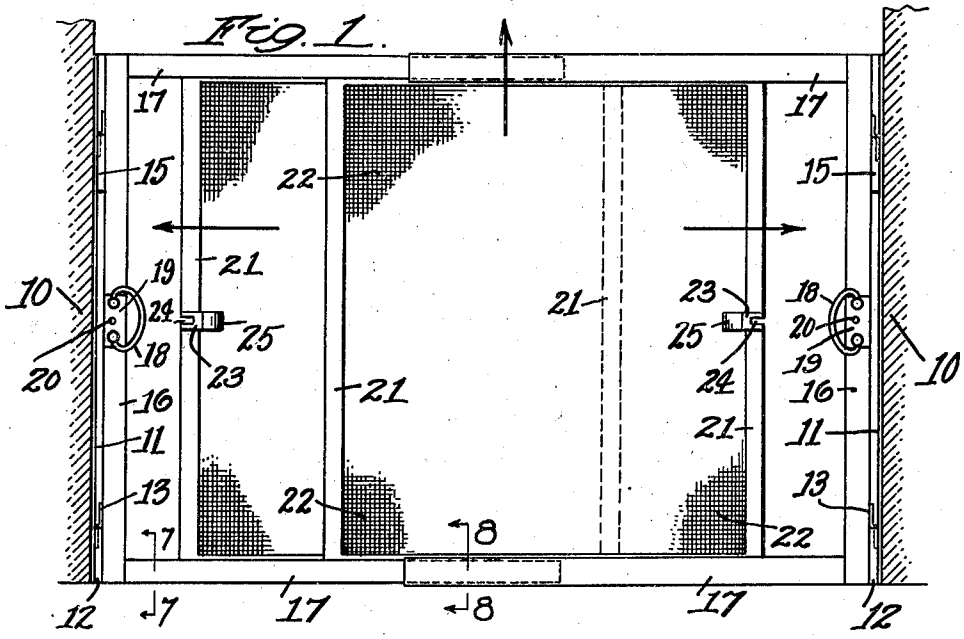
Sept. 6, 1938. N. VOLPE 2,129,541

ADJUSTABLE SCREEN

Filed June 3, 1938

Fig. 1.



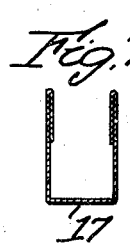


Fig. 7

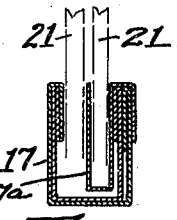


Fig. 8.

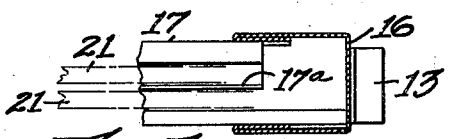


Fig. 5.

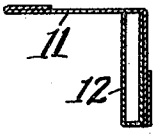


Fig. 3.

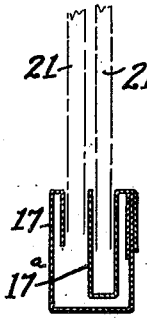


Fig. 6.

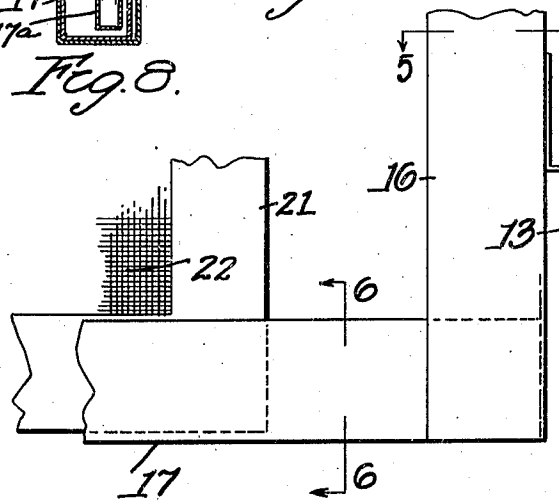


Fig. 4.

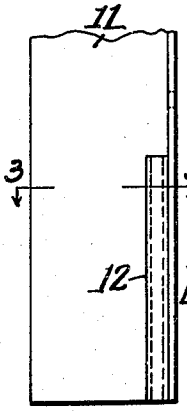


Fig. 2.

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UNITED STATES PATENT OFFICE

2,129,541

ADJUSTABLE SCREEN

Nicholas Volpe, Fitchburg, Mass.

Application June 3, 1938, Serial No. 211,627

7 Claims. (Cl. 156—38)

This invention relates to a screen especially adapted for a window and capable of being used for a double window and the principal objects thereof are to provide a metallic adjustable screen in which both halves are easily and quickly adjustable, which will be capable of being manufactured at about the same price as the simplest type of wooden screen; to provide simple and inexpensive supports to be attached to the inside of the window casing for mounting the said screen; to provide a screen formed of sheet metal in two parts, each having three sides and the top and bottom sides of the two parts fitting together and constituting guides for each other to assist in rendering the whole frame comparatively rigid although adjustable; to provide entirely separate guides in the frame for two separate screens, thus preventing the twisting of the screens and therefore facilitating their adjustment from one position to another; to provide handles for the two frames by which the frames can be manipulated with means extending through the U-shaped frames to secure the front and rear of the frame to each other cooperating with notched hooks for manipulating the two screens in which the notches will fit said fastening means and thus add still further to the rigidity of the frame, and to provide an improved means for supporting the screen frame from the supports attached to the window casing.

Other objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawing, in which

Fig. 1 is a front elevation of a screen constructed in accordance with this invention, shown as carried by supports which are attached to the window casing;

Fig. 2 is a front elevation of the lower portion of one of said supports;

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

Fig. 4 is a front elevation of the screen and frame in the position shown in Fig. 1 but on enlarged scale;

Fig. 5 is a sectional view of the upright part of the frame on the line 5—5 of Fig. 4;

Fig. 6 is a sectional view of the horizontal lower part of the frame on the line 6—6 of Fig. 4;

Fig. 7 is a similar view of the other portion of the lower part of the frame, empty, on the line of 7—7 Fig. 1, and

Fig. 8 is a sectional view through all the parts of the frames and of the screen, as indicated on the line 8—8 of Fig. 1.

In order to apply this screen the wooden window casing 10 is provided on each side with a sheet metal support 11 extending from top to bottom and having sides at right angles to each other, like an angle iron. At the bottom on the flange of this angle iron which is secured to the casing is provided a sheet metal socket 12 secured to this side throughout its width. This socket is located at the bottom and is also closed at the bottom but open at the top so that it provides a general rectangular opening for receiving a flat hook 13 which will enter it and be supported by it. A similar socket 15 is located at the top. Both of these angle irons are arranged in exactly the same way at opposite sides of the window and ends of the screen, but right and left handedly. They constitute the supporting members for the screen.

The screen itself is supported by a frame which is in turn supported by the two supports 11. This frame is formed in two parts, both of sheet metal, each comprising an upright member 16 of open-sided box formation in cross section and vertical in position. Of its three sides, the outer one supports the hooks 13 at the extreme end and the other two are parallel to each other and extend from bottom to top on the front and rear. These two sides are bent over inwardly to form a smooth rounded inner edge. The bottoms and tops of this frame are built of parts 17 exactly the same as just described. They extend into the end members at the bottom and are supported therein in the manufacture and also secured thereto by any well known metal uniting means. On one side these parts are just enough bigger than the other so that they constitute guides and sleeves for each other. The horizontal sides slide in the vertical sides of the other part.

The part which is larger is provided with a sheet metal central guide 17a extending throughout the length at the top and bottom. This constitutes a strong two-part sliding frame for the purpose of holding, supporting and guiding screens.

On each one of the uprights 16 at the front is a pivoted handle 18 with a stationary part 19 to which it is attached firmly secured to the frame by means of a bolt 20. This bolt is screw-threaded and extends through both flanges of the upright, being key-slotted on the back to provide for adjusting and securing it in position.

The double screen consists of two members, both of which enter the grooves in the frame on opposite sides of the separating piece of sheet metal 17a. Each of these screens is formed of metal screen wire of any desired type fitted into frames 21 which are rectangular in shape and are bent down on the margins of the screen wire 22 by the expedient of having the edges of each one of the portions of the frame bent over and inwardly and both forced inwardly to grip the wire. They are entirely independent of each other and each one can be moved back and forth in the frame so that they can cover the frame and form

a perfect screen as they are only a slight distance apart.

Each one of these two screens is provided at its outer side with a sheet metal hook **25** secured around the sheet metal of the screen by pressure but without embracing any other metal fastening means. A member **23** extends around the upright at the center thereof and registers with the hook on the frame but especially with the bolt. This member is provided with open-sided slot **24** which is guided by the bolt **20** and adds to the rigidity of the frame and screen when they are guided into position to fill the entire opening in the frame.

The way in which this screen can be manipulated to open it for any desired purpose or to close it fully or to take it out of the window by decreasing the length of the frame after the screen is raised to release the hooks **13**, will be obvious. The way in which the frame is raised to release it from the side supports **11** is also obvious. The screen and frame constitute a unit which can be removed and adjusted for any window or for any other purpose and it is so connected with the window casing as to be more easily manipulated and the screen and frame are both very much more durable than corresponding wooden parts would be and contain nothing likely to get out of order in ordinary usage. Furthermore, if a part is broken or bent, it is easy to replace it by a new part of the same size and shape.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed, otherwise than as set forth in the claims, but what I claim is:

1. In an adjustable window screen, the combination with a pair of screens, of a frame for supporting and guiding said screens, said frame consisting of two parts, each comprising an upright, a top and a bottom, the top and bottom of one part fitting in the top and bottom respectively of the other part and slidable therein, and one of said parts having a vertical dividing sheet metal member along the center inside the top and bottom to separate the two screens and guide them accurately.

2. In an adjustable window screen, the combination with a pair of screens adapted to be adjusted with respect to each other to provide a desired length of screen, of a frame for supporting and guiding said screens, said frame consisting of two parts, each comprising an upright and a top and bottom, said three elements of each part of the frame being of sheet metal and all of rectangular trough-like form, the horizontal top and bottom of one part fitting in the top and bottom respectively of the other part and slidable therein, one of said parts having a dividing sheet metal member along the center inside the top and bottom to separate the two screens and guide them accurately, said four tops and bottoms being open at the inside all the way across.

3. In an adjustable window screen, the combination with a pair of screens adapted to be adjusted with respect to each other to provide a desired length of screen, of a frame for supporting and guiding said screens, said frame consisting of two parts, each comprising an upright and a top and bottom, said three elements of each part of the frame being of sheet metal and all of rectangular trough-like form, the top and bottom of one part fitting in the top and bottom respectively of the other part and slidable therein, one of said parts having a dividing sheet metal member along the center inside the top and bottom to separate the two screens and guide them accurately, the other part of said frame being free from obstruction except for the partitions throughout their length.

4. In a window screen, the combination with a pair of metal screens located adjacent to each other and movable with respect to each other to change the total length of the screen, of a frame therefor comprising metal ends, tops and bottoms having front and rear walls, the tops and bottoms being separable from each other and the top and bottom on one part fitting accurately with respect to the top and bottom of the other part, these parts of the frame being formed with rear and front walls bent over at the top inwardly and backwardly to form smooth edges and the respective tops and bottoms being secured to the uprights or ends inside the rear and front walls thereof so that each part of the frame constitutes in itself a rigid member.

5. In a window screen, the combination with a pair of relatively slidable screens for the purpose of adjusting the length of the screen as a whole, of a frame therefor consisting of two parts, each three-sided and each comprising a rectangular member into which the screens can project, the central member of the three being normally in vertical position when the screen is in place, a pivoted handle thereon for manipulating it, a bolt for securing said handle in place on the outside of said upright part extending through to the rear and fastened there, and a hook for each of the two screen members for manipulating it, said hook extending around the body of the screen member and having an open ended slot registering with said screw, for the purpose described.

6. In an adjustable window screen, the combination with a pair of screens, of a frame for supporting and guiding said screens, said frame consisting of two parts, each comprising an upright, a top and a bottom, the top and bottom of one part fitting in the top and bottom respectively of the other part and slidable therein, one of said parts having a dividing sheet metal member along the center inside the top and bottom to separate the two screens and guide them accurately, and sheet metal supports adapted to be attached to a window casing, each provided with a permanent fixed socket at the bottom and near the top and open at the top, and corresponding hooks on the uprights of the frame adapted to fit into said open upper end and thereby hold the frame in definite position on said supports.

7. The combination of a frame for supporting and guiding screens, said frame consisting of two parts, each comprising an upright, a top, and a bottom, the top and bottom of one part fitting in the top and bottom respectively of the other part and slidable therein, with sheet metal supports adapted to be attached to a window casing, each provided with a permanent fixed socket near the bottom and top respectively and open at the top, and corresponding downwardly extending hooks on the outsides of the uprights of the frame adapted to fit into said open upper ends.

NICHOLAS VOLPE.