Sept. 7, 1948. W. A. HARJU 2,448,800

WINDOW SHADE

Filed April 17, 1945 3 Sheets-Sheet 1

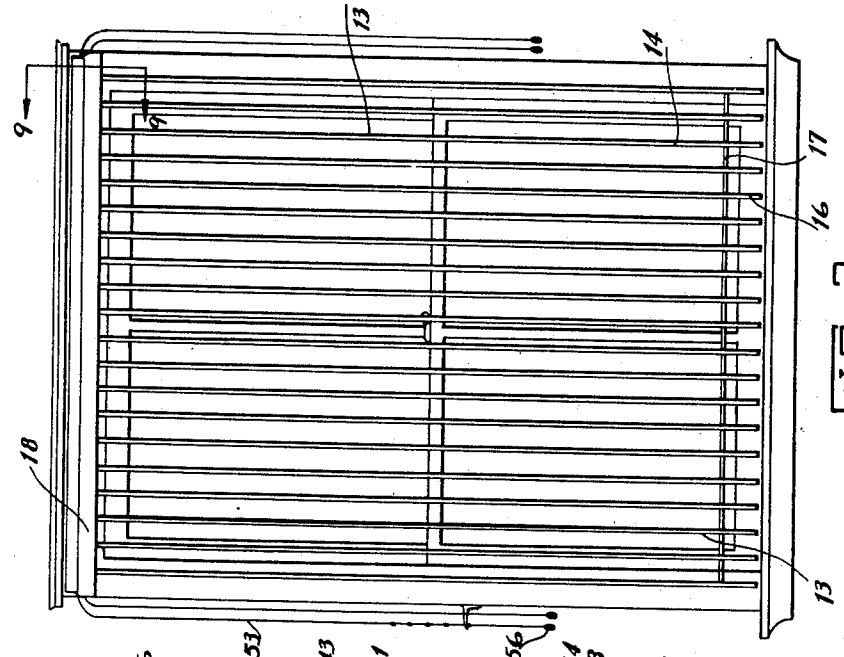


FIG. 2

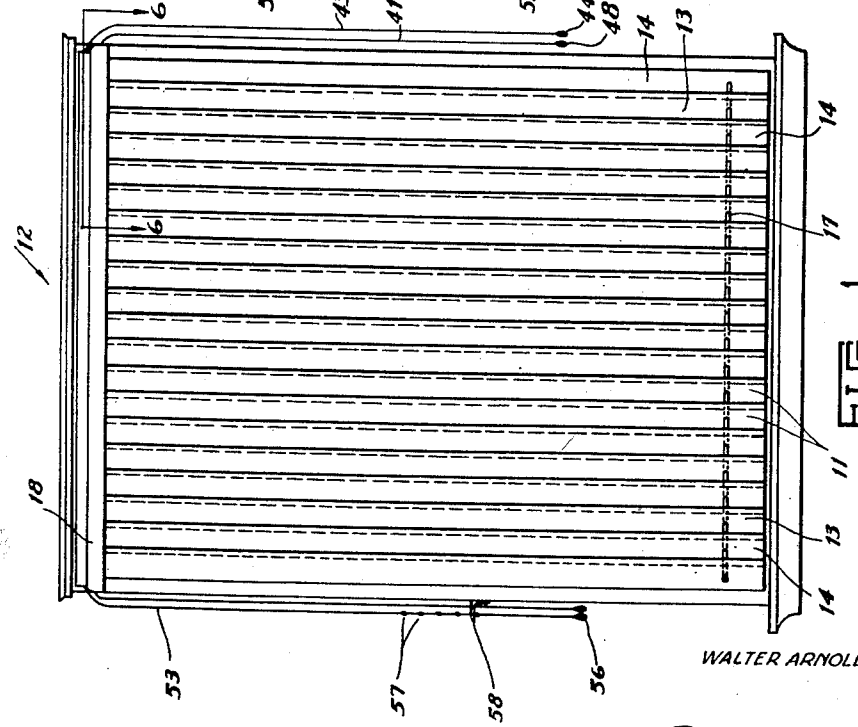


FIG. 1

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Sept. 7, 1948. W. A. HARJU 2,448,800

WINDOW SHADE

Filed April 17, 1945 3 Sheets-Sheet 2

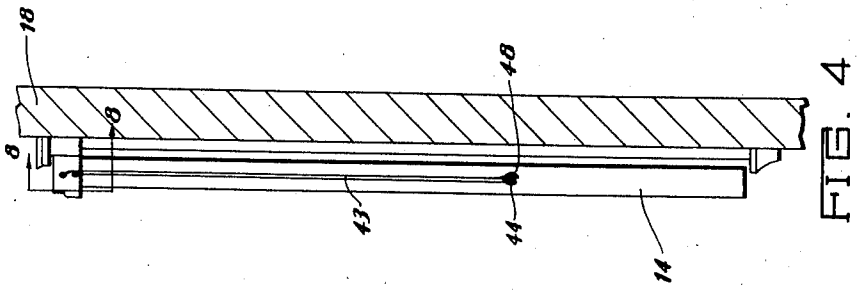


FIG. 4

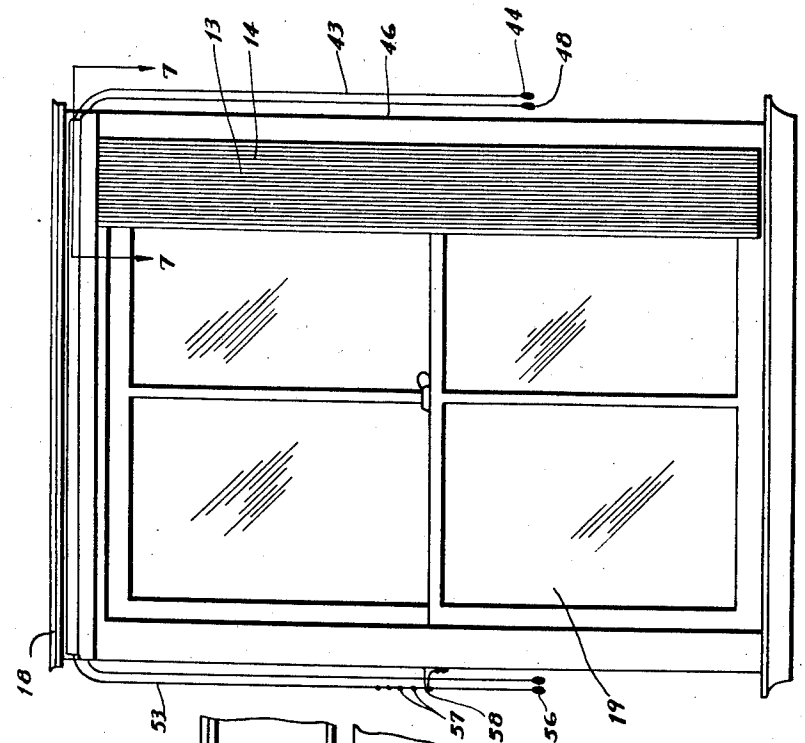


FIG. 3

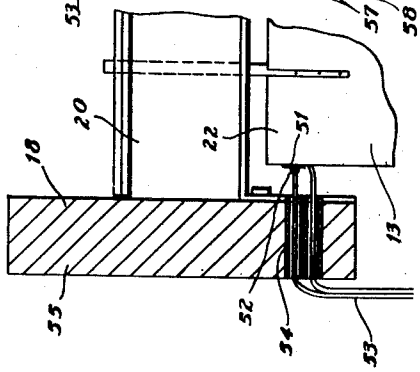


FIG. 5

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Sept. 7, 1948. W. A. HARJU 2,448,800

WINDOW SHADE

Filed April 17, 1945 3 Sheets-Sheet 3

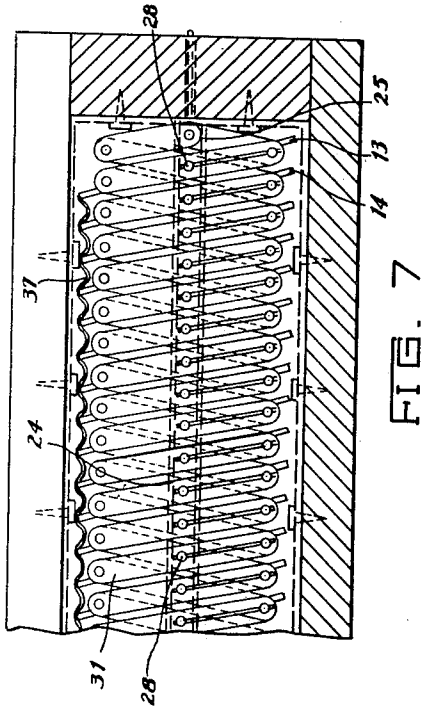


FIG. 7

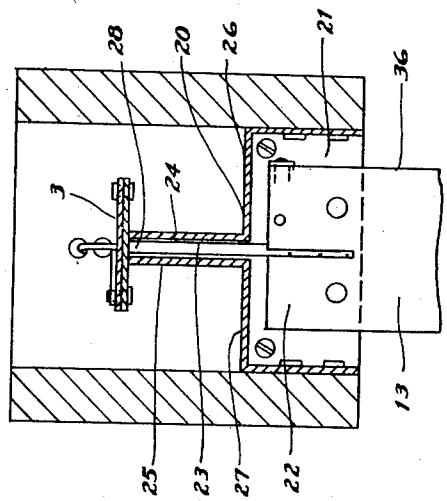


FIG. 9

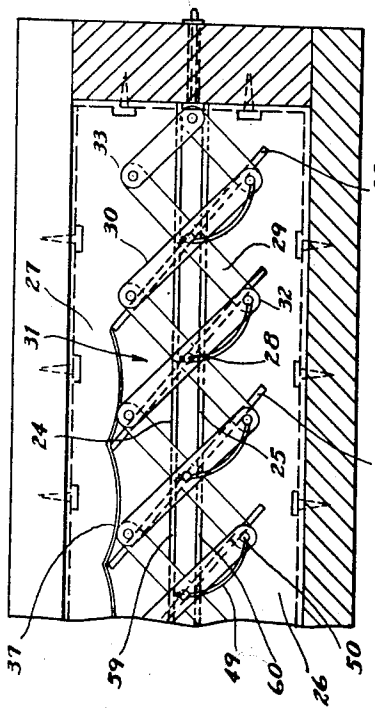


FIG. 6

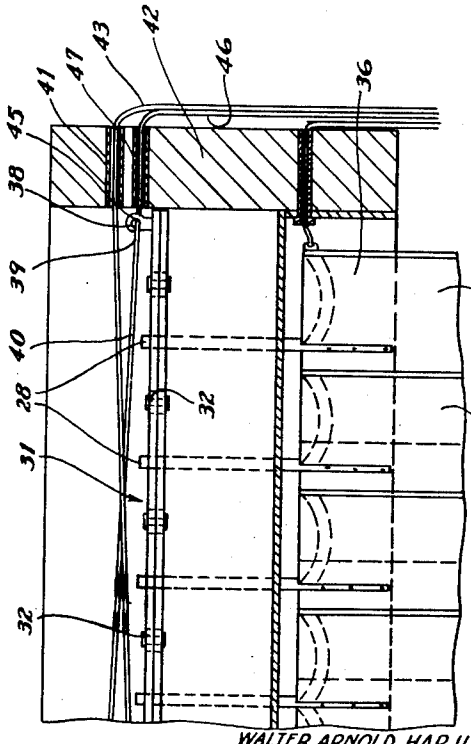


FIG. 8

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Patented Sept. 7, 1948

2,448,800

UNITED STATES PATENT OFFICE

2,448,800

WINDOW SHADE

Walter Arnold Harju, Daly City, Calif.

Application April 17, 1945, Serial No. 588,863

3 Claims. (Cl. 160—168)

1

This invention relates to screens and has for its object to provide a window or other screen formed of a series of vertically connected slats.

Another object of the invention is to provide a screen or window shade formed of a series of vertically supported and horizontally movable slats.

A further object of this invention is to provide a slatted shade or screen through which objects on the outer side thereof may be clearly seen without having to closely approach the same.

A still further object of the invention is to provide a slatted screen operated by a toggle device from which the screen is suspended.

Other features and advantages will become more readily apparent from the following description and the accompanying illustrative drawings in which:

Figure 1 is an elevational view of my improved screen shown in closed position and attached to a window,

Figure 2 is a similar view, the slats being shown open,

Figure 3 is a similar view, the screen being shown drawn back,

Figure 4 is a vertical sectional view of a wall having a window therein equipped with this invention,

Figure 5 is a detail of an operating means,

Figure 6 is a sectional view taken on line 6—6 of Figure 1,

Figure 7 is a sectional view taken on line 7—7 of Figure 3,

Figure 8 is a sectional view taken on line 8—8 of Figure 4, and

Figure 9 is a sectional view taken on line 9—9 of Figure 2.

In the accompanying drawings as above enumerated and in the following specification, like characters of reference indicate like parts throughout and in which 12 refers to my improved window or other screen or shade and which consists primarily of a series of vertically hung slats 13, 14, which slats are of a desirable width and so spaced that when the shade is completely closed the edges of slats 13 and 14 are adapted to overlap as indicated by dotted lines 15, in Figure 1 of the drawings. The lower ends 11 of said slats are connected by a flexible cord or other member 17.

Mounted adjacent the upper portion 18 of a window opening 19, doorway or other support is a casing 20, extending lengthways thereof into the open bottom portion 21, the upper end 22 of each of said slats 13, 14, extends, and to which

2

ends are secured vertically disposed hangers 23, which project up between the centrally disposed vertical flanges 24 and 25 projecting from the top wall portions 26 and 27 of the casing 20.

The upper ends 28 of each of the members 23 form pintles upon which the cross arms 29 and 30 of a toggle member 31 are pivotally connected, the terminals 32 and 33, and 34 and 35 of which arms being pivotally connected to like adjoining members. The upper edges 36 of the said slats 13 and 14 are connected by a tape 37.

To an eye 38, on the terminal end 39 of the toggle member 31, is attached one end of a cord or cable 40, which is trained over a pulley (not shown) at the opposite side of the casing and returned, threaded through a tube 41, in the frame member 42, and then dropped down as at 43, and terminates in a knob 44. Also secured to the eye 38, is one end 45 of a cord 46, threaded through a tube 47, in said frame member 42, and dropped to a terminating knob 48. By pulling down on the knob 44, the cable will draw the toggle member to a closed position as indicated in Figure 7 of the drawings and the slats 13 and 14 to an unscreening position as indicated in Figure 3 of the drawings, or upon drawing down upon knob 48, the member 31 will be drawn to a closing position for the slats as indicated in Figures 2 and 6 of the drawings.

Each of the terminals 28 have secured thereto one end of a spring 49, the other end of which is secured to a pivot member 50, which springs are so tensioned as to normally cause the slats 13 and 14, to lap upon one another as indicated in Figure 1 of the drawings. However, there is attached to the end 51 of tape 37, an end 52 of a cord 53, which is threaded through a tube 54 in the frame member 55, and has attached to its lower end a knob 56. This cord 53 is provided with a series of knots 57, suitably spaced and for engagement by a forked bracket 58, whereby the slats 13 and 14 may be adjusted to any desired angle relative to the plane of the screen, as indicated, for instance, in Figure 6 of the drawings. The upper edges 59 and 60 of the flanges 24 and 25, form runners upon which the member 31, is slidably seated.

From the foregoing it will be seen that I have provided a practical, useful and inexpensive window shade, alcove screen, or wall partition for the separation of office rooms and the like, a screen which may be very ornamental, one which will completely close an opening or partially close the same, or which can fully cover an open space and shut out completely the opposite side, and outside

light, or which may admit some light and which may be seen through and yet hide vision from without. It is also obvious that for a less expensive construction I may have the slats on wire loops (not shown) and connect the operating cords 43 and 53 to opposite ends of the tape 37, to close and open the screen.

It is thought that persons skilled in the art to which the invention relates will be able to obtain a clear understanding of the invention after considering the description in connection with the drawings. Therefore, a more lengthy description is regarded as unnecessary.

Minor changes in shape, size and arrangement of details and parts such as come within the purview of the invention claimed may be resorted to, in actual practice, if desired.

Having now described my invention, that which I claim as new and desire to procure by Letters Patent is:

1. A screen formed of a series of vertically suspended slats, means for opening and closing the same, means whereby the slats will normally overlap when in operative position, means whereby said slats may be held angularly adjusted in said operative position, a toggle device from which the slats are pivotally suspended, said overlapping means comprising springs connecting parts of the toggle member, said first mentioned means including pull cords connected to the toggle for opening and closing the screen, and said last mentioned means including a pull cord for controlling the angularity of the slats.

2. A screen formed of a series of vertically suspended slats, means for opening and closing the same, means whereby the slats will normally overlap when in operative position, means whereby said slats may be held angularly adjusted in said operative position, a toggle device from which the slats are pivotally suspended, said overlapping means comprising springs connecting parts of the toggle member, said first mentioned means including pull cords connected to the toggle for opening and closing the screen.

3. A screen formed of a series of vertically suspended slats, means for opening and closing the same, means whereby the slats will normally overlap when in operative position, means whereby said slats may be held angularly adjusted in said operative position, a toggle device from which the slats are pivotally suspended, and said overlapping means comprising springs connecting parts of the toggle member.

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