Oct. 13, 1942. H. K. LORENTZEN 2,298,892

VENETIAN BLIND HOLD-DOWN BRACKET, ETC.

Filed Feb. 14, 1942

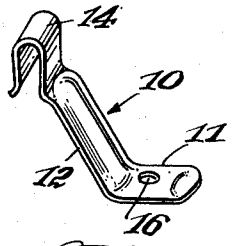


Fig. 1.

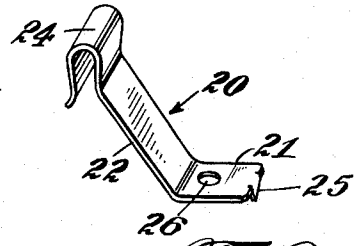


Fig. 2.

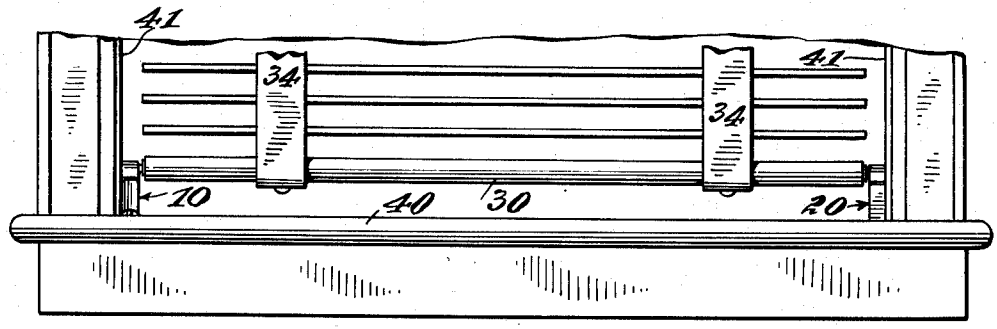


Fig. 3.

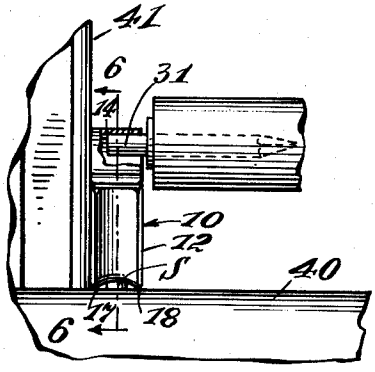


Fig. 4.

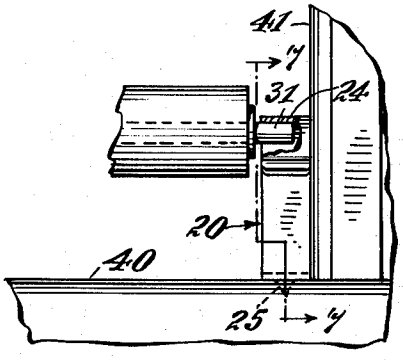


Fig. 5.

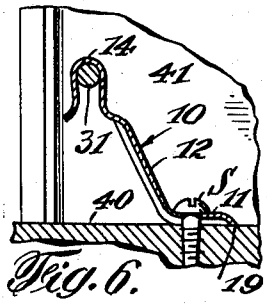


Fig. 6.

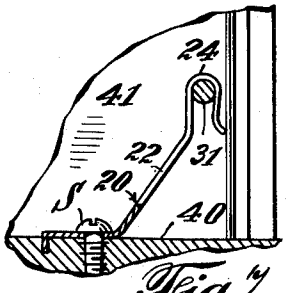


Fig. 7.

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2,298,892

VENETIAN BLIND HOLD-DOWN BRACKET, ETC.

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12 Claims. (Cl. 156—17)

This invention relates to a construction for holding down a Venetian blind when it is fully extended, to prevent the blind from slapping in the wind. Embraced within the invention is a hold-down bracket for mounting on the window sill to hold the blind down.

Various hold-down constructions and brackets are already known, but all of them so far as I am aware involve certain difficulties or limitations. Some hold-down brackets are unduly expensive and usually they have to be manufactured in pairs, one right-hand and the other left-hand. Usually the brackets, when mounted and in use, leave objectionable projections which interfere with dusting and cleaning and which are apt to catch the clothing of persons moving close to the window. Except with very expensive types of hold-down brackets they are not adjustable to compensate for variations in the length of the ladder tapes, and usually the brackets do not maintain the bottom rail of the blind under proper downward pull.

Objects of the present invention are to provide a Venetian blind hold-down construction which is inexpensive, in which the brackets are usable both as right and left hand brackets, which interferes but little with cleaning or dusting, and which presents little or nothing that is apt to catch on the clothing of persons moving close to the window.

Another object of the invention is to provide a simple inexpensive hold-down bracket that can be stamped as a single piece of sheet-metal in strip form.

An additional object of the invention is to provide an inexpensive hold-down bracket which is readily adjustable to compensate for a measure of variation in the length of the ladder tapes.

A still further object of the invention is to provide an inexpensive one-piece hold-down bracket which maintains the bottom rail of a blind under adequate downward pull.

Fig. 1 of the drawing is an isometric view of a first form of hold-down bracket embodying the present invention.

Fig. 2 is an isometric view of a second form of hold-down bracket embodying the present invention.

Fig. 3 is a fragmentary front elevation showing the lower portion of a Venetian blind held down by the brackets of the present invention. For the sake of illustration, the bracket of Fig. 1 is shown at the left side of the blind, and the bracket of Fig. 2 at the right side of the blind.

Fig. 4 is a fragmentary front elevation, partially in section and on a larger scale, showing the bracket and associated parts appearing at the left-hand side of Fig. 3.

Fig. 5 is a fragmentary front elevation of the same type as Fig. 4 but showing the bracket and associated parts appearing at the right-hand side of Fig. 3.

Fig. 6 is a fragmentary vertical section taken in general on line 6—6 of Fig. 4.

Fig. 7 is a fragmentary vertical section taken in general on line 7—7 of Fig. 5.

The bracket 10 shown in Fig. 1 is composed of a single strip of stamped sheet-metal. One end 11 of the strip is formed as a base to be screwed to the window sill 40 by a screw S (Fig. 6) passing through a hole 16. The body portion 12 of the strip is inclined upwardly and forwardly, and the upper end 14 is formed into a hook that opens downwardly. As shown in Figs. 1, 3, 4, and 6, the strip is transversely arched in end portion 11 and body portion 12 so that these portions are convexed upwardly, thereby adding rigidity to the bracket.

The bracket 20 shown in Fig. 2 is also composed of a single strip of stamped sheet-metal. One end 21 of the strip is formed as a base to be screwed to the window sill 40 by a screw S (Fig. 7) passing through a hole 26. The body portion 22 of the strip is inclined upwardly and forwardly, and the upper end 24 is formed as a downwardly opening hook. Projecting downwardly from base portion 21 is an integral prong 25 that is adapted to project into the window sill and prevent rotation of the bracket about mounting screw S.

With either form of the bracket it is mounted by placing the base of the bracket (11 in Fig. 1 and 21 in Fig. 2) against the window sill and securing it in place with a screw S, as best seen in Figs. 6 and 7. Two brackets are required for each blind and ordinarily, though not necessarily, both of the brackets will be either the bracket shown in Fig. 1 or the bracket shown in Fig. 2. For the sake of illustration both forms of bracket are shown in Fig. 3. Since the brackets are symmetrical about their central vertical planes, each bracket can be used either as a right-hand or a left-hand bracket, and therefore it is not necessary to make them in matched pairs. In mounting the brackets they are placed with the bracket strip positioned edgewise of the jamb 41, i. e. with the general plane of the metal extending perpendicularly to the jamb. Preferably the brackets are placed with the inclined body portions (12 or 22) extending upwardly and for-

wardly, and preferably one edge of the bracket is placed directly against the jamb 41 as best seen in Figs. 4 and 5. In this position there is little likelihood of the brackets catching the clothing of a person at the window. Also in this position it is impossible for the brackets to twist about their mounting screws S, but each form of bracket has means to prevent such twisting in cases where the brackets are not mounted directly against the jambs. As previously pointed out, the bracket of Fig. 2 has the projection 25 which sticks into the window sill and prevents such twisting. The bracket of Fig. 1, due to the upward arching of base 11, presents to the window sill edges 17 and 18 (Fig. 4) and edge 19 (Fig. 6) which dig into the window sill and prevent such twisting.

Projecting axially from the ends of bottom rail 30 of the blind are gudgeon pins 31, 31. The elevation of the hooks 14 and 24 of the hold-down brackets above the window sill is preferably such that, when the blind is fully extended, it is necessary to manually exert downward pressure on the bottom rail 30 to stretch the ladder tapes 34, 34 so that gudgeon pins 31, 31 may be pushed under the hooks of the hold-down brackets. When the downward manual pressure on bottom rail 30 is released, the ladder tapes retract sufficiently to move the gudgeon pins upwardly where they are held by the hooks 14 and 24. As best seen in Figs. 4 and 5, the brackets cover and conceal the free ends of the gudgeon pins 31, 31 whereby they are not left projecting to interfere with dusting or to catch clothing. Also the brackets themselves present little to interfere with dusting or to catch clothing.

In making up and mounting a blind it is difficult to have the ladder tapes so accurately to length that the bottom rail 30 will be a standard distance above the sill when the blind is fully extended. Furthermore, even if the ladder tapes are accurately to the length in the first instance they usually change in length during use. Ordinarily this change in length is a stretching, but in damp locations it may be a shrinkage. In the brackets 10 and 20 the body portions 12 and 22 are initially at an angle of about 45 degrees to the horizontal. However, both forms of brackets may be bent upwardly or downwardly as occasion requires to change the elevation of hooks 14 and 24, and thereby to compensate for variations in the distance between the bottom rail and the window sill. Also, the body portions 12 and 22 of the brackets may be sufficiently springy so that in use the brackets always exert a yielding downward tension on the blind.

In compliance with the patent statutes, I have disclosed the best forms in which I have contemplated applying my invention, but it will be realized that the disclosure is illustrative rather than limiting the scope of the invention.

What I claim is:

1. In a Venetian blind, the blind being mounted in a window frame having a jamb and a sill, and the blind having a bottom rail provided with a pin projecting from the end of the rail toward the jamb; a hold-down bracket comprising: a strip of sheet-metal positioned edgewise of the jamb and having one end fastened to the sill and the other end free, the body of the strip being inclined upwardly and forwardly from the sill, the free end of the strip being formed as a hook to hold the pin that projects from the bottom rail of the blind, and the strip being bendable to adjust the elevation of the hook.

2. In a Venetian blind, the blind being mounted in a window frame having a jamb and a sill, and the blind having a bottom rail provided with a pin projecting from the end of the rail toward the jamb; a hold-down bracket comprising: a strip of sheet-metal positioned edgewise of the jamb with one edge against the jamb and having one end fastened to the sill and the other end free, the body of the strip being inclined upwardly from the sill, the free end of the strip being formed as a hook to hold the pin that projects from the bottom rail of the blind, and the strip being bendable to adjust the elevation of the hook.

3. In a Venetian blind, the blind being mounted in a window frame having a jamb and a sill, and the blind having a bottom rail provided with a pin projecting from the end of the rail toward the jamb; a hold-down bracket comprising: a strip of sheet-metal positioned edgewise of the jamb with one edge against the jamb and having one end fastened to the sill and the other end free, the body of the strip being transversely arched and being inclined upwardly and forwardly from the sill, the free end of the strip being formed as a hook to hold the pin that projects from the bottom rail of the blind, and the strip being bendable to adjust the elevation of the hook.

4. In a Venetian blind, the blind being mounted in a window frame having a jamb and a sill, and the blind having a bottom rail provided with a pin projecting from the end of the rail toward the jamb; a hold-down bracket comprising: a strip of sheet-metal positioned edgewise of the jamb and having one end fastened to the sill and the other end free, the body of the strip being inclined upwardly from the sill, and the free end of the strip being formed as a hook to hold the pin that projects from the bottom rail of the blind.

5. In a Venetian blind, the blind being mounted in a window frame having a jamb and a sill, and the blind having a bottom rail provided with a pin projecting from the end of the rail toward the jamb; a hold-down bracket comprising: a strip of sheet-metal positioned edgewise of the jamb and having one end fastened to the sill and the other end free, the body of the strip being transversely arched and being inclined upwardly from the sill, and the free end of the strip being formed as a hook to hold the pin that projects from the bottom rail of the blind.

6. In a Venetian blind, the blind being mounted in a window frame having a jamb and a sill, and the blind having a bottom rail provided with a pin projecting from the end of the rail toward the jamb; a hold-down bracket comprising: an elongated piece of metal positioned against the jamb and having one end fastened to the sill and the other end free, the body of the piece of metal being inclined upwardly and forwardly from the sill, the free end of the piece being formed as a hook to hold the pin that projects from the bottom rail of the blind, and the piece being bendable to adjust the elevation of the hook.

7. In a Venetian blind, the blind being mounted in a window frame having a jamb and a sill, and the blind having a bottom rail provided with a pin projecting from the end of the rail toward the jamb; a hold-down bracket comprising: an elongated piece of metal positioned adjacent to the jamb and having one end fastened to the sill and the other end free, the body of the piece being

inclined upwardly from the sill, the free end of the strip being formed as a hook to hold the pin that projects from the bottom rail of the blind, and the strip being bendable to adjust the elevation of the hook.

8. A Venetian blind hold-down bracket comprising: a single strip of sheet-metal adapted to be mounted edgewise of a window jamb, the strip including a base portion to be fastened to a window sill, a body portion inclined upwardly from the base portion, and holding means at the top of the body portion.

9. A Venetian blind hold-down bracket comprising: a single strip of sheet-metal adapted to be mounted edgewise of a window jamb, the strip including a base portion to be fastened to a window sill, with a single screw, means included in the base portion to project into the window sill a body portion inclined upwardly from the base portion, and holding means at the top of the body portion.

10. A Venetian blind hold-down bracket comprising: a single piece of metal adapted to be mounted adjacent to a window jamb, the piece including a base portion to be fastened to a window sill, a body portion inclined upwardly from the base portion, and holding means at the top of the body portion; the bracket being bendable to vary the elevation of the holding means above the base portion.

11. A Venetian blind hold-down bracket comprising: a single strip of sheet-metal adapted to be mounted edgewise of a window jamb, the strip including a base portion and an upwardly inclined body portion, and the top of the strip being formed as a hook.

12. A Venetian blind hold-down bracket comprising: a single strip of sheet-metal adapted to be mounted edgewise of a window jamb, the strip including a base portion and an upwardly inclined body portion, both of said portions being arched transversely of the strip, and the top of the strip being formed as a hook.

HANS K. LORENTZEN.