W. H. PAETH.

METALLIC CONSTRUCTION.

APPLICATION FILED JUNE 30, 1916. RENEWED AUG. 29, 1918.

1,282,710. Patented Oct. 22, 1918.

Fig. 1.

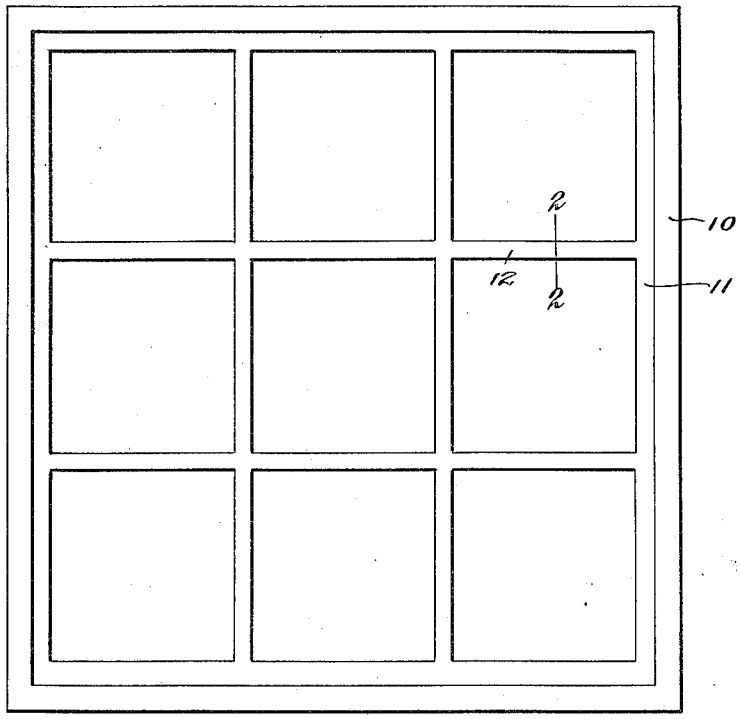


Fig. 2.

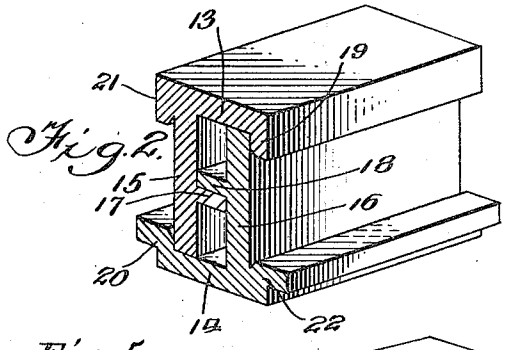


Fig. 3

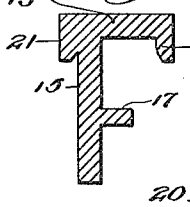


Fig. 4.

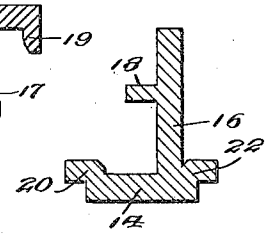
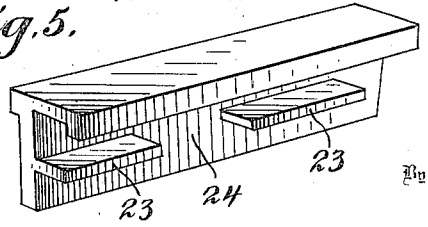


Fig. 5.



Inventor,

William H. Paeth,

By Wilson Fenwick & Lawrence,

Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM H. PAETH, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO GORHAM CO., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

METALLIC CONSTRUCTION.

1,282,710. Specification of Letters Patent. Patented Oct. 22, 1918.

Application filed June 30, 1916, Serial No. 106,918. Renewed August 29, 1918. Serial No. 251,994.

To all whom it may concern:

Be it known that I, WILLIAM H. PAETH, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Metallic Constructions; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to metallic mullions and it has for an object to provide a bar of two lengths of metal, so shaped, that when assembled, these two rails are held in engagement with each other by webs and flanges which interlock.

Further objects will be apparent from the following specification, appended claims and drawings, in which,

Figure 1 is an elevation of a window showing the use of this type of rail,

Fig. 2 is a composite cross-sectional and perspective view as on the line 2—2 of Fig. 1,

Figs. 3 and 4 are cross-sectional views of the two members showing the same detached, and

Fig. 5 is a perspective view of one rail showing a slight modification.

This invention provides for the construction of mullions, in which, the finished bar is of substantially tubular formation, and is formed of two lengths of metal which are so shaped as to permit their being assembled by a longitudinally sliding movement of one on the other. Each of the rails forming part of this bar, has a web and a flange, and extending from each web is a supplemental flange which serves to reinforce the rail structure and to lock the supporting rail, to the other complemental rail.

Referring to the drawings, there is shown a frame 10 in which is placed a sash 11 and this sash includes mullions 12 which are of the formation shown in Figs. 2, 3 and 4. These mullions comprise lengths of metal of general F shape in cross-section which are slid together endwise in having a web of each section engage with a flange of the other section. In this construction, 13 and 14 indicate the flanges, from which extend the webs 15 and 16 and on these webs 15 and 16 are formed the supplemental flanges 17 and 18. The flanges 13 and 14 have the off-set or overhanging edges 19 and 20 and beads 21 and 22 formed thereon respectively. The webs 15 and 16 are of the same relative dimensions and the supplemental flanges 17 and 18 are so positioned on the webs 15 and 16 as to cause the supplemental flange from one rail to engage with the supplemental flange on the other rail to hold the two parts together, as well as to cause the end of each supplemental flange to reinforce the web 15 or 16 of the other rail, as the case may be. When the two parts are assembled, the shoulders formed by the offset portions 19 and 20 engage the outer faces of the edges of the webs 15 and 16 to prevent lateral displacement of said webs with respect to each other.

When the two parts are assembled, forming a composite bar of substantially tubular formation, the offset portions 19, 20, 21 and 22 form beads between which supplemental frames to receive the glass may be inserted and it is apparent that it is possible to modify the cross-sectional configurations of these parts to meet requirements in different instances.

In the forms shown in Figs. 2, 3 and 4, the supplemental flanges 17 and 18 are intended to run continuously along the length of the webs 15 and 16, but as shown in Fig. 5, sections are removed from the supplemental flange 23 at intervals along its length to form spaces 24, so that the sections 23 of one rail may be passed through the spaces 24 in the corresponding sections of the other rail, and then, one rail may be slid only a fractional portion of its length to lock the two rails together instead of sliding the two parts together longitudinally for their entire length.

Having thus described this invention, I claim:

1. A bar comprising complemental sections, each section comprising a web and flange portion, said web and flange presenting an angular cross-sectional configuration, beads formed on the edges of this flange portion, said webs of each section engaging behind a bead on the flange of the other section, supplemental flanges formed on said web, said supplemental flanges of one section engaging with the corresponding portion on the other section, to prevent separation of said sections laterally, and said beads forming longitudinal recesses along the opposite sides of said structure.

2. A bar comprising complemental sec-

tions, each section comprising a web and a flange portion, beads formed along the edges of said flange portion, and a supplemental flange formed on said web portion, the edge of the web portion of one section engaging behind a bead portion of the other section, the supplemental flange of one section underlying that of the other section, said webs and supplemental flanges being of such widths as to reinforce the opposite walls of the structure, the beads of the flange sections forming longitudinal recesses along some of the side walls of the structure, and said sections being assembled or disassembled by longitudinal movement of one with respect to the other.

3. A bar of metallic construction comprising complemental rails, each rail comprising a web, a flange with over-turned edges, and a supplemental flange extending from said web parallel to said flange, the web of each section engaging with the over-turned edge of the flange of the other section, and the supplemental flange of one rail engaging the corresponding portion of the other rail, to prevent separation of said sections and to maintain the desired spaced relationship of said rails.

4. A bar for metallic construction, comprising complemental rails substantially F shaped in cross-section, having the edges of the sides of the angular formation of one rail engage with corresponding parts of the other rail, and having the intermediate extension from one of the sides of one rail engage with a corresponding part of the other rail.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM H. PAETH.

Witnesses:
F. W. MASON,
GEORGE A. BURLINGAME.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."