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LIP FOU WONG

2,809,017

PANEL STRIP FOR FENCES AND GATES

Filed July 20, 1955

Fig. 1.

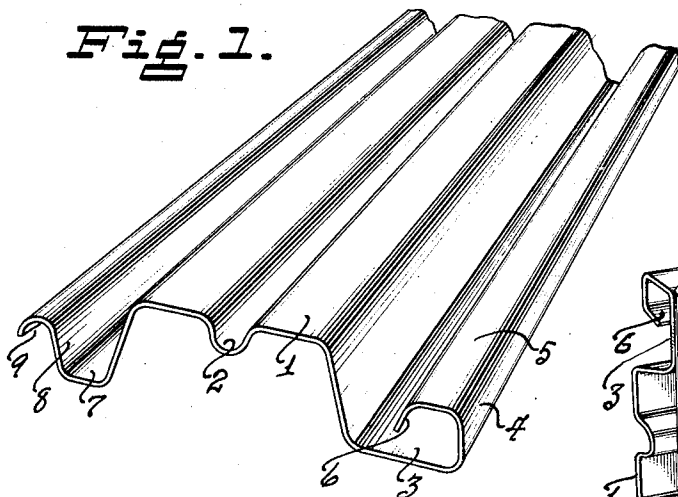


Fig. 2.

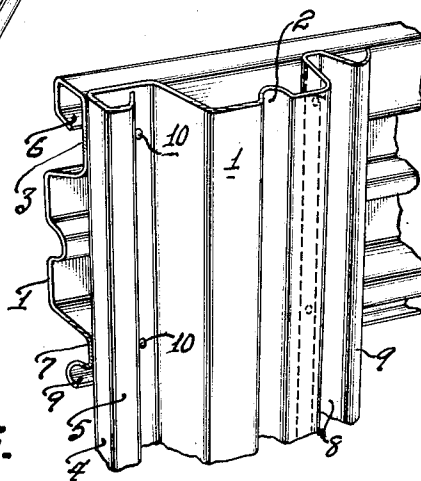
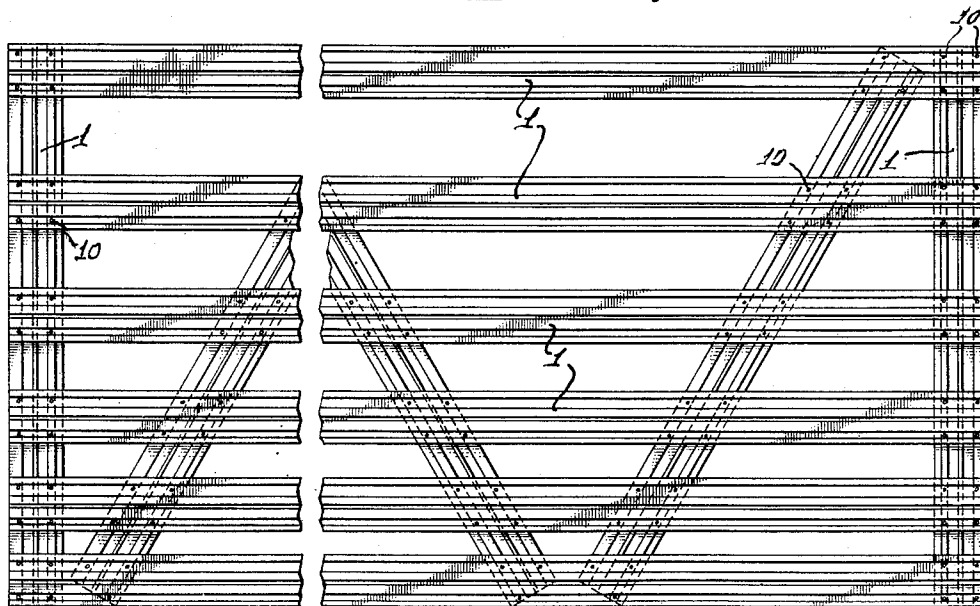


Fig. 3.



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PANEL STRIP FOR FENCES AND GATES

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1 Claim. (Cl. 256—73)

The present invention relates to fences and gates, and its primary object is to provide an improved panel and structure made therefrom in which the elements are elongated strips, specially formed by aluminum or aluminum alloy fabrication of such nature that a plurality of like elements may be assembled or riveted, or otherwise connected to form a rigid structure of substantial strength and long life. Extrusion is one method.

A further object of the invention is to provide each panel with end and intermediate formations of such nature that the trapping of water or foreign matter is prevented and in which marginal areas are so formed as to resist excessive pressure exerted on the top portion of the panel when the latter is in horizontal position.

These and other objects of the invention will be described with reference to the accompanying drawings, in which:

Fig. 1 is a perspective view, showing fragmentarily an extruded panel, or a rolled panel, made in accordance with the invention;

Fig. 2 is a view in elevation, partly broken away, showing the panel applied horizontally to the vertical panel and secured thereto by rivets, the vertical panel serving as a post and the horizontal panel serving as a rail;

Fig. 3 is a view in side elevation, broken away vertically, intermediate its ends, and illustrating a rigid structure made up by assembly of a plurality of the panels.

While I have hereinbefore referred to the fact that my panel may be made by extruding aluminum or aluminum alloy, this is but one method of making the panel, since its form is readily adapted for production by rolling, and in many cases this method will be found desirable.

In the formation of the panel by rolling, a strip of aluminum or other metal may be progressively brought into the shape of the panel by rolling apparatus and appliances well understood by this art. In forming the panel by extrusion, it is only necessary to provide an extrusion pressed die with an extrusion aperture in conformation with the cross section of the panel, with the usual associated elements.

The panel, as shown more particularly in Figs. 1 and 2, consists of a raised longitudinally extending central channel-shaped portion having a flat web with a longitudinal depression, these elements being indicated, respectively, at 1 and 2, and a pair of diverging side flanges. In Fig. 1, the right-hand margin of the panel may be considered the top of the latter when the panel is positioned horizontally. Said margin consists of an outwardly extending flat flange 3 which terminates in an inwardly directed reentrant portion 4, having a web 5 substantially

parallel to section 3, and thence downwardly as a terminal lip 6, which lip generally will be somewhat spaced from section 3.

In Fig. 1, the left-hand margin of the panel is formed by an outwardly extending flat flange 7 which merges into an outwardly extending section 8, the latter terminating in a rounded portion ending in an inwardly turned lip at 9, which lip 9 extends in a direction opposite to that of the terminal lip 6 of the other flat flange 3.

In Fig. 2, one of the panels is shown in vertical position as a post in an assembly which forms a fence, or as a vertical frame member when the assembly is employed as a gate. To the vertical panel is secured, as by rivets 10, a second panel which lies horizontally. It will be seen that the strength imparted to the horizontal panel, through its successive channel-and-rib formation, is such that water will readily be drained downwardly therefrom and foreign matter will not be trapped, since should dirt blow against the panel, some will only be lightly held and will be washed away by the next rain.

In Fig. 3, a structure made up from an assembly of the panel is illustrated, and which may be employed as a fence or as a gate element. Five horizontal panels are shown, generally indicated at 1, and these spaced panels are connected at their ends by vertical panels, generally indicated at 1, and the panels are held together by rivets 10 as in Fig. 2.

In Fig. 3, the left-hand portion is broken away, and at the right-hand side of the break it will be considered that the inclined panel leading to the left will extend upward to the top horizontal panel, and such will be the case with respect to the inclined panel at the left of the break, Fig. 3. The inclined panels are reinforcing struts, and may be arranged as desired, and also may be supplemented with additional intermediate vertical panels, although these have been found not to be essential.

It will be understood that various modifications may be made in the form of panel, within the scope of the claim appended hereto, without departing from the spirit of the invention.

Having described my invention, what I claim and desire to secure by Letters Patent is as follows:

A structural panel for gates and fences comprising a rigid elongated member of substantially uniform cross sectional configuration throughout its length, said member having a central channel shaped portion including a substantially flat central web and a pair of diverging flanges one at each side of said web, an angularly related outwardly extending flange at the free edge of each of said pair of diverging flanges, an inwardly directed reentrant angle portion integral with one of said outwardly extending flanges, and an outwardly turned lip portion integral with the other of said outwardly extending flanges, said lip being of arcuate configuration extending in a direction away from the longitudinal axis of said panel, and said reentrant angle portion extending in a direction toward said longitudinal axis of said panel.

References Cited in the file of this patent

UNITED STATES PATENTS

2,515,754 Wolfe et al. July 18, 1950

FOREIGN PATENTS

656,299 France Jan. 2, 1929