COMBINATION VENETIAN BLIND AND SCREEN

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This invention relates to the art of window blinds and more particularly concerns a combination Venetian blind and screen.

According to the invention there is provided a blind including a plurality of transparent, flexible, plastic slats in which are removably inserted decorative filler strips. The slats are supported at one edge by a flexible mesh or screen and at the other edge by a pair of cords, tapes or chain. The blind is attached at its lower end to a spring roller upon which the blind can be rolled. At its upper end the blind is supported on a transversely disposed bar. The roller and bar are adjustably and slidably supported by brackets on rails so that the position of the blind between the rails and the lengthwise dimensions of the blind can be adjusted. Means are provided for tilting the bar to change the angular position of the slats.

It is therefore one object of the invention to provide a blind with flexible slats which can be rolled up on a spring roller.

It is another object to provide a blind with flexible slats in which decorative filler strips can be inserted, the slats being supported on a flexible mesh, with a spring roller for rolling up or down the slats and mesh.

A further object is to provide a blind of the character described adjustable supported at top and bottom on spaced, vertical rails.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

FIG. 1 is a front elevational view of a blind embodying the invention, the blind being shown in substantially closed position.

FIG. 2 is a fragmentary plan view on an enlarged scale taken on line 2—2 of FIG. 1.

FIG. 3 is a fragmentary sectional view on an enlarged scale taken on the line 3—3 of FIG. 1.

FIG. 4 is an enlarged elevational view of one end of the bottom roller and supporting bracket, parts being shown broken away and parts being shown in section.

FIG. 5 is an enlarged fragmentary sectional view on an enlarged scale taken on the line 5—5 of FIG. 1.

FIG. 6 is a fragmentary sectional view on an enlarged scale taken on the line 6—6 of FIG. 1.

FIG. 7 is a fragmentary perspective view of a slat and filler strip partially inserted therein.

FIG. 8 is a sectional view on an enlarged scale of the lower portion of the blind in fully open condition.

Referring to the drawings, there is shown in FIG. 1 the blind 10. The blind includes a pair of right angle rails 12 and 14. The rails have upper and lower holes 15, 16 for securing the rails to a vertical support such as a wall of a room. The rails will normally be disposed at the sides of a window opening. The rails have coplaner, spaced straight flanges 18, 19 and spaced, parallel, forwardly extending flanges 20, 21. Sidely mounted on the rails are upper slide brackets 22, 24 and lower slide brackets 26, 28. A knob 30 carrying a screw 32 passes through a threaded hole in each bracket for engaging an outer side of one of flanges 20, 21 as best shown in FIGS. 1 and 4, for holding the bracket securely to the flange in any selected position along the rail.

The brackets 22, 24 carry a hollow transversely disposed metal bar 34 on which is engaged upper loop 36 of the topmost slat 38 of the blind. The lower brackets 26, 28 carry a roller 40 best shown in FIG. 4, the roller which has a spring 42 secured at one end of the body of the roller in a cavity 43. The other end of the spring is engaged on a shaft 44 which terminates outside the roller. The outside terminal is reduced in diameter constituting a pin 45 which is rotatably carried by a bracket element 46 extending from the end of bracket 26. Bracket 28 has a similar element 47 engaging a stud at the other end of the roller 40. If the knobs 30 of brackets 26, 28 are loosened, then the roller 40 can be raised to any desired height on the rails and indicated by arrows A in FIG. 1. Bar 34 is inserted in movable in the open free opposed ends of brackets 22, 24.

On bar 34, as best shown in FIGS. 1 and 6, is a pulley 48. A rope 50 has its ends secured in a recess 51 in the pulley. The rope depends as an endless loop from the pulley and permits the pulley and bar to be rotated to a limited angular extent for rotationally opening and closing the slats of the blind.

The blind includes slats 52 as shown in FIGS. 1, 3, 7, 8 and 9. These slats are formed as pockets each consisting of two adjacent transparent, flexible plastic strips 54, 55 joined at their ends by stitching, staples or other fastening means 56. If desired, these strips can be heat-sealed together at their opposed edges. Removably disposed in each pocket is a flat strip 60 of opaque, translucent, or colored transparent material. The strips 60 can be paper, cloth, plastic, or another material, preferably suitably decorated with pictures, designs, or other ornamentation 62 as shown in FIG. 7. Flexible cloth or plastic webs 64 secure one edge of each slat to a cloth or preferably plastic mesh screen 68. The other edges of the slats are secured by staples or stitching 71 to cords or tapes 70. Attached to the upper ends of these tapes may be beaded chains 72. The chains, as best shown in FIGS. 1, 2 and 5, are detachably engaged at their upper ends in slots 73 of flanges 77 extending outwardly on clamps 74. Each clamp has a U-shaped portion engaged on the bar 34 over the loop 36 of the uppermost slat 38. Stiff metal rods 75 are inserted in loops 61 of strips 54 at the edges of the slats which are secured to the tapes 70 to weight the slats and hold them straight and parallel.

FIG. 3 shows the slats of the blind in substantially closed position. By pulling rope 50 the tapes 70 are raised and the slats rotated to substantially horizontal open positions as shown in FIG. 8. The tension in spring roller 46 and the friction of the ends of bar 34 in brackets 22, 24 will hold the tapes in raised position and the slats in open position of the blind. In open position of the blind, mesh 68 serves as a complete screened closure for the blind. To roll the lower end of the blind on roller 40 it is only necessary to loosen knobs 30 at the upper brackets 22, 24.

The blind thus described is a combination Venetian and roller blind which can be adjusted in vertical length and vertical position in a window opening by adjustable positioning of its support brackets. In addition, the slats of the blind are rotatable to open and close the blind. The slats are supported upon an flexible mesh which also serves as a screen for the window opening. Removable inserts in the slats permit the decorative effect, as well as the light transmission characteristic of the blind to be modified at will.

It is to be understood that a single plastic strip of any color or design may also be used for the slat 52.

While I have illustrated and described the preferred
embodiment of my invention, it is to be understood that I do not limit myself to the precise construction herein disclosed and that the various changes and modifications may be made within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. A window blind comprising, a plurality of parallel flat, elongated slats, each slab being formed from juxtaposed transparent, flexible, plastic strips, opposite edges of the strips being joined to form flat pockets in the slats, a rectangular flexible screen, one edge of each slab being joined by a fabric web to the screen, a plurality of tapes, said screen and tapes being supported at one end by the bar, the other edge of each slab being secured to the tapes, the other ends of the screen and tapes being engaged on said roller, said roller including spring means to hold the tapes and screen under tension with the slats in horizontal positions between the rails and to roll the slats, screen and tapes up on the roller, there being a strip adapted to modify the light transmission characteristic of each slab removably inserted in the pocket thereof, a pulley mounted on said bar, and a roller entrained on the pulley for rotating the bar to open and close the slats.

2. A window blind comprising a pair of spaced vertical rails, brackets slidably mounted on the rails and securing thereto in fixed positions, a bar rotatably supported by a pair of said brackets, a roller rotatably supported by another pair of the brackets, a plurality of flat, parallel, elongated slats, each slab being formed from juxtaposed, transparent, flexible plastic strips, opposite edges of the strips being joined to form flat pockets in the slats, a rectangular flexible screen, one edge of each slab being joined by a fabric web to the screen, a plurality of tapes, said screen and tapes being supported at one end by the bar, the other edge of each slab being secured to the tapes, the other ends of the screen and tapes being engaged on said roller, said roller including spring means to hold the tapes and screen under tension with the slats in horizontal positions between the rails and to roll the slats, screen and tapes up on the roller, a pulley mounted on said bar, a rope entrained on the pulley for rotating the bar to open and close the slats, and chains removably attached to said clamps for supporting the tapes on the bar.

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