April 10, 1928. 1,665,475

F. J. PLYM

SCREEN

Filed Jan. 26, 1926 2 Sheets-Sheet 1

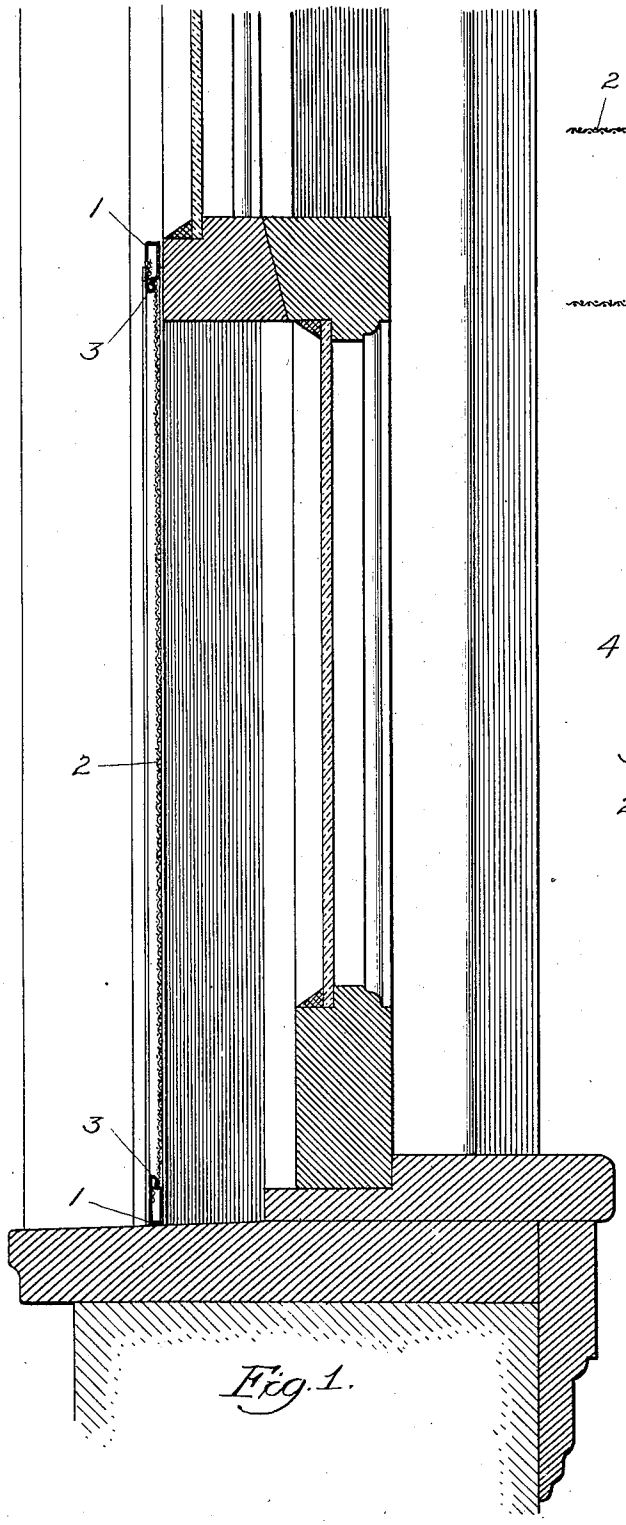


Fig. 1.

Fig. 3.

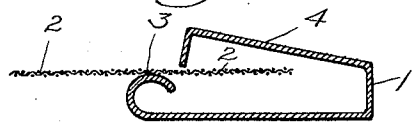


Fig. 4.

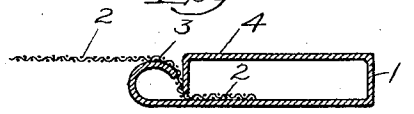
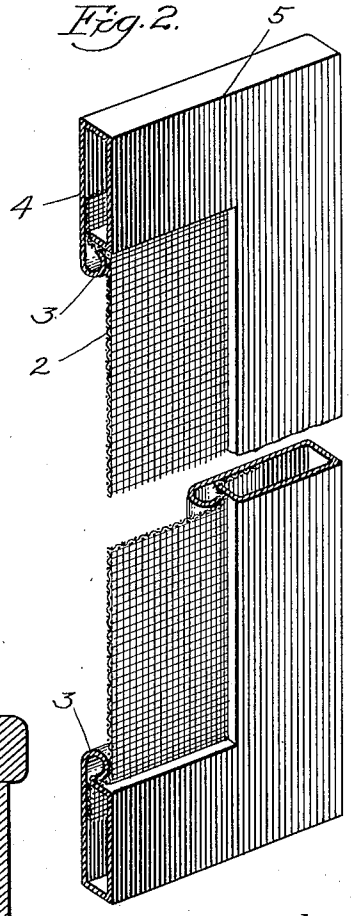


Fig. 2.



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2 Sheets-Sheet 2

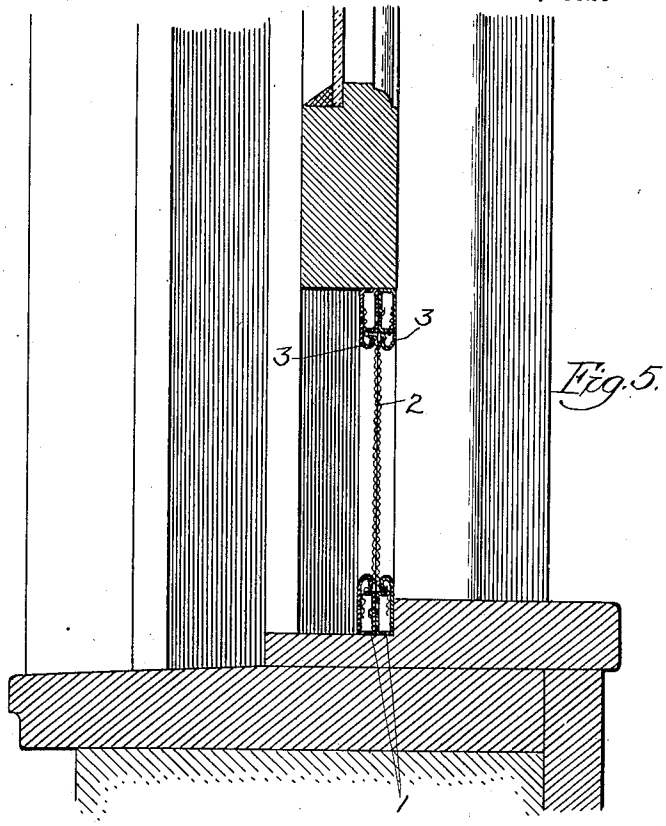


Fig. 5.

Fig. 6.

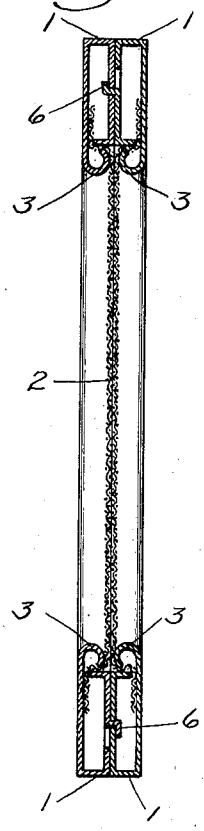


Fig. 7.

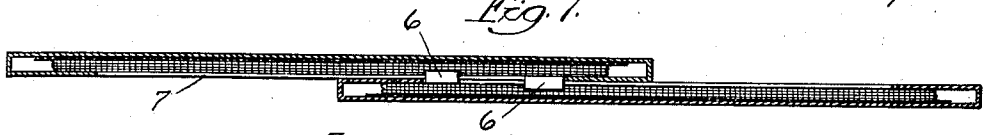
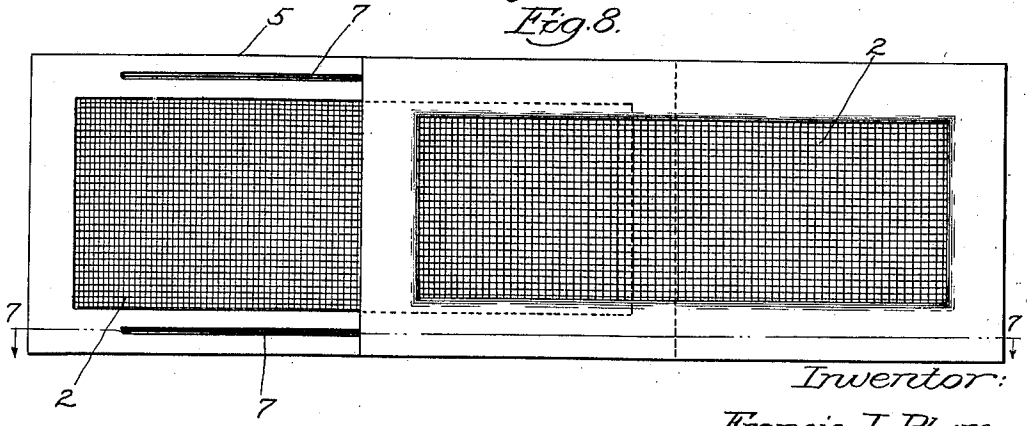


Fig. 8.



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UNITED STATES PATENT OFFICE.

FRANCIS J. PLYM, OF NILES, MICHIGAN, ASSIGNOR TO THE KAWNEER COMPANY, OF NILES, MICHIGAN, A CORPORATION OF MICHIGAN.

SCREEN.

Application filed January 26, 1926. Serial No. 83,849.

The present invention relates to certain new and useful improvements in window screen constructions and among the objects of my invention are the following:

To provide a screen which may be easily and cheaply made and which will be of lasting duration.

To provide a screen in which the frame of the screen holds the screen taut so as to prevent wrinkling or looseness.

To provide a metal molding having a rolled dull edge and a clamping means by which the screen cloth is held so that bolts, screws or the like are not necessary in holding the screen material in place.

To afford an integral screen frame having a smooth surface with no protruding bolts or parts so that two screens may slide against each other without obstruction, thus providing efficient extensible screens.

A further object of my invention is to provide an efficient means for holding the screen cloth to the frame in which a clamping member pressed against the rolled dull edge on four edges of the molding to force the same into position to hold the screen cloth securely in place, and such other advantages, objects and capabilities as will later more fully appear.

My invention further resides in the construction, combination and arrangement of parts illustrated in the accompanying drawings, and while I have shown therein a preferred embodiment of my invention, I wish it understood that the same is susceptible of modification and change without departing from the spirit of my invention.

Referring to the drawings, Fig. 1 is a vertical transverse section through a portion of a window showing my improved screen applied thereto.

Fig. 2 is a perspective view also showing in vertical transverse section an end portion of my screen.

Fig. 3 is a cross-section through one side of the frame of my screen showing the screen mesh in place prior to pressing the frame portion into completed position.

Fig. 4 is a similar view after the parts in Fig. 3 have been pressed into completed form to bind the screen in place, on all four sides simultaneously.

Fig. 5 is a vertical transverse section through the lower portion of the window showing my improved screen used in duplicate to produce an extensible screen.

Fig. 6 is a vertical transverse section through the sliding screen shown in Fig. 5.

Fig. 7 is a longitudinal transverse sectional view of the sliding screen shown in Figs. 5 and 6, and taken on the line 7—7 of Fig. 8.

Fig. 8 is a front elevation of the sliding screen shown in Fig. 7.

My invention more in detail comprises a molding or frame 1 formed with a flat smooth surface and holding tightly stretched therein screen wire cloth or the like 2. The molding 1 is made into a frame of any desired shape, such as square, oblong or the like, and after the wire cloth has been fastened in place the corners of said frame are mitered, the parts being secured by welding, brazing or the like, and ground so as to afford correct shaping, strength and smoothness. The molding is constructed with a rolled dull edge 3 and a clamping member or leg 4. In assembling, the screen cloth 2 is placed over the rolled dull edge 3 of the molding 1 and is inserted into the molding a suitable distance as clearly shown in Fig. 3. The leg 4 is then pressed down against the rolled dull edge 3 by any suitable pressing means so as to hold the screen cloth 2 securely in place as clearly shown in Fig. 4. This means of holding the screen cloth in place is a great improvement due to its simplicity and efficiency. The screen cloth is rendered taut as a result of the pressing and cannot be loosened by ordinary wear. I have eliminated the need for clamps, bolts or the like so that the surface of the frame is smooth and unobstructed. This smooth surface of the frame makes practical the use of my invention in extensible screens 5 slidable on each other as shown in Figs. 5, 6, 7 and 8, in which flanged lugs 6 formed on one of the frame members slide in slots 7 formed in the other member. Other means for slidably connecting these parts may be used if desired.

Having now described my invention, I claim:

1. A screen construction comprising an integral frame composed of a single sheet of metal bent upon itself to form a flat back and side portions, said side portions being parallel throughout their length, the end of

one side provided with a rolled dull edge and the end of the other side provided with a lateral projection for clamping the screen between said edge and projection.

2. A screen construction comprising an integral frame formed to provide flat back and side portions, said side portions being parallel throughout their length, the end of one side provided with a rolled dull edge and the end of the other side provided with a clamping member adapted to grip and hold taut a screen member.

3. A screen construction comprising an integral frame composed of a single sheet of metal bent upon itself to form a flat back and side portions, said back portions being parallel throughout their length, the end of one side provided with a rolled dull edge and the end of the other side provided with a lateral projection for clamping and holding taut a screen between said edge and projection, the edge of said projection forcing said screen against the opposite side of the frame member.

In witness whereof, I hereunto subscribe my name to this specification.

FRANCIS J. PLYM.