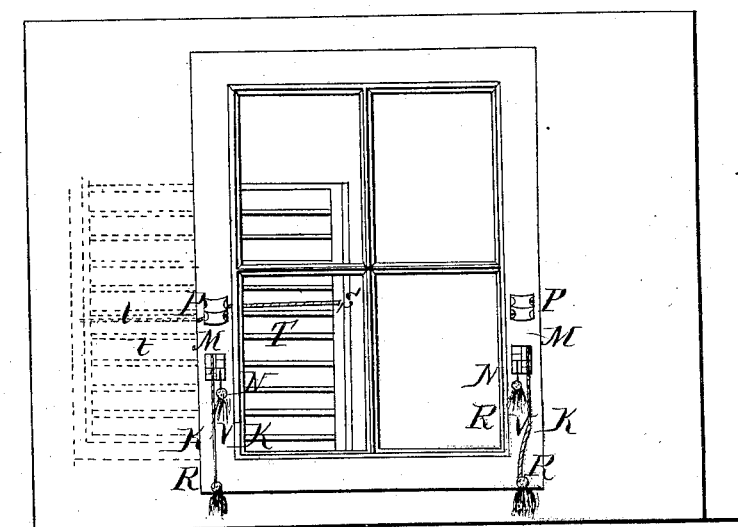
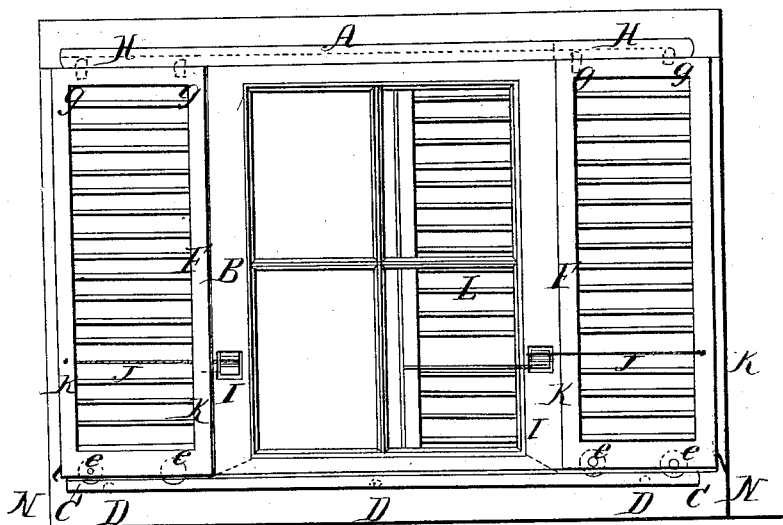


Grenville & Lewis,
Shutter Worker.
N^o 1279. Patented Aug. 9, 1839.



UNITED STATES PATENT OFFICE.

ALONZO S. GRENVILLE, OF CAMBRIDGE, AND THOMAS JOHN LEWIS, OF BOSTON,
MASSACHUSETTS.

WINDOW-BLIND.

Specification of Letters Patent No. 1,279, dated August 9, 1839.

To all whom it may concern:

Be it known that we, ALONZO S. GRENVILLE, of Cambridge, county of Middlesex and State of Massachusetts, chemist, and
5 THOMAS JOHN LEWIS, of Boston, county of Suffolk, in said State of Massachusetts, book-binder, have invented a new and useful Improvement in Blinds; and our said invention or improvement is by us plainly and
10 fully specified and set forth in the words and figures following, which may be best understood by referring to the drawings herewith annexed, to wit:

Figure 1, letter A represents the wall of
15 a building. B represents a window-frame which must be flush with the wall, in order to permit the blinds to run on their railway, nearly close to the wall without obstruction. C, C, represents a strip of wood—or bar of
20 metal, which is made to project from the wall by blocks D, D, D a sufficient distance to clear the blinds from the wall, when in the action of closing or unclosing and is what we call the railway, the upper side of which
25 is to be rounded in order to receive the grooved rollers. *e, e, e, e*, represents the grooved rollers, mortised in the lower corners of the blinds. F, F represents blinds placed on either side of a window and resting
30 on the railway C, C. *g, g, g, g* represents pegs or rollers affixed to the back of the upper ends of the blinds, to keep them in their proper places, and to permit them to move easily within the upper railway H, H.
35 H, H, represents the upper railway and is made similar to the lower one C, C, with the exception, that it has a strip of wood, to make the distance of the blind, at top, equal to the distance from the wall at bottom, and
40 serves to prevent rain or snow from impeding the movement of the blinds. I, I, represents two horizontal pulleys placed in the window frame—outer side—and serves to conduct the cords K, K, K, K, which are
45 fastened to each side piece of the blinds—over them—through the window-frame, and then over the two perpendicular pulleys M, M., Plate 2nd, inside the building. The blind L, Fig. 1, as seen through a square of
50 glass, is added for the purpose of showing, more clearly, the action of the cords in drawing back the blinds after they had been closed, for which purpose also the slats have been omitted.

55 P, P, P, P, Fig. 2, represents the horizon-

tal pulleys, which are to be placed on the outer side of the window frame, opposite to the inner side perpendicular pulleys M, M, N, N. M, Fig. 2, represents one of the perpendicular pulleys, so placed that the cord R
60 will pull in a direct line by passing over the periphery of it, through the window frame over the periphery of the left hand side of the upper horizontal pulley P, from thence it is to be passed along and fastened at S to
65 the right hand side of the blind T, Fig. 2, then (by pulling the cord R) the blind will move to the left hand side of the window (faintly represented by dotted lines, as seen
70 through the wall) the closing is managed by fastening another cord U on the left hand side of the blind *t*, Fig. 2, so that it will be
75 in a direct line with the right hand side of the lower horizontal pulley P, over which it is to pass through the window frame, thence over the lower perpendicular pulley
N, pull the cord V and the blind *t* will be closed.

N, N, Fig. 1, represents two scrapers attached to the lower ends of the blinds for the
80 purpose of removing snow, should any lodge on the edge of the railway.

The advantages of these blinds over those in general use are several, viz, 1st. They can be closed and unclosed without the window
85 being opened by drawing the cords K, K, K, K, Fig. 2, inside the room. 2nd. They are not so liable to be broken by getting loose, as they are kept steadily in place, by the upper and lower railways. 3rd. The
90 light of the room can be more easily regulated by the railway, than by the common blinds.

What we claim as our invention, and desire to secure by Letters Patent, is—
95

The method of opening and closing blinds by means of the combinations of pulleys, cords, and sliding blinds, in the manner herein described.

In testimony that the above is a true specification of our invention or improvement,
100 we have hereunto set our hands this tenth day of September in the year of our Lord one thousand eight hundred and thirty-eight.

A. S. GRENVILLE. [L. s.]
THOMAS JOHN LEWIS. [L. s.]

Witnesses:

THOMAS A. DEXTOR,
JOHN CHADWICK.