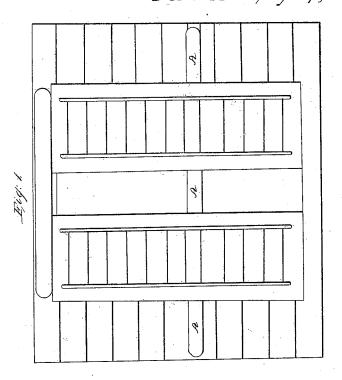
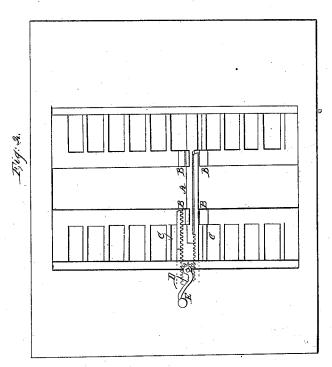
## G. Butterfield, Shutter Worker. Patented Sep.4,1840.

Nº 1,766.





## UNITED STATES PATENT OFFICE.

GEORGE BUTTERFIELD, OF HOPKINTON, NEW HAMPSHIRE.

MODE OF OPENING AND CLOSING WINDOW-BLINDS.

Specification of Letters Patent No. 1,766, dated September 4, 1840.

To all whom it may concern:

Be it known that I, George Butterfield, of Hopkinton, in the county of Merrimack and State of New Hampshire, have invented a new and useful Improvement in Hanging and Fastening Window-Blinds, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

The nature of this invention and improvement consists in dispensing with hinges and the usual fastenings and substituting therefor a horizontal bar fastened across the window on which the blinds are made to slide simultaneously to the right and left by racks and pinion operated by a person inside the apartment which removes the necessity of raising the window sash to open the blinds and prevents all annoyance from the slam-uning of the blinds; besides possessing other advantages not necessary to mention particularly in this specification.

Figure 1 is a front view. Fig. 2 is a back view.

The horizontal bar A, on which the blinds move, is in length equal to twice the width of the blinds and is fastened to the window frame and side of the house on the outside

about the middle of the window.

Mortises are made in the blinds, on the sides next the house the same size as the bar which is to be received into said mortises, and after the blinds are placed on the bar they are held upon it by eight small plates

B (four to each blind) fastened to the sides 35 of the blinds next the house and made to lap over the bar. Two horizontal racks c c are fastened to the blinds on the inside, one to each blind, and parallel, with the cogs of the one pointing toward the cogs of the 40 other, and as far apart as the diameter of the pinion D, which is placed between them and into which the racks are geared. The axle of the pinion turns in the side of the window frame. The pinion D is out- 45 side and the crank E inside.

The operation is as follows:

To open the blinds turn the crank to the left, which will cause the blinds to move simultaneously from the center, one moving 50 to the right and the other to the left and both sliding on the horizontal bar. To close them the crank must be turned to the right. A pin may be inserted into the window frame against the crank, which will hold it 55 from turning and thus lock the blinds.

The invention claimed and desired to be

secured by Letters Patent is—

The before-described mode of opening and closing window blinds by the aforesaid com- 60 bination of bar, racks, pinion, and crank, or any other combination, substantially the same by which they are opened in a similar manner.

GEORGE BUTTERFIELD.

Witnesses:

WM. P. ELLIOT, E. MAHER.