(No Model.)

H. BROTHERTON.

WINDOW BLIND.

No. 298,170. Patented May 6, 1884.

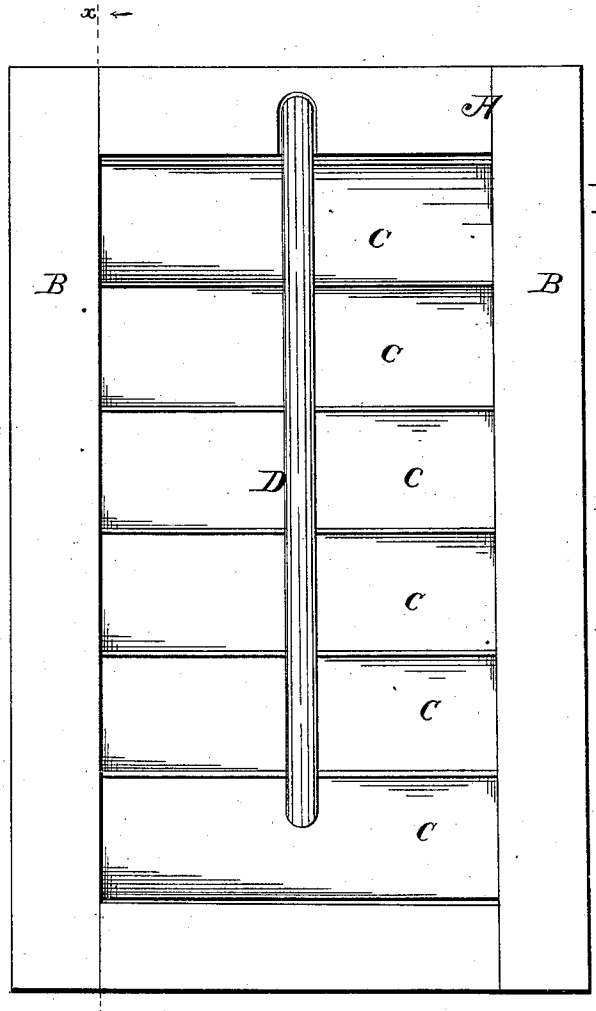

Fig. 1.

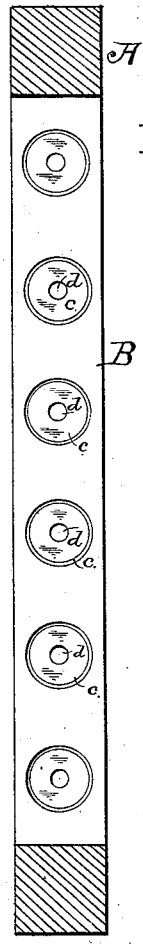

Fig. 2.

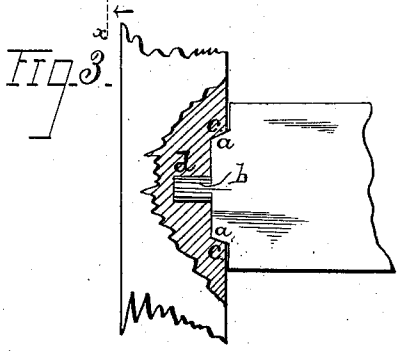

Fig. 3.

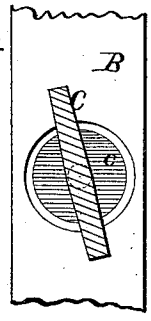

Fig. 4.

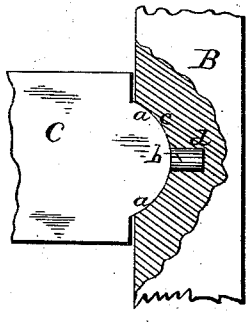

Fig. 5.

WITNESSES:

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UNITED STATES PATENT OFFICE.

HUGH BROTHERTON, OF NEW YORK, N. Y.

WINDOW-BLIND.

SPECIFICATION forming part of Letters Patent No. 298,170, dated May 6, 1884.

Application filed February 15, 1884. (No model.)

To all whom it may concern:

Be it known that I, HUGH BROTHERTON, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Window-Blinds, of which the following is a specification.

The invention relates to improvements in window-blinds, or those in which particular panels are provided with a series of slats pivotally secured at their ends and loosely connected at their center with a vertical rod, by which the slats may be simultaneously closed, so that their edges will overlap each other to exclude light or air or be opened. As heretofore constructed the ends of the slats have been reduced to a round dowel, which entered and had a pivotal movement in a correspondingly-shaped seat or aperture formed in the adjacent portions of the frame of the blind. The fact that the dowels on the slats become quickly and easily broken when in use has proven vexatious and expensive to builders, and particularly to large owners of real estate, and it has not seemed possible heretofore to remedy the objection, since the employment of the dowel is a necessity.

It is the purpose of the present invention to provide a blind which will effectually withstand the rough usage to which such articles are subjected, without danger of the dowels on the slats being broken, and without departing from the present style of blind, or altering its method of use or application, or materially changing the present machinery used in the manufacture of blinds.

The invention will be more fully understood from the description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of a blind made according to the invention. Fig. 2 is a vertical section on the line *x x* of Fig. 1, the slats being removed. Fig. 3 is an enlarged detached view, partly in section, showing the end of the slat and receiving countersunk seats. Fig. 4 is a vertical section through one of the slats, and Fig. 5 shows a modification.

Referring to the accompanying drawings, A denotes the frame, in the vertical sides B B of which the slats C are mounted, D indicating the rod, which is connected with said slats, and by the movement of which, when actuated by hand, they are either opened or closed in the usual manner. The ends of the slats C are cut to form the corresponding shoulders, *a*, and the central dowel, *b*, this latter being in the form usual to the blinds heretofore in use. The shoulders *a* are on each side of the dowel, and I prefer that they be beveled toward the same, as indicated in Fig. 3.

The vertical sides B B of the blind are provided with seats (lettered *c d*, respectively,) to receive the dowels *b* and the shoulders *a*. The enlarged seat *c* is circular in outline, and snugly receives the projection formed by the shoulders *a*, and permits them to have a circular motion when actuated by the rod D. The dowel *b* has its bearing in the smaller seat, *d*, wherein it is adapted to turn in the usual manner. The edges of the shoulders *a* will slightly impinge the circumferential edges of the seat *c*, and will aid in giving the slats a steady bearing.

The application of the shoulders *a* with the dowel *b* and the correspondingly-formed seats, *c d*, constitute the invention. The thickness of the material between the shoulders *a* materially strengthens the bearing ends of the slats and prevents their being broken by rough usage. It also serves to prevent the rattling of the slats by giving them a broad bearing-surface without restricting their usual rotary movement.

The precise form of shoulders *a* will be a matter of judgment, although I prefer the beveled shoulders illustrated in Fig. 3. In Fig. 5, however, I illustrate a semicircular form of

shoulder which may be used with good results, and include the same within the scope of my invention.

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

1. In a blind, the slats C, having at their ends the bearings *a*, and a dowel, *b*, in combination with a conforming seat in the sides of the frame, substantially as set forth.

2. In a blind, the slats C, having upon their ends the bearings *a* and dowel *b*, in combination with the frame having in its sides the circular seats *c* and *d*, respectively, to receive the bearing and dowel, substantially as specified.

Signed at New York, in the county of New York and State of New York, this 13th day of February, A. D. 1884.

HUGH BROTHERTON.

Witnesses:

CHAS. C. GILL,

HERMAN GUSTOW.