

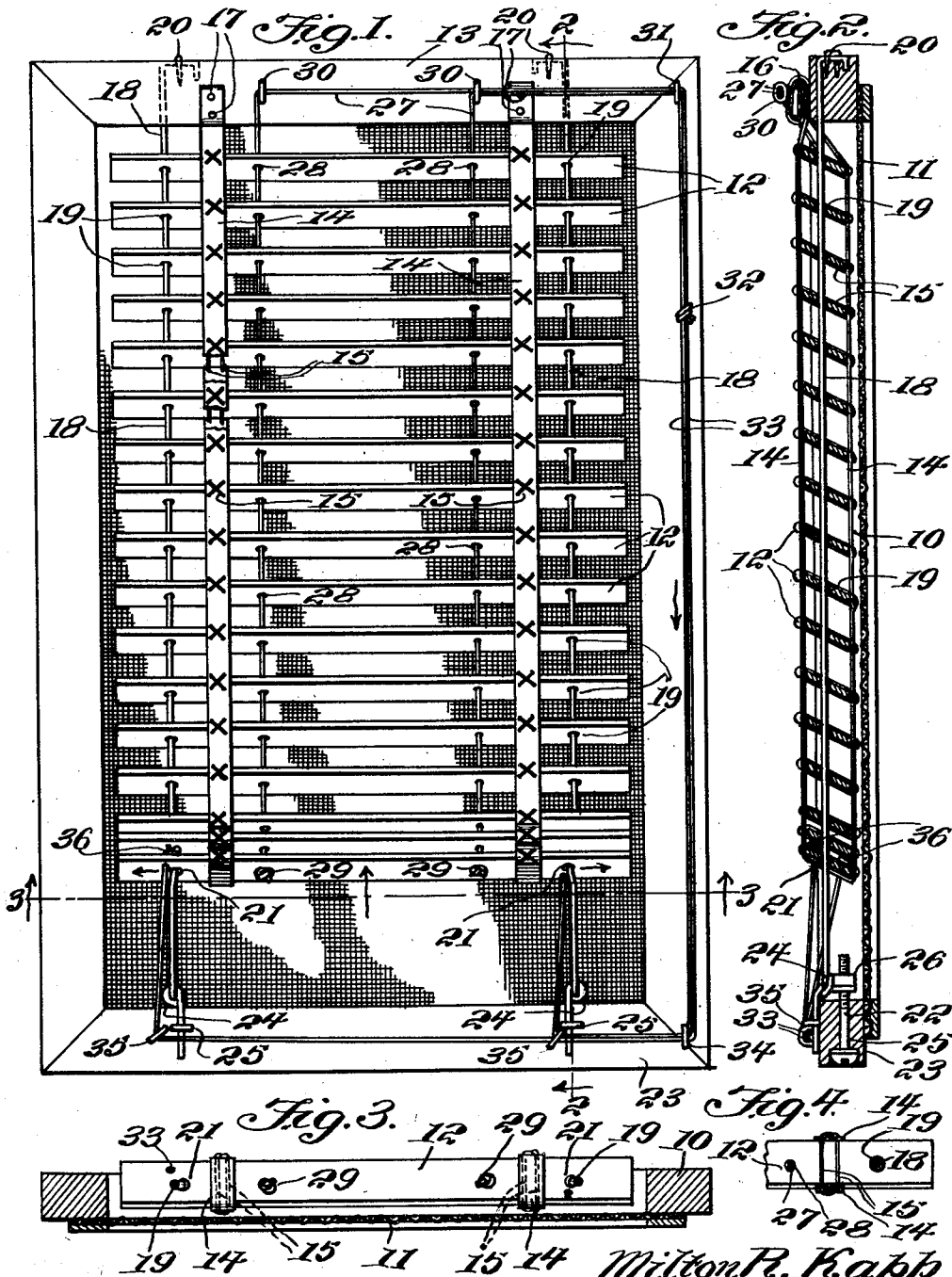
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WINDOW BLIND

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WITNESS

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WINDOW BLIND

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3 Claims. (Cl. 156-17)

This invention relates to window blinds and has for an object to provide a device of this character which may be easily applied to window frames outside the sash for preventing ingress of insects into the building and at the same time deflecting the sun's rays from shining into the building so that insulation against the sun's heat through windows will be greatly promoted.

A further object is to provide a device of this character which will be formed of a few strong simple and durable parts which may be inexpensively manufactured and which will not easily get out of order.

With the above and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawing forming part of this specification,

Figure 1 is a front elevation of the window blind.

Figure 2 is a longitudinal sectional view taken on the line 2-2 of Figure 1.

Figure 3 is a cross sectional view taken on the line 3-3 of Figure 1 looking in the direction of the arrowheads.

Figure 4 is a detail cross sectional view showing the manner of tying the tapes to the slats.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, 10 designates the frame and 11 the wire mesh screen of a conventional window screen which may be attached to the outside of the window frame or may be applied to the window frame underneath an upper sash as is customary in the use of window screens.

In carrying out the invention the window screen just described is provided, as a unitary structure therewith, with a slat blind comprising a plurality of superposed slats 12 formed of any desired material and suspended in a predetermined angular position from the top cross member 13 of the frame 10 through the medium of spaced tapes 14 which are looped over respective end portions of the slats in the same manner as in the construction of Venetian blinds, and are secured to the slats through the medium of looped threads 15, there being a pair of these threads engaged around each slat and passed through the front and rear reaches of the respective tape, the individual threads intersecting

each other, as best shown in Figure 1, the threads themselves being best shown in Figure 4.

The upper ends of the tapes are looped about a respective plate 16 which is secured to the top cross member 13 through the medium of nails 17 or other connectors. One reach of each tape is of greater length than the other reach so that the angular inclination of the slats to the horizontal is permanent. The degree of slant is determined by the amount of each reach engaged around the respective plate 16 before it is secured in place. Preferably the slope is such that the sun's rays will be deflected so as not to enter the room directly and thus insulation from the sun's heat will be greatly promoted.

Vertically disposed guide wires 18 are engaged through openings 19 disposed near the ends of the slats, the upper ends of these guide wires being secured to the top cross member 13 of the frame through the medium of staples 20 or other suitable connectors. The lower ends of the wires are trained through openings 21 in the lowermost slat and it will be pointed out that these openings are disposed closer together than the openings of the other slats for a purpose to be described. The extreme lower ends of the guide wires are looped around bolts 22, best shown in Figure 2, which are passed upwardly through the bottom cross member 23 of the frame, and thence looped back as shown at 24 to provide a knot, and thence secured to the bottom cross member 23 through the medium of a staple 25 or other suitable connector.

When the nuts 26 of the bolts are screwed downwardly the guide wires will be tensioned and pull outwardly as shown by the arrowheads in Figure 1, against the edges of the closely spaced openings 21 above referred to thus increasing friction of the guide wires upon the walls of the openings to insure that the slat blind will remain in any adjusted open position longitudinally of the guide wires.

For adjusting the slat blind a pair of cords 27 are passed downwardly through openings 28 in the slats and the lower ends knotted as shown at 29 underneath the bottom of the lowermost slat. The upper ends of the cords are trained horizontally through guide eyes 30 secured to the top cross member 13 and from thence trained side by side to a guide eye 31 located on one longitudinal member of the frame, thence carried downwardly and knotted as shown at 32 to a second pair of cords 33.

The second pair of cords 33 are trained downwardly from the knotted upper ends thereof along

said longitudinal member of the frame and at the bottom cross member are trained through a guide eye 34, and thence carried horizontally through respective guide eyes 35 carried by the bottom cross member 22, thence trained upwardly and knotted above the top face of the lowermost slat as shown at 36 as best shown in Figure 2.

As indicated by the arrowhead in Figure 1 when the operator pulls down upon the cords 27 and 33 the slats will be moved upwardly to adjust the slat blind to any degree of closed position. Conversely when the operator pulls upwardly on the cords 27 and 33 the slats will be moved downwardly to adjust the slat blind to any degree of open position from top to bottom of the frame 10.

Since the operation of the device has been described as the description of the parts progressed it is thought the invention will be fully understood without further explanation.

What is claimed is:

1. A window blind comprising a frame, a plurality of superposed slanted slats within the frame, limp tapes suspending the slats from the upper transverse member of the frame, said slats having openings near the ends, guide wires secured to the upper and lower transverse members of the frame and engaged through said openings, the openings of the lowermost slat being closer together than the openings of the other slats so that said guide wires are deformed when passing through the openings of the lowermost slat to create friction for holding the slats in adjusted positions, and cords connected to the slats for moving the slats on the guide wires in the nature of a Venetian blind.

2. A window blind comprising a frame, a plurality of superposed slanted slats within the frame, limp tapes suspending the slats from the upper transverse member of the frame, said slats having openings near the ends, guide wires engaged through said openings, the openings of the lowermost slat being closer together than the openings of the remaining slats, means for adjustably tensioning the guide wires to create

frictional engagement therewith with the walls of the closely spaced openings of the lowermost slat for holding the slats in adjusted open or closed positions, cords connected to the lower slat and slidably engaged with the remaining upper slats for raising the slats on the guide wires to adjusted open position of the blind, and cords connected to the lowermost slat and tied to the first named cords for moving the slats to adjusted closed position of the blind.

3. A window blind comprising a rectangular frame having upper and lower transverse members and side longitudinal members, a plurality of superposed slats within the frame, limp looped tapes secured to the slats and suspending the slats from the upper transverse member of the frame, each tape having the rear reach of greater length than the front reach for maintaining a permanent predetermined slant of the slats, said slats having openings near the ends, guide wires engaged through said openings, the openings of the lowermost slat being closer together than the openings of the remaining slats, a bolt and nut connecting the lower end of each respective guide wire to the lower cross member of the frame, adjusting of the nut on the bolt adjustably tensioning the guide wires to create frictional engagement therewith with the walls of the closely spaced openings of the lowermost slat for holding the slats in adjusted open or closed positions, cords connected to the lowermost slat and slidably engaged with the remaining slats, guide eyes training the cords transversely across the uppermost slat to one longitudinal member, said cords being thence trained downwardly on said longitudinal member, cords connected to the lowermost slat, guide eyes training the second named cords along the lowermost member of the frame to said longitudinal member and thence upwardly thereupon, and a knot connecting both sets of cords together, downward pull upon the knotted cords moving the slats to adjusted closed positions, upward pull upon the knotted cords moving the slats to adjusted open positions.

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