Dec. 14, 1943. D. LUBETSKY 2,336,692

WINDOW BLIND

Filed April 24, 1943

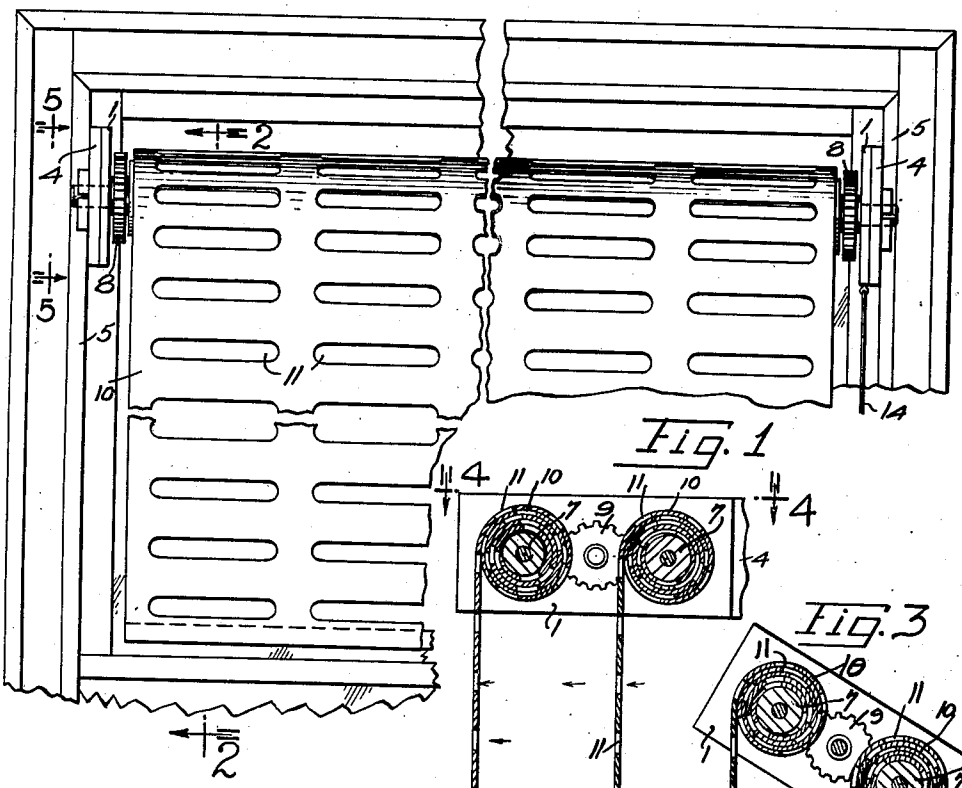


Fig. 1

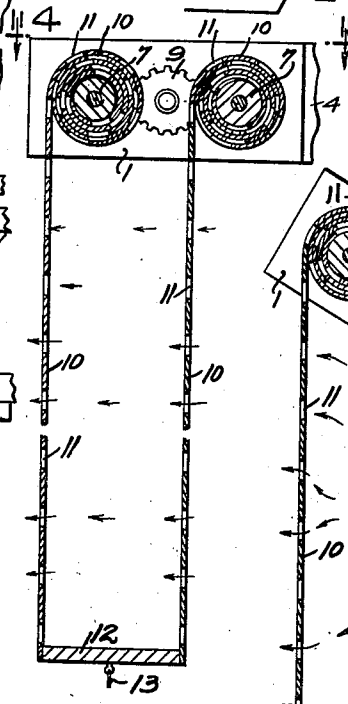


Fig. 2

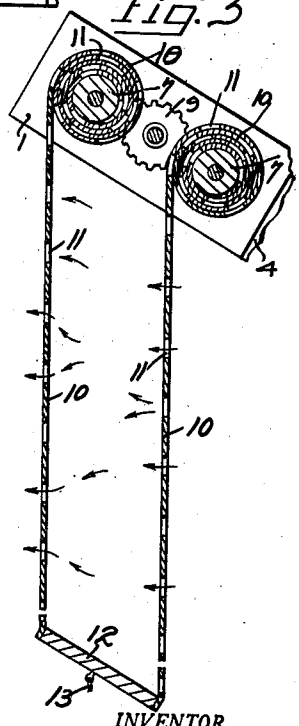


Fig. 3

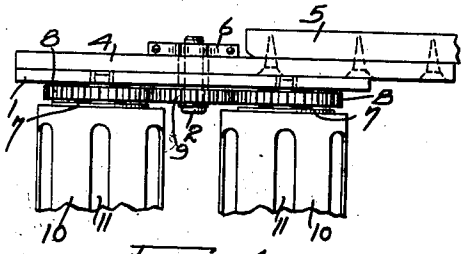


Fig. 4

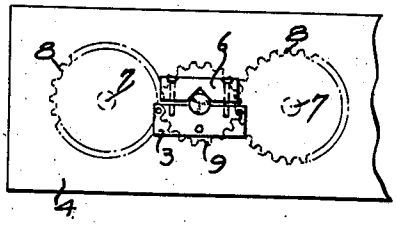


Fig. 5

INVENTOR.
David Lubetsky

BY Crawford Baldwin

Attorney

Patented Dec. 14, 1943 2,336,692

UNITED STATES PATENT OFFICE

2,336,692

WINDOW BLIND

David Lubetsky, Detroit, Mich.

Application April 24, 1943, Serial No. 484,364

10 Claims. (Cl. 160—120)

This invention relates to improvements in window blinds. It is an object of the invention to provide a blind including two flexible shades each having a series of openings therethrough, and means for relative adjustment of the two shades so that the openings formed through one of them may be set either wholly or partly in registry with the openings through the other, or completely out of registry with the latter. Thus I aim to provide means for permitting varying degrees of visibility through the blind, and also means for adjusting the amount of both light and air which may pass through the openings into a room.

Another object of the invention is to provide a window blind wherein two rollers each having a shade thereon are supported for rotation between two pivotally mounted control plates, so that by adjustment of the latter openings formed through one shade may be moved into or out of registry with openings formed through the other.

A further object of the invention is to provide such a window blind including means for connecting the rollers so that rotation of one of them causes corresponding rotation of the other.

Yet another object of the invention is to provide such a blind which is simple to manufacture and install and which can be easily operated and adjusted.

Having thus briefly stated some of the objects and advantages of the invention I will now proceed to describe a preferred embodiment thereof with the aid of the accompanying drawing, in which:

Figure 1 illustrates a front elevation of a blind installed on a window frame.

Figure 2 is a section on the line 2—2 of Figure 1.

Figure 3 is a view similar to Figure 2 but showing the shades relatively so positioned that the openings in one are out of registry with the openings in the other.

Figure 4 is a view on the line 4—4 of Figure 2, and

Figure 5 is a view on the line 5—5 of Figure 1.

Referring to the drawing, 1 designates two spaced vertical control plates outwardly from the center of each of which a pivot pin 2 projects. These pins are rotatably supported in horizontally opposed bearings 3 which are suitably mounted, in the present instance on members 4 which are secured to and project forwardly from the opposed inner faces of a window frame 5. Secured on each bearing 3 is a cap 6 formed to bear against one of the pins 2 and hold it against accidental rotation, so that the control plates 1 tend to remain in the rotary position to which they are adjusted.

Supported for rotation by and extending between the control plates 1 are two rollers 7, either or both of which are of the conventional spring actuated type, arranged one in front of the other and usually centrally of the height of the plates 1. Secured around each roller 7, usually adjacent both extremities thereof, is a gear 8, and mounted on the pivot pins 2 for rotation thereon are pinions 9. Each of the latter meshes with one gear 8 on each of the rollers 7. Wound around each roller 7 and having one extremity secured thereto in a conventional manner is a shade 10 made of fabric, thin flexible plastic, or other suitable material. Formed through each shade 10 are a plurality of horizontal slots 11, the size of which depends upon the strength of the material utilized for the shades. Connecting the lower extremities of the two shades 10 throughout their length is a rigid strip 12 the width of which is preferably substantially the same as the spacing between the two rollers 7, and depending centrally from this strip 12 is a cord 13. 14 denotes a regulating cord hanging preferably from the rear of one of the control plates 1.

The control plates 1 are normally pivotally positioned so that the two rollers 7 are in horizontal alignment at which time the bottoms of the two shades 10 are also horizontally aligned. Then the openings 11 through one shade are in complete registry horizontally with the openings through the other and a maximum amount of visibility is afforded through the blind, and also a maximum amount of light and air may pass therethrough. When it is desired to adjust the shades so that the openings in one are partly or completely out of registry with the openings through the other the control plates 1 are moved pivotally by pulling the regulating cord 14 to turn the plates to the inclination desired. Then the rear roller 7 is positioned below the front one and the rigid strip 12 is rearwardly and downwardly inclined.

Due to the gearing 8 and 9 the rollers 7 rotate together thereby insuring that the bottoms of the two shades always remain in horizontal alignment so long as the rollers remain horizontally aligned. As previously stated at least one of the rollers is of the conventional spring actuated type so that by pulling the cord 13 and releasing the usual catch or catches which form part of such a spring actuated roller construction the

shades are each wound onto their rollers in the usual manner. Also by pulling the cord 13 the angularity of the strip 12 may be adjusted to return the control plates 1, and thus the shades 10, to their normal positions so that the shade openings 11 are again in complete registration.

While in the foregoing the preferred embodiment of the invention has been described and shown, it is understood that the construction is susceptible to alterations and modifications provided the said alterations and modifications fall within the scope of the appended claims.

What I claim is:

1. A window blind including two parallel rollers mounted for rotation one in front of the other, a flexible shade having openings therethrough wound on each roller and having one extremity depending therefrom, and a pivoted means supporting both said rollers whereby their relative elevations may be varied so that the openings through the depending extremity of one shade may be adjusted either into or out of registry with the openings through the depending extremity of the other shade.

2. A window blind including two parallel rollers mounted for rotation one in front of the other, means for turning the other roller by rotation of the one, a flexible shade having openings therethrough wound on each roller and having one extremity depending therefrom, and a common pivoted means supporting each end of both rollers whereby their relative elevations may be adjusted to bring the openings formed through the depending extremity of one shade into horizontal alignment with, partly into registry with, or completely out of registry with the openings through the depending extremity of the other shade.

3. A window blind including two spaced control plates pivotally mounted about a common horizontal axis, two rollers extending between the plates and mounted for rotation thereon one in front of the other, a shade having openings therethrough wound around each roller and having one extremity depending therefrom, the openings through the depending extremity of one shade normally being in horizontal alignment with the openings through the depending extremity of the other, and means for adjusting the control plates about their pivot axis whereby one roller is raised relative to the other and the openings through the depending extremities of the two shades are brought partly or entirely out of registry with one another.

4. A window blind including two spaced control plates mounted for rotation about a common horizontal axis, two spring actuated rollers extending between the plates and mounted for rotation thereon, a shade having openings therethrough wound on each roller and having one extremity depending therefrom, and means for turning the control plates about their common axis whereby the openings through the depending portions of the two shades may be brought into or out of registry with one another.

5. A window blind including two spaced control plates mounted for rotation about a common horizontal axis, two rollers extending between the plates and mounted thereon for rotation, gearing connecting the rollers whereby they rotate together in the same direction, a shade having openings therethrough depending from each roller and wound partly thereon, and means for turning the plates about their common axis whereby the openings through one shade may be moved into or out of registry with the openings through the other shade.

6. A window blind including two parallel rollers mounted for rotation, a flexible shade having openings therethrough wound on each roller and having one extremity depending therefrom, and means supporting said rollers for vertical adjustment relative to one another whereby the openings through one shade may be moved into or out of registry with the openings through the other shade.

7. A window blind including two parallel rollers mounted for rotation, a flexible shade having openings therethrough wound on each roller and having one extremity depending therefrom, means for adjusting the relative height of the two rollers whereby the openings in one shade may be moved into and out of registry with the openings in the other, and a rigid unitary member secured to the lower extremities of both shades holding the latter taut at all relative heights of the rollers.

8. A window blind including two parallel rollers, driving means connecting the rollers whereby they turn equally and simultaneously, a flexible shade having openings therethrough wound on each roller and having one extremity depending therefrom, and means for adjusting the rollers vertically relative to one another whereby the openings in one shade may be moved into and out of registry with the openings in the other.

9. A window blind including two parallel rollers, common means supporting the ends of both rollers for rotation and at a normally common level, said means being tiltable to vary the relative heights of the rollers, a flexible shade having openings therein wound on each roller and having one extremity depending therefrom, the horizontal spacing of the shades being varied by adjustment of the relative height of the rollers, and a rigid unitary member secured to the lower extremities of both shades, whereby a parallelogram is formed at all times between the depending portions of the shades, the rigid member, and an imaginary line connecting the axes of the two rollers.

10. In a window blind, the combination set forth in claim 6, including a gear on both rollers, and an intermediate gear mounted for rotation and in mesh with both the aforesaid gears.

DAVID LUBETSKY.