

[54] APERTURE BOARD HANGER BRACKET

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[58] Field of Search: 211/60 T, 120; 248/DIG. 3, 248/68, 112, 113

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[57] ABSTRACT

A aperture board hanger for bracket including a continuous bent wire attachment having a loop portion which includes a plurality of first open loops, all of which open in the direction facing the pegboard. The loop portion also includes a plurality of second open loops which alternate with the first loops and open in the direction facing away from the aperture board. The loop portion terminates laterally in a pair of spaced spring arms which bend upwardly from the plane of the first and second loops and insert into respective spaced holes in the aperture board to detachably mount the hanger bracket on the aperture board. When the bracket is mounted on the aperture board, the terminal portions of the spring arms lock into other holes in the aperture board in a manner to secure the loop portion upon the front for implement hanging or removing purposes.

2 Claims, 3 Drawing Figures

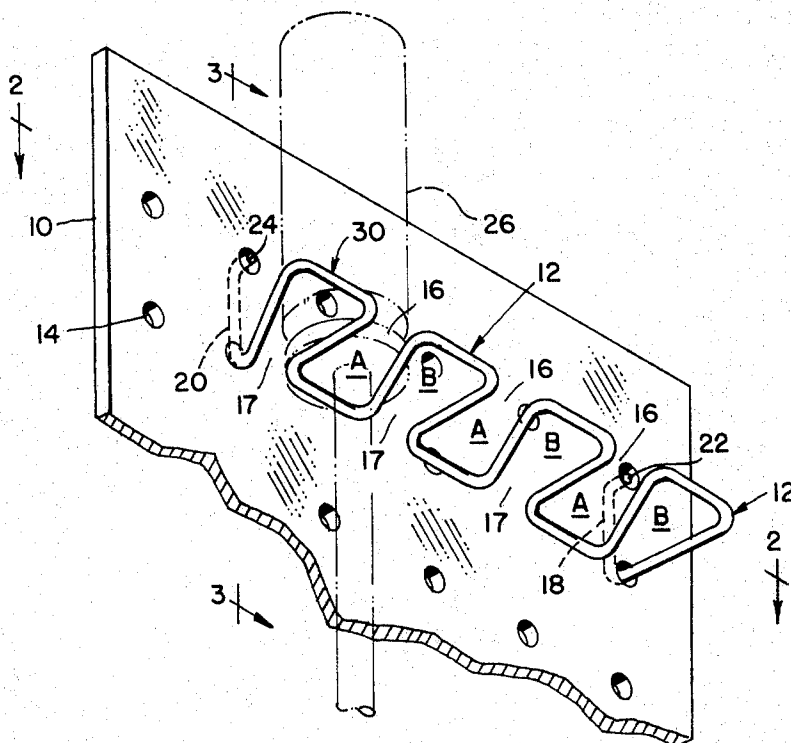


FIG. 2

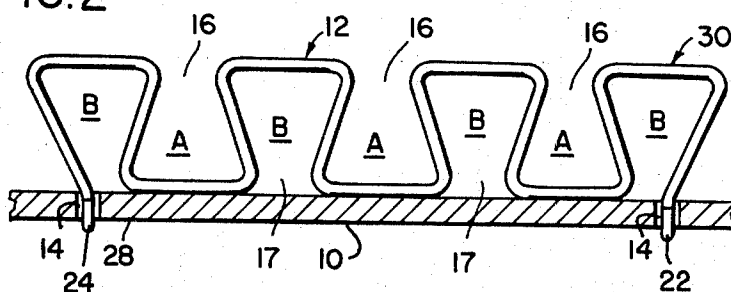


FIG. 3

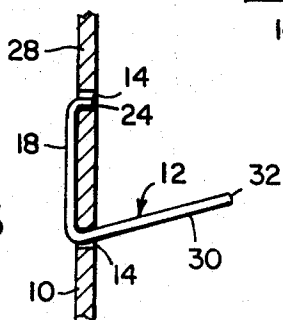
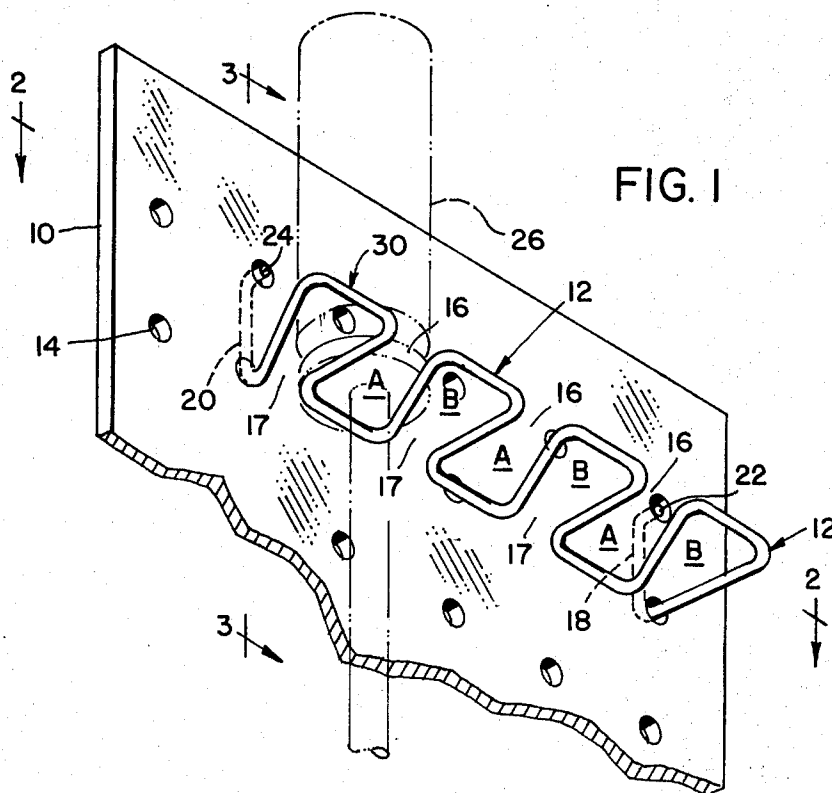


FIG. 1



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APERTURE BOARD HANGER BRACKET

BACKGROUND OF THE INVENTION

The present invention relates to the general field of hangers, and more particularly, is directed to a novel aperture board hanger bracket incorporating spring arm anchoring means.

Definition: the term "pegboard" as employed in this application is used to designate a thin strong board having spaced horizontal and vertical rows of holes suitable to receive hangers therein. The pegboard of the present invention may generically be termed "an aperture board".

Aperture boards incorporating pluralities of horizontal and vertical rows of holes for use with metallic hangers of various configurations are known and have long been used for hanging articles of various configurations, such as tools, household implements, and the like. But as far as I am aware, the number of items which can be mounted on a conventional aperture board is limited as to type and physical characteristics, by the design of the metallic hanger employed for the purpose. For example, a hanger which is adaptable to receive a screwdriver, cannot conveniently support a hammer or other hand tool without substantial alteration. For further background information, reference may be had to U.S. Pat. No. 2,400,807, U.S. Pat. No. 2,461,936 and U.S. Pat. No. 2,963,164.

SUMMARY OF THE INVENTION

The present invention relates generally to a continuous length of wire which is bent to form a plurality of first open loops having openings which face the aperture board, and a plurality of second open loop which alternate with the first loops and have openings facing away from the board. The wire terminates laterally in upwardly bent spring arms which insert into holes in the aperture board to securely mount the hanger to the board.

The plurality of first and second open loops form a universally adaptable bracket designed to support a much broader range of types of tools and other articles than prior art hangers. Each bracket of the present configuration can conveniently hold multiple items of widely dissimilar types. As a result of this universality, the user does not have to know in advance of his purchase exactly what items he intends to mount.

The present design includes spring arms which mount through the usual holes in a aperture board and secure against the rear in a manner to become more firmly anchored in position, as articles are hung upon the loop portion. The weight of the suspended items increases the pressure on the spring arms so that the more weight suspended, the more rigidly the bracket is locked on the aperture board. The spring arms include spring locking means which assure that the bracket will stay securely mounted upon the aperture board even when empty. This construction additionally overcomes any tendency for the bracket to loosen as items are attached or removed.

It is therefore an object of the present invention to provide an improved aperture board hanger bracket of the type set forth.

It is another object of the present invention to provide a aperture board hanger bracket which is formed from a single length of wire to form a loop portion, the

terminal portions of which are bent to form spring arms for bracket-securing purposes.

It is another object of the present invention to provide a aperture board hanger bracket incorporating novel securing means, said securing means being designed to more rigidly support the bracket as more weight is supported.

Still another object of this invention is to provide a aperture board hanger bracket having a length of wire bent to a configuration adaptable to hang multiple items of widely dissimilar types.

It is another object of the present invention to provide a aperture board hanger bracket formed of a single length of wire which is bent to provide a plurality of generally horizontally disposed open loops, each alternating loop having the open portion thereof facing the aperture board and the intermediate loops having their open portions facing away from the aperture board.

It is another object of this invention to provide a aperture board hanger bracket which is extremely versatile in application, which is easy to use, and which is durable and inexpensive in manufacture.

Other objects and a fuller understanding of the invention will be had by referring to the following description and claims of a preferred embodiment thereof, taken in conjunction with the accompanying drawings, wherein like reference characters refer to similar parts throughout the several views, and in which:

FIG. 1 is a perspective view of the invention as applied to a section of pegboard.

FIG. 2 is a cross sectional view taken along line 2—2 of FIG. 1, looking in the direction of the arrows.

FIG. 3 is a cross sectional view taken along line 3—3 of FIG. 1, looking in the direction of the arrows.

DESCRIPTION OF THE PREFERRED EMBODIMENT OF THE INVENTION

Although specific terms are used in the following description for the sake of clarity, these terms are intended to refer only to the particular structure of my invention selected for illustration in the drawings, and are not intended to define or limit the scope of the invention.

Referring now to the drawings, in FIG. 1 there is shown a fragment of a conventional aperture board 10 having a hanger bracket 12 affixed thereto. The aperture board 10 is conventional in that it has a plurality of through-holes 14, which are arranged in linear horizontal and vertical rows, or otherwise. Conventionally, the holes 14 are adapted to receive bent wire hooks or other hanging devices from which various items can be suspended. Since the aperture board, per se, is conventional, it is thought sufficient to point out that the number, size, and distribution of the holes 14, can be varied at will for use with the hanger bracket 12 of the present invention.

The hanger bracket 12 preferably, is fabricated of wire or of any other material which can be conveniently bent to a given shape and which has sufficient strength and other qualities to retain the fixed shape. As shown in the drawings, the hanger bracket 12 is fabricated from a single length of material and includes a plurality of first spaced loops A, and a plurality of second spaced loops B which alternate with the loops

A. It will be observed from FIGS. 1 and 2 that all of the loops A and B are "open" at one portion thereof, that the openings 16 lead into the loops A, and that the openings 17 lead into the loops B. As best observed in FIG. 3, the loops A and B all form in the same plane 32 which may be considered as substantially horizontal. Actually, the plane 32 preferably forms at something slightly less than 90° from the vertical, for optimum tool-hanging purposes. It is contemplated that as heavy tools or other articles are applied to the hanger bracket 12, the weight of the tools will pull downwardly upon the loops A and B, causing the loop portion 30 to bend about the spring arms 18, 20, as hereinafter more fully set forth, to approach a true horizontal plane.

The loop portion 30 of the hanger bracket 12 terminates laterally in a pair of spaced spring arms 18, 20, which vertically bend at the rear of the aperture board 10 for hanger-securing purposes. Each spring arm 18, 20, respectively, upwardly terminates in a horizontally bent finger 22, 24, which space from the plane 32 of the loop portion 30 a distance equal to the vertical distance between the horizontal rows of pegboard holes 14. Each projecting finger 22, 24, positions within a hole 14 for bracket-securing purposes and forwardly extends a distance substantially equal to the width of the pegboard. The length of each spring arm 18, 20, is precisely fabricated so that each respective finger 22, 24, engages the bottom of its associated hole 14, and the base of each spring arm 18, 20, engages to top of its associated hole 14 to secure the hanger bracket 12 to the pegboard 10 under spring tension. This construction restrains the brackets 12 in position with no tendency to loosen or pull out, as items such as tools 26 are attached to, or removed from, the loops A or B. The engagement of the fingers 22, 24, upon the periphery of the associated holes 14 serves as a spring lock to maintain the hanger-bracket 12 in position during all periods of use. See FIG. 3.

As best observed in FIGS. 1 and 3, the placing of a tool 26 or other instruments within the loops A or B places weight upon the hanger-bracket 12. The weight acts forwardly of the front of the pegboard 10 and causes the loop portion 30 to tend to pivot downwardly about the bottom of the spring arms 18, 20. The spring arms 18, 20, counteract this pivotal tendency by pressing against the rear 28, of the pegboard 10. Of course, as the spring arms 18, 20, cannot pass the plane of the rear of the pegboard, the weight of the tools 26 will be safely carried by the bracket 12. It will be noted that the weight of the suspended items 26 increases the pressure of the spring arms 18, 20, against the rear 28 of the pegboard 10, and more tightly urges the fingers 22, 24, within the respective holes 14. In this manner, as more weight is suspended, the more rigidly the hanger bracket 12 locks upon the aperture board. Excess weight may be compensated by bending at the connections of the loop portion 30 and the spring arms 18, 20, thereby to pivot the loop portion 30 to approach a true horizontal plane.

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It should be noted however, that increased weight will have no tendency to loosen the hanger bracket. Rather, should excessive weight be applied, the bracket 12 will fracture at the connection of the spring arms 18, 20, to the loop portion 30, before loosening from the aperture board 10.

What I claim is:

1. In a aperture board hanger bracket suitable for securing within the holes of a aperture board, said aperture board being provided with a plurality of spaced horizontal and vertical rows of holes and wherein the holes are vertically and horizontally spaced from each other the combination of

A. loop portion means formed in the bracket, and terminating laterally in transverse ends,

1. said loop portion means including a plurality of first loops and a plurality of second loops,
2. said first loops alternating with said second loops,
3. said first and second loops being disposed in a plane, said plane inclining angularly upwardly from the horizontal,
4. a part of each said second loop contacting the aperture board,
5. the said first loops and the said second loops being formed with openings into each of the said loops,
 - a. the openings to the said first loops open in a direction facing towards the said aperture board and the openings to the said second loops open in a direction facing away from the aperture board; and

B. spring arms integrally connecting to the said loop portion means at the transverse ends thereof,

1. said spring arms being bent upwardly at substantially right angles to the plane drawn through the loop portion means and forming bends therewith,
2. said spring arms inserting through a pair of horizontally aligned openings in the aperture board and being positioned rearwardly of the aperture board,
3. said spring arms terminating upwardly in bent fingers, said fingers being spaced from the said bends a distance equal to the distance between vertically spaced openings in the aperture board,
4. said fingers inserting forwardly through a aperture board hole in the direction of the loop portion, whereby the imposition of weight upon the loop portion acts to pivot the loop portion about its connection to the said spring arms and to force the spring arms into tighter contact with the rear of the aperture board.
2. The invention of claim 1 wherein the fingers touch the lower portion of the said upper hole and the bends touch the upper portion of the lower hole to lock the hanger bracket onto the aperture board.

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