Jan. 27, 1931. G. E. STEVENSON 1,790,028

FLEXIBLE STRUCTURE

Filed Sept. 19, 1929

Fig. 1.

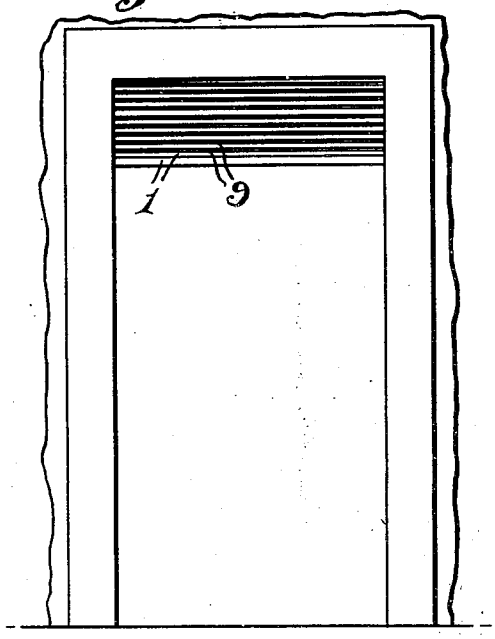


Fig. 2.

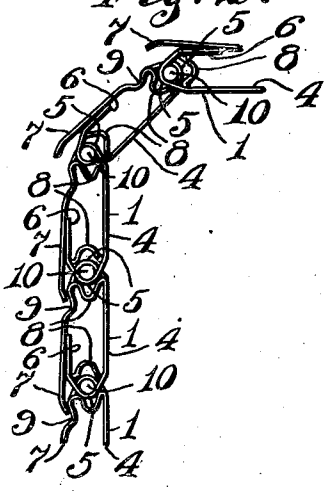


Fig. 3.

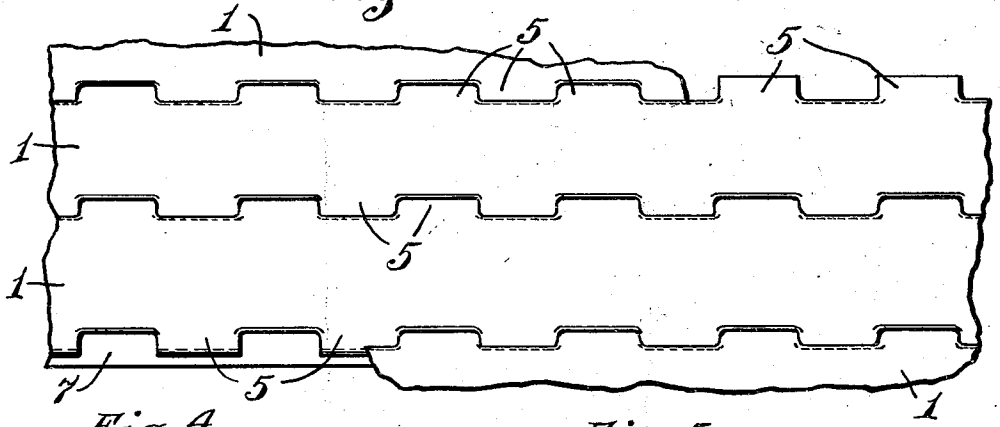


Fig. 4.

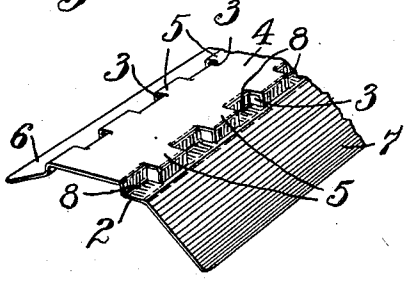
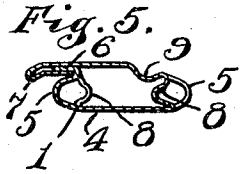


Fig. 5.



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Patented Jan. 27, 1931 1,790,028

UNITED STATES PATENT OFFICE

GEORGE E. STEVENSON, OF INDIANAPOLIS, INDIANA

FLEXIBLE STRUCTURE

Application filed September 19, 1929. Serial No. 393,806.

My invention relates to flexible metallic curtains and has for one of its objects the production of a flexible metallic curtain, the sections of which may be readily formed and are preferably hollow to increase their heat resisting qualities.

For the purpose of describing my invention, I have illustrated certain embodiments thereof in the accompanying drawings, in which:

Fig. 1 is an elevation of a door with my improved curtain in place;

Fig. 2 is an end elevation of my improved curtain;

Fig. 3 is a fragmentary front elevation of my curtain;

Fig. 4 is a perspective view of one of the hinged sections prior to its being bent into shape, and

Fig. 5 is a sectional view of a modification of the section.

In carrying out my invention, the curtain is formed from a series of hollow hinge sections 1. Each of the sections is formed from a single blank of material 2, preferably sheet metal, and the flat sheet is transversely slotted as at 3 so that when the panel portion 4 is struck up, the hinge loops 5 will be formed therein. This panel portion 4 is struck up intermediate of the outer edges of the blank but nearer one edge than the other so that a short flap 6 and a long flap 7 are formed. In forming the section the short flap is folded inwardly parallel with the panel portion 4 and the long flap 7 is folded over the short flap so as to project beyond the hinged edge of the panel when completed and overlap the hinged joint. In the bending and stamping operation, the edges of the panel are inturned as at 8 so that, when the sections are hinged together a tight joint is formed. Near the edge of the section and in the long flap 7, or what might be termed the outer face panel, a longitudinally extending groove 9 may be formed which acts as a water conductor groove to prevent the water from reaching the hinges when the curtain is used for outside work. When the curtain is used in inside work this groove need not be formed. The sections thus formed are connected together by hinged pins 10, which pass down through interdigitated hinge loops thus forming a complete curtain.

In Fig. 5, I have illustrated a modification of my invention. In this figure the short flap 6, instead of being bent inwardly and overlying the panel portion 4, is bent outwardly and the long flap is increased and overlies the short flap having its edge bent under the short flap.

I claim as my invention the following:

1. A flexible curtain, composed of a plurality of hingedly connected sections, each of which comprises a sheet metal strip slotted along two parallel lines at points removed from the edges of the strip, the edges being bent upwardly and at least one of said edges being turned to overlap the remaining portion of the strip to form hinge loops.

2. A flexible curtain composed of a plurality of hingedly connected elements, each comprising a sheet metal strip slotted along parallel lines at points removed from the edges, the edges being turned upwardly and at least one of said edges overlapping the middle portion of the strip, whereby hinged loops are formed, said overlapping portion having a longitudinal groove therein adjacent the hinge edge of the section.

3. A flexible curtain, comprising a plurality of hingedly connected sections, each of which comprises a sheet metal strip slotted along parallel lines at points removed from the edges, the edges being bent back upon the middle portion and lying parallel therewith, and one of said edges overlapping the other.

In witness whereof, I, GEORGE E. STEVENSON, have hereunto set my hand at Indianapolis, Indiana, this 14th day of September, A. D. one thousand nine hundred and twenty-nine.

GEORGE E. STEVENSON.