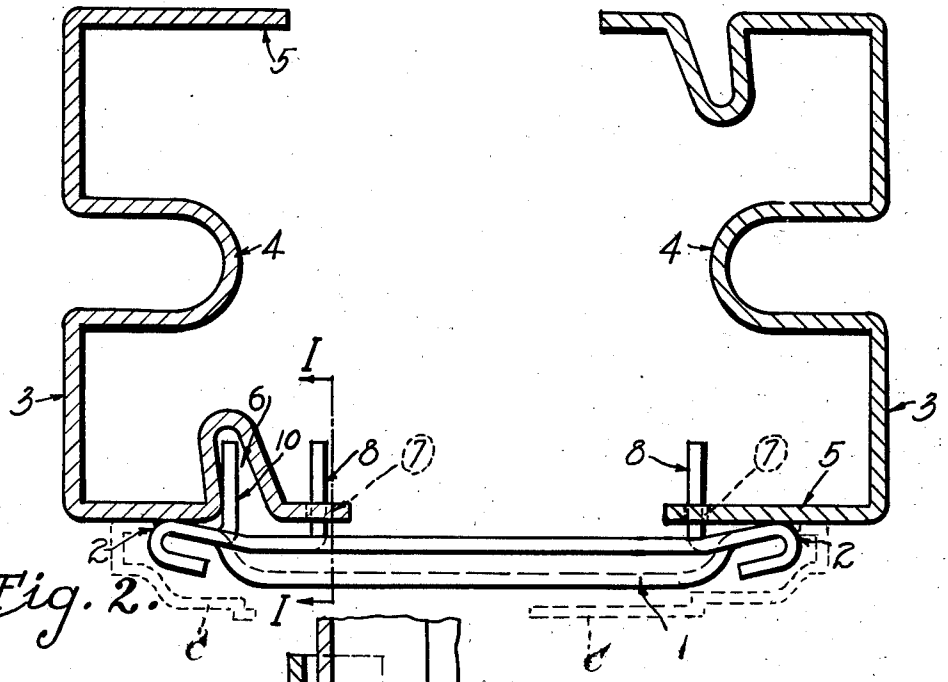


Fig. 2.

Fig. 3.

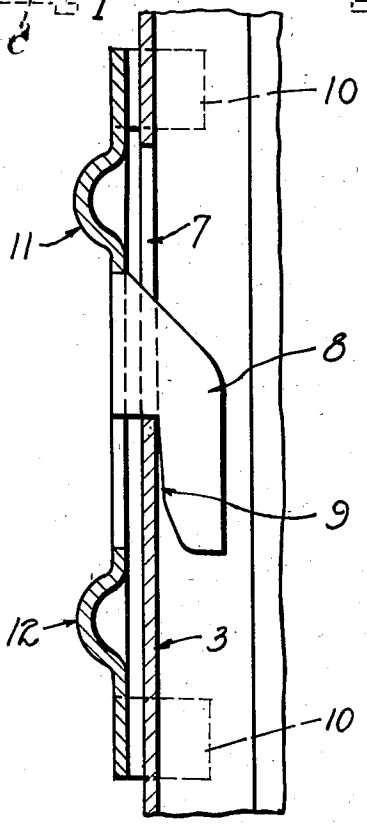
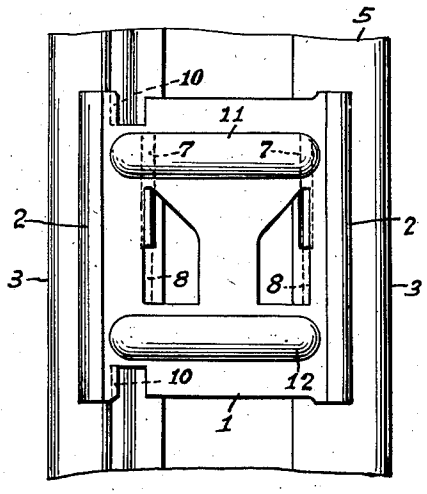


Fig. 1.



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PANEL UNIT CONNECTING CLIP

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The present improvement relates to clips between metallic building units such as the panel units of partitions.

It is among the objects of this invention to provide a construction which is economical to manufacture, easily assembled, and highly efficient for obtaining rigidity of structure between adjacent panels or members of a metallic partition.

Another object is to provide means for securing two structural parts together, holding them in a fixed but detachable relation, whereby a metallic partition may be built up in units by attaching additional panel units to the portion already erected.

The invention consists of the features hereinafter described and particularly pointed out in the claims: the following description and the annexed drawings setting forth but one illustrative embodiment of the various forms in which the principle of the invention may be applied.

In said annexed drawings

Figure 1 is a front view of several panel connecting clips of the present approved type shown as attached to two adjacent vertical panel stiles.

Figure 2 is a horizontal section through the vertical stiles of a metallic partition showing connecting clip in position.

Figure 3 is a vertical section along the plane indicated by the line I—I of Figure 2.

Referring to the detail showing of the device in the aforesaid drawings, the clip 1 there illustrated is preferably formed of heavy gauge sheet metal, from which it will be stamped in familiar fashion. Such clip is of general rectangular form having its respective ends 2 recurved or otherwise formed so that a cover plate C, as indicated in Fig. 2 may be snapped into place over the clip when the latter is properly attached to the panels as will now be described.

Only the vertical stiles 3 of two adjacent panels are shown in the drawings (see Fig. 2) each such stile being of general channel cross-section with a central depressed portion 4 to receive the panel filling elements, whatever the character of the latter. The one side flange 5 of the channel is substantially flat, but the other has an inwardly directed corrugation formed therein providing a corresponding groove 6 in the outer surface of such flange. Each flange of the channel, both such flat flange and the one thus corrugated, is formed adjacent its edge with suitably spaced elongated slots 7, as best shown in Fig. 3.

The clip 1 is formed with inwardly directed locking tongues 8, preferably stamped up from the body of the clip in the manufacture of the latter, such tongues having their lower ends 9 slightly tapered or beveled and being adapted for insertion through aligned slots 7 on two adjacent stiles, following which by pushing the clip downwardly such tongues interengage with the flanges of the stiles to retain them in desired spaced relation. In addition to the tongues just mentioned, the clip is formed adjacent its one side with a plurality of inwardly directed tongues 10, two being shown, that are adapted to fit in the groove 6 formed in the corrugated flange of the stile, and by such engagement serves to align the clip properly with the stile.

In order to strengthen or reinforce the clip, it is preferably formed with transversely extending bosses 11 and 12, one adjacent its lower, the other adjacent its upper edge. As a result the clip when secured to the stile not merely serves to retain the latter in properly spaced position, but provides a strong and rigid connection between the adjacent panels. It will be understood that any number of clips of the construction just described may be employed to connect two adjacent stiles, such number depending upon the height of the partition or, in other words, the length of the stiles, and upon the stiffness or strength of the individual clips.

It will be further noted that the clips in question are individually applicable to the flanges of the vertical stiles for connecting corresponding panel units, said clips being adapted directly to interengage and positively lock the parts together. When the clips have been thus properly applied to adjacent vertical stiles, a rigid skeleton post is in effect formed of the latter, the interior of such post being readily accessible throughout its length when the cover plates are off. The latter being removably secured to the clips may be detached, when it is desired to gain such access to the interior of the post, without disturbing the alignment of the latter and corresponding panel units in any way. At the same time, should it become necessary for any reason to take down the partition, as for example in order to relocate the same, the clips may be readily disengaged and the panel units thus restored to mobile condition, ready however to be immediately set up in the same or different combination in another location.

Other modes of applying the principle of this invention may be employed instead of that explained, change being made as regards the features herein disclosed, provided the means stated by any of the following claims or the equivalent of such stated means be employed.

I therefore particularly point out and distinctly claim as my invention.

1. As an article of manufacture a detachable metallic clip having locking tongues and aligning tongues formed to respectively fit elongated slots and grooves in the flanges of stiles of a metallic partition thereby holding them in a fixed but detachable position.

2. In a structure of the character described, the combination of panel units having stiles with flanges in aligned position, and a clip for connecting said units, said clip and flanges having elements adapted to interengage and positively lock the parts together upon relative movement therebetween said clip also having aligning means adapted to engage the flanges.

3. In a structure of the character described, the combination of panel units having stiles with flanges in aligned position and presenting elongated slots, and clips for connecting said units, said clips having hooked tongues to engage in such slots and aligning means to engage the flanges.

4. In a structure of the character described, the combination of panel units having flanges in aligned position and presenting elongated slots and a groove, and a clip for connecting said units, said clip having hook tongues to engage in such slots and aligning tongues to engage in such groove.

5. In a structure of the character described, the combination of panel units having flanges in aligned position, each flange having elongated slots and one flange having a longitudinal groove, and a clip for connecting said units, said clip having spaced hook tongues stamped up from its general plane to engage in such slots and aligned tongues to engage in such groove.

6. In a metallic partition structure, the combination of vertical panel stiles of generally channel cross section assembled with their flanges in opposed spaced alignment to form a hollow vertical, and clip members having tongues fitted into slots in the flanges of said stiles to secure them in alignment, and grooves in the web portions of said stiles.

7. In metallic partition construction, sheet metal panel stiles of generally channel shape, the web portions whereof are grooved to receive panel fillers extending between the grooves of associated verticals, the flanges of the vertical being directed away from the panel fillers, spaced clips securing opposed flanges of adjacent stiles together by means of hooks on the one engaging the other, and facing members engageable over said clips.

8. In a structure of the character described, the combination of panel units having stiles of generally channel cross section with flanges in aligned spaced position, individually applicable clips for connecting said units, said clips and flanges having elements adapted directly to interengage and positively lock the parts together upon relative movement therebetween, and a cover plate removably secured to said clips.

9. In a structure of the character described, the combination of panel units having stiles with flanges in aligned position, individually applicable clips for connecting said units, said clips and flanges having elements adapted directly to interengage and positively lock the parts together upon relative movement therebetween, said clips also having aligning means adapted to engage the flanges, and a cover plate resiliently secured to said clips.

10. In a metallic partition structure, the combination of vertical panel stiles of generally channel cross section assembled with their flanges in opposed spaced alignment to form a hollow vertical, said stiles having panel receiving grooves in their web portions, clip members having tongues fitted into slots in the flanges of said stiles to secure them in alignment, and a face cover resiliently secured to such clip members.

11. In metallic partition construction, sheet metal stiles of generally channel shape, the web portions whereof are grooved to receive panel fillers extending between associated verticals, the flanges of such stiles being directed away from the panel fillers, spaced clips securing opposed flanges of adjacent stiles together by means of hooks on the one engaging the other and facing members secured to said clips by resiliency.

12. In a structure of the character described, the combination of panel units having

stiles of generally channel cross section with flanges in aligned spaced position, individually applicable clips for connecting said units, said clips and flanges having elements adapted directly to interengage and positively lock the parts together upon relative movement therebetween, and tapered portions on said elements adapted to facilitate interengagement of said parts one with the other, and also to positively lock said parts together.

Signed by me this 25th day of Oct., 1927.

JOHN A. BOHNSACK.