United States Patent [19]

Creamer

[11] **3,764,019**

[45] **Oct. 9, 1973**

[54] **CLOTHES HANGER SUPPORT AND STORAGE APPARATUS**

[76] Inventors: Adelene B. Creamer,
137 Palmer Ave.,
Mountain View, Calif. 94040

[22] Filed: **Sept. 16, 1971**

[21] Appl. No.: **180,985**

Related U.S. Application Data

[62] Division of Ser. No. 848,893, Aug. 11, 1969, abandoned.

[52] **U.S. Cl.** ..... **211/49 R,** 211/43, 211/51, 221/279, 312/71

[51] **Int. Cl.** **A47j 51/08,** A47f 7/24

[58] **Field of Search** ..... 211/49, 49 D, 495, 211/43, 51, 40; 108/61; 221/279; 312/61, 190, 71

[56] **References Cited**

UNITED STATES PATENTS

173,453	2/1876	Dorrance	211/51
2,609,919	9/1952	Lee	211/49 X
2,805,792	9/1957	Schachinger	221/279 X
3,395,958	8/1968	Hospes	312/61

FOREIGN PATENTS OR APPLICATIONS

758,151	10/1956	Great Britain	211/51
728,443	4/1955	Great Britain	211/51

Primary Examiner—Roy D. Frazier
Assistant Examiner—Abraham Frankel
Attorney—Limbach, Limbach & Sutton

[57] **ABSTRACT**

A clothes hanger support and storage assembly for conventional type wire clothes hangers. An assembly is disclosed for a box-like container with a sliding partition, and springs connected between a side of the box and the partition to urge the latter toward the opposite side compacting the hangers and thus preventing tangling.

3 Claims, 3 Drawing Figures

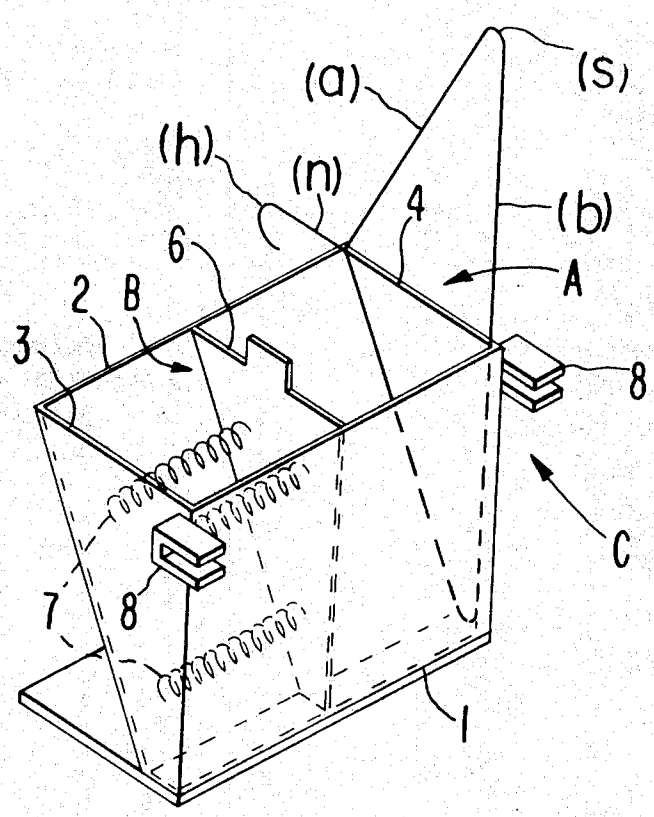


FIG. 1

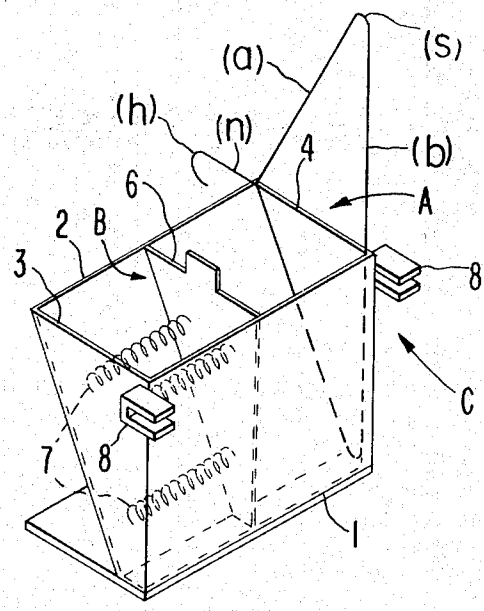


FIG. 2

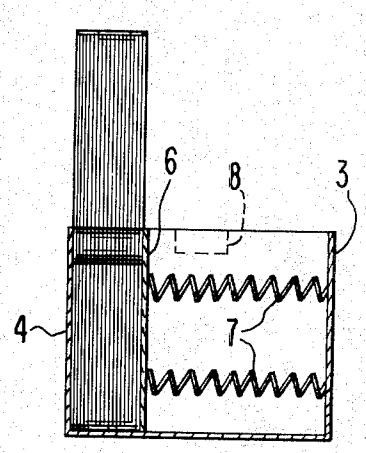
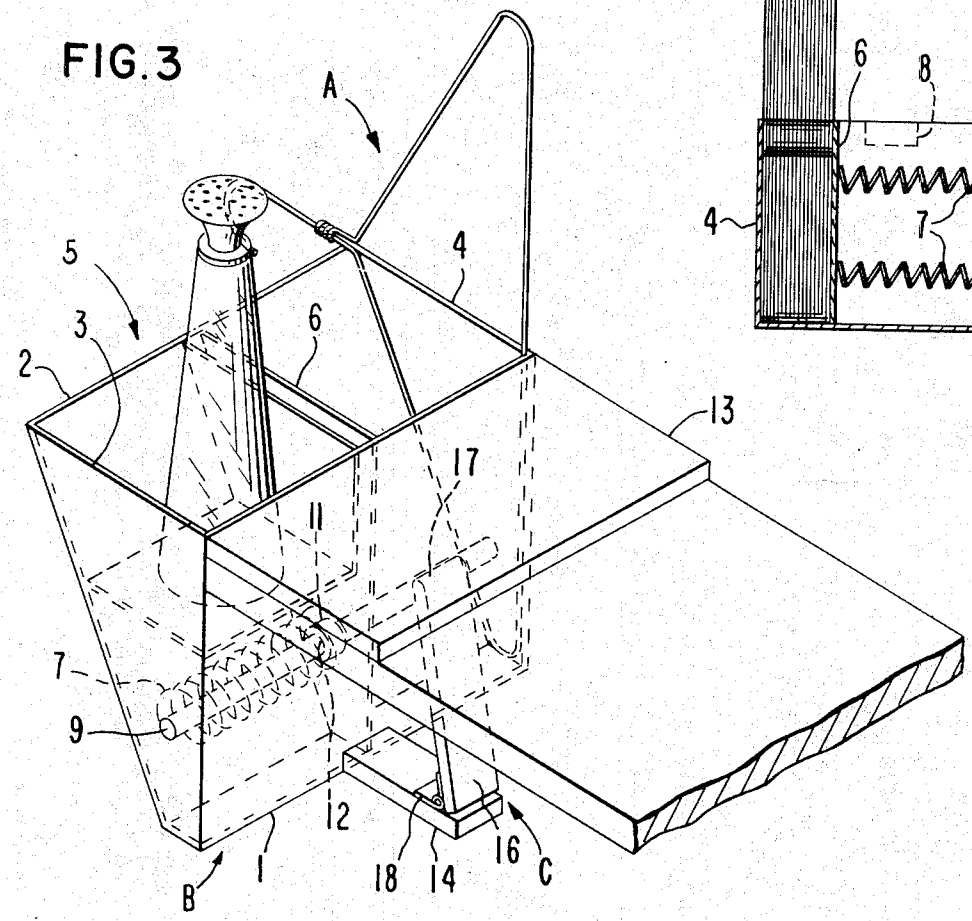


FIG. 3



CLOTHES HANGER SUPPORT AND STORAGE APPARATUS

This is a division of U.S. Pat. application Ser. No. 848,893, filed Aug. 11, 1969, now abandoned.

BACKGROUND OF INVENTION

The present invention relates to an apparatus for supporting and storing a number of conventional wire clothes hangers in a compacted, untangled state which allows removal from the apparatus one or more hangers at a time.

Tangled clothes hangers are a nuisance to everyone and especially to persons, such as the ironing housewife, who routinely must handle a great number of hangers. Any time hangers merely hang from a single rod they will rotate sufficiently to tangle. At present, no satisfactory apparatus has been devised to maintain a number of hangers in a state that will keep them from tangling. It is the object of this invention to provide such an apparatus.

SUMMARY OF INVENTION

Broadly stated, the present invention, to be described in greater detail below, is directed to a hanger storage and support assembly having a support panel and hanger retaining means connected thereto for contacting hangers in at least two locations and preventing rotation of hangers relative to the support panel. The retaining means can take the form of rod members or panels.

In accordance with one aspect of the invention employing panel retaining means, a box is provided with a back panel and a front panel inclined relative to one another at an angle substantially equal to that angle which exists between an arm and the base of a hanger. The box has two side panels and biasing means, typically in the form of a spring biased movable partition urged against a side panel. Hangers placed between the partition and the side panel are compacted in an untangled state. An advantage of this embodiment is that several hangers can be placed in the container at one time while still allowing separate removal therefrom.

These and other features and advantages of the present invention will become more apparent from a perusal of the following specification taken in connection with the accompanying drawings wherein:

FIG. 1 is a perspective view, partially in phantom, of a box embodiment of this novel clothes hanger support unit attached to an ironing board in an operable position;

FIG. 2 is a front elevated view of the structure shown in FIG. 1;

FIG. 3 is a perspective view of an apparatus similar to that shown in FIG. 1 but with different means of attachment;

DESCRIPTION OF PREFERRED EMBODIMENTS

Referring now to the drawings, the clothes hanger support unit of the FIG. 1 type has a container section A, a movable partition section B within container section A, and an attachment section C on the back of container section A.

The container section A has a rectangular back panel 1, a front panel 2 which is angularly disposed to back panel 1, and trapezoidally shaped side panels 3 and 4 which are positioned perpendicular to back panel 1 and front panel 2 and have their nonparallel edges aligned so that if extended, they would intersect in an angle substantially equal to the angle between an arm and the base of a hanger. The partition section B has a movable partition 6 and compressed springs 7. The attachment section C has an attachment clip 8.

The angular orientation of back panel 1 and front panel 2 secured to the nonparallel edges of side panels 3 and 4 corresponds substantially to the angle which exists between an arm and the base of a hanger. Compressed springs 7 in partition section B are positioned between side panel 3 and movable partition 6 and typically attached thereto in a perpendicular orientation. In their uncompressed state, the springs are slightly longer than the distance between sides 3 and 4.

Hangers are loaded into the unit by urging movable partition 6 in the direction of spring compression and placing the hangers into the expanding compartment. When the partition is released, the springs urge the partition against the hangers, compressing them to prevent tangling.

The normal position of a hanger in container section A is parallel to side panels 3 and 4 with a hanger side (*s*) down and the hanger head (*h*) and neck (*n*) extending over the edge of front panel 2. One arm (*a*) of the hanger extends along the front panel 2, and the base (*b*) of the hanger extends along the back panel 1 whereby the hanger is contacted at at least two points and typically along one entire panel.

The container section A, shown in FIGS. 1–3, can also be constructed so that the front panel is replaced with one or more rods mounted parallel to back panel 1 and in plane with the front edges of side panels 3 and 4.

Partition section B and/or springs 7 might be replaced by the use of rubber bands attached to side panel 4 which could be stretched over a hanger head (*h*) and side (*s*) to hold the hangers in a compressed state against side panel 4. Similarly, resilient material such as foam rubber or balloons can be used to press the hangers to one side of the container.

Attachment clip 8 is mounted at the ends of back panel 1 and is used to attach the unit to any horizontal shelf or, more appropriately to an ironing board.

Referring now to FIG. 3, the apparatus illustrated there is similar to the box embodiment of FIG. 1 by provision of back panel 1, front panel 2, side panels 3 and 4, movable partition 6, and spring 7. This embodiment differs from the apparatus of FIG. 1 by provision of a rod 9 attached to side panel 3; passing through a spring 7, a tube 11, and an aperture 12 in the partition; and terminating short of side panel 4.

Tube 11 is anchored on the spring side of movable partition 6 around aperture 12. The length of tube 11 is greater than the distance between the unattached end of rod 9 and side panel 4. The diameter of spring 7 is adequate to encompass tube 11 so that the spring force acts directly upon side 3 and movable partition 6. The purpose of tube 11 is to keep partition 6 on rod 9 when the partition has been pushed beyond the unattached end of the rod.

The movable partition 6 can not be pushed flush against side 3 due to the space taken up by the compressed spring 7 and tube 12. The volume above the spring 7 when fully compressed therefore is dead space. A sprinkler bottle compartment 5 is shown in this area to take advantage of this dead space.

FIG. 3 also shows an attachment section which is different from that of FIG. 1. It comprises a top member 13, a bottom member 14, an arm 16, a rubber strip 17, and a hinge 18 biased open.

Top member 13 and bottom member 14 are perpendicularly mounted in the center of back panel 1 in planes horizontal to the operable position of the unit, and are separated a maximum distance. The length of bottom member 14 is less than top member 13. Arm 16 is pivotally attached to the end of bottom member 14 with spring biased hinge 18. The length of arm 16 is greater than the distance between top member 13 and bottom member 14 so that the swing of the arm is restricted on one side by back panel 1 and on the other side by top member 13. Rubber strip 17 is mounted on the unattached end of arm 16.

The attachment section is operated by pushing its top member 13 over the end of an ironing board or shelf. Arm 16 will be bent away from its normal position to allow the ironing board to be inserted, and the spring biased hinge 18 will retain arm 16 pressed against the underside of the ironing board. The weight of the container will tend to pivot the container about the edge of the ironing board, but this tendency will be prevented by the pressure of arm 16 against the ironing board. The unit will not be able to slide straight off unless arm 16 is swung away from the underside of the ironing board; this, then, is the procedure for removing the unit. Once removed, spring biased hinge 18 will urge arm 16 against top member 13 and the arm can then be used as a carrying handle for the unit.

What is claimed is:

1. A clothes hanger support and storage assembly for supporting conventional clothes hangers having hanger portions including a head and a neck portion, first and second arm portions connected at one end thereof to said head and neck portion and at the ends of said first and second arm portions remote from said head and neck portion connected together by a base portion comprising

a pair of panel members substantially trapezoidal in the shape of one-half of the normal projection of a clothes hanger including one arm and half of the base portion of the hanger;

means for resiliently holding said panels together and allowing said panels to be movable away from one another for insertion of hangers therebetween; and

means extending between said panel members for confining hangers between said panel members equal to the angle between an arm and the base portion of the hanger and having front and back planes inclined relative to each other at an angle substantially with substantially half of each hanger projecting outwardly from between said panel members.

2. A clothes hanger support and storage assembly in accordance with claim 1 wherein said confining means includes a front panel and a back panel inclined relative to each other at an angle substantially equal to the angle between an arm and the base portion of the hanger.

3. A clothes hanger support and storage assembly in accordance with claim 2 wherein one of said panel members is fixedly secured to said front and back panels and the other of said panel members is movable toward and away from said one panel member between said front and back panels.

* * * * *