

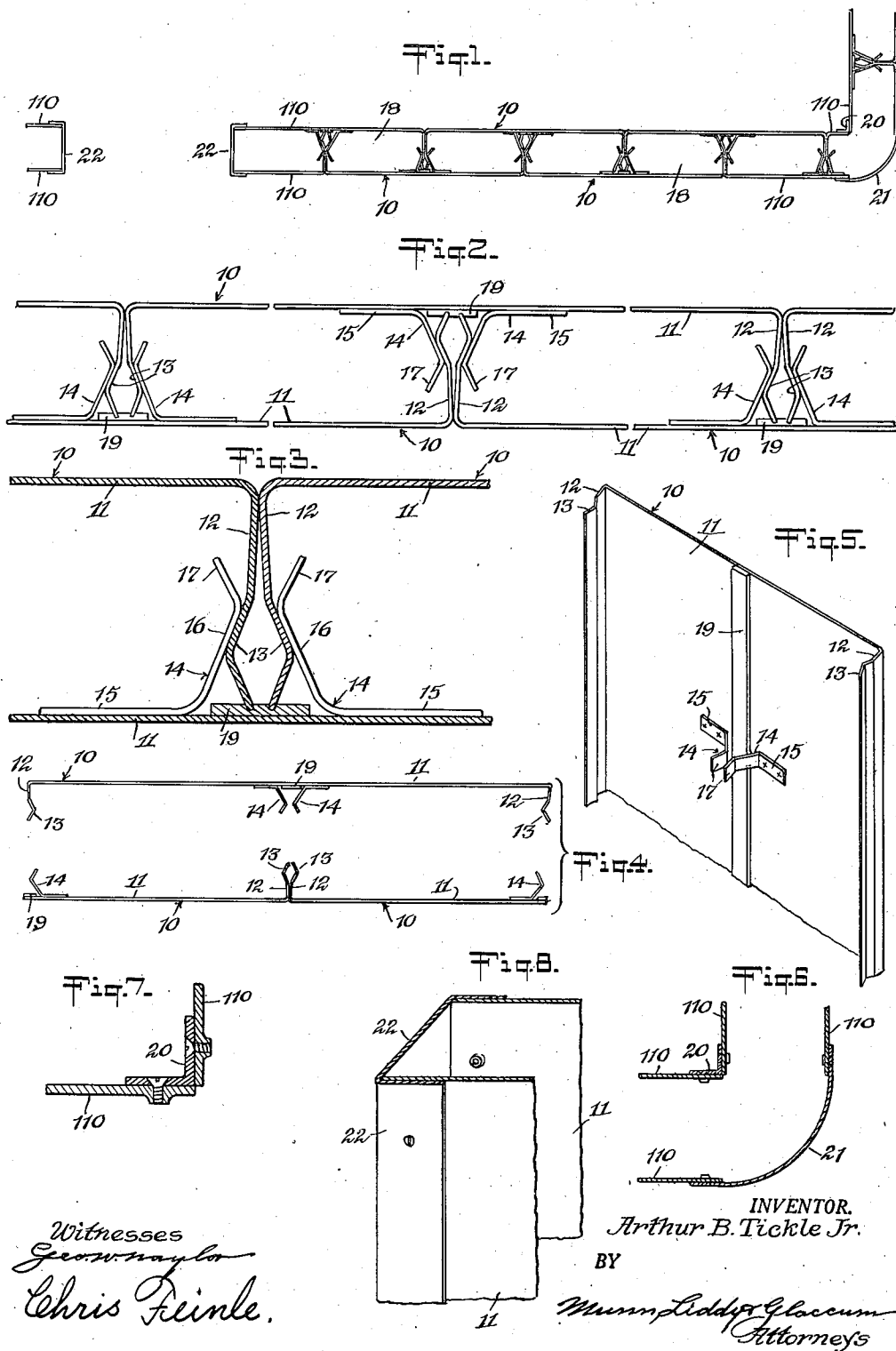
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CONSTRUCTION OF BULKHEADS, WALLS, PARTITIONS, AND THE LIKE

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CONSTRUCTION OF BULKHEADS, WALLS,
PARTITIONS, AND THE LIKE

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2 Claims. (Cl. 189—34)

This invention relates to the construction of bulkheads, walls, partitions and the like.

The invention pertains to the manner in which the aforesaid structures are erected, as well as the structural and functional features thereof.

An object of the invention is the provision of structures of the indicated character, wherein the components may be quickly and easily assembled and retained in place without the use of the common or conventional fastener elements.

A further object of the invention is the provision of structures of the indicated character which will be made of sections capable of being assembled in a desired location or locations, and capable of being disassembled and removed and reassembled in a new location or locations.

A further object is the provision of sectional bulkheads, walls, partitions and the like, enabling a section or sections to be readily replaced whenever necessary or desirable.

A further object of the invention is the provision of structures of the indicated character made of sheet material preformed into sections which embody stiffening means to thereby obviate the use of studs, angles, and other stiffeners.

A further object is the provision of structures of the character mentioned, which include sections arranged and connected to form bulkheads, walls, partitions and the like, which will be dust-tight, light-tight and water-tight, and also provide dead air spaces, and be of lightweight construction, yet have the requisite strength and rigidity.

With the foregoing, other objects of the invention will appear from the embodiment thereof described in the following specification and illustrated in the accompanying drawing by way of example, and defined as to scope in the appended claims.

In the drawing:

Fig. 1 is a fragmentary assembly of components embodying the features of the invention.

Fig. 2 is a view showing some of the components of Fig. 1 on an enlarged scale.

Fig. 3 is an enlarged sectional view showing certain features.

Fig. 4 is a collective view showing a plurality of structural elements or sections separated.

Fig. 5 is a fragmentary perspective view of one of the flanged panels looking at the inside thereof.

Fig. 6 is an enlarged sectional view of a corner construction.

Fig. 7 is an enlarged sectional view of the interior angle of a corner.

Fig. 8 is a fragmentary sectional perspective of a detail for providing a door jamb or window stile.

In accordance with the invention there are provided preformed whole sections 10 which are developed from sheet material, such as metal, plastic, wood, fibre, etc. These sections will be of suitable length to meet necessary requirements. Each section consists of a panel 11 and flanges 12 integral with the panel on opposite sides, respectively, thereby forming a channel construction. The sections 10 are assembled or set up in two lines or rows, the sections in each row abutting each other with the panels 11 in the same plane. The sections 10 in one row are arranged reversely to those in the other row with the panels disposed broadside in spaced parallel relation. The sections 10 overlap each other as shown. In each row of sections 10, the flanges 12 of each section abut two flanges 12 of contiguous sections. In other words, the flanges 12 of the sections 10 in each row are arranged in pairs extending laterally inward between the panels 11, as shown most clearly in Fig. 2.

Means on the flanges 12 of the sections 10 in each row coacts with means on the panels 11 of the sections 10 in the other row to detachably hold the sections 10 in place. The means on the flanges 12 may be diversely formed and in the present instance, each flange itself is bent and formed to provide a cuneiform ridge on rib 13 extending longitudinally of the flange throughout. The means on the panels 11 also may be diversely formed and in the present instance consists of spring clips 14, each of which is developed from a single piece of spring metal of suitable length and approximately one and one-half inches wide to provide an attaching portion 15, an intermediate latching portion 16 and a laterally bent end portion 17. Each clip is secured in place on the inside of the related panel by welding the portion 15 thereto. The clips 14 on each panel are arranged in pairs centrally thereof, the clips in each pair are spaced with respect to each other, and the pairs themselves are spaced from each other at intervals of any suitable distance. Each of the flanges 12 is arranged normally at an acute angle with respect to the related panel or about two degrees from a right angle with respect to the panel. This allows for a certain amount of flexure of the flanges in cooperating with the clips 14 to interlock the sections 10.

The sections 10 may be assembled to form a bulkhead, wall, partition or the like by first plac-

ing in position two sections of one row, then placing in position a section of the other row, so that its clips 14 engage the ridges, respectively, of the pair of abutting flanges of the first two sections 10, respectively, and at the same time engaging the flanges of the third section between the clips 14 on the panels of said first two sections. The other sections may be added to form the required structure as indicated in Fig. 1. The sections 10 are brought into the interlocking relation by the mere act of pressing the sections into position one at a time after the first few have been assembled. The clips 14 yield under the camming action of portions 17 on the ribs 13 as a section is put into place. The clips react upon clearing the high points of the ribs, and snap into latching position with their portions 15 in contact with the ribs respectively. The sections may be detached when desired by pulling outwardly thereon to disengage the latches as will be understood. It will be apparent the flanges 12 are disposed transversely between the panels and thus serve as stiffening means of double construction at intervals. Also, dead air spaces 18 are provided to serve as insulation against the passage of heat and/or cold.

In order to provide a dust-tight, light-tight and water-tight structure, use is made of strips 19 of resilient material, preferably rubber, although other materials may be used. Each section 10 has one strip 19 cemented to the panel 11 thereof on the inside thereof and arranged between the clips 14. The inner edges of the flanges 12 penetrate the related strip slightly, thus holding the contiguous sections 10 from separating aside from the holding force exerted by the clips. Thus, dust, light and water are excluded and kept from passing through the structure formed.

In cases where the bulkhead, wall, partition and the like are of angular construction, use is made of part sections 110 and corner pieces 20 and 21, respectively. The piece 20 is of right angular construction in cross section and is positioned in the interior angle of the structure. The

piece 21 is curved in cross section and is positioned at the exterior angle of the structure, as shown in Fig. 6. The pieces 20 and 21 may be secured in any suitable manner, screws being shown in the present instance by way of example.

Also, at window or door openings the part sections 110 have applied a channel member 22 to serve as a frame member and also to close the space between the panels at one side thereof, as shown in Fig. 8.

It is to be understood the invention is not restricted to the embodiment thereof illustrated and described, and that details of construction may be modified and rearranged in accordance with the scope of the invention as defined in the appended claims.

I claim:

1. A construction of the character described comprising two lines of panels, the panels of one line being arranged broadside to those in the other line and in overlapping relation thereto, laterally extending means on the insides of said panels to detachably hold said panels in the relation aforesaid, said means consisting of ridged flanges on each panel, and pairs of spring clips on each panel, the clips of each panel engaging contiguous flanges respectively on two other panels, and a strip of resilient material on the inside of each panel in contactual engagement with the contiguous flanges of two other panels.

2. In a construction of the character described, panels arranged in the same plane, each panel having a flange, the flange of one panel abutting the flange of the other panel, a third panel arranged broadside in spaced relation to said first panels, means on the flanges which coacts with means on the third panel to hold all of the panels assembled, said means on the third panel consisting of pairs of spring clips, and a strip of suitable material on the third panel between the clips of each of the pairs thereof and in contactual engagement with said flanges to exclude dust, light and water.

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