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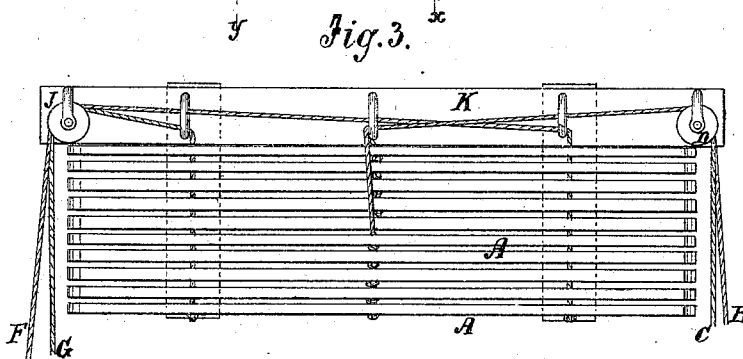
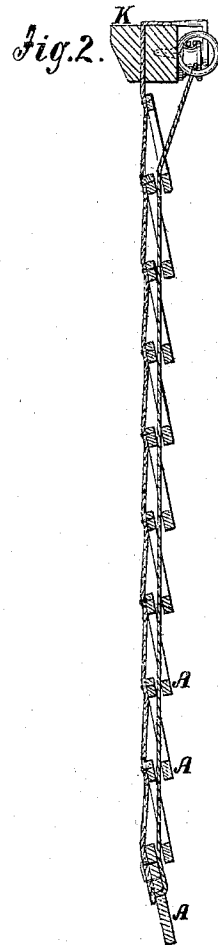
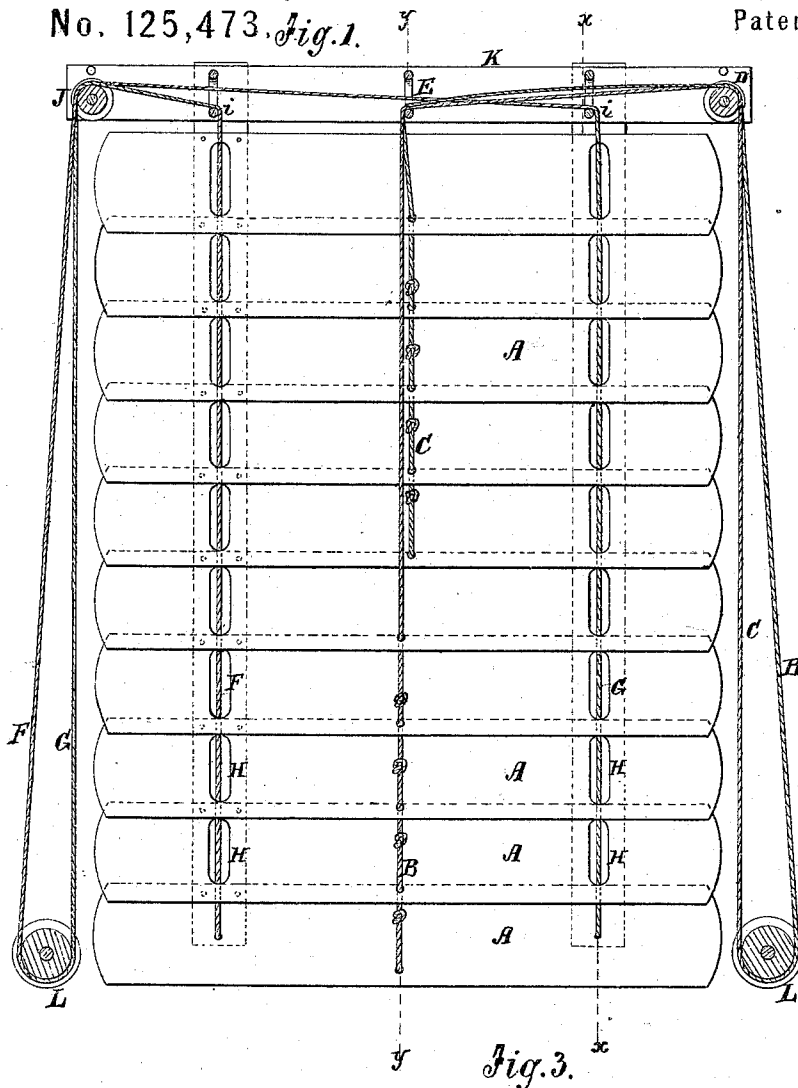
E. METCALF & CHARLES ALLEN.

Sheet: I.

Improvement in Window Shades.

No. 125,473. *Fig. 1.*

Patented April 9, 1872.



Witnesses:

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2 Sheets.

Sheet II.

E. METCALF & CHARLES ALLEN.

Improvement in Window Shades.

No. 125,473.

Patented April 9, 1872.

Fig. 4

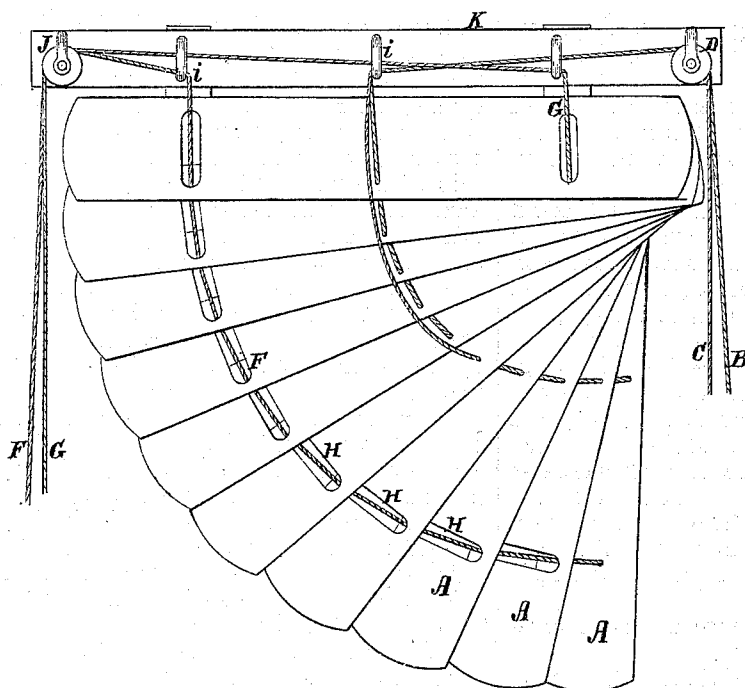
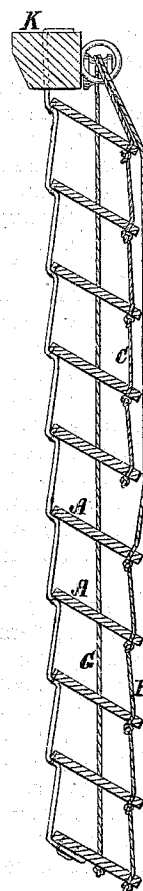


Fig. 5.



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UNITED STATES PATENT OFFICE.

ELLIOTT METCALF, OF TABERG, NEW YORK, AND CHARLES ALLEN, OF
WOODSTOCK, CANADA.

IMPROVEMENT IN WINDOW-SHADES.

Specification forming part of Letters Patent No. 125,473, dated April 9, 1872.

Specification describing certain Improvements in Mode of Operating Venetian Window-Shades, invented by ELLIOTT METCALF, of Taberg, in the county of Oneida and State of New York, and CHARLES ALLEN, of Woodstock, in the Province of Ontario and Dominion of Canada.

This invention relates to a new and useful Improvement in what is known as Venetian shades for windows; and the same consists in the construction and arrangement of parts hereinafter described and specifically indicated in the claim.

In the accompanying sheets of drawing, Figure 1, Sheet 1, represents a front view of the blind as when down or closed. Fig. 2 is a vertical section of Fig. 1 taken on the line *x x*. Fig. 3 represents the blind or shade as raised. Fig. 4, Sheet 2, shows the shade raised on one side, thereby throwing it into a fan-form. Fig. 5 shows the shade open from top to bottom, and is a vertical section of Fig. 1 on the line *y y*.

Similar letters of reference indicate corresponding parts.

This shade consists of slats A, which may be made of wood, metal, or other suitable material, connected together so as to lap onto each other, as seen in Fig. 1, by means of a cord or cords, or by tapes or webs, as indicated by dotted lines, or by both together, as may be desired. This shade is opened, either in whole or in parts, by the cords B and C, one of which, B, is attached to the edge of the lower slat of the shade, and the other, C, to the middle shade, or about the middle, as may be desired. By pulling one of these cords the lower half of the shade will be opened while the upper half will remain closed. By pulling the cord C the upper half will be opened while the lower half may be kept closed. These cords pass through holes in the lower edges of the slats, and are knotted, so as to raise the slats when their other ends are pulled down,

as before stated. These cords B and C pass over a pulley or through a screw-eye at D, from which point they are carried horizontally to the center E, confined by screw-eyes, from whence they drop down and are attached to the slats, as before described. On the other side of the window two cords, F and G, are arranged, by means of which the shade is raised when both cords are pulled down, as seen in Fig. 3. When one cord only is pulled down the shade is raised on one side only and thrown into the form of a fan or quarter circle, as seen in Fig. 4. One of these cords operates upon one end of the slats and the other cord upon the other end. They pass through the slots or mortises H in the slats A, and are attached to the lower slat. They both pass over a pulley or through a screw-eye at J, and are guided and confined by screw-eyes to the joints *i i*, from whence they drop down through the slots and are attached to the bottom, as before stated. In this example of our invention we attach the shade to a rod, K, which is fastened to the casing of the window. But the shade may be attached directly to the casing and work in a similar manner. The two cords on each end may be connected and pass under loose weighted pulleys L L, as seen in the drawing.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

The improved window-shade, formed of the slats A provided with transverse oblong slots H, cords B and C and F and G, arranged on pulleys and other suspending devices, for the purpose specified, and as shown and described.

The above specification of our invention signed by us this 29th day of September, 1871.

ELLIOTT METCALF.
CHARLES ALLEN.

Witnesses:

GEO. W. MABEE,
T. B. MOSHER.

125,473
wood