

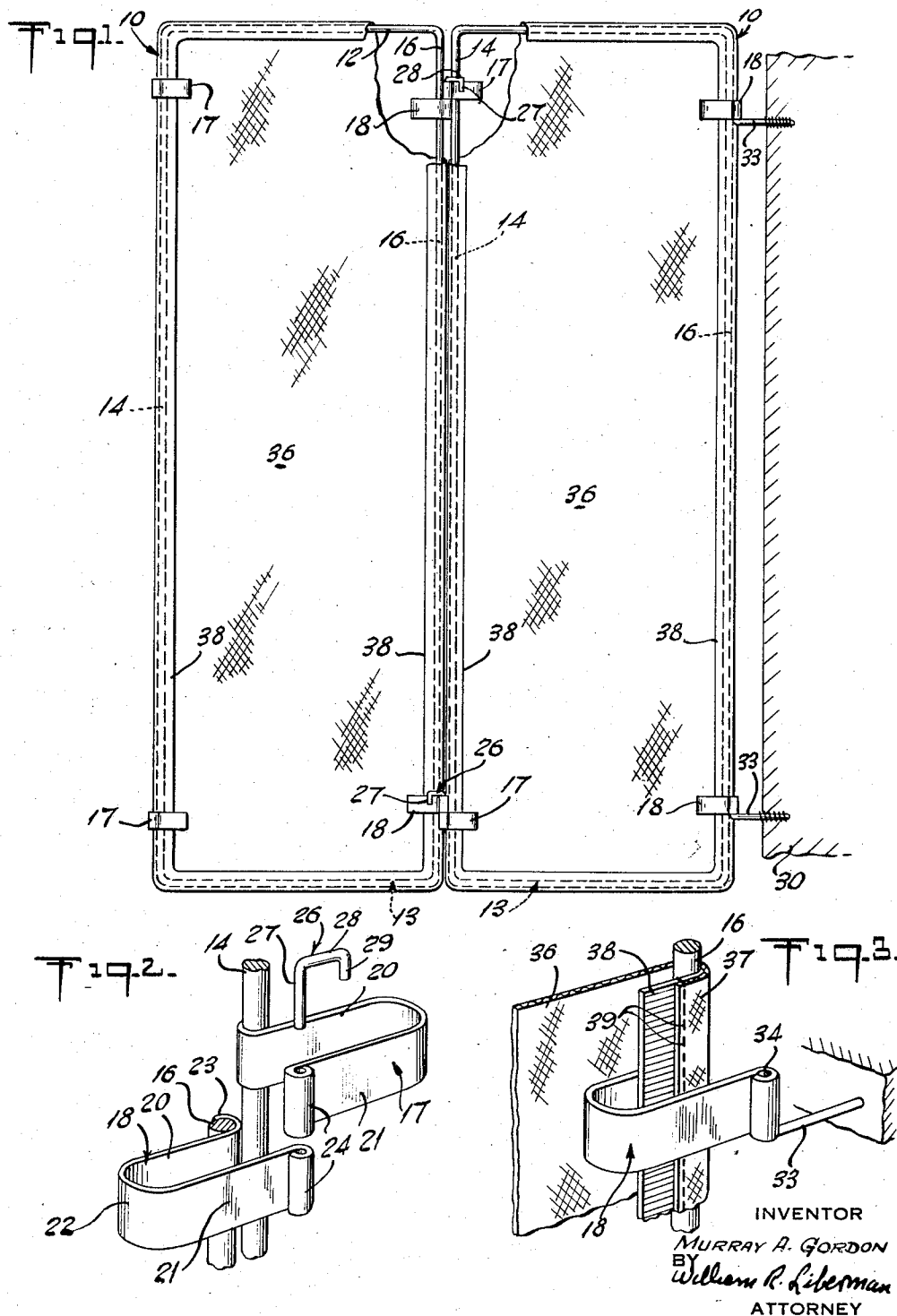
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SCREEN PANEL

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SCREEN PANEL

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The present invention relates generally to improvements in hinged panels, and it relates more particularly to an improved hinged screen provided with a replaceable facing.

Decorative and functional screens, particularly those employed on window, have heretofore been provided in many shapes and sizes and of differing constructions. However, these have possessed numerous drawbacks and disadvantages, and left much to be desired. They have been bulky and expensive and of unattractive appearance. They are also difficult to mount, maintain and keep clean. As a result, window screens have received little acceptance.

It is therefore a principal object of the present invention to provide an improved hinged panel.

Another object of the present invention is to provide an improved window screen.

Still another object of the present invention is to provide an improved hinge construction.

A further object of the present invention is to provide an improved hinged screen construction provided with readily separable facing sheaths.

Still a further object of the present invention is to provide an improved hinged multi-panel screen which is simple, rugged and inexpensive and may be easily and readily mounted and dismounted and collapsed.

The above and other objects of the present invention will become apparent from a reading of the following description, taken in conjunction with the accompanying drawings, wherein

Figure 1 is a rear elevational view of an improved multi-panel screen embodying the present invention, illustrated as applied to a window and shown partially broken away;

Figure 2 is a perspective enlarged detail view of the inter-panel hinge construction; and

Figure 3 is a rear enlarged perspective view of the inter-panel construction and the registering facing sheath.

In a sense, the present invention contemplates the provision of an improved screen member comprising a panel having a pair of parallel opposite longitudinally extending edges, a hinge arm secured to each of said opposite edges, said hinge arm being spaced rearwardly of said panel and being secured to said panel by a leg directed forwardly from said hinge arm at a point disposed inwardly of said panel edge, said hinge arm projecting laterally beyond said panel edge.

Referring now to the drawings which illustrate a preferred embodiment of the present invention in the form of a multi-panel window screen, the numeral 10 generally designates one form of panel constructed according to and embodying the present invention, illustrated as being of substantially flat rectangular configuration, although other suitable shapes may be employed. Each of panels 10 is preferably a frame formed of a single length of heavy wire or rod and includes integral upper and lower members 12 and 13 and vertical side members 14 and 16, the ends of the frame members being joined by

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rounded corners. Located along each of side members 14 and 16 are a pair of vertically spaced hinge members 17 and 18 respectively, hinge members 17 being vertically staggered relative to hinge members 18. The lower edge of upper hinge member 17 is substantially coplanar with the upper edge of upper hinge member 18, and the upper edge of lower hinge member 17 is substantially coplanar with the lower edge of lower hinge member 18.

Each of hinge members 17 and 18 include a U-shaped member having a forward leg 20 and a parallel rear leg 21, the legs being joined by a crotch or bridge portion 22 disposed inwardly of the respective side member 14 or 16. The forward leg 20 is substantially coplanar with the rear face of the panel 10, the outer end of the leg terminating in a forwardly directed inwardly concave arcuate flange 23 which registers with the outer surface of the side member 14 or 16 and is suitably secured thereto as by spot welding or the like. The opposite or hinge rear leg 21 extends beyond the side 14 or 16 and the outer end of the forward leg 20 and terminates in an integrally formed vertical tubular section 24.

The tubular sections 24 of corresponding hinge members 17 and 18 carried by adjacent frame side members 14 and 16 are in vertical aligned, end-to-end arrangement. A removable hinge pin 26 includes a depending shank 27 which separably registers with the aligned openings of the tubular members 24 and is provided with an upper laterally extending arm 28 terminating in a depending leg 29 to facilitate the insertion and removal of the hinge pin 26 from the aligned tubular members 24.

The screen may be mounted on the vertical frame post 30 of a window in any suitable fashion. For example, a pair of vertically spaced pintle screws 32 may be used, each have end threaded shanks 33 screwed into the post 30 and terminating at their outer ends in upwardly directed pins 34 which register with the tubular portions 24 of the end hinge members 18.

Each of the panels 10 has its front face covered with a sheath 36 formed of any suitable attractive flexible material such as a textile fabric, thermoplastic sheeting or the like. The borders of the sheath 36 are folded rearwardly and inwardly as at 37, the inner edges of the border having an elastic band 38 suitably secured thereto as by means of a line of stitching 39, the elastic band 38, in relaxed contracted condition, being of lesser length than the corresponding side and end members of the panel frames. Sheath 36 encompasses each of the panel frames 10, the face of the sheath being forwardly disposed and the border thereof extending around and gripping the rods forming the sides of the panel. The U-shaped hinge members 20 permit a snug and uniform envelopment of the panel frame by the sheath without any distortion, as best seen in Figure 3 of the drawing.

Any number of panels 10 may be hinge-connected in side-by-side relationship by bringing corresponding hinge members 17 and 18 into proper alignment and pivotally joining the matched hinge members with the separable pins 26. Moreover, the end panel may be easily mounted on the window frame or removed therefrom by reason of the pintle screw 33. The sheath may be readily applied to and removed from the individual panels 10, thus facilitating their replacement and cleaning.

While there has been described and illustrated a preferred embodiment of the present invention, it is apparent that numerous alterations and omissions may be made without departing from the spirit thereof.

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

1. An improved screen comprising a pair of panel members arranged in adjoining edge-to-edge relationship, a sheath having a face extending over the front of each

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of said panel members and a border engaging the edge thereof, an arm spaced rearwardly of and secured to each of said panel members and extending laterally across the area of said panel member adjoining edge, said sheath border being disposed between said arm and said frame, and means hinge-connecting the free ends of said arms.

2. An improved screen in accordance with claim 1, wherein each of said panels is defined by a vertical rectangular frame formed of wire.

3. An improved screen in accordance with claim 2, including a substantially U-shaped member associated with each of said frames and having a leg thereof secured to a vertical edge of said frame and its other leg defining said laterally extending arm.

4. An improved screen in accordance with claim 1, including an elastic band secured to and along the border of said sheath.

5. An improved screen comprising a plurality of screen members each including a pair of longitudinally extending opposite parallel side members, a plurality of longitudinally spaced substantially U-shaped hinge members

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located along each of said side members, the legs of each of said hinge members being outwardly directed and transversely spaced, the free end of the forwardmost leg being secured to said respective side member, the free end of the other leg thereof projecting laterally beyond said side member, the bridge portion connecting the legs being disposed inwardly of the associated side member wherein said hinge members along said opposite side members are longitudinally staggered relative to each other and wherein the screen members are arranged in adjoining side-by-side relationship, said hinge members along said adjoining sides having their outer free ends in alignment, and means effecting a pivotal connection between said hinge member aligned free ends.

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