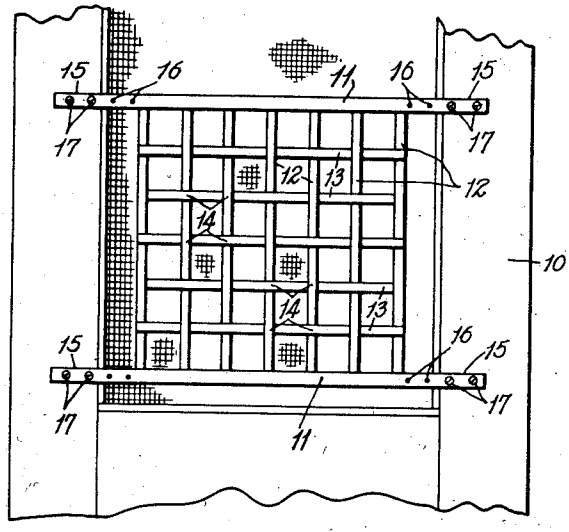
Jan. 31, 1928. 1,657,908

J. A. WULFTANGE

GRILLE

Original Filed Aug. 5, 1925

Fig. 1.



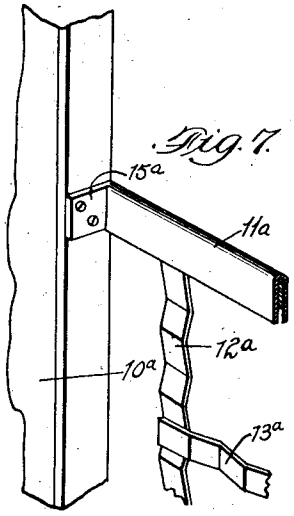


Fig. 7.



Fig. 3.

Fig. 2.

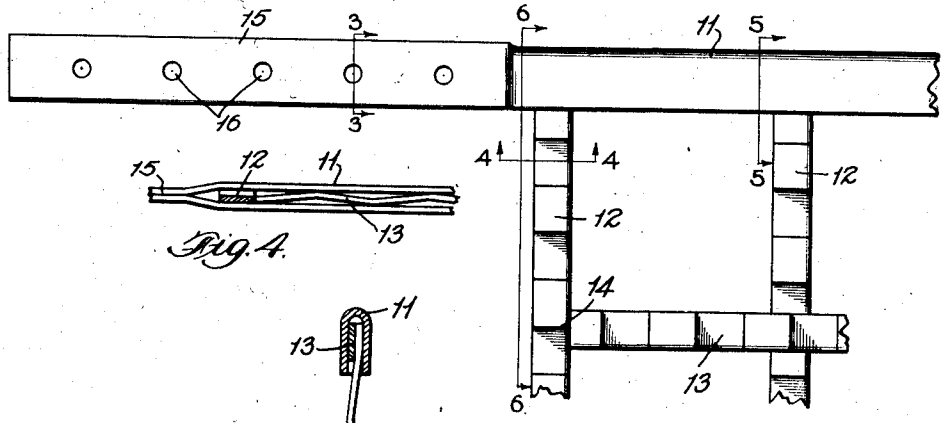


Fig. 4.



Fig. 6.



Fig. 5.

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UNITED STATES PATENT OFFICE.

JOHN A. WULFTANGE, OF HAMILTON, OHIO.

GRILLE.

Continuation of application Serial No. 48,401, filed August 5, 1925. This application filed December 21, 1927. Serial No. 241,605.

This invention relates to grilles and particularly to those grilles used for doors and windows, and is a continuation of my application, Serial No. 48,401, filed August 5, 1925.

There is on the market today a large number of grilles designed to protect doors or windows from accidental breakage and to prevent also the projection of heads, arms and legs from windows. The necessity of carrying in stock such grilles as will be adapted for use on windows and doors of various widths, has brought forth grilles having various means for telescoping and otherwise adjusting the securing means relative to the body portions of the grilles. These adjusting means have proved both unstable, noisy and expensive to manufacture.

The primary object of the present invention is the provision of an improved window and door grille.

Other objects of my invention are to produce a grille for doors and windows which (1) will be adapted to fit windows and doors of various widths (2) will be adapted to be attached to the outer surface of the door or window or (3) to the opposite parallel surfaces, (4) will be stiff throughout the main body of the outer frame members, the latter being capable of being bent adjacent the fastening, (5) will be cheap of manufacture, (6) easy of installation and (7) will not rattle with the movement of the door or window.

Other and further objects will be apparent, to those skilled in the art, from a reading of the complete specification and claims.

Referring to the drawing wherein I have illustrated an embodiment of my invention,

Fig. 1 is a fragmental view of a door such as a screen door and showing my improved grille attached thereto.

Fig. 2 is a fragmental view of a corner of my invention as it is placed on the market.

Fig. 3 is a cross sectional view on the line 3—3 of Fig. 2.

Fig. 4 is a cross sectional view on the line 4—4 of Fig. 2.

Fig. 5 is a cross sectional view on the line 5—5 of Fig. 2.

Fig. 6 is a cross sectional view on the line 6—6 of Fig. 2.

Fig. 7 is a fragmental view illustrating a method of attachment to the inside of a frame member of a window or door.

Like reference characters refer to the same or similar parts throughout the views.

The numeral 10 designates the frame of a door or window to which my invention is applied. The numeral 11 designates the upper and lower supporting members which provide the main support for the main body of the grille. This main body portion is herein illustrated as in the form of a woven structure forming a grating and having vertical strips 12 and horizontal strips 13. These strips are shown as woven with a basket weave, the individual strips being of a wavy shape to add stiffness and strength to the device as a whole.

In order to solidify the grille, the body portion is preferably welded at a portion or all of the crossing or junction points 14.

The supporting members 11 are of a U-shaped cross section, in the open portion of which are received the upper and lower edges of the grating or body portion. The U-shaped body portion is pressed together upon these edges, to firmly hold the grating or body portion of the grille and the supporting members together.

It is to be noted that beyond the edges of the grating or body portion, the supporting members 11 have the U-shaped cross section but there is no open portion due to the fact that both portions of the U are pressed together. This is clearly shown in Figure 3. These exensions of the supporting members, which I have designated by the numeral 15, are provided with holes 16 to receive screws 17.

It is to be also noted that because of the shape of the supporting members where the edges of the grating or body portion are received in their respective folds, the supporting members, because of their open construction, act as trusses and have a tendency to prevent bending of the structure as a whole. Where, however, the two folds of the respective supporting members come together in the extensions 15, it is not necessary to have a truss action and the supporting members 11 may be bent as shown in Fig. 7 to provide an angular supporting member 15ª by which the grille may be attached to the inside edge

of a door or window frame 10^a. The parts 11^a, 12^a, and 13^a in Fig. 7, correspond to the parts 11, 12 and 13, respectively, already described.

In using my improved grille, a series of openings 16 are provided on the extensions 15 to allow for wide or narrow windows or doors. The frame 10 illustrated in Fig. 1 is of a medium size for this particular width of grille. As shown, the two inner holes 16 are not in use and the outer hole, shown in Fig. 2, is missing, due to the shortening of the extensions 15 by cutting or breaking. If broken off, the edge can be quickly smoothed with a file.

It is thus clear that I have produced an effective, cheap grille, one which is adapted for use on doors and windows of various widths and is quiet and easy to install.

While I have illustrated in detail a preferred embodiment of my invention, I desire to have it understood that the showing is merely illustrative and that modifications and changes may be made without departing from the spirit of my invention and within the scope of the appended claims.

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

1. A grille for windows or doors comprising two oppositely disposed supporting members, a grating extending between the supporting members, the supporting members and grating being secured together at opposite sides of the grating, the ends of the supporting members extending beyond the grating and being provided with a series of securing openings.

2. A grille for windows or doors comprising two oppositely disposed supporting members, a grating extending between the supporting members, the supporting members being folded throughout their lengths on opposite sides of the grating to secure the grating to the supporting members, the ends of the supporting members extending beyond the grating and being provided with a series of securing openings.

3. A grille for windows or doors comprising two oppositely disposed supporting members, a grating extending between the supporting members, the supporting members being folded on opposite sides of the grating to secure the grating to the supporting members, the ends of the supporting members extending beyond the grating and being of thinner cross section than that portion of the supporting members between the ends and each end being provided with a series of securing openings.

4. A grille for windows or doors comprising two oppositely disposed supporting members, a grating extending between the supporting members, the supporting members being bent to form a U-shape cross section throughout the length of the edge of the grating, the latter being securely held in the open U-construction of the supporting members, the ends of the supporting members extending beyond the grating and being provided with a series of securing openings, the U-shape supporting member being pressed to close the opening at a point beyond each edge of the grating.

In testimony whereof I hereunto affix my signature.

JOHN A. WULFTANGE.