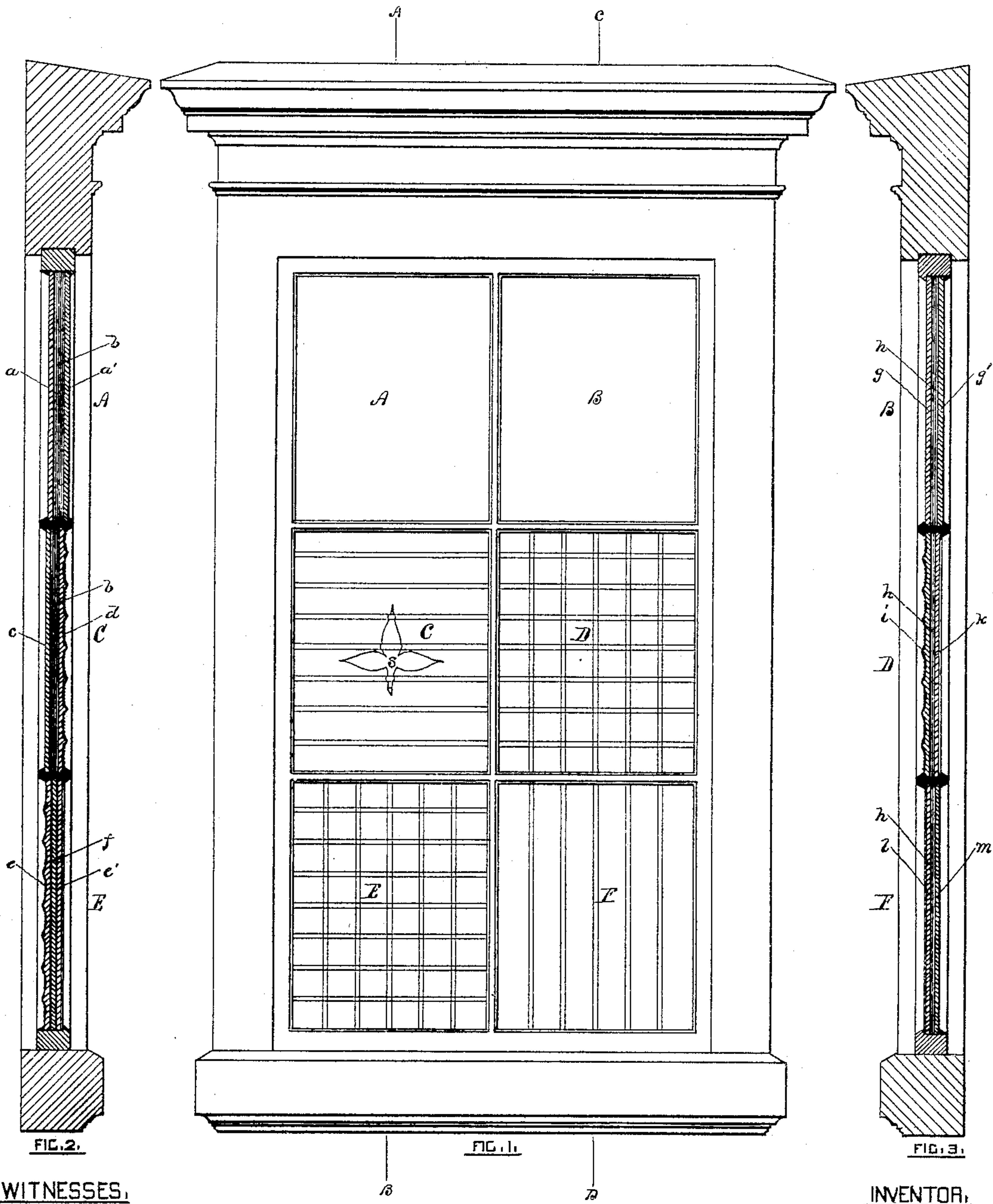


S. DARLING.  
Windows.

No. 138,009.

Patented April 22, 1873.



WITNESSES,

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN WINDOWS.

Specification forming part of Letters Patent No. **138,009**, dated April 22, 1873; application filed August 21, 1872.

*To all whom it may concern:*

Be it known that I, SAMUEL DARLING, of Providence, in the State of Rhode Island, have invented certain Improvements in the construction of Glass Windows; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms a part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

My improvements consist in constructing a window with two thicknesses of plain, clear glass, with fine muslin or its equivalent between them to regulate the light and add beauty to the window; also with colored and one or more thicknesses of clear fluted glass, with or without muslin between, according to the effect to be produced, for the purpose of modifying the light and preventing the transmission of the color with the sun's rays; and with two thicknesses of clear glass, one or both being fluted, with muslin between to temper the light and improve the appearance of the window.

Figure 1 represents an elevation of a window embodying my invention. Fig. 2 represents a central vertical section of the part of the window on line A B, Fig. 1. Fig. 3 represents a similar section of the other part taken on line C D, Fig. 1.

The sash of my window may be made of wood, lead, or any suitable metal, in the usual way, or the glass may be set in a frame without sash when the window is not too large, but in all cases the space between the glasses must be made air-tight to prevent dampness, which can easily be done by the use of putty or cement in the common way of doing such work.

To make a cheap window, that will allow sufficient light to pass through, and at the same time exclude the sun's rays sufficiently, I use two thicknesses of common clear glass with, say, four thicknesses of fine Swiss muslin between them, as shown at A in Fig. 1, and at A *a a' b*, Fig. 2. When it is not desirable to exclude so much light a less number of thicknesses of muslin may be used, as shown at B, Fig. 1, and at B *g g' h*, Fig. 3. When

two thicknesses of muslin are used it has the appearance of water-color.

To make a colored window of various tints I use the fluted with colored glass with or without the muslin between, according to the effect that is to be produced. If a very brilliant window is wanted the muslin should not be used. The muslin softens the light and gives it a variegated appearance, as shown at C and F, Fig. 1, and C *b d c*, Fig. 2, and F *h l m*, Fig. 3, both of which have two thicknesses of muslin between them.

Figures of various forms may be made in a window by cutting out the muslin, as shown at S C, Fig. 1.

To make a window of great beauty and transparency I use two thicknesses of clear fluted glass with muslin between. One of the glasses may be rough fluted and the other smooth fluted, as shown at D, Fig. 1, and at D *i h k*, Fig. 3, but I prefer to have both rough.

To make a window of colored glass, very brilliant, I use two thicknesses of fluted glass, the flutes of one running across those of the other, and colored glass or its equivalent between them, as shown at E, Fig. 1, and E *e e' f*, Fig. 2. When rough fluted is used instead of the smooth a much finer effect is produced.

It will appear evident that a great variety of beautiful colors and combinations may be produced with glass of different-shaped surfaces without departing from the principles of my invention, and I do not confine myself to any particular shapes. Neither do I confine myself to muslin to put between the glass, as tissue-paper and other thin material may be used instead; neither do I confine myself to colored glass, as other colored material may be used instead. The surface of glass may be made in squares, so that one thickness may give a checked appearance. Rough-fluted colored glass may be made so that the color will not be transmitted from it, and by leaving portions of the surface smooth in a desired shape figures of various forms can be produced.

Having thus fully described my improve-

ments, what I claim as my invention, and desire to secure by Letters Patent, is—

1. A window having two thicknesses of glass, with fine muslin or its equivalent between them, substantially as described.

2. A window having two thicknesses of clear glass; one or both fluted, with muslin between, substantially as and for the purpose set forth.

3. A window having one or more thicknesses of fluted arranged with colored glass, substantially as described.

SAMUEL DARLING.

Attest:

JOHN E. HALL,  
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