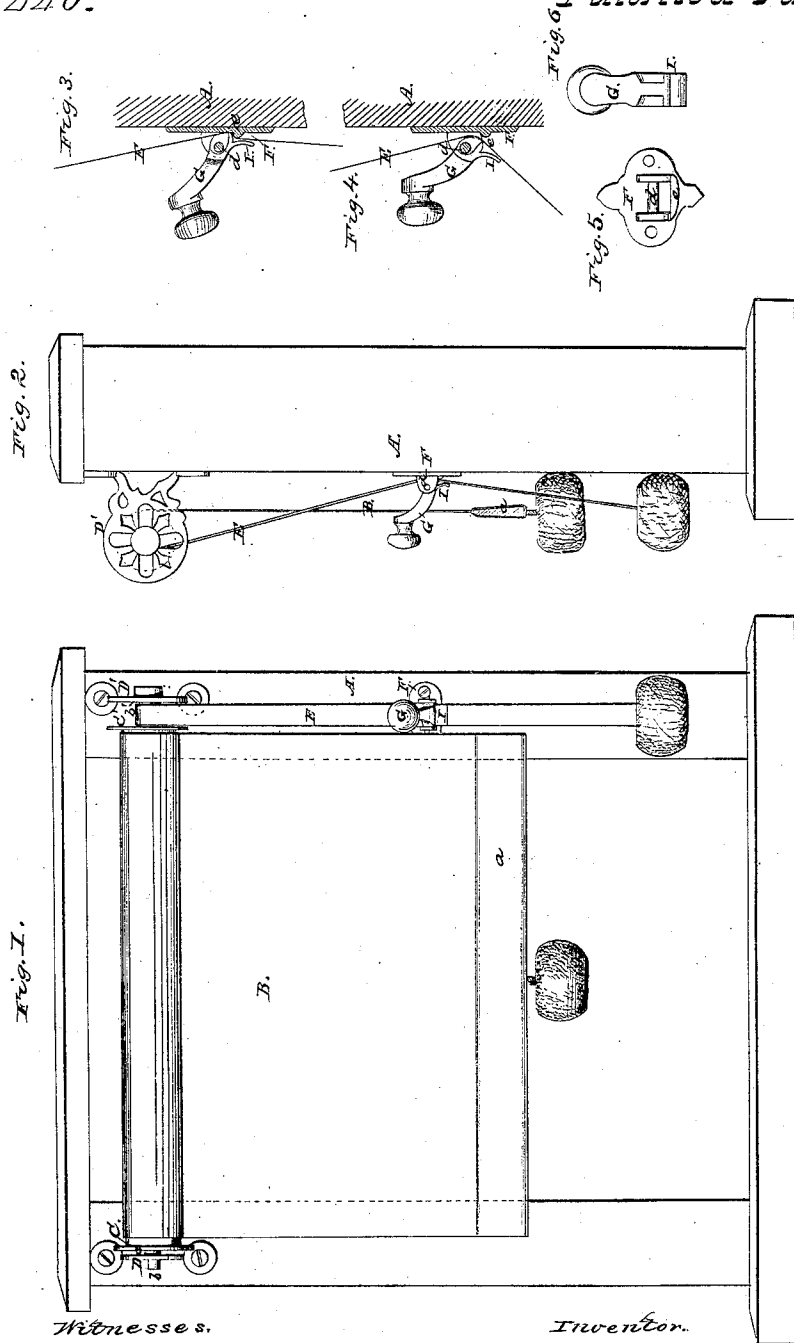


E. M. Judd,

Curtain-Cord Tightener,

N^o 31,246.

Patented Jan. 29, 1861.



Witnesses.
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UNITED STATES PATENT OFFICE.

EDWARD M. JUDD, OF NEW BRITAIN, CONNECTICUT.

IMPROVED CURTAIN-FIXTURE.

Specification forming part of Letters Patent No. **31,246**, dated January 29, 1861.

To all whom it may concern:

Be it known that I, EDWARD M. JUDD, of New Britain, in the county of Hartford and State of Connecticut, have invented a new and useful Improvement in Curtain-Fixtures; and I do hereby declare that the following, taken in connection with the accompanying drawings, which form part of this specification, is such a full and clear description as to enable others skilled in contrivances of the class to which this my improvement relates to make and use my invention.

Figure 1 in the accompanying drawings shows a face view of a window-frame with roller and curtain fixture in illustration of my improvement; Fig. 2, a side or edge view of the same; Figs. 3 and 4, partly sectional side views of the clamp used to hold the winding cord or tape, and Figs. 5 and 6 views of parts of the clamp detached.

In the figures the portion marked A is the window-frame, and B the blind or curtain fitted with a stick *a* at its bottom and mounted on an upper roller C, which is supported by and turns in brackets D D', secured to the window-frame. The roller, as in other curtain-fixture arrangements, is shown provided with journals of less diameter than the body of the roller by means of axial pins *b b'* that turn in the brackets D D'. These journals may be formed by or of projections from metallic flanges *c c'*, fastened to the ends of the roller and of larger diameter than the latter, so as to restrain the blind from end play to its place on the roller; also, the one of them serving as a shield to the cord or tape which winds the blind. The one roller-bracket D may be of hooked construction to facilitate the taking down or out and putting up of the blind and roller, as well understood; but the other bracket D' may be of a circular or flange shape, to serve as aforesaid, as regards the metallic flange *c'* on the end of the roller and in conjunction with it, as a shield for the cord or tape E, which is supposed to be fastened at its upper end and between said shields to the axial pin *b'* of the roller. The tape or cord E is shown as passing from the roller downward over a clamping-plate F, secured to the window-frame, and between it and a clamp or clamping-lever G pivoted near its inner end by a pin *d* to said plate. This lever G is so

constructed and arranged as that its weight serves to make it fall into lock with the clamping-plate holding the tape in between them.

Fig. 3 represents the clamp in lock, and Fig. 4 the same when free from grip.

By reference to Fig. 3 it will be seen that the inner and cam-shaped or short and clamping end of the lever not merely holds the tape against the face of the clamping-plate, but that the tape is bent by a lip *e*, projecting from the clamping-plate, and that it passes under the back end or inner edge of the lever and between it and said lip and over the latter. This checks slip of the tape when under grip, and is preferable to dispensing with the clamping-plate or jaggings or cross-cutting the clamp, inasmuch as a roughened clamp is apt to damage the tape, also to produce sticking of the tape to it and to retard the starting and free run of the tape when the clamp is released from grip to lower the blind, all of which objections by the above-described construction of the clamp and clamping-plate are here avoided; but independently of this the clamp is peculiarly constructed, and importantly so as regards the easy release and general control of it by the cord or tape in the lowering of the blind, and which peculiarity invests it with a more perfect automatic character in contradistinction to a mere weighted or drop clamp. To elucidate this, reference is here again made to Fig. 3, also to Fig. 4 of the drawings, where it will be seen that the clamp or clamping-lever G is constructed with a bent lip or lower branch or arm I, so shaped and arranged as that when the clamp is in lock said branch lies near to or loosely covers the tape, but more particularly so that on a person drawing the lower portion of the tape toward him and away from the window-frame the clamp G, by such act, will be easily raised or thrown out of lock and be kept raised. Then by slightly slackening hold on the cord or letting it slip loosely through the fingers the blind runs down under the control of the operator holding the tape, which thus serves not only to raise the clamp and hoist the blind by pulling downward on said cord or tape, but also to keep the clamp from falling into lock and to regulate the velocity of the blind in running down as well as to arrest it at any required fall by easing up on the tape

or letting it drop from the hand, the clamp falling to lock it. This controlling of the clamp and blind by the tape is important, and the lifting-arm I of the clamp essentially aids to effect such desideratum, for it not only materially assists in easily raising the clamp and avoids the necessity of the operator applying his hand to the same to ease or raise it for the purpose of winding up the blind should the clamp, when otherwise constructed, stick or be in such tight lock as to prevent it being started or lifted by pulling downward on the tape, but it renders the clamp and blind more positively and easily controllable by the cord or tape, and gives a freedom of run to the tape when the clamp is raised. The principal or distinguishing characteristic, however, of such clamp is that if it were not for this lifting and sustaining arm I one hand would be required to hold the drop-clamp in its raised position while the blind ran down of its own weight or was controlled by the other hand of the operator loosely holding the tape, whereas, by this my improvement, one hand suffices, the clamp need not be touched, and consequently is perfectly automatic, and the tape itself in the downward run of the blind is made to keep the clamp from falling into lock, and, as the cord or tape is the means for raising the blind, the adjustment of the latter up and down may be readily effected without removing the hand from

the tape, which is a valuable consideration in window-blind arrangements in which the blind descends by weight. To change the hand from the tape to the drop-clamp or to employ both hands to control the tape and drop-clamp to effect the adjustment of the blind is less convenient, and the controlling of the blind less perfect. In some cases the clamping-lever or drop-clamp, with its lifting-branch I, may be hung to operate, essentially as described, by hinging or pivoting it to the window-frame without the employment in connection of a clamping-plate, or if a clamping-plate be used the lip or projection *e* on it may be dispensed with.

What is here claimed as new and useful, and desired to be secured by Letters Patent, is—

The automatic clamp, substantially as described, by forming it of a drop-lever provided with a projecting and controlling lip or sustaining branch or arm so arranged as that the winding tape or cord may be used to keep the clamp from falling into lock in the downward run of the blind, essentially as herein set forth.

In testimony whereof I have hereunto subscribed my name.

E. M. JUDD

Witnesses:

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