June 5, 1962 D. B. ROMAN 3,037,732

STABILIZING OF PEG BOARD HANGERS

Filed June 20, 1960

FIG-1

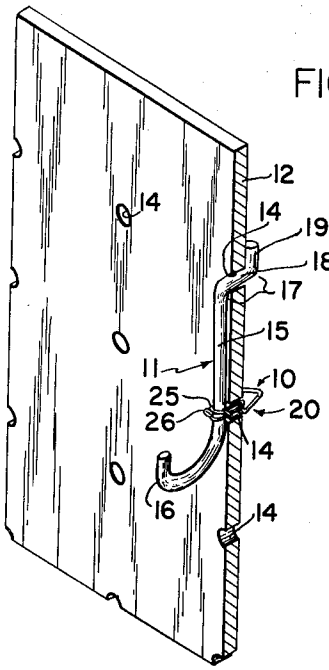


FIG-2

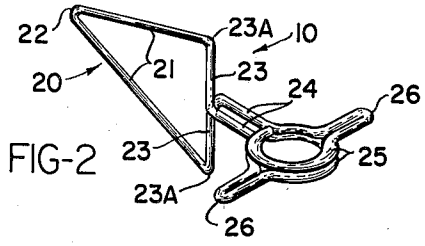


FIG-3

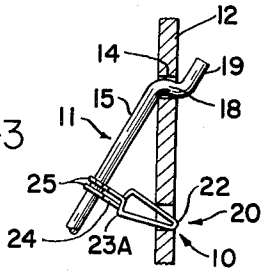


FIG-6

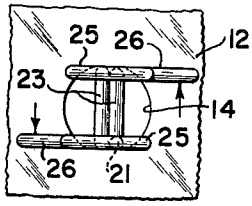


FIG-4

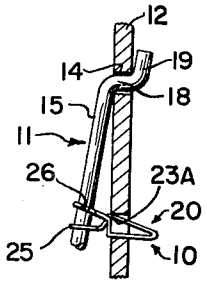


FIG-7

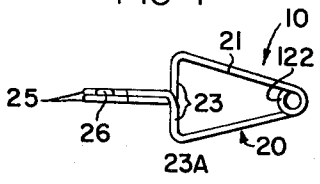


FIG-5

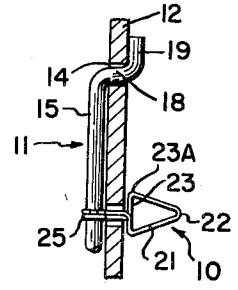
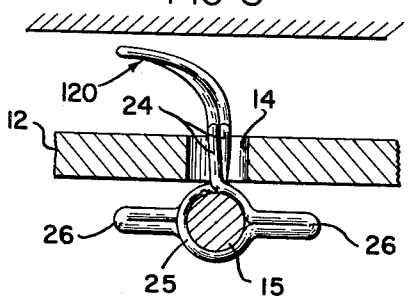


FIG-8



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STABILIZING OF PEG BOARD HANGERS

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This invention relates to the stabilizing of peg board hangers on the peg board.

Article supporting racks are commonly provided by the use of relatively rigid sheets of hard board or the like perforated in a regular grid-like pattern so that supporting hangers in the form of hooks or brackets may be secured in various locations on the board by engaging an anchoring element of the hanger with a selected perforation in the board. Hangers for such use with peg board take many different forms and shapes that are determined primarily by the nature of the articles that are to be supported thereby. In a broad sense all or most of such hangers embody a vertically extended body with an article-support extending forwardly from the lower end of the body or from some intermediate point spaced downwardly from the upper end of the body, and at the upper end of the body anchoring means in the form of an anchoring hook is provided which may be inserted rearwardly through a selected perforation in the board in a known and well understood manner.

When thus mounted on a peg board, the body extends downwardly with respect to its interlocked or anchored upper end, and because the lower portions of the body bear against the forward face of the board, the projecting support may serve to carry the weight of an article placed on such support.

Hangers of the aforesaid character are usually made from a single length of wire having a diameter just slightly less than the diameter of the perforations in the peg board, and the anchoring means is formed by bending of the wire at one end, the support is formed by bending the wire to a hook-like or other suitable form at the other end of the wire, while an intermediate portion of the wire is left in straight form to provide the body of the hanger. Conventionally this intermediate or body portion of the hanger has a length somewhat greater than the vertical spacing of the perforations.

In the use of hangers made from a single piece of wire as above described it has been found that when an article is put in place on or is removed from the hanger, the lower end of the hanger often shifts laterally across the forward face of the board, or away from the board. Such forward displacement of the lower portion of the hanger often disengages the hanger from the peg board. Such undesired displacement of the hangers has been considered objectionable to such an extent that various forms of stabilizers have been provided for connecting the lower portion of the body with the perforation that is located immediately below the perforation in which the upper end of the hanger is secured. In some instances the stabilizing means has taken the form of projecting lugs integral with the body of the hangers and adapted to extend into the lower perforation with a snug friction fit, while in other instances separately formed generally U-shaped fine wire clips have been provided to embrace the body of the hanger with the ends of the clips projected through the lower opening in the board and having a spring-like lateral engagement with the sides and rear edges of the perforation. Both types of conventional stabilizers have been considered to be objectionable in that when forward forces are applied to the support or hook, the stabilizer is disengaged from the lower perforation, and the user must thereupon re-engage the stabilizer with the board.

The present invention is concerned with stabilization

of peg board hangers through the use of separately formed stabilizing means, and the primary object of the invention is to provide such a separately formed stabilizer by means of which the lower body portion of the hanger may be positively held against forward displacement with respect to the board.

Objects related to the foregoing are to provide such a stabilizer that may be readily and easily put in place in or removed from its operative relation; to provide such a stabilizer that may be made economically by conventional wire forming equipment; and to provide such a device that is adapted for use with most of the conventional peg board hangers.

Other and further objects of the present invention will be apparent from the following description and claims, and are illustrated in the accompanying drawings, which, by way of illustration, show a preferred embodiment of the present invention and the principles thereof, and what is now considered to be the best mode in which to apply these principles. Other embodiments of the invention embodying the same or equivalent principles may be used and structural changes may be made as desired by those skilled in the art without departing from the invention.

In the drawings:

FIG. 1 is a fragmentary perspective view of a peg board and hanger with a stabilizer of the present invention associated therewith;

FIG. 2 is an enlarged perspective view of the stabilizer;

FIGS. 3 to 5 are vertical sectional views illustrating successive positions assumed by the stabilizer in the mounting of a hanger on a peg board;

FIG. 6 is a schematic view showing the manner in which unlocking or releasing forces are applied to the stabilizer;

FIG. 7 is a fragmentary view showing an alternative form of the invention; and

FIG. 8 is a view showing another alternative structure.

For purposes of disclosure the invention is herein illustrated as embodied in a stabilizer **10**, FIG. 2, that is adapted for operative association with a conventional hanger **11** in stabilizing such hanger **11** in its position of use on a peg board **12**. Both the peg board **12** and the hanger **11** are of conventional form and construction, and cooperate basically in a conventional manner.

The peg board **12** is made from a relatively rigid sheet of material such as hard board, and is provided with a grid-like pattern of perforations **14** wherein the perforations are arranged in horizontal and vertical lines spaced equally from each other. The board **12** may be of the usual ⅛ inch thickness with the perforations **14** being about ⅛ inch in diameter and at a spacing of one inch.

The hanger **11** is shown as being formed from a single length of wire, to provide an elongated straight body **15** with a projecting support at its lower end in the form of a hook **16** and with anchoring means **17** at its upper end adapted to be engaged in an interlocking relation with any selected one of the perforations **14** of the board **12**. Such anchoring means **17** are of conventional form and comprise a rearwardly extended shank **18** perpendicular to the body **15** and in the plane of the support or hook **16**, and the shank **18** extends rearwardly for a distance slightly greater than the thickness of the board **12** and has a short upwardly projecting arm **17** at its rear end. Such a conventional hanger **11** is put in a selected position on a peg board **12** by inserting the arm **19** endwise and in a rearward direction through a selected one of the perforations **14**, and the body **15** of the hanger is then swung downwardly through the succession of positions shown in FIGS. 3, 4, and 5 to the final load supporting relation of FIGS. 1 and 5 wherein the upper end of the hanger **11** is interlocked with the board **12**

by the anchoring means **17** and the body **15** of the hanger bears against the forward face of the board.

The stabilizer **10** of the present invention is adapted for association with the body **15** of such a conventional hanger **11** and for cooperation with the peg board **12** to hold the body **15** of the hanger against lateral swinging movement about the axis of the shank **18** and also against forward displacement of the lower portion of the hanger **11** away from the forward face of the board **12**.

The stabilizer **10** of this invention is made so that it may be readily and easily associated with or put in its operative position on the body **15** of a conventional hanger, such as the hanger **11**, and when so positioned, may be inserted rearwardly into the lower one of two perforations **14** while the hanger **11** is being anchored in the upper one of the two perforations, and under this invention the stabilizer **10** interlocks positively with the rear face of the board **12** to prevent undesired forward displacement of the lower end of the hanger, and yet this positive interlock may be released quickly and easily when the hanger **11** is to be removed from the board **12**.

The stabilizer **10** is formed from small diameter resilient wire to provide a rearwardly pointed locking head **20** defined by sections **21** of the wire that extend forwardly from a point or bend **22** so as to diverge at an angle of about 25° or 35° and are about 7/16 inch long. At their remote or forward ends the sections **21** are bent at **23A** inwardly or toward each other in a common plane, as will be evident in FIG. 2 so as to provide locking shoulders **23** facing in a forward direction.

At the adjacent ends of those portions of the wire that form the locking shoulders **23** the wire is bent forwardly to provide parallel shanks **24** having a length equal to the thickness of the board **12**, and at the forward ends of the respective shanks **24**, the wire is formed into mounting rings **25** that are adapted to encircle the body **15** of the hanger **11**. The rings **25** are disposed in planes that are perpendicular to the plane defined by the portions **21** of the head **20**, and the rings **25** have arms **26** formed respectively thereon so as to project in opposite directions for purposes that will appear presently.

The bend **22** in the locking head **20** is formed so that the resilience of the wire tends to widen the angle between the portions **21** of the head **20**, and the rings **25** that are associated with the respective portions **21** are arranged in a reversed relation as will be evident in FIG. 2 so that the separating movement of the portions **21** is limited by engagement of the two rings **25** with one another. If added resilience is desired the bend **22** may be formed as a loop **122**, FIG. 7, to give a torsion spring action.

The proportioning of the shoulders **23** with respect to the diameter of the perforations **14** is such that when the locking head **20** is forced rearwardly through a perforation **14**, the portions **21** will be bent toward a smaller angle till the bends **23A** are close enough together to pass through the perforation. When the bends **23A** pass rearwardly out of the perforation **14**, the resilience of the bend **22** and the portions **21** acts to shift the locking shoulders **23** radially outwardly with respect to the axis of the perforation **14** so that such locking shoulders **23** engage the rear surface of the board **12** with a positive locking action. The body **15** of the hanger **11** is therefore held positively against undesired forward displacement.

In FIGS. 3 to 5 the action of the stabilizer **10** in a hanger-mounting operation is illustrated, and it will be observed in FIG. 4 that when the bends **23A** of the locking head **20** are passing through the perforation **14** the rings **25** are separated from each other. The characteristic which causes the rings **25** to be separated when the locking head **20** is accessible on the forward face of the peg board **12** and by manual separation of the rings **25**, the stabilizer **10** may readily be released from its positive locking relationship. The oppositely projecting arms **26** facilitate such unlocking or release of the stabilizer, for as will be evident in FIGS. 2 and 6 of the drawings, separating forces may be applied by the thumb and forefinger to the respective arms **26** to release or withdraw the locking shoulders **23** for forward removal of the stabilizer **10** and the hanger **11**. Where the space behind the peg board **12** is shallow, the anchoring head **20** may be bent laterally as at **120** in FIG. 8.

From the foregoing description it will be apparent that the present invention provides a new and improved stabilizer for use with conventional peg board hangers, and through the use of the stabilizer of the present invention, the lower ends of such hangers may be held against undesired shifting movement parallel to the plane of the peg board or perpendicular to the plane of the peg board.

It will also be apparent that the present invention provides a stabilizer that is positive in its retaining or stabilizing action, and yet may be readily and easily released from the front of the peg board without the use of special tools. It will also be evident that the stabilizer of the present invention may be economically made by conventional wire forming equipment, and further that this stabilizer may be advantageously employed with most of the conventional peg board hangers.

Thus while a preferred embodiment of the invention has been illustrated herein, it is to be understood that changes and variations may be made by those skilled in the art without departing from the spirit and scope of the appending claims.

I claim:

1. In a stabilizer for use with peg board hangers of the type having a vertically elongated body with a rearwardly extending anchoring structure at the upper end of the body and a forwardly projecting article support at another location on the body, said stabilizer comprising a length of small diameter resilient wire having a pair of loops at the opposite ends of the wire adapted to snugly embrace the body of such a hanger, and the intermediate portion of the wire being formed to provide shanks adapted to extend rearwardly from the respective loops through a perforation in a peg board, said shanks at their rear ends being bent in opposite directions at right angles to the loops to provide locking shoulders for engagement with the rear face of a peg board, and the wire at the ends of the locking shoulders being formed to provide rearwardly converging portions joined integrally in a bend that provides an entry point for inserting the rear ends of the stabilizer into a perforation in a peg board.

2. A stabilizer according to claim 1 wherein the respective loops have arms projecting therefrom in opposite directions.

3. A positively locking stabilizer of the character described, adapted for use with a peg board hanger and comprising length of resilient wire formed near its midpoint to provide rearwardly pointed anchoring head with forwardly diverging sides defined by sloping portions of the wire and terminating in inwardly bent portions of the wire extending parallel to each other and defining forwardly facing locking shoulders, said inwardly bent portions then being bent forwardly to provide parallel shanks, and said shanks having aligned loops at their forward ends adapted to snugly embrace the body of a peg board hanger for use in stabilizing the hanger and the respective loops having arms formed thereon and extending in opposite directions therefrom.

4. A positively locking stabilizer of the character described comprising length of resilient wire formed near its midpoint to provide rearwardly pointed anchoring head with forwardly diverging sides defined by sloping portions of the wire and terminating in inwardly bent portions of the wire extending parallel to each other and defining rearwardly facing locking shoulders, said inwardly bent portions being then bent forwardly to provide parallel shanks, said shanks having aligned loops at their

forward ends adapted to slidably and snugly embrace the body of a peg board hanger for use in stabilizing the hanger.

5. In a stabilizer for use with peg board hangers of the type having a vertically elongated body with a rearwardly extending anchoring structure at the upper end of the body and a forwardly projecting article support at another location on the body, said stabilizer comprising a length of small diameter resilient wire formed to provide a pair of loops at the opposite ends of the wire and adapted to snugly embrace the body of such a hanger, and the intermediate portion of the wire being formed to provide shanks adapted to extend rearwardly from the respective loops through a perforation in a peg board, and shanks at their rear ends being bent in opposite directions at right angles to the loops to provide locking shoulders, each of which extends past the shank on which the other locking shoulder is formed, and the wire at the outer ends of the locking shoulders being formed to provide rearwardly converging portions joined integrally in

a bend that provides an entry point for inserting the rear end of the stabilizer into a perforation in a peg board, said converging portions and said bend being tensioned to normally maintain said loops in engagement with each other.

6. A stabilizer according to claim 4 in which the sloping portions defining the sides of the anchoring head are joined by an integral loop constituting a torsion spring means.

7. A stabilizer according to claim 4 wherein the anchoring head is curved laterally to reduce the effective rearward extension of the head when the stabilizer is in its position of use.

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