No. 736,317. PATENTED AUG. 11, 1903.

J. A. TUFTS.

WINDOW SHADE TRIMMING APPARATUS.

APPLICATION FILED FEB. 2, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

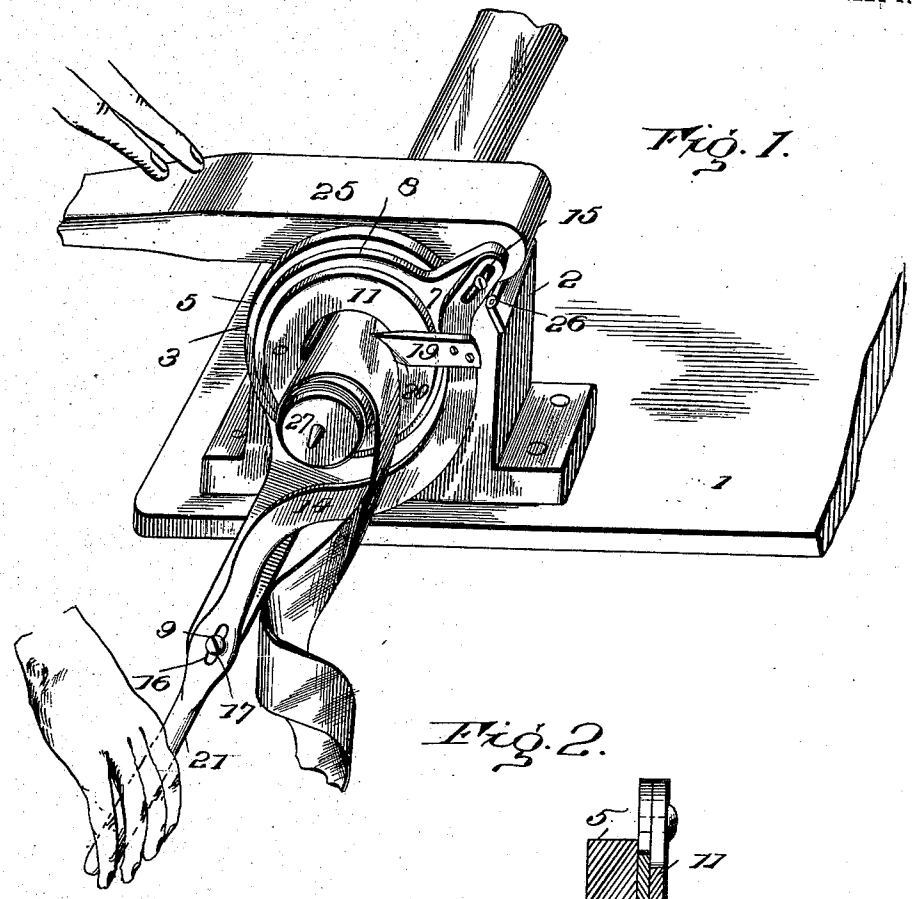
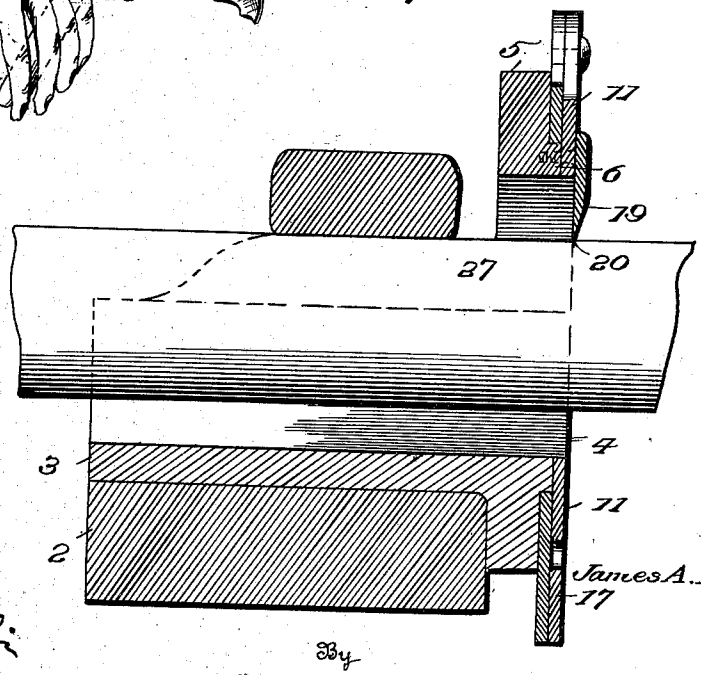


Fig. 2.



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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 3.

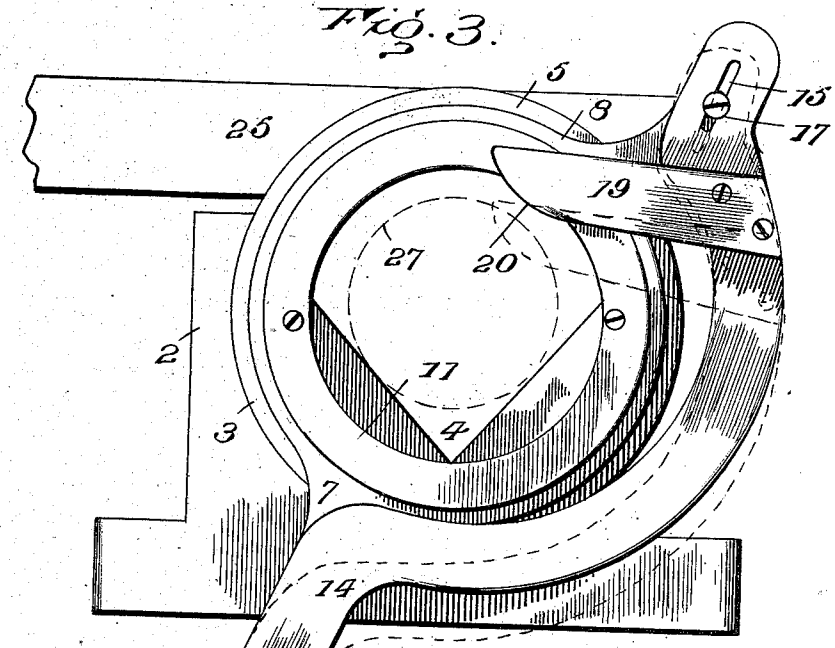


Fig. 5.

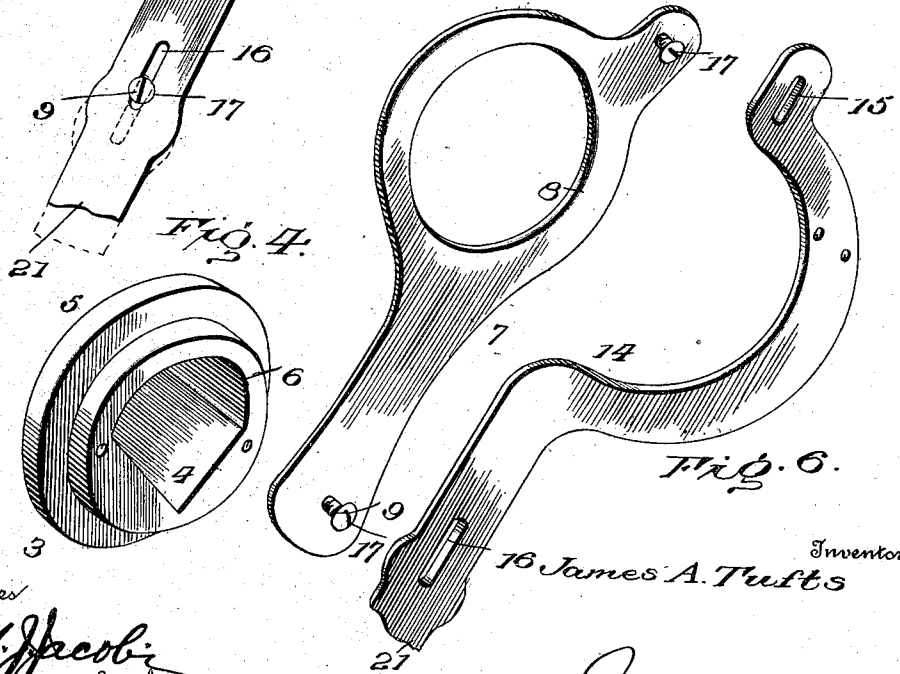


Fig. 4.

Fig. 6.

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No. 736,317. Patented August 11, 1903.

UNITED STATES PATENT OFFICE.

JAMES A. TUFTS, OF ABILENE, KANSAS.

WINDOW-SHADE-TRIMMING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 736,317, dated August 11, 1903.

Application filed February 2, 1903. Serial No. 141,536. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. TUFTS, a citizen of the United States, residing at Abilene, in the county of Dickinson and State of Kansas, have invented certain new and useful Improvements in Window-Shade-Trimming Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in an apparatus for trimming window-shades.

The object of the invention is to provide a seat for rigidly holding a shade while a knife is revolved around that portion of it which is to be trimmed. I am aware that this broad principle has been employed heretofore in a cutting apparatus; but my invention comprehends specific improvements in the details for accomplishing the desired ends.

My improved device for carrying the knife while it revolves serves to impart to the knife a dragging action, which I find gives highly important and satisfactory results, and to this end my invention also relates.

With these as the prime objects the improvements and the advantages derived therefrom will be fully described, and particularly pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 is a perspective view of my improved apparatus in operation. Fig. 2 is a longitudinal section of the same. Fig. 3 is a front elevation, the knife being shown in its operative position in dotted lines. Fig. 4 is a detail perspective view of the face of the shade-receiving sleeve. Fig. 5 is a detail perspective view of the revoluble supporting member. Fig. 6 is a similar view of the knife-carrying member.

The same numerals refer to like parts in all the figures.

1 represents a table or other support, 2 a block fastened thereto, and 3 a shade-receiving sleeve supported by said block. The sleeve 3 comprises a V-shaped seat 4, a flange 5, and a cylindrical bearing 6, which projects outwardly from the flange.

7 represents a revoluble supporting member provided on one end with a ring 8 and at its opposite end with a lug 9. The ring 8 is mounted on the bearing 6, the front face of the latter being flush with the outer face of the ring. An annular plate 11 is screwed to the face of the bearing and retains the member 7 in position.

12 is a projection bearing a lug 13, and on the two lugs 9 and 13 is slidably mounted a knife-carrying member 14. The lugs pass through guiding-slots 15 and 16 in the member 14, and in order to hold the said member 14 in its relation with the member 7 the lugs are each provided with flanged heads 17. A knife 19 is fastened to the member 14 and projects inwardly toward the center of ring 8, the knife having an edge 20 on its front lower sides, its inner side being guided against the face of the annular ring 11. A handle 21 is formed on the outer end of the member 14 for the ready manipulation of my improved apparatus.

A portion of the top of the sleeve is open, and across the open part is a lever 25, hinged to the block 2 at 26. This lever is designed to be pressed down on the shade during the period of trimming.

The parts thus assembled, the operation is substantially as follows: A window-shade 27, wound on its roll, is seated in the sleeve 3, the end to be trimmed being passed out beyond the knife 19, whereupon the lever 25 is pressed down on the shade with the left hand. This securely holds the shade in fixed relation. The operator now grasps the handle 21 with the right hand, and the knife is drawn toward the shade and then carried around it several times. The two movements—the drawing and revolving of the knife—positively insure the shade being cut with a very slight effort. The shape of the cutting edge, combined with the peculiar arrangement of the assembled parts, permits of the knife being dragged circumferentially, while at the same time radial pressure is being applied. As the member 14 is movably fixed to the member 7 and as the latter has but one bearing, obviously there is little friction between these parts. After the knife has severed the shade it is given a slight movement away from the center, and pressure on the lever 25 is released, when the shade may be removed from the sleeve and another placed in position.

By the arrangement of parts as described

several important results take place, to wit: The shade is positively held fast while being trimmed by efficient and simple means, the trimmed edge is sure to be severed on a straight line, and the knife may be quickly disengaged from the field of the shade.

What I claim as new is—

1. In a shade-trimming apparatus, the combination with a stationary sleeve having a shade-seat therein, an annular bearing on the sleeve, a knife-carrying member mounted on the bearing to be circumferentially and radially moved, and a knife fixed to said member, substantially as described.

2. In a shade-trimming apparatus, the combination with a stationary sleeve having a shade-seat therein, an annular bearing on the sleeve, a revolving member mounted on the bearing, a knife-carrying member slidably mounted on the revolving member, and a knife on the knife-carrying member, whereby the kuife may be simultaneously circumferentially and radially moved with relation to the shade, substantially as described.

3. In a shade-trimming apparatus, the combination with a stationary shade-holder, an annular bearing projecting from the holder, a revoluble member having lugs and mounted on the annular bearing, a knife-carrying member having slots with which the lugs engage, a handle and a knife on the knife-carrying member, whereby the knife may be simultaneously circumferentially and radially moved with relation to the shade, substantially as described.

4. In a shade-trimming apparatus, the combination with a stationary sleeve having a shade-seat therein, a flange near one end of the sleeve, an annular bearing projecting outwardly from the sleeve, a revoluble member mounted on the bearing, an annulus fastened to the face of the bearing and projecting outwardly therefrom for confining the revoluble member between said annulus and the flange, a knife-carrying member, means disposed opposite each side the center of the apparatus for permitting a simultaneous circumferential and radial movement of the knife-carrying member with relation to the shade, and a knife fixed to said member, substantially as described.

5. In a shade-trimming apparatus, the combination with a stationary shade-seat and a knife movable circumferentially about said seat, said knife being adapted for radial movement with relation to the seat solely by manual pressure at the will of the operator.

6. In a shade-trimming apparatus, a stationary shade-seat, a knife member adapted for circumferential and radial movement with relation to the seat, and a knife carried by said member, the radial movement of said knife member being accomplished by normal pressure on the part of the operator.

7. In a shade-trimming apparatus, a stationary shade-seat, and a single knife circumferentially movable about said seat, said knife being adapted for radial movement with relation to said seat, and independent means for clamping the shade to its seat.

8. In a shade-trimming apparatus, a stationary shade-seat, a member circumferentially movable about the seat, and a knife movable with said member and having a sliding connection therewith, whereby the knife may be radially moved with relation to the seat by normal pressure and at the pleasure of the operator.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES A. TUFTS.

Witnesses:
M. H. MALOTT,
PAUL HURD.