

[54] SUPPORT STRUCTURE FOR WALL MOUNTED OBJECTS

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1,951,583	3/1934	Swanson .....	248/477
2,570,731	10/1951	Susnow .....	248/300 UX
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[21] Appl. No.: 341,616

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[52] U.S. Cl. .... 248/476

[51] Int. Cl. .... A47g 1/24

[58] Field of Search ..... 248/476, 477, 478, 488, 248/490, 495, 496, 497, 298

[56] References Cited

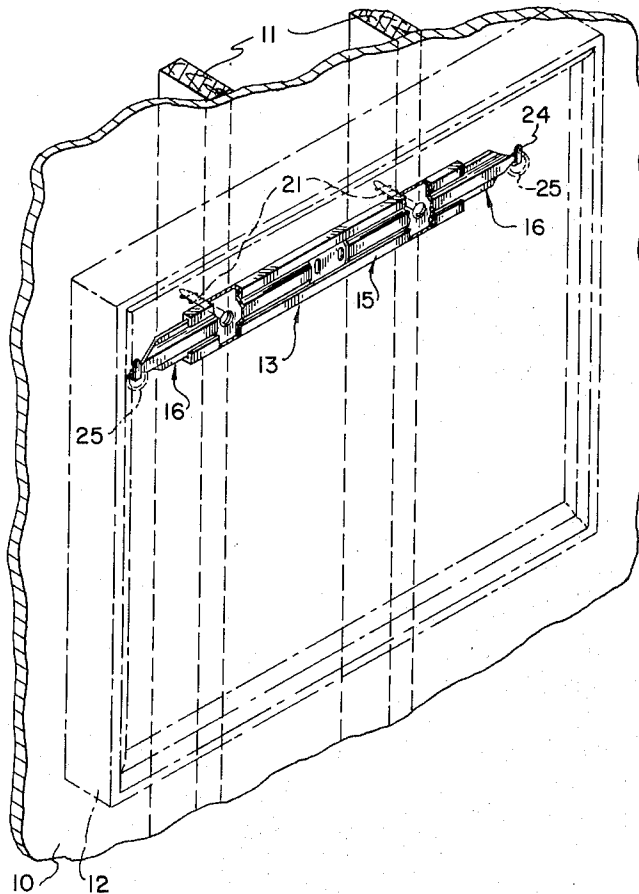
UNITED STATES PATENTS

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[57] ABSTRACT

Apparatus for supporting wall mounted objects so that such objects are selectively adjustable in a horizontal plane. The apparatus includes a fixed portion mounted on a wall and at least one movable portion adjustably carried by said fixed portion.

3 Claims, 6 Drawing Figures



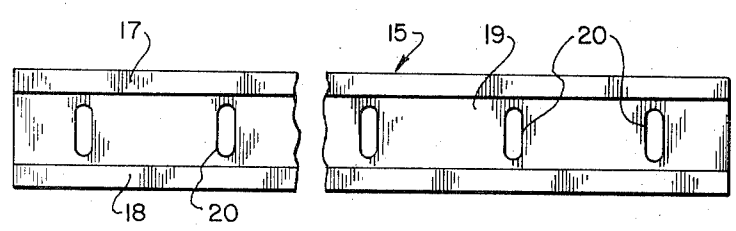
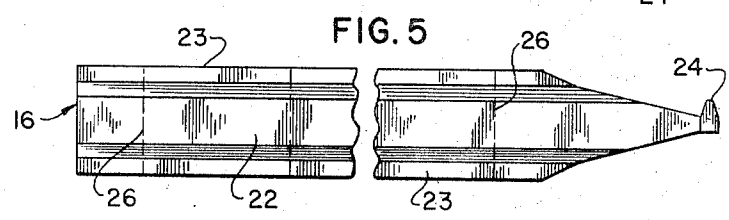
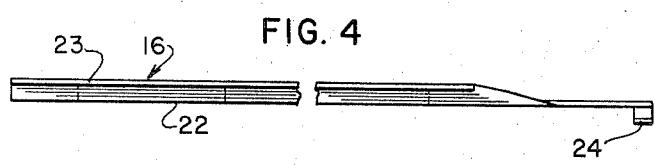
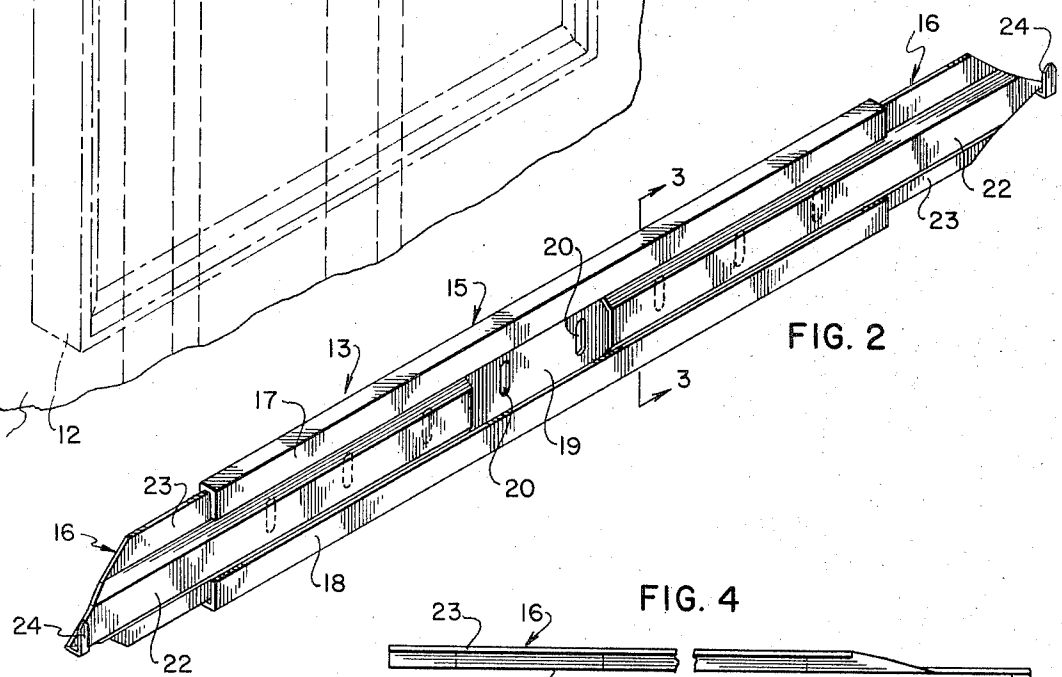
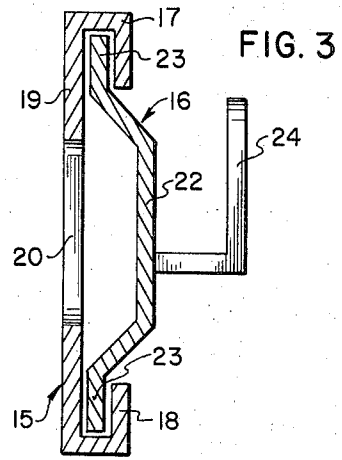
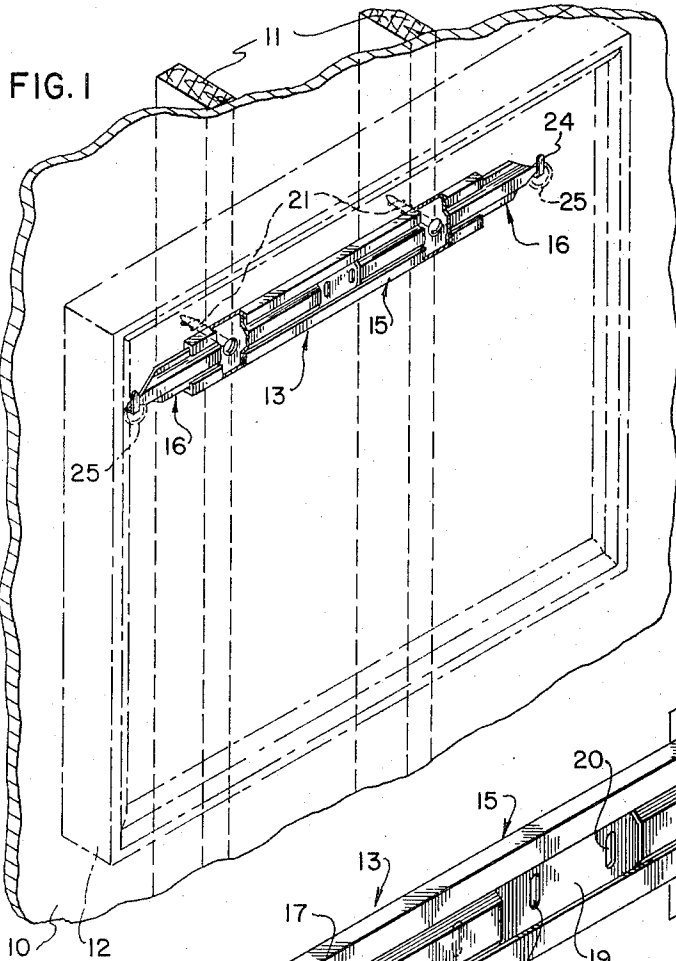


FIG. 6

## SUPPORT STRUCTURE FOR WALL MOUNTED OBJECTS

### BACKGROUND OF THE INVENTION

#### 1. Field of the Invention

This invention relates generally to mounting brackets and relates particularly to wall mounted support structure which permits the position of the article being supported to be adjusted in at least a generally horizontal plane.

#### 2. Description of the Prior Art

Heretofore, most pictures, mirrors, tapestries and other wall mounted objects have been suspended by providing a wire or one or more rings on the back of the object and connecting such wire or rings to one or more hooks attached to a wall. With relatively small, lightweight objects, the hook could be placed in any desired location by attaching the hook to the plaster, wall-board or panelling of the wall structure. With heavier objects, the wall structure has not been strong enough to support the objects and therefore it has been necessary to attach the hook to the upright studs of the wall by relatively long nails, screws or other fasteners. This has limited the position in which the article could be supported and in many instances has required that the article be located in a position other than the desired position.

Many efforts have been made to provide an elongated rail or track mounted on a wall and on which one or more support members are adjustably carried. The support members normally are independently adjustable; however, such members are retained within the longitudinal limits of the rail. Examples of this type of structure are conventional draw drape support structures and Levene U.S. Pat. No. 1,844,096.

Other prior art structures, such as U.S. Pat. No. 1,209,582 to Hoernegel provide supporting structure which is connected to the rear of the article being supported; however, such structures are adjustable to the size of the picture, mirror or other article and do not provide adjustable positioning of the article on the wall.

Other examples of the prior art include U.S. Pat. Nos. 2,787,435 to Shields; 2,905,412 to Kipp; 2,925,239 to Luck; and 3,515,284 to Taylor.

### SUMMARY OF THE INVENTION

The present invention is an adjustable support structure for relatively large picture frames, mirrors, tapestries and the like which are longer than the width between two wall studs and which are mounted at a selected height on a wall. The support structure includes a fixed base member of a size to span two or more wall studs and a pair of movable members slidably carried by the base member. Each of the movable members is connected to the picture frame or other object to be supported in such a manner that the object and the movable members can be moved generally longitudinally of the base member to adjust the position of the object relative to the wall.

It is an object of this invention to provide a support structure for a wall mounted object which permits the object being supported to be shifted laterally to a desired position on a wall without the support being viewable and regardless of the position of the wall studs.

### BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view illustrating one application of the invention.

FIG. 2 is a perspective view of the support structure per se.

FIG. 3 is an enlarged section taken along the line 3—3 of FIG. 2.

FIG. 4 is a side elevation of one of the movable members of the support structure.

FIG. 5 is a front elevation thereof.

FIG. 6 is a front elevation of the fixed member of the support structure.

### DESCRIPTION OF THE PREFERRED EMBODIMENT

With continued reference to the drawing, a wall 10 having supporting studs 11 is provided on which a wall mounted object 12, such as a picture, mirror, tapestry or the like, is to be mounted. In conventional wall construction the studs are spaced 16 inches on centers for load bearing walls and up to 24 inches on centers for non-bearing walls.

In order to mount the object 12 on the wall 10, an adjustable hanger 13 is provided having a fixed member or bracket 15 in which two or more adjustable support members 16 are slidably carried. The bracket 15 is generally C-shaped in cross-section and has upper and lower flanges 17 and 18 joined by a web 19 which constitutes the back of the bracket. A series of elongated holes or slots 20 are provided along the length of the web 19 for receiving fasteners 21 and such slots are elongated in a vertical direction to allow minor vertical height adjustment along the length of the bracket 15 in order to obtain horizontal alignment after being attached to the wall 10.

Normally the bracket 15 is constructed of sheet material such as sheet steel which is bent to the desired cross-sectional configuration; however, it is contemplated that such bracket could be made of any other suitable material such as wood, organic polymeric thermoplastic material or the like. Also, it is contemplated that the bracket could be fabricated from a plurality of pieces that are joined together by welding, adhesives, solder and the like, or such bracket could be extruded in a desired configuration.

Preferably the bracket is supplied in various lengths to accommodate two or more wall studs. For example, lengths of 18, 26, 34, and 50 inches have been found satisfactory. However, the bracket could be made in relatively long lengths so that a desired length could be cut from a longer length.

Each of the adjustable support members 16 has a raised generally U-shaped central portion 22 having flanges 23 extending outwardly therefrom. Such flanges are slidably received within the C-shaped bracket 15 while the central portion 22 extends into the gap between the flanges 17 and 18. At the outer end of each of the support members 16, a hook or other supporting structure 24 is provided for engaging rings 25 fixed to the rear of the article to be supported. If desired, the end of the support members 16 could be provided with downwardly extending keyhole openings for receiving headed fasteners carried by the picture or other object.

The support members 16 are constructed of sheet metal, wood, organic polymeric thermoplastic material

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or the like which is formed to the desired configuration, or such members can be extruded or cast to such configuration. Members 16 are of any desired length with at least one of the members being relatively long so that the hook 24 can be spaced longitudinally outwardly of the bracket 15, or both slidable members can be located substantially within the confines of the bracket 15.

With reference to FIGS. 4 and 5, a series of perforations or score lines 26 may be placed at spaced intervals along the lengths of the support members 16 to allow the support members to be adjusted to any suitable or desired length.

In use, the studs along the wall are located and the channeled mounting bracket 15 is secured by screws or other suitable fasteners to at least two studs. The slots 20 allow limited vertical adjustment to obtain a substantially horizontal positioning of the bracket. Next, the slidable support members 16 are positioned within the channeled mounting bracket with the hooks 24 disposed upwardly and outwardly, and the object 12 is suspended from the hooks 24 by the rings 25. Once mounted, the picture or other object 12 can be shifted transversely by sliding the support members 16 relative to the bracket 15 to center the picture on the wall or shift its relation to another picture or object. Since the mounting bracket used can be much shorter in length than the width of the object being hung, a considerable repositioning of the object can be made to either side of the stud supports to which the bracket is secured without the bracket being visible to the viewer.

I claim:

1. An apparatus for freely adjustably supporting an

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elongated object on a building wall having a plurality of vertically extending stud means spaced a predetermined distance apart, said apparatus comprising an elongated mounting bracket of a length to extend between at least two of the wall stud means, said bracket being substantially shorter than the object to be supported, means for connecting said bracket to at least two of the stud means, a plurality of elongated support means carried by said mounting bracket, each of said support means being freely slidable along substantially the entire length of said mounting bracket, connecting means disposed adjacent the outer end of each of said support means for attaching the object thereto, said support means being independently movable to engage the object and simultaneously movable when the object is attached to said connecting means, and at least one of said support means being of a length to locate its connecting means outwardly of said mounting bracket a distance corresponding to substantially half the distance between the stud means, whereby said mounting bracket is connected to the stud means and an object carried by said support means is freely transversely movable relative to the stud means to selectively locate the object in a desired position.

2. The structure of claim 1 in which said mounting bracket is generally C-shaped and includes a web having a plurality of spaced substantially vertical slots.

3. The structure of claim 1 in which said support members and said mounting bracket include at least one strength decreasing score line disposed generally perpendicular to their lengths.

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