

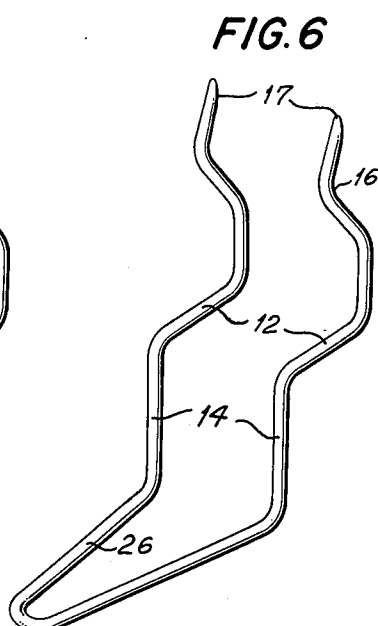
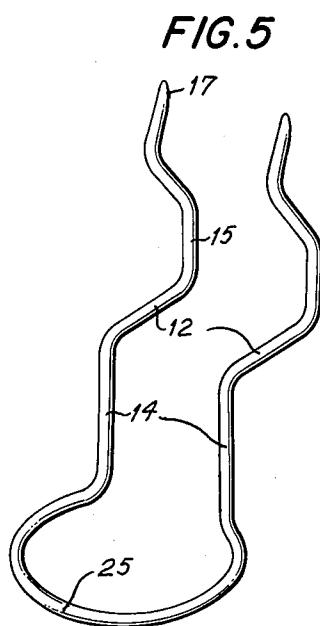
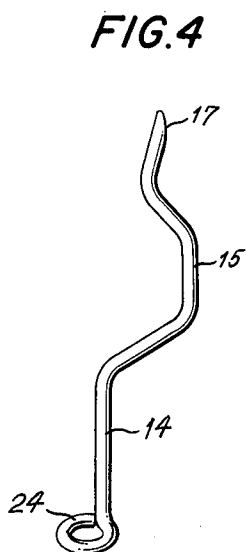
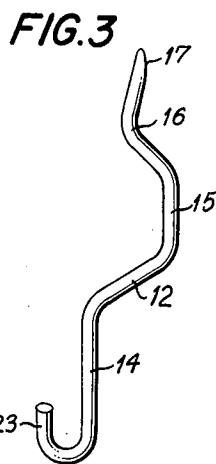
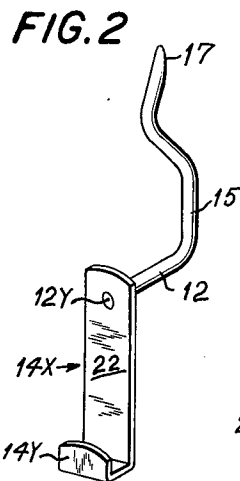
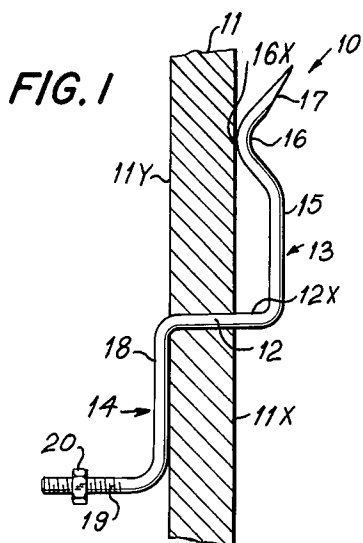
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D. J. SMITH

3,219,302

WALL HANGER

Filed June 16, 1964



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3,219,302

WALL HANGER

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1 Claim. (Cl. 248-220)

This invention relates to wall hangers for hanging pictures, mirrors and the like. More particularly it relates to hangers having a specific pointed prong adapted to penetrate wallboard of relatively soft composition.

The attachment of pictures to wallboard of the sheet rock type is difficult because such dry walls of sheet rock consist of a center layer of gypsum and outer layers of suitably strong paper.

Various devices have been invented for securing a base element to such sheetrock, said base element having means for receiving screws or for receiving threaded hangers and the like.

All these devices are relatively expensive and often requires the prior drilling of a hole before the insertion of the device followed by subsequent manipulation of the device to obtain a firm engagement with the wall.

It is an object of this invention to provide a hanger preferably of one-piece construction.

It is a further object to provide a self-locking hanger.

It is another object to provide a resilient rod or wire hanger of a specific configuration so as to engage the wall at the opposite sides thereof.

It is another object to provide a wall hanger having pointed means for piercing a dry wall by hand pressure alone.

It is another object to provide a hanger of simple construction and economical manufacture.

These and other objects of this invention will become apparent upon reading the following descriptive disclosure taken in connection with the accompanying drawing in which;

FIG. 1 is a side section view of a dry wall showing the manner of disposing a hanger having a single pierce prong so as to seizingly engage the opposed surfaces of a wall in a firm relationship.

FIG. 2 is a perspective view of a modified hanger having a flat sheet metal hanger portion rigidly secured to a rod portion.

FIG. 3 is a perspective view of another modified pin having a hook end on the hanger portion,

FIG. 4 is a perspective view of still another modification having an eyelet on the hanger portion,

FIG. 5 is a perspective view of an integral rod modification having a pair of separate penetrating pin portions and a common hanger portion, and

FIG. 6 is a perspective view of the modification of FIG. 5 wherein the hanger portion is provided with modified configuration.

Turning to the drawing, and specifically to FIG. 1 an integral one-piece hanger 10 of stiff yet flexible wire construction is shown disposed in a dry wall 11.

The hanger 10 (FIG. 1) comprises a central horizontally disposed portion 12 disposed in seized relationship in a round aperture in the wall 11 having a like diameter.

The hanger 10 comprises also a penetrating pin portion 13 disposed on one side of the dry wall and also a hanger portion 14 disposed on the other side.

The penetrating pin portion 13 is vertically disposed and comprises a vertical leg 15 integral with a suitably curved somewhat semicircular portion 16. The free end of the semicircular portion 16 is provided with a pointed end 17 preferably made by cutting the stiff wire or rod-like material at a suitable slant or angle.

The hanger portion 14 (FIG. 1) is provided with a vertical leg portion 18, at the end of which is located an engagement means 19 for engaging the wire of a picture

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frame to be hung thereon. The engagement means 19 of FIG. 1 is a threaded end having a suitable nut 29 secured thereto.

As shown also in FIG. 1, an important feature of this invention is the extension of the horizontal element 12 beyond the rear face 11X of the wall 11 so as to accommodate the radius of the semicircular portion 16. In short, the extension portion 12X of horizontal element 12 that extends freely beyond the rear wall face 11X is substantially equal to the outside radius of the curved surface of the semicircular portion 16, thereby producing a seizure or spring like bias of the tangential bearing point 16X against the rear wall surface 11X.

Thus the bearing pressure of the curved tangential surface 16X on the wall surface 11X pulls the hanger leg 14 disposed against the front face 11Y of the wall 11 into a firm or even a locked relationship thereagainst.

Accordingly because of the specific construction of the hanger of this invention the penetrating pin portion 13 disposed against the rear face 11X of wall 11 pulls the hanger portion 14 firmly and even almost immovably against the front face 11Y of wall 11.

Turning to the modification of FIG. 2, a sheet metal hanger position 14X is provided with a suitable hook 14Y at its base. The sheet metal hanger 14X is secured to the front end of rod 12 as by peening the end 12Y thereof in a suitable aperture disposed in the hanger 14X. The use of a sheet metal hanger 14X provides a wide flat surface 22 which engages the flat surface 11X in a complete contact planar relationship.

The modification of FIG. 3, shows a modified terminal ending to the hanger portion 14 wherein a hook end 23 is provided by suitable reverse bending of the end portion of the hanger leg 14 so as to give a U-shaped configuration thereto.

FIG. 4 shows another modified hanger end wherein it is provided with a circular or eyelet configuration 24.

In securing a hanger 10 to a dry wall whether of sheetrock, soft Masonite or other construction, the penetration portion 13 is seized firmly in the operator's hand the pin point 17 is pushed perpendicularly and preferably with a reciprocal twisting motion into the wall at the desired location.

After the pin point penetrates through the wall, the semicircular curved portion 16 is eased through the hole as well as the remaining portions 15 and 12X of the penetration portion 13 of the hanger. When all the parts of penetration portion are located behind the rear face 11X and suitably against the rear face 11X, then the hanger leg portion 14 is automatically seated snugly or snapped into place against the front wall surface 11Y.

Turning now to the modification of FIGS. 5 and 6 there is shown a modification of the hanger having a dual pointed pin construction.

In these FIGS. 5 and 6 modifications, the pair of vertical hanger leg portions 14 are spaced-apart in parallel vertical relationship against wall surface 11X and are united by an integral loop 25 or integral V-shaped element 26 which is horizontally disposed relative to the legs 14.

Thus loop 25 and V-shaped portion 26 function as a shelf for supporting boxes, flowers pots, etc., as desired.

The wall hanger of this invention functions somewhat like a spring in that it continuously seizes the opposed faces of a wall in a spring-like engagement. Yet the material of which the hanger is made is of durable relatively stiff construction so as to carry heavy loads such as mirrors.

According to this invention for example, the pointed end of the penetration pin may be provided with a coneshaped point, if desired. Also while the pin is of a lon-

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itudinal appearance, the lengths of both the pointed pin portion as well as that of the hanger portion may be varied as desired.

In this invention also the pointed pin portion engages the rear surface of the wall by a tangential contact of the exterior surface of the semicircular portion with the rear surface of the wall, thus necessitating that the semicircular portion be directed toward the hanger leg portion. In effect, the wall 11 functions as a fulcrum for the intermediate horizontal portion 12.

Also said intermediate portion 12 is disposed substantially linearly and at a right angle to both said hanger leg and the vertical portion of said penetration portion.

I claim:

An integral wall hanger adapted for penetrating into and for biased front and rear self locking to a dry wall comprising a substantially longitudinal multi-curved rod adapted for hand seizure, said rod having a horizontal substantially medial portion appreciably longer than the thickness of a wall, said medial portion adapted to rest in an aperture pierced thereby in a wall, a top integral portion adapted to be disposed behind a wall and having a pointed end and a curved section adjacent said end, said curved

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section being adapted for tangential engagement with the rear surface of a dry wall, and a relatively long substantially straight bottom depending hanger portion integral with said medial portion adapted to engage the front surface of a wall along the entire length of the depending hanger portion whereby said dry wall is firmly seized by a top and said bottom portions.

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CLAUDE A. LE ROY, *Primary Examiner*.

**UNITED STATES PATENT OFFICE**  
**CERTIFICATE OF CORRECTION**

Patent No. 3,219,302

November 23, 1965

Donald J. Smith

It is certified that error appears in the above identified patent and that said Letters Patent are hereby corrected as shown below:

Column 1, lines 10, 11 and 16, and column 2, lines 38 and 39, for "sheet rock", each occurrence, read -- dry wall --.

Signed and sealed this 24th day of June 1969.

(SEAL)

Attest:

Edward M. Fletcher, Jr.

Attesting Officer

**WILLIAM E. SCHUYLER, JR.**

Commissioner of Patents