

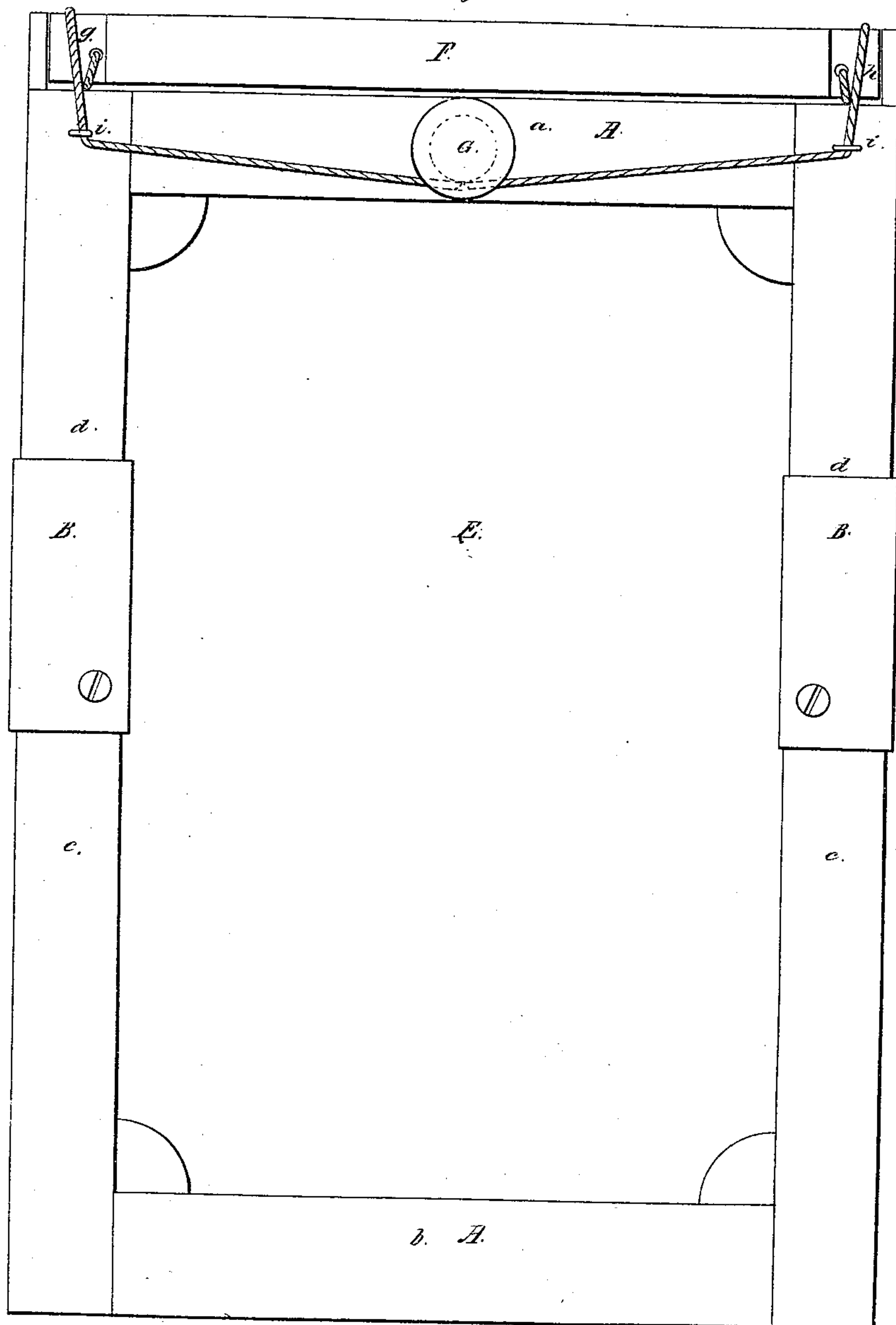
2 Sheets-Sheet 1

*T. Danforth,*  
*Curtain Fixture*

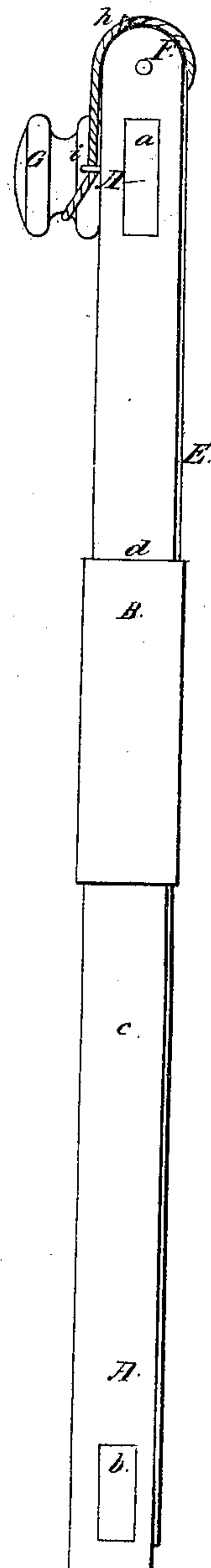
*N<sup>o</sup> 13,980.*

*Patented Dec 25, 1855.*

*Fig 1*



*Fig 2.*



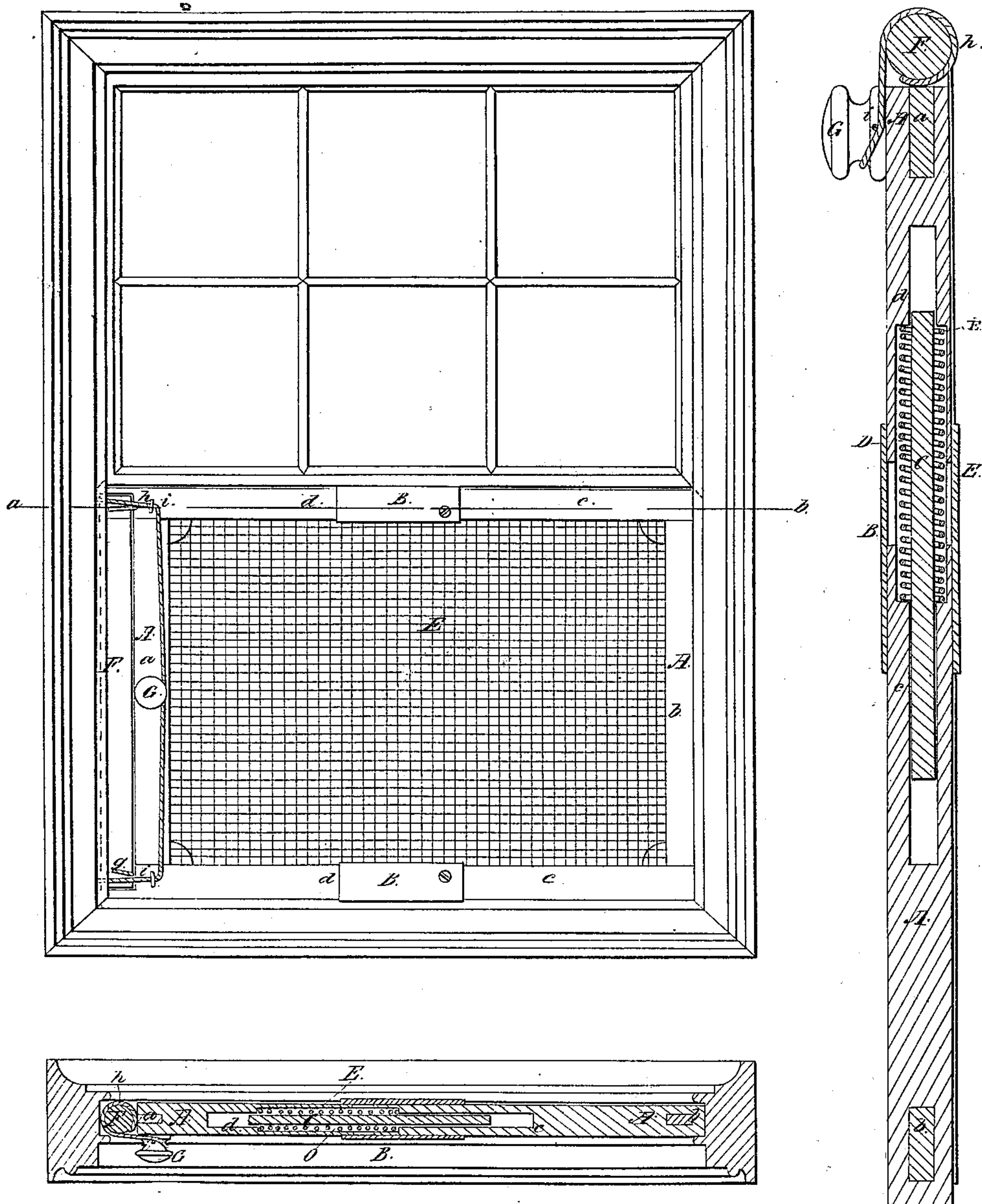
2 Sheets Sheet 2.

*T. Danforth,*  
*Curtain Fixture.*

*N<sup>o</sup> 13,980.*

*Patented Dec. 25, 1855.*

*Fig 2.*





# UNITED STATES PATENT OFFICE.

THOS. DANFORTH, OF ROXBURY, MASSACHUSETTS.

## WINDOW-SHADE.

Specification of Letters Patent No. 13,980, dated December 25, 1855.

*To all whom it may concern:*

Be it known that I, THOMAS DANFORTH, of Roxbury, in the county of Norfolk and State of Massachusetts, have invented an  
5 Improvement in Window-Screens; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, letters, figures, and references thereof.  
10 Of such drawings, Figure 1 denotes a side view of a window screen containing my invention. Fig. 2 is an end view of the same.  
In the said drawings, A, represents a  
15 frame composed of two parts, each of which consists of a bar *a* or *b*, and two bars *c*, *c*, and *d*, *d*, extended perpendicularly from such bar, *a* or *b*, as seen in the drawings. The two halves or parts of the frame thus  
20 made are arranged with the bars, *c*, *c*, and *d*, *d*, in line respectively. Each of the bars, *c*, *c*, is provided with a metallic socket, B, which receives the adjacent bar and serves in a measure to support the two bars in  
25 line. Each of the inner ends of the contiguous bars, *c*, *d*, is bored out to receive a slide or tenon C, see Figs 2 and 3, the latter being a longitudinal section of the two bars and a spring D, which envelops the tenon,  
30 and so rests against the bars as to press them asunder, and admit of either their approach toward or departure from each other. By such devices or equivalent means, the frame is made either expansive or con-  
35 tractile in a longitudinal direction. This frame has a gauze curtain or shade E, fastened or nailed to one of its halves or parts and carries on the outer end of the other part or half a curtain roller F, to which the  
40 curtain is attached so that it may be wound thereon. To the inner surfaces of those parts of the roller F, which extend beyond the curtain, cords *g*, *h*, are fastened, and such cords are wound around the roller and  
45 passed respectively against grooved pulleys or through guides *i*, *i*, and thence carried and fastened to a knob G, arranged in the middle of the bar *a*, as seen in Fig. 1, the said cords being attached to opposite sides  
50 of the knob. By rotating the knob in one direction the cords will be wound on it, and

will revolve the roller F, so as to wind the curtain thereon, the draft on the curtain at the same time producing a contraction of the frame. I do not confine my invention 55 to the employment of the knob and cords to operate the roller as other devices equivalent thereto may be used in their stead.

A window shade so made can readily be fitted to or removed from a window frame, 60 its expansive property or principle when the shade is in the window frame serving to press it firmly against the upright sides or bottoms of the said grooves thereof.

As a window shade is usually made of a 65 rectangular frame covered with gauze and without any means of being either expanded or contracted, it cannot be constructed of a length to correspond with the width of the window frame between the bottoms or up- 70 right sides of its sash grooves, for were it so made it could not be inserted conveniently in such grooves. To be placed therein in the usual manner it must be made of a length not greater than the distance be- 75 tween the bottoms of the said grooves diminished by the depth of one of the said grooves. Consequently when it is so made and placed in a window frame, either one or both of the two ends of the window shade 80 are not likely to be in contact with the bottoms of the sash grooves.

My expansive window shade is capable of being adapted to window frames of various widths and to fit tightly into any one of 85 them. When in place it can be removed from the frame with very little trouble.

What I claim consists in—

Making the frame (A,) so as to be capable of longitudinal contraction and expansion 90 as specified in combination with applying the gauze shade or curtain thereto, and so as to wind upon a roller and be wound thereon by devices substantially as stated.

In testimony whereof I have hereunto set 95 my signature and seal this twenty sixth day of July 1855.

THOMAS DANFORTH. [L. s.]

Witnesses:

R. H. EDDY,

F. P. HALE, Jr.