

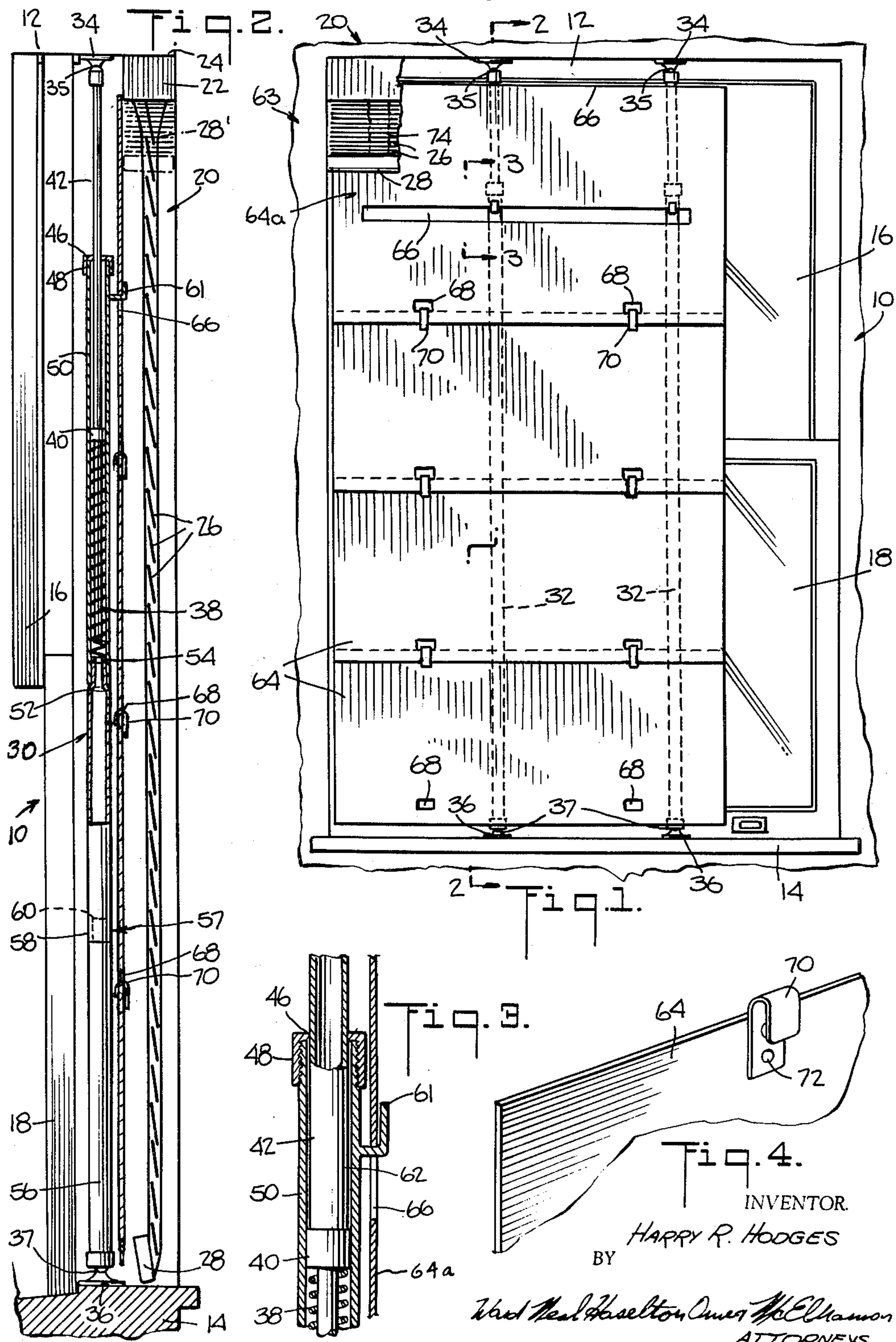
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BACKBOARD FOR CLEANING VENETIAN BLINDS

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## BACKBOARD FOR CLEANING VENETIAN BLINDS

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6 Claims. (Cl. 15—268)

This invention relates to apparatus for cleaning Venetian blinds and among other possible uses the apparatus may be utilized for washing, dusting or painting Venetian blinds for commercial, domestic or other installations wherever such blinds are employed.

Heretofore, Venetian blinds have been cleaned by first unfastening them from the window frame and manually carrying them to a rack or fixture which supports them while being washed or sometimes housewives may place them in their bath tubs for washing purposes. Such methods are awkward, inconvenient, time consuming and often result in damage to the Venetian blind due to chipping of the paint, for example. Another method employed for cleaning Venetian blinds comprises inserting brushes or other special tools between the individual slats. A difficulty with this method is that the slats have a tendency to buckle or cave-in when any appreciable amount of pressure is applied so that the slats may be bent, or the surfaces of the slats may not be thoroughly cleaned. Also, frequently the cleaning personnel may cut their hands or fingers on the sharp edges of the slats.

A feature of this invention is to provide an improved apparatus for cleaning Venetian blinds which supports the blinds in place without the necessity of dismantling and removing it to a second location, which protects the window sash from being soiled due to splashing of the cleaning liquid, which reduces the likelihood of damage to the Venetian blind, which won't mark or damage the window frame, and which is safe to operate.

Another feature of the invention is to provide an improved apparatus for cleaning Venetian blinds which is convenient for movement and storage, which is easy to set up and dismantle, requiring no particular skill, which increases the speed of cleaning Venetian blinds and reduces the labor costs and effort therefor, which is adjustable for various size Venetian blinds within a wide range, and which is adaptable for use with double or large windows.

Still another feature of the invention resides in the provision of an improved apparatus for cleaning Venetian blinds which holds the slats rigid during cleaning, washing or painting, which is independent of the thickness of the Venetian blind slats, and which is simple to operate, compact, convenient, practical and inexpensive.

Various other objects and advantages will be apparent from the following description of one embodiment of the invention, and the novel features will be particularly pointed out hereinafter in connection with the appended claims.

In the accompanying drawings:

FIG. 1 is a side elevation showing the cleaning apparatus in accordance with this invention in a "set-up" position;

FIG. 2 is an enlarged sectional view taken along line 2—2 of FIG. 1;

FIG. 3 is an enlarged sectional view taken along line 3—3 of FIG. 1; and

FIG. 4 is a fragmentary perspective view showing means for attaching the backboards.

Referring now to the drawings in greater detail, there is illustrated a window frame 10 having upper and lower members 12 and 14, respectively, and which supports a pair of sliding sashes 16 and 18, sash 16 being adapted to slide downwardly to its open position and sash 18 being adapted to slide upwardly to its open position.

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It will be understood that this invention is equally adaptable for use with casement type windows, if desired. A Venetian blind 20 is disposed inwardly of the window sashes 16 and 18, the upper portion 22 of which is removably connected to the upper member 12 of the window frame 10 in the usual manner as at 24. The Venetian blind 20 comprises a plurality of slats 26 the faces of which may be adjusted between horizontal and vertical positions as desired. The Venetian blind 20 is adapted to be pulled or folded upwardly in an accordion-like fashion in a manner well known whereby the lower member 28 thereof moves to a position substantially adjacent the upper member 22 as indicated in dotted lines at 28' in FIG. 2.

Interposed between the Venetian blind 20 and the sashes 16 and 18 is the illustrated embodiment of the apparatus 30 for cleaning Venetian blinds in accordance with this invention comprising a pair of spaced apart vertically disposed telescopic extension poles or uprights 32, the head portion 34 being adapted to frictionally engage the upper frame member 12 and the foot portion 36 being adapted to engage the lower member 14 of the frame 10. The poles may be manufactured from any suitable material such as aluminum, brass, steel or the like, as desired. The head and foot portions 34 and 36, respectively, are provided with rubber covering or the like in order to prevent marking or damage to the window frame when in their "set-up" positions. Also, ball joints 35 and 37 are included in the head and foot portions 34 and 36, respectively, for alignment purposes when the poles are positioned within the window frame 10. The poles 32, as illustrated, each include three sections, an upper section 42 fixedly connected to the head portion 34, a lower section 56 fixedly connected to the foot portion 36 and a middle section 50 which contains a compression spring 38 for resiliently urging the extremity of the pole outwardly in order to firmly contain the pole between the upper and lower members 12 and 14, respectively. As best seen in FIG. 2, the upper section 42 is of reduced diameter and is adapted to pass through opening 46 in the cap 48 of the middle section 50 and the middle portion thereof is provided with a flange 40 which engages one end of the compression spring 38 so that the upper section may reciprocate with respect to the middle section 50, the lower end of which extends downwardly internally of the compression spring 38 and terminates therebelow as at 52 for purposes of adding rigidity and stability to the structure. The middle section 50 is provided with an internal ring-like flange 54 which contains a centrally disposed opening therein for the passage of the lower end of the upper section 42 therethrough. The lower end of the compression spring 38 engages the flange 54 and is thereby held in a fixed position with respect to the window frame 10 while the upper section 42 is resiliently urged upwardly by the other end of the compression spring acting against the flange 40.

The lower section 56 of each of the telescopic extension poles 32 is removably connected to the middle section 50 as by means of connection 57 which includes a female portion 58 on the middle section 50 and a complimentary male portion 60 on the lower section 56. It will be appreciated that a plurality of sections may be interposed between the lower section 56 and the middle section 50 interconnected by means of connections similar to connection 57 so that one set of telescopic extension poles 32 may be employed with many different sizes of window frames.

As best seen in FIG. 3, an upwardly facing hook 61 projects towards the inside of the room from each of the poles 32 and is fixedly connected thereto as at 62. Re-



ferring back to FIG. 1, a backboard designated generally at 63 comprises a plurality of backboard members 64 which, for example, may be manufactured from plastic, pressed cardboard with a water repellant coating or the like. Also, the backboard members 64 may be longitudinally extendable in a conventional manner, if desired. The uppermost backboard member is designated by the numeral 64a and is provided with a horizontally extending elongated slot 66 which is adapted to receive the hooks 61 and thereby support the member when it is in its set-up position. It is to be noted that the hook 61 and the slot 66 are so positioned with respect to each other that the upper edge of the board 64a is substantially adjacent the upper slats 26 of the Venetian blind 20 when the board is in its "set-up" position. It will be appreciated that the slot 66 is substantially longer than the distance between the two poles 32 so that when cleaning double or relatively wide window sashes 16 and 18, the entire backboard assembly 63 may be moved horizontally without repositioning the poles 32 or disassembling the backboard assembly 63. Each backboard member 64 is provided with a pair of spaced apart openings 68 disposed towards the lower edge thereof and a corresponding pair of spaced apart hooks 70 fixedly connected towards the top edge thereof as by means of rivets or screws 72 (FIG. 4). As best seen in FIGS. 1 and 2, the backboards 64 are interconnected in a hanging manner by means of the hooks 70 being inserted in the openings 68 and the mating edges of adjacent backboards 64 being closely spaced one to the other in abutting relationship. It will be appreciated that a plurality of backboard members 64 may be employed corresponding to the linear length of the Venetian blind 20.

In order to set-up or place the apparatus for cleaning Venetian blinds in its operative position, the blind 20 is pulled upwardly until the lower member 28 is in its position as indicated at 28', FIG. 2. The poles or uprights 32 are positioned in spaced apart relationship one to the other within the window frame 10 by means of depressing the upper section 42 and aligning it in a vertical position between the upper and lower members 12 and 14, respectively, and between the window sashes 16 and 18 and the Venetian blind 20. The downward force is then released and the head portion 34 moves upwardly by means of the force of spring 38 and engages the upper member 12 of the window frame 10 and, thus, the poles 32 are firmly held in place, FIGS. 1 and 2. While the Venetian blind 20 is retained in its upper position, the top backboard member 64a is placed in position by means of inserting the hooks 62 within the slot 66. A backboard 64 is then placed in position by means of inserting the hooks 70 within the openings 68. In like manner additional backboard members are placed in position until as many members are positioned as are required to substantially equal the vertical length of the Venetian blind 20 when it is in its extended position. Thence, the blind 20 is lowered to its extended position as indicated by the solid lines in FIG. 2. The slats 26 are then rotated to their vertical positions and the surfaces thereof facing outwardly toward the room may be washed, cleaned, or painted, as desired. It is to be noted that the Venetian blind tape 74 may be covered or folded over in order to protect the outwardly exposed surface thereof from becoming soiled during the scrubbing, washing or painting operation. It will be appreciated that the slats 26 lie flat against the members 64 so that the cleaning personnel may wash them in a manner similar to washing an ordinary wall surface using a turkish cloth, for example. Particular attention is directed to the fact that the slats 26 will not bend or fall inwardly towards the window during the washing or dusting process, but will be supported firmly in place even if substantial pressure is applied thereagainst due to the rigidity of the backboard assembly 63. When the cleaning of one flat surface of the slats 26 has been completed, the slats are rotated sub-

stantially 180 degrees in the opposite direction to expose the other flat surface thereof and the cleaning operation is repeated. Thus, it is seen that both sides of the Venetian blind may be cleaned without the necessity of removing the Venetian blind from its normal operating position and carrying same to a remote location specifically for cleaning purposes.

The apparatus for cleaning Venetian blinds in accordance with this invention may be disassembled and stored in a small compact form. Upon completion of the washing operation, the Venetian blind is pulled to its upper position. Each backboard member 64 is readily disconnected from the next adjacent member beginning with the bottom member and progressing upwardly by means of removing the hooks 70 from the openings 68 and thereby reducing the members to a stackable convenient form. The poles 32 are removed from the window frame by means of manually depressing the upper section 42 downwardly against the force of the compression spring 38 and then moving the pole 32 outwardly away from the window frame. Then the pole is disassembled by separating the middle section 50 from the lower section 56 at the connection 57, the upper section 42 remaining connected to the middle section 50. If additional sections are employed between sections 50 and 56, they may also be separated if desired. Thus, the cleaning apparatus is ready for storage or for reassembly at another window location. It should be noted that for double windows or extra large windows several window cleaning apparatus in accordance with this invention may be employed simultaneously or one apparatus may be dismantled and set-up again at a second location adjacent the first location in the same window frame, and hence all portions of the Venetian blind may be cleaned.

It will be understood that various changes in the details, materials and arrangements of parts which have been herein described and illustrated in order to explain the nature of the invention, may be made by those skilled in the art within the principle and scope of the invention as expressed in the appended claims.

#### I claim:

1. A support for use in cleaning Venetian blinds, comprising a pair of spaced apart poles removably containable within a window frame adjacent said blinds, a plurality of backboard members, means mounting said members on said poles, said backboard members being positionable in vertically extending side by side relationship one with respect to the next adjacent one, the top edge of one board being adjacent the bottom edge of the next adjacent board, and spaced portions of each of the back surfaces of said backboard members being in engagement with each of said poles to form a substantially vertically extending supporting wall.

2. A support for use in cleaning Venetian blinds, comprising a pair of sectional telescopic uprights removably insertable within a window frame, intermediate said blinds and the window sash; a plurality of backboard members, means mounting said members on said uprights, said backboard members being positionable in vertically extending side by side relationship one with respect to the next adjacent one and the top edge of one board being adjacent the bottom edge of the next adjacent board, and spaced portions of each of the back surfaces of said backboard members being in engagement with said sectional telescopic uprights to form a substantially vertically extending supporting wall.

3. A support for use in cleaning Venetian blinds comprising a pair of spaced apart poles removably containable within a window frame adjacent said blinds, a plurality of backboard members, said backboard members being positionable in vertically extending side by side relationship one with respect to the next adjacent one, each of said members being provided with a pair of hooks disposed towards one horizontal side edge and a pair of openings disposed towards the other horizontal side



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edge thereof for interconnecting the top edge of one board to the bottom edge of the next adjacent board, and means mounting said members on said poles, and spaced portions of each of the back surfaces of said backboard members being in engagement with each of said poles to form a substantially vertically extending supporting wall.

4. A support for use in cleaning Venetian blinds comprising a pair of vertically disposed sectional telescopic spaced apart poles adapted to be firmly contained within a window frame adjacent said blinds, a hook fixedly connected towards the upper end of each of said poles, a plurality of backboard members, said backboard members being positionable in vertically extending side by side relationship one with respect to the next adjacent one and the top member being provided with an elongated slot for receiving said hooks, each of said members being provided with a pair of hooks disposed towards one horizontal side edge and a pair of mating openings disposed towards the other horizontal side edge thereof, for interconnecting the top edge of one board to the bottom edge of the next adjacent board, and spaced portions of each of the back surfaces of said backboard members being in engagement with each of said poles to form a substantially vertically extending supporting wall.

5. A support for use in cleaning Venetian blinds comprising a pair of vertically disposed spaced apart poles adapted to be firmly contained within a window frame adjacent said blinds, each of said poles including a middle section, a lower section having one end thereof removably connected to said middle section and the other end thereof being adapted to engage a lower member of said window frame, an upper section having one end thereof engaging said middle section and the other end thereof being adapted to engage an upper member of said window frame, a compression spring having one end thereof fixedly connected to said middle section and the other end thereof engaging said upper section for resiliently urging the upper section upwardly with respect to the middle section; a hook fixedly connected towards the upper end of each of said poles, a plurality of backboard members, said backboard members being positionable in vertically extending side by side relationship one with respect to the next adjacent one, the top member being provided with an elongated slot for receiving said hooks, each of said members being provided with a pair of hooks disposed towards one horizontal side edge and a pair of mating openings disposed towards the other horizontal

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side edge thereof, for interconnecting the top edge of one backboard member in abutting relationship with respect to the bottom edge of the next adjacent backboard member, and a medial portion of the back surface of each of said backboard members being frictionally engageable with each of said poles to form a substantially vertically extending, even-surfaced, supporting wall.

6. A support for use in cleaning Venetian blinds comprising a pair of vertically disposed spaced apart poles adapted to be firmly contained within a window frame adjacent said blinds, each of said poles including a head portion for engaging an upper member of said window frame and a foot portion for engaging a lower member of said window frame, said head and foot portions being provided with flexible joints respectively, a middle section having an internal longitudinal bore, at least one lower section removably interposed between said foot portion and said middle section, an upper section of reduced cross-sectional area, one end of which extending partially within said bore and the other end of which being connected to said head portion, a compression spring disposed within said bore and having one end thereof fixedly connected to said middle section and the other end thereof engaging said upper section for resiliently urging the upper section upwardly with respect to the middle section; a hook fixedly connected towards the upper end of each of said poles, a plurality of backboard members, said backboard members being positionable in vertically extending side by side relationship one with respect to the next adjacent one, a top member being provided with an elongated slot for receiving said hooks, each of said members being provided with a pair of hooks disposed towards one horizontal side edge and a pair of mating openings disposed towards the other horizontal side edge thereof for interconnecting the top edge of one member in abutting relationship with respect to the bottom edge of the next adjacent member, and a medial portion of the back surface of each of said backboard members being frictionally engageable with each of said poles to form a substantially vertically extending, even-surfaced, supporting wall.

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