

Sept. 3, 1957

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2,804,670

CLIPS FOR PANELS

Filed Jan. 22, 1952

2 Sheets-Sheet 1

Fig. 1.

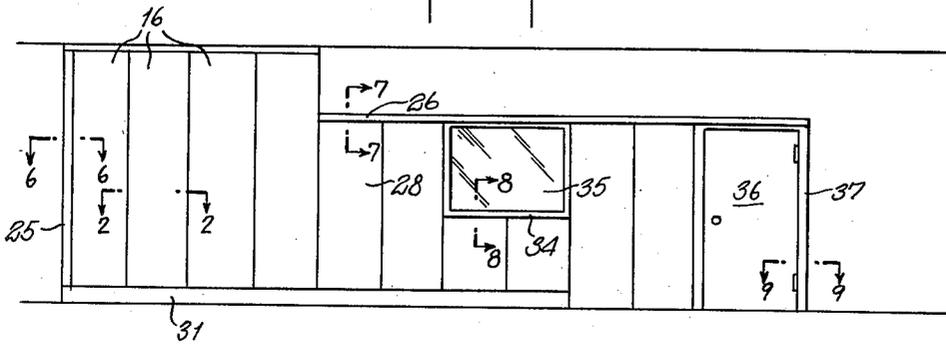


Fig. 2.

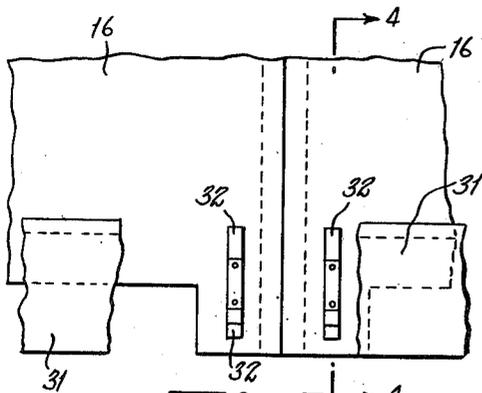
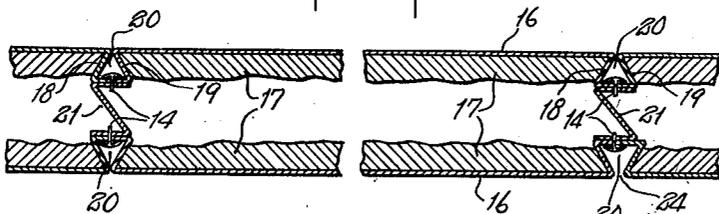


Fig. 3.

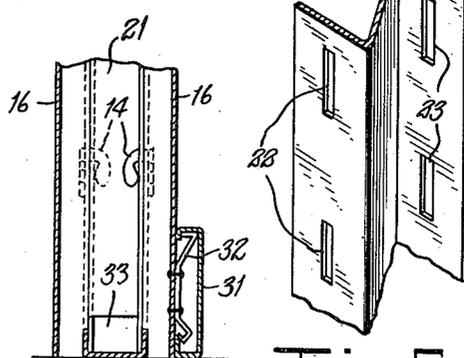


Fig. 4.

Fig. 5.

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Fig. 6.

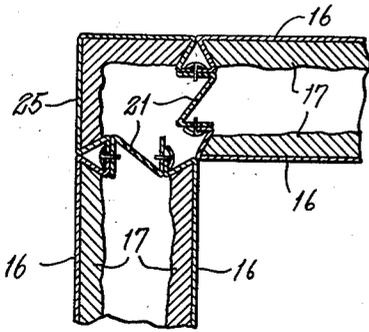


Fig. 7.

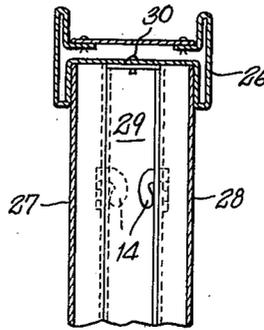


Fig. 8.

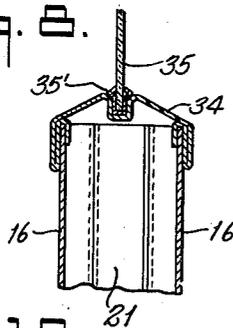


Fig. 9.

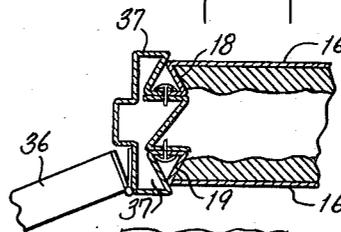


Fig. 10.

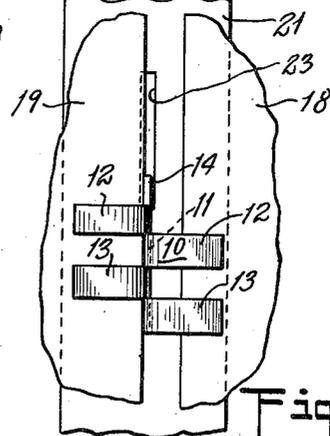
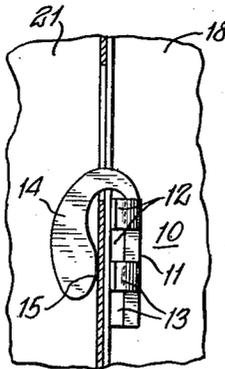
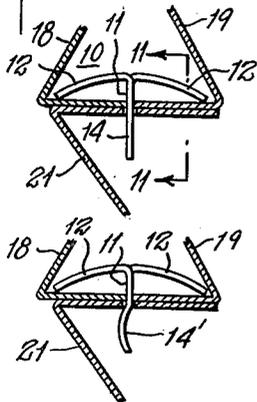


Fig. 11.

Fig. 12.

Fig. 13.

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2,804,670

## CLIPS FOR PANELS

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Application January 22, 1952, Serial No. 267,660

2 Claims. (Cl. 24—259)

In a broad sense, my invention comprehends the adaptation of a novel device for joining structural units. More specifically, it involves a clip or key combined with workable adjuncts and which, by way of example, may be employed in a new form of movable metal partitioning capable of being installed or taken down, and reused as the occasion may require.

Among the objects contemplated by the invention are the concealing of the clips from view and the presentation of fully flush surfaces between the adjacent edges of the partitions—only one joint line being visible in lieu of the conventional unsightly large V groove; and the formation of an adjustable pocket at the adjacent edges of the partition, which allows for insertion of the clips, their initial and final installation with respect to the partitions and studs, and finally the closing and locking of the assembly.

To the accomplishment of the recited objects and others coordinate therewith, one of the embodiments of my invention resides in the construction and arrangement of parts shown in the accompanying drawings, described in the following specification and embraced within the scope of the appended claims.

In said drawings:

Figure 1 is an elevation of a partition system showing a typical installation of my invention.

Figure 2 is a horizontal section taken on line 2—2 of Fig. 1.

Figure 3 is an enlarged side elevation of the panel joints with base board partly broken away.

Figure 4 is a sectional view taken along line 4—4 of Fig. 3.

Figure 5 is a perspective view of one of the studs.

Figure 6 is a transverse section taken on line 6—6 of Fig. 1, showing a corner assembly.

Figure 7 is a vertical section taken on line 7—7 of Fig. 1, illustrating a finished top partition.

Figure 8 is a vertical section on line 8—8 of Fig. 1, showing a glass panel construction.

Figure 9 is a horizontal section on line 9—9 of Fig. 1, depicting a door jam set-up.

Figure 10 is a transverse section of one of the clips and adjacent parts.

Figure 11 is a vertical section along line 11—11 of Fig. 10.

Figure 12 is a view illustrating a clip fastened from the front, and

Figure 13 is a top plan view of another form of clip.

Referring more particularly to the drawings, one of the essential features of the invention comprises the clip shown in detail in Figs. 10, 11 and 12. The clip, which is T-shaped in end view projection and cross-section, is made from a single piece of resilient metal (spring or structural steel) and denoted generally by the reference character 10. The vertical body 11 has two bowed flanges or fingers 12—13 projecting from each side, and from the top thereof it merges into a flat, ovate, irregular C-shape

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depending hook 14, disposed at right angles to the flanges 12—13 and being spaced from the body 11 at 15. This C-shaped configuration defines a gap of varying width having a reduced portion, as clearly shown in Fig. 11, and as also known, the fingers 12 and 13 have free edges in a plane lying in the gap. As exhibited in Fig. 13, hook 14 may be curved slightly at 14' to impart additional flexibility when, for example, mild steel is used.

Panels 16, which may be of steel or other suitable material, may have a composition backing 17 of fine lightweight aggregate mixed with cement and asbestos or asphalt type of bonding agent, and the adjacent proximal ends 18—19 of said panels are reversely deflected in the contour of a V and confront each other in vertical parallelism, thereby, as a cross sectional view will indicate, forming together a longitudinal pocket between channel 20—20—see Fig. 2. And between the opposing inner sides is a stud 21 of a Z or equivalent configuration having registering slots 22—23 (Fig. 5).

In practical application, as exhibited in Fig. 2, the panels 16 are brought in vertical register with a slight gap 24 between their edges. The hooked extremity 14 is then threaded between the edges and through the appropriate slot, as 22, in the stud with the flanges 12—13 engaging the outside of the inner proximal ends 18—19 of the panel, and projected through and impinged against the inner side of the stud. In this initial position of the clip, the panels are brought together so as to close gap 24. Then any suitable tool, like a screw driver, is inserted through slot 22 and forced downwardly against the top or head of the hook until the hilt of the hook contacts the bottom edge of said slot, and in this manner insuring a fast, frictional connection. Obviously, the parts may be expeditiously disassembled by reversing the operation.

It will thus be seen that I have devised a joint in which the securing means are concealed from view, and which is ideally flush, i. e., devoid of any large V groove or similar encumbrances—only a single line joint is exposed.

It is not deemed amiss to explain other components of my partitioning, for instance, when a composition panel or wood is desirable, a waterproof, non-pervious tape will be employed to cover the joints and clips and thereby provide for a flush surface (not shown). Metal corner contingencies will assume the set-up illustrated in Fig. 6 with a separate panel 25 constituting a neat, square corner. Corners will be handled in a similar way where they are made of wood, etc.

When a partition does not extend to the ceiling, a structural cornice 26 (Fig. 7) will embrace the side panels 27—28 and stud 29 by friction, and additionally have a tie-down bolt 30 at each stud, thereby constituting a rigid structure for horizontal runs up to 20 feet in length.

A metal base, as 31, in Fig. 4, when required, is simply snap-fitted to the spring strap 32 carried by the bottom of the panel and being easily removed to permit installation of any wiring inside the partition. And the bottom of the panels will be cut out between the straps to allow the wiring to be fished through. Floor and ceiling channels 33 will be fastened to the floor with the studs set in them for lateral rigidity.

In Fig. 8 is illustrated a metal frame 34. The glass panel 35 is held therein by a spring glazing strip 35' with no glazing compound or exposed screws required.

Hanging of a door, as shown in Fig. 9 at 36 is also accomplished with the use of my novel type of clips, although here the ends 18—19 of the panels are slightly offset with regard to the door frame 37.

In addition to the aforesaid meritorious points set forth in connection with the clip and flush joint per se, my

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novel system of interior partitioning may be erected or dismantled by one or two persons equipped with simple tools, and in the absence of any mess or disturbance; it is furnished in kit form; it requires no cutting, etc. on the job site; it is salvageable, may be stocked or resold as office equipment with minimum depreciation after long use; it is economical in respect of erection, fabrication and material costs and may be manufactured and sold for less than other movable metal partitions, although it possesses superior advantages and characteristics; it is rendered fire-proof by staggering the studs—either Z shaped or tubular—in a line and spacing the side panels further apart than is normally practiced to meet fire codes; and the design of the components make for easy stacking or nesting, requiring a minimum of space in storage and shipping.

In its broader aspects, my invention comprehends the employment not only of the various means described but of equivalent means for performing the recited functions. For example, tubular studs or those of other conformation may be substituted for Z studs. It is desired to reserve the right to effect such changes and modifications of the invention as may come fairly within the scope of the appended claims.

I claim:

1. An article of manufacture for holding panels in engagement, said article being formed of resilient sheet material and having a web and flanges defining a substantially T-shaped cross-section, said web being of irregular C-shape in elevation defining a gap of varying width having a reduced portion, said flanges comprising fingers oppositely projecting from said web adjacent said reduced portion of said gap, said fingers having free edges in a plane lying in said gap whereby said fingers will abut one side of one of the panels while an opposed edge of said web will abut the opposite side of another of the panels.

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2. An article of manufacture for holding panels in engagement, said article being formed of resilient sheet material and having a web and flanges defining a substantially T-shaped cross-section, said web being curved in cross-section and of irregular C-shape in elevation defining a gap of varying width having a reduced portion, said flanges comprising fingers oppositely projecting from said web adjacent said reduced portion of said gap, said fingers having free edges in a plane lying in said gap whereby said fingers will abut one side of one of the panels while an opposed edge of said web will abut the opposite side of another of the panels.

#### References Cited in the file of this patent

##### UNITED STATES PATENTS

816,309	Fitzpatrick	Mar. 27, 1906
1,271,350	Moon	July 2, 1918
1,793,341	Thurman et al.	Feb. 17, 1931
1,943,285	Boyland	Jan. 16, 1934
2,018,640	Johnson	Oct. 22, 1935
2,054,189	Bemis	Sept. 15, 1936
2,072,851	Bailey	Mar. 9, 1937
2,093,734	Place	Sept. 21, 1937
2,133,837	Wiley	Oct. 18, 1938
2,245,611	Schultz	June 17, 1941
2,264,957	Shafarman	Dec. 2, 1941
2,300,449	Rowe	Nov. 3, 1942
2,317,634	Olson	Apr. 27, 1943
2,321,860	Ruppel	June 15, 1943
2,345,004	Place	Mar. 28, 1944
2,353,455	Gisondi	July 11, 1944
2,627,094	Bedford	Feb. 3, 1953
2,665,103	Flora	Jan. 5, 1954