

(Specimens.)

G. B. MEADOWS.

PROCESS OF TREATING WIRE CLOTH FOR SCREENS.

No. 542,393.

Patented July 9, 1895.

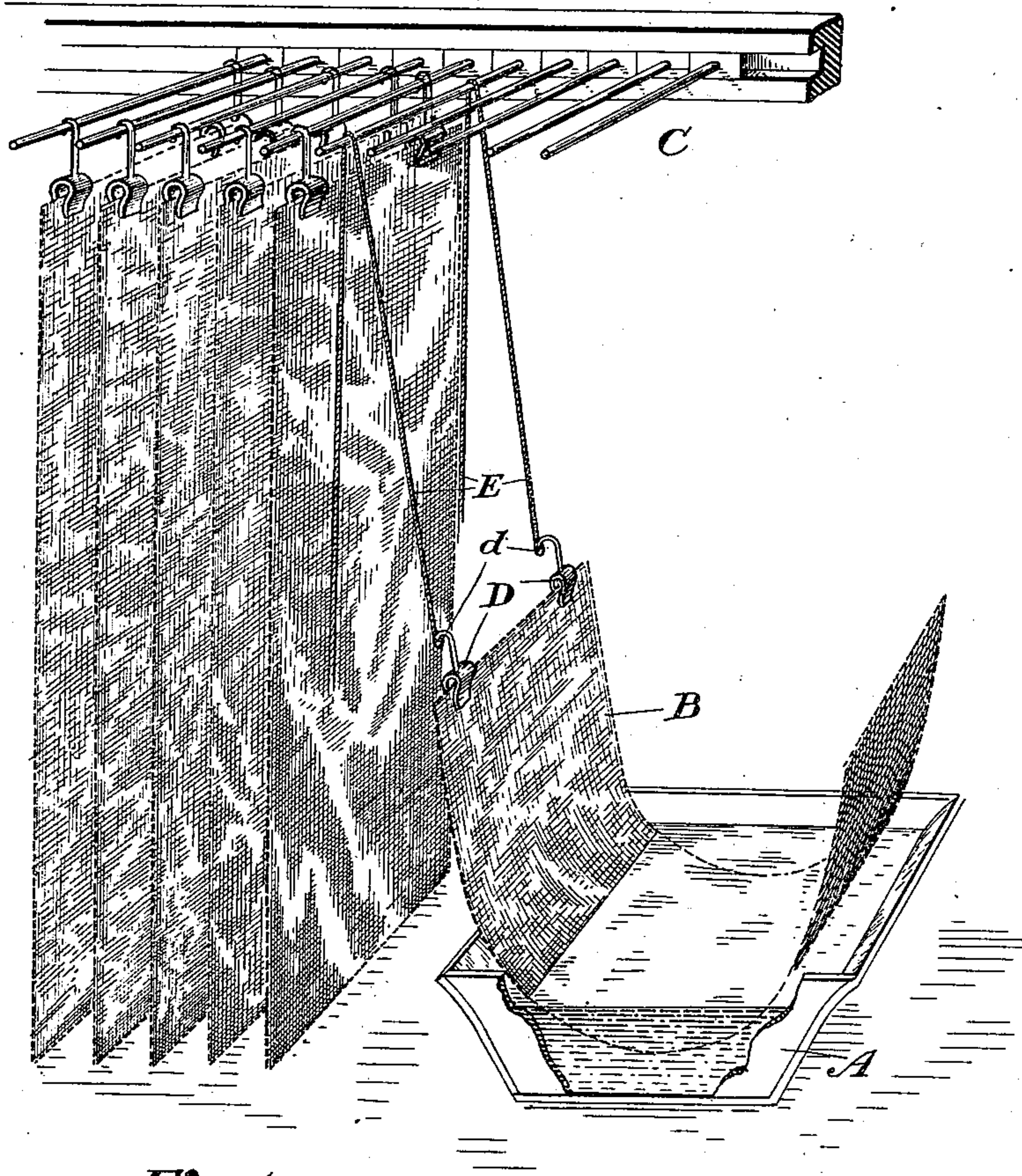


Fig. 1.

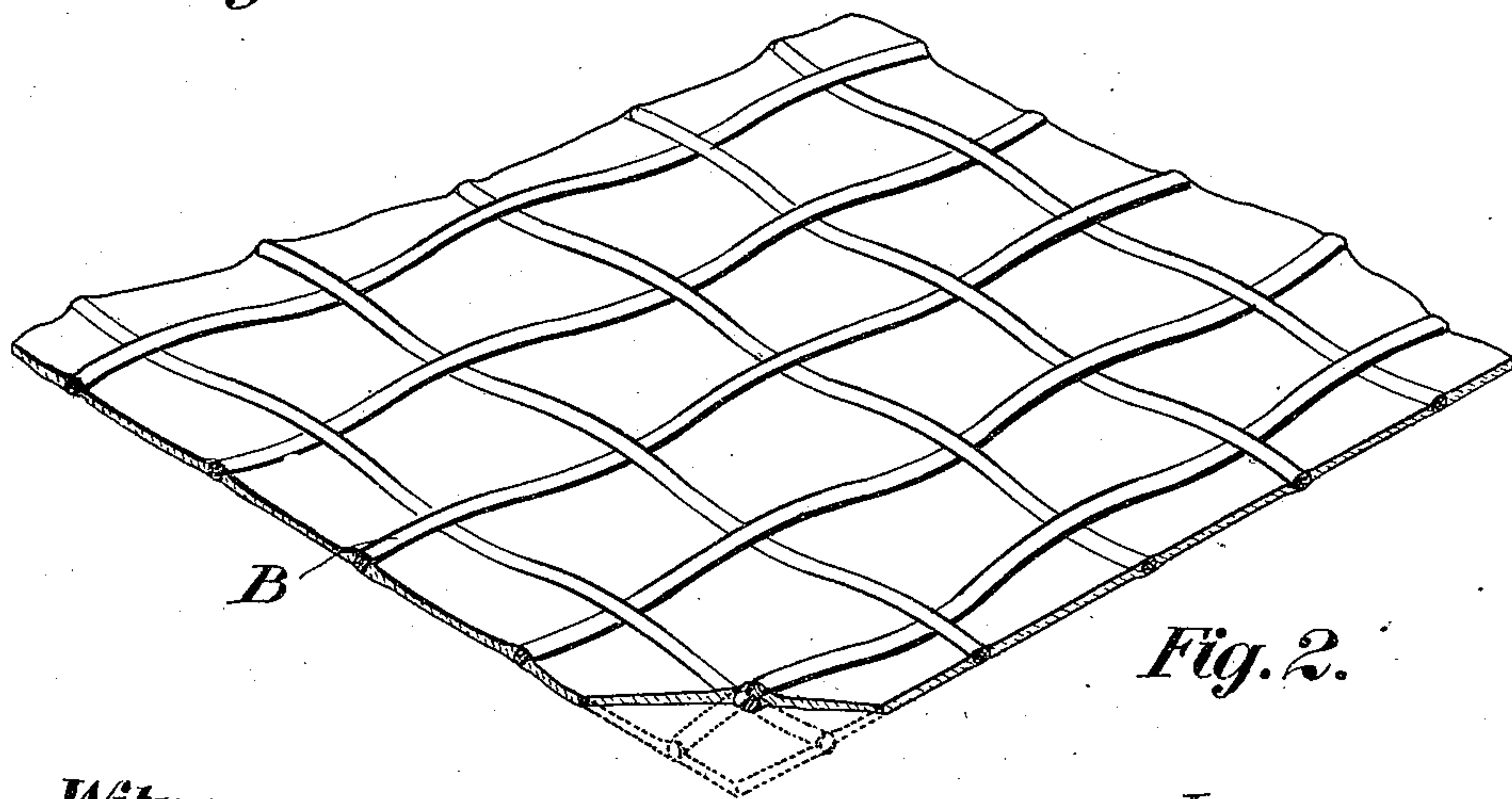


Fig. 2.

Witnesses.

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# UNITED STATES PATENT OFFICE.

GEORGE BRYAN MEADOWS, OF TORONTO, CANADA.

## PROCESS OF TREATING WIRE-CLOTH FOR SCREENS.

SPECIFICATION forming part of Letters Patent No. 542,393, dated July 9, 1895.

Application filed April 12, 1894. Serial No. 507,219. (Specimens.)

*To all whom it may concern:*

Be it known that I, GEORGE BRYAN MEADOWS, manufacturer, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Treating Wire-Cloth for Screens, of which the following is a specification.

My invention relates to improvements in the method of treating wire-cloth for screens; and the object of the invention is to provide a cloth or fabric for a screen which is impervious to air and at the same time semi-transparent, so as to obscure vision and not light; and it consists essentially of wire-cloth treated and manufactured by a simple process into the article of manufacture hereinafter described.

Figure 1 is a perspective view showing the manner in which the wire-cloth is treated to produce my new article of manufacture. Fig. 2 is an exaggerated view of a small section of the wire-cloth fabric produced by such process.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is a receptacle which contains the liquid, comprised of the following ingredients in the proportions stated, namely: one pound of manila gum, one pound of kauri, one-half gallon of linseed-oil, and one-half gallon of turpentine.

B is a wire-cloth, preferably of a fine mesh. The cloth is passed through the receptacle A so that it will sag or assume a concave form in the trough. It is very essential that the cloth should be passed through the receptacle in this form and then brought immediately to the perpendicular as it passes out from the receptacle, and it is absolutely necessary, also, that the cloth should not be allowed to touch the sides of the receptacle. In passing through the receptacle the liquid adheres to and forms a film over the warp and woof wires of the cloth on both sides and a transparent yellow sheet in each of the openings of the mesh, so that the entire openings of the mesh are completely closed and the piece treated is in one sheet, the warp and woof wires of the mesh connecting the minor sheets together, so that a transparent yellow screen is formed.

In practice I find that the sheet of wire-

cloth has, after being drawn through the liquid, to be raised immediately to the perpendicular and supported upon racks, such as shown at C. I preferably provide spring-clasps D and hooks *d*, forming part of the same, so that each sheet of wire-cloth may be drawn up by ropes E into the vertical position shown in Fig. 1, in which position they are left to drip and dry.

It is essentially important in my process that the sheet of wire-cloth be passed through the liquid in receptacle A, as hereinbefore described, and raised to the perpendicular; otherwise, I find in practice that numerous holes would appear and spoil the effect and usefulness of my screen. Should it be desired to lessen the transparency of the screen, I can, when the liquid filling up the mesh is half dry, disturb the mesh of the screen when it is hung in perpendicular position and thus render it as effective as ground glass for obscuring the vision. Without such latter treatment, however, the screen formed will be translucent, but still sufficient to obscure the vision and prevent an object being seen at a very short distance behind it. The color produced will be an amber color, but it will of course be understood that any suitable translucent coloring matter may be used so as to provide a screen of any desirable color.

A screen thus formed is more especially adapted for insurance and banking offices, where it is desirable to have a wire screen around the cashier's box, and a screen made after the manner described above will not interfere with the sound, but yet will obscure vision, so that no parties outside of the box or case will be able to see what the cashier or teller is doing.

My screen is also quite stiff, although it is capable of being bent so as to form curved sheets to be used instead of glass, and it will be readily understood that it will be very much cheaper and stronger, and therefore not liable to get broken, as is the case where glass is used for screens.

What I claim as my invention is—

1. The herein-before described process of producing a transparent imperforate screen fabric of open mesh wire cloth, consisting in passing each sheet separately in a concave form through a receptacle containing a suit-

able transparent solution, then raising such sheets directly from the solution without making contact with any object in its movement into a perpendicular position and supporting  
5 them in this position until they are dried, substantially as described.

2. The herein-before described process of producing a transparent imperforate screen fabric of open mesh wire cloth, consisting in  
10 passing the sheets of cloth in a concave form through a receptacle containing a suitable

bath, then raising such sheet to a perpendicular position and supporting the said sheets in this position and finally shaking said sheets when the solution is about half dry to reduce  
15 the transparency, substantially as described.

Signed at Toronto the 6th day of April, 1894.

GEORGE BRYAN MEADOWS.

In presence of—

L. DICK,

E. R. CASE.