

W.H. Bixler,

Inside Blinds,

No. 13,251,

Patented July 17, 1855.

Fig. 1.

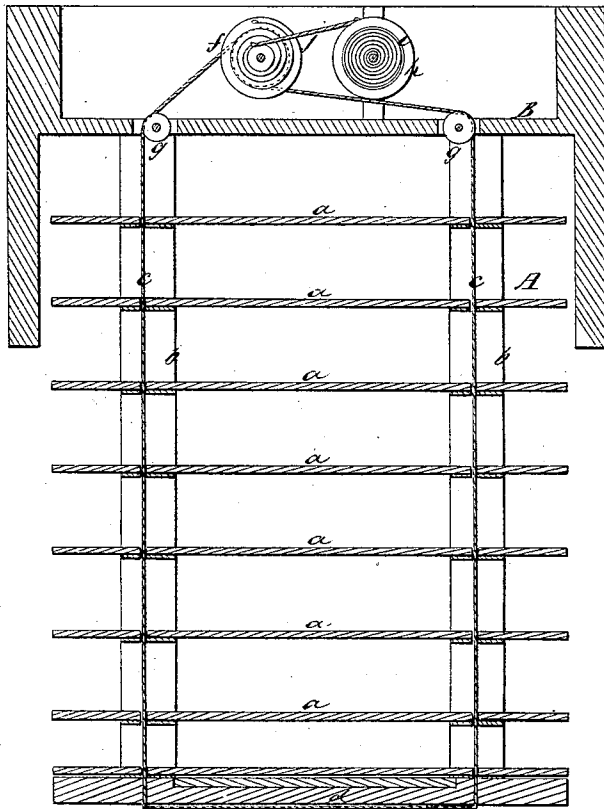


Fig. 2.

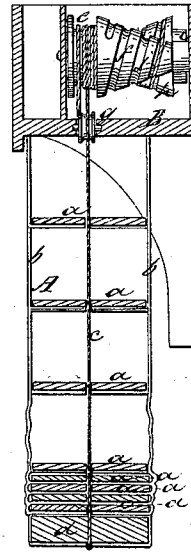
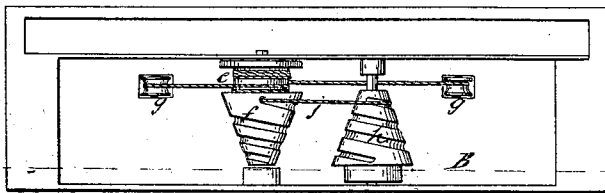


Fig. 3.



UNITED STATES PATENT OFFICE.

W. H. BIXLER, OF EASTON, PENNSYLVANIA.

WINDOW-BLIND.

Specification of Letters Patent No. 13,251, dated July 17, 1855.

To all whom it may concern:

Be it known that I, W. H. BIXLER, of Easton, in the county of Northampton and State of Pennsylvania, have invented a new and useful Attachment to be Applied to Venetian Window-Blinds Whereby the Blinds are Perfectly Balanced and Sustained at Any Point; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a longitudinal vertical section of a blind with my improvement applied to it. Fig. 2, is a transverse vertical section of ditto. Fig. 3, is a plan or top view of my improvement.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a new and useful attachment to be applied to inside slat blinds commonly termed Venetian blinds.

The invention consists in the employment of two fusees placed in reverse positions and connected by a cord. A barrel spring is attached to one of the fusees and to the other there is attached a cylinder around which the cords of the blinds pass. The spring is wound up as the blind is lowered, and one fusee, as the blind is raised and lowered compensates for the diminishing and increasing strength of the spring so that the blind will be equally balanced at all points and retained at any desired height by the spring.

To enable others skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A, represents the blind, of the usual construction, viz: a series of parallel slats (*a*) sustained at equal distances apart between bands (*b*), (*b*). (*c*), (*c*), are the cords which pass through the slats, one near each end, the lower ends of the cords being attached to a weighted bottom piece (*d*). The upper ends of the cords (*c*) (*c*), in my improvement are attached to a cylinder (*e*) which is connected to the end of a fusee (*f*), the cords first passing over pulleys (*g*), (*g*), in the framing B, at the upper part of the blind, said pulleys keeping the cords below the framing in a vertical position and par-

allel with each other. A fusee (*h*) is placed parallel with the fusee (*f*), a short distance from it but in a reverse position, that is, the smaller end of one fusee is opposite the larger end of the opposite one, see Figs. 2 and 3. To the fusee (*h*), a coil or barrel spring (*i*), is attached, and the two fusees are connected by a cord or chain (*j*), shown in all the figures.

It will be understood that when a Venetian blind is raised, the weight upon the cords (*c*), (*c*) increases as it is raised because the slats (*a*) rest upon the bottom piece (*d*) as it ascends and the higher the blind is raised, the more slats there are to support, consequently a spring and one fusee would not sustain the blind at all points but would draw it up to a certain point till the weight of the slats and the power of the spring became equal. My improvement is designed to obviate this difficulty. The spring (*i*) is wound up when the blind is drawn downward and it has not sufficient strength to draw the blind upward because the cord or chain (*j*) is on the large part or end of the fusee (*h*) and on the small end of the fusee (*f*), but still the spring is allowed to be sufficiently strong to just balance the blind so that by a slight touch the blind may be moved upward by the spring (*i*). As the blind moves upward the spring of course diminishes in strength but this diminution is compensated for by the cord (*j*) which gradually passes to the smaller end of the fusee (*h*) and to the larger end of the fusee (*f*) so that when the blind is fully raised and all the slats (*a*) rest upon the bottom piece (*d*) the weight of the blind and the power of the spring will be as equal as when the blind was down with little weight upon the cords and the spring fully wound up.

I am aware that fusees have been applied to window shades and also springs, but as the weight of a shade is constant or nearly so, one fusee only has been used and this merely to compensate for the varying power of the spring. In raising and lowering Venetian blinds, there are two things to be considered, the varying power of the spring and the inconstant weight of the blind.

I do not claim the employment of a single

fusee applied to a blind or shade for they have been previously used, but,

What I claim as new and desire to secure by Letters Patent is—

5 The attachment of the two fusees (*f*), (*h*), connected by a cord (*j*), a spring (*i*) being attached to one fusee (*h*), and the cords

(*e*), (*e*), to the other fusee (*f*), as herein shown and for the purpose as set forth.

WASHINGTON H. BIXLER.

Witnesses:

ELI M. FOX,

DANIEL F. DAVIS.