

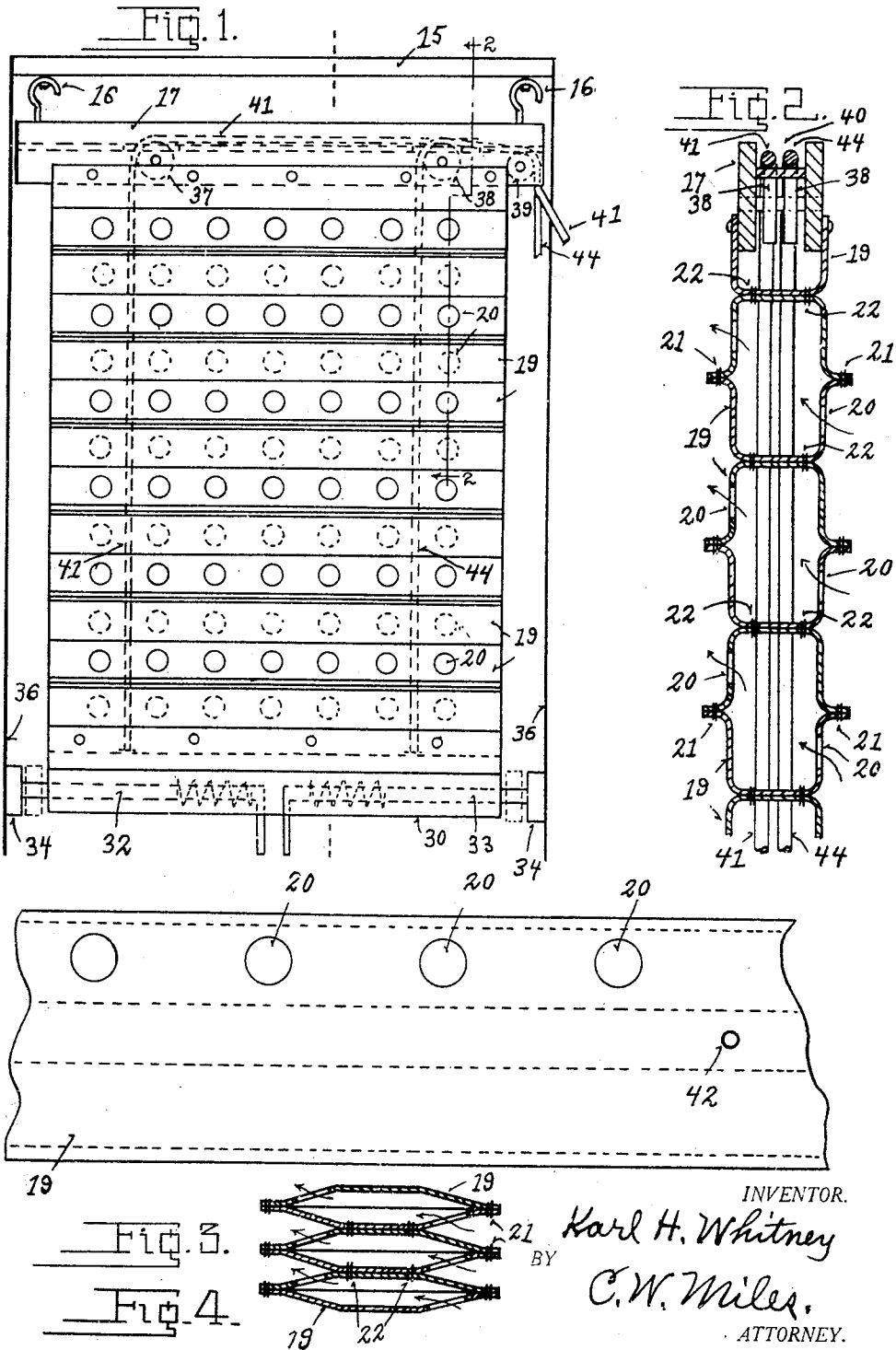
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VENTILATED WINDOW AND PORCH SHADE

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VENTILATED WINDOW AND PORCH SHADE

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My invention relates to improvements in window shades. One of its objects is to provide a light weight shade adapted for use as a window shade or porch shade. Another object is to provide an improved ventilated shade adapted to permit a circulation of air through the shade and at the same time to exclude strong sunlight. Another object is to provide an improved shade structure adapted to permit a circulation of air through the shade and to temper or modify the character of light permitted to pass through the shade. Another object is to provide an improved shade structure and means of adjusting the shade to different positions. My invention also comprises certain details of form and arrangement, and combination of components, all of which will be fully set forth in the description of the accompanying drawings, in which:

Fig. 1 is a plan of a window shade embodying my improvements.

Fig. 2 is a vertical section taken on line 2—2 of Fig. 1.

Fig. 3 is a plan of one of the sections from which the shade is constructed.

Fig. 4 is a sectional detail of a portion of the shade in its closed or collapsed position.

The accompanying drawings illustrate one modification of my invention in which represents a supporting bar, which may be detachably or permanently attached to a porch or to a window frame, and from which the shade is detachably suspended by means of hooks 16, which are attached rigidly to the upper cross-bar 17 of the shade and may be hooked over or suspended from the supporting bar 15. The shade is constructed in a tubular or cellular form from a series of strips 19 of canvas or other textile material or if desired from a strong parchmented type of paper. The strips 19 each have a series of ventilating ports 20 cut therein at one side of the medial longitudinal line. The strips 19 are united one to another by means of a series of lines of stitches 21 and 22, so as to form a continuous sheet or shade of a double thickness of material, having intermediate tubular or cellular spaces through which currents of air may pass from one perforation

20 in one wall of the cell to another perforation 20 in the opposite wall of the cell. The material of the shade is rendered impervious to a part or to most of the sun's rays, and the rows of perforations 20 are in staggered relation one to another, so that the sun's rays will not pass through the perforations 20 in opposite walls of the cells at the same time, thereby providing for a ventilating current of air through the shade while at the same time intercepting the sun's heat and light rays.

At the lower end of the cellular shade structure is a lower cross bar 30, which acts as a rigid point of attachment for the lower portion of the shade, and also as a weight to assist in drawing the shade down, and in holding it in position. Two spring actuated thrust bars 32 and 33 are preferably mounted in the lower bar 30, with shoes 34 at their outer ends, and with their inner ends turned downwardly, so that when the inner ends 35 are pressed together the shoes 34 are drawn away from and disengaged from the sides of a window frame or porch columns 36 to permit the lower shade cross bar to be raised or lowered. At other times the shoes 34 yieldingly engage the sides of the window frame or the porch columns 36 to hold the lower cross bar 30 in its adjusted position and to hold the shade under tension when the shoes 34 and bars 32 and 33 are omitted, the weight of the lower cross bar 30 is relied upon to hold the shade in its lowered position.

In order to conveniently raise and lower the shade, a series of rollers 37, 38, and 39 are mounted and journaled in recesses formed in the upper cross bar 17, and a horizontal channel 40 is formed across the top of said cross bar 17. One shade raising and lowering cord 41 is attached at one end to the lower cross bar 30, and extends thence upwardly through the center of the cellular structure of the shade, and through perforations 42 formed in the respective shade sections 19 until it reaches the upper cross bar 17 and passes over the roller 37, thence along the channel 40 to the roller 39, and thence downwardly over the roller 39 to a tassel, or to a point of attachment on the window frame or porch

column. Another cord 44 is attached at one end to the lower cross bar 30 and thence extends upwardly through another series of perforations 42 through the shade material 19 to the roller 38, thence along the channel 40 to a roller 39, and thence downwardly to a tassel, or to a point of attachment upon the window frame or a porch column. The two cords 41 and 44 are thus adapted to serve the purpose of raising and lowering the shade, and of holding the shade in its raised position, or in any desired partially raised or lowered position, or with one end raised to a greater extent than the other end. The rollers 39 are preferably of automatic locking type. As the shade is raised each pair of lines of stitches 21 move further apart, and as the shade is lowered, the respective pairs of stitches 21 move toward each other until they reach a position nearly in vertical alignment with the line of stitches 22. In Fig. 2 the shade is shown in its fully lowered position, and in Fig. 4, the shade is shown in its partly closed position. The perforations 20 may be of rectangular as well as circular pattern, or of other patterns if desired, so long as the strength of the shade material is not materially reduced, or sunlight allowed to pass directly through the cellular shade material. With shoes 34 engaging members 36, cords 41 and 44 may be placed under tension and locked at rollers 39 so as to hold the shade in substantially one plane under tension to resist air currents.

The apparatus herein shown and described is capable of considerable modification within the scope of the claims, without departing from the spirit of my invention.

What I claim is:

1. A shade comprising a top rail, a bottom rail, and an intermediate portion built up from a series of horizontally directed strips, each having its edges connected to the edges of one next adjacent strip and its central portion connected to the central portion of the other next adjacent strip.

2. A shade built up from a series of horizontally directed strips of material, each having its edges connected to the edges of one next adjacent strip and its central portion connected to the central portion of the other next adjacent strip, each of said strips having perforations therein spaced in relatively nonaligned relation, whereby the passage of air currents through the shade is permitted and the direct passage of light rays through said shade is intercepted.

3. A shade comprising a top rail, a bottom rail, a double walled shade built up from a series of connected parallel strips of material, each strip having its edges connected to one next adjacent strip and its central portion connected to the other next adjacent strip.

4. A double walled shade built up from a

series of connected parallel strips of material, each having its edges connected to one next adjacent strip and a relatively wide band of its central portion connected to the other next adjacent strip.

In testimony whereof I have affixed my signature.

KARL H. WHITNEY.