

April 5, 1932.

C. BAUER

1,852,913

FLEXIBLE BLIND STRUCTURE

Filed May 10, 1930

Fig. 1

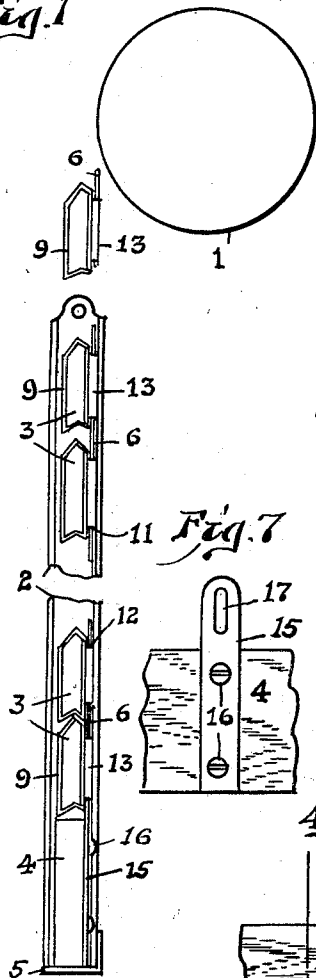


Fig. 2

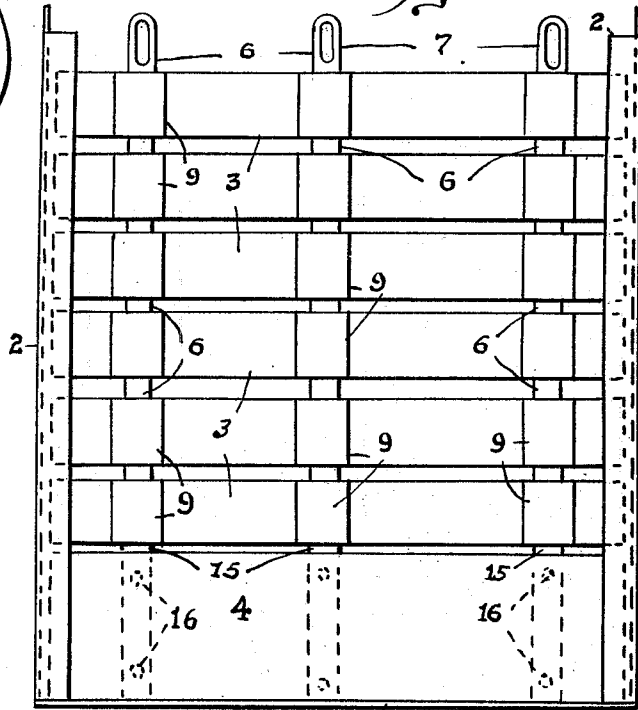


Fig. 7

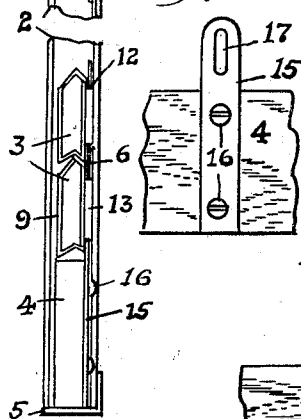


Fig. 3

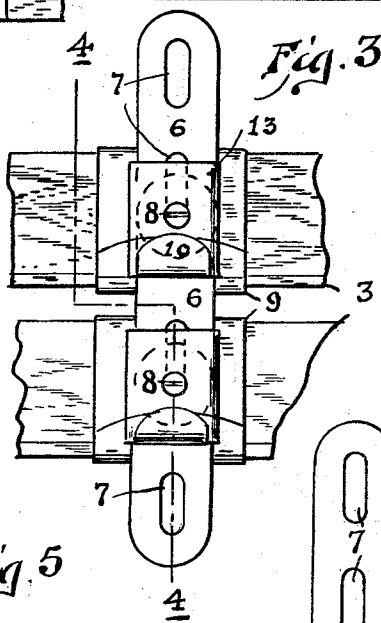


Fig. 4

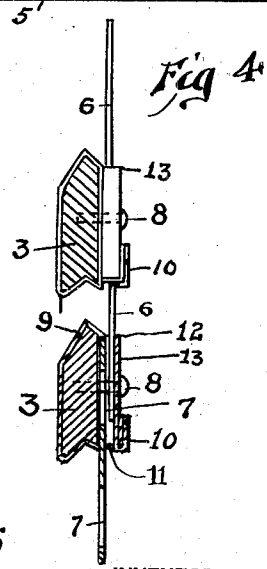


Fig. 5

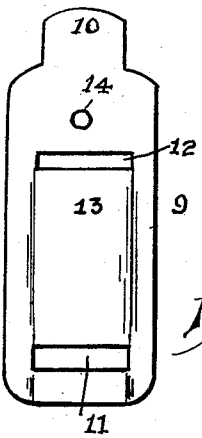
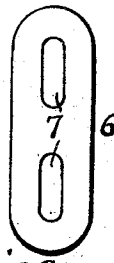


Fig. 6



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## UNITED STATES PATENT OFFICE

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## FLEXIBLE BLIND STRUCTURE

Application filed May 10, 1930. Serial No. 451,252.

The object which I have in view is the provision of a slatted flexible blind structure which may be readily rolled up on a roller and unrolled therefrom, which will be strong and durable and at the same time inexpensive to manufacture and wherein the slats may either spread apart to freely admit light and air or may be brought snugly together to exclude sunlight or rain.

For this purpose I have invented a novel slatted blind structure wherein the slats are connected together by means of links whose ends are slidably connected to adjacent slats whereby a limited relative movement of the slats is obtained. Specifically the links are formed of flat metal and have longitudinally slotted holes in their ends, which holes are engaged by pins on the two adjacent slats. The ends of adjacent links overlap and are engaged by the same pins.

The links are formed of resilient metal so that the blind will readily roll upon and be unrolled from a roller.

To hold the links in proper position relative to the slats the latter are provided with metal boxings in which the ends of the links have the requisite movement.

Other novel features of construction and arrangement of parts will appear from the following description.

In the accompanying drawings wherein I have illustrated a practical embodiment of the principles of my invention, Fig. 1 is a diagrammatic view in side elevation illustrating my improved blind depending from a roller and its edge engaging a guide.

Fig. 2 is a front elevation joining a portion of the blind with its edges engaging the guides.

Fig. 3 is a broken rear elevation showing the link connection between the slats.

Fig. 4 is a sectional view taken along the line 4—4 in Fig. 3.

Fig. 5 is a view showing the blank from which one of the boxings is made.

Fig. 6 is a view of one of the links.

Fig. 7 is a broken elevation showing the method of attaching the bottom bar to the lowermost slat.

Referring to the drawings, 1 represents the

roller at the top of the window opening and upon which the blind is rolled, and whose rotation in the proper direction raises or lowers the blind.

2 represents the guide at the sides of the window frame and in which the edges of the blind are contained and move. These guides may be of channel cross sectional shape.

The blind is composed of a plurality of horizontally disposed slats 3 which may be of wood. At its lower end the blind is provided with a bar 4 which also may be of wood and when the blind is fully lowered said bar rests on the cross bar 5 which connects the lower ends of the guides 2.

The slats are connected together adjacent to their ends and also at their centers by the links 6. One of these links is shown separately in Fig. 6, and said links are formed of flexible flat metal, such, for instance, as copper.

The links 6 may be stamped out and are of substantially the shape shown, being provided at either end with a longitudinally elongated hole or slot 7.

The links 6 are disposed at right angles to the slats and have their opposite ends engaged by pins which are specifically the screws 8 and which are driven into the slats. Thus a pair of adjacent slats are movably connected together and may be brought into snug contact with each other as illustrated in the upper portion of Fig. 1 or may be separated as illustrated in the lower portion of Fig. 1 and also in Figs. 2, 3 and 4. The degree of separation of course depends upon the length of the slots 7. A slat 3 is in like manner connected by the link 6 to the slat above and below it and the ends of the links overlap as best illustrated in Fig. 4, the adjacent slots being engaged by the screw 8.

To hold the links in proper alinement and relation with the slats I provide metal boxings mounted on the slats and in which the ends of the links slide.

These boxings may be formed of strips 9 of sheet metal, as for instance, copper, and similar in shape to that shown in Fig. 5. At one end said strips are provided with a tongue 10 of substantially the same width as

the links 6, and adjacent to the other end the strip 9 is provided with a transversely disposed slot 11. Above the center of the strip 9, as shown in Fig. 5, the strip is provided with a second slot 12. The slots are of sufficient width to permit the links 6 to slide freely through the same. Below the upper slot 12 the body of the strip is pressed outwardly along vertical lines to form the box 13. Above the box 13 in Fig. 5 the strip is provided with a screw hole 14.

The strip 9 is bent around the slat 3 as best shown in Fig. 4 and the tongue 10 is inserted down through the slot 11 and bent up on the outside.

The boxing is held in place by the screw 8 which is inserted through the hole 14 and driven into the slat 3, the screw crossing the interior of the box 13 and engaging the slots 7 in the overlapped ends of the upper and lower links 6.

It is evident that when the blind is depending from the roller 1 with the bar 4 without under support, the slats will be separated, thus permitting air and light to enter. However, if the bar 4 rests upon the cross bar 5 and sufficient slack is provided in the blind, the slats will move into snug engagement with each other. The adjacent edges of the slats are formed to engage together to insure tight jointure. A like engagement is provided between the bottom edges of the lowermost slat and the bar 4.

The bar 4 may be similarly connected to the bottom slat 3. Thus I have shown vertically disposed plates 15, attached as by screws 16, to the rear face of the bar 4 and whose upper ends are provided with vertically elongated holes or slots 17. The upper ends of the plates 15 are within the boxes 13 of the lowermost slat and are engaged by the screws 8, the hole 17 being of sufficient length to permit the slat to descend into snug engagement with the bottom bar or to be raised therefrom to the desired degree.

The links are preferably mounted on the inner side of the blind, thus being concealed and being protected from the weather.

It is evident from the foregoing that my improved blind structure is of simple and inexpensive construction, durable, and not liable to breakage, sufficiently flexible to be readily wound up upon a roller or unwound therefrom with ease, and capable of being arranged to freely admit light and air or to be impervious to the entrance of sunlight or rain.

What I claim is:—

In a flexible blind structure, the combination with a slat, of a boxing fitting on said slat and consisting of a single strip of sheet metal having a relatively wide body portion of sufficient length to entirely surround the slat with one end of the body overlapping the other, said body portion having a transverse

slot in the overlapping end and provided with a second slot spaced from the remaining end of the body, the portion between the second slot and the last mentioned end being offset from the slat along the central portion of the body and the overlapping end being similarly offset, and a tongue on the overlapped end extending through the first slot and bent backwardly to lie against said overlapping end.

Signed at Mt. Oliver, Pa., this 8th day of May, 1930.

CONRAD BAUER.