United States Patent [19]

Kanzelberger

[11] **3,865,342**

[45] **Feb. 11, 1975**

[54] **SUPPORT FOR FRAME, PLAQUE, OR THE LIKE**

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[73] Assignee: **Contemporary, Inc.,** Manitowoc, Wis.

[22] Filed: **July 2, 1973**

[21] Appl. No.: **375,716**

[52] **U.S. Cl.** **248/470,** 40/152.1

[51] **Int. Cl.** **A47g 1/17,** A47b 97/04

[58] **Field of Search** 248/470, 471, 497, 498, 248/463, 464, 465, 457; 40/152.1

[56] **References Cited**

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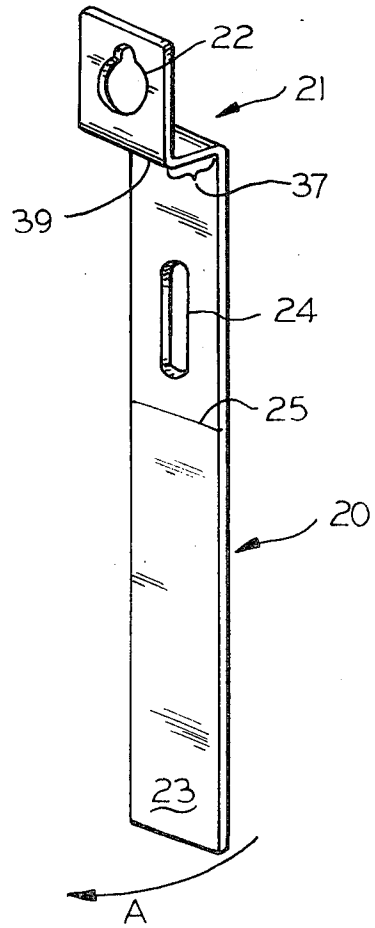
Primary Examiner—J. Franklin Foss

Attorney, Agent, or Firm—Alter, Weiss, Whitesel & Laff

[57] **ABSTRACT**

A support for a picture frame, plaque, or the like which is capable of being hung on a wall or which may rest on a surface. The support comprises a strap in which a hole is formed in one end for providing a hanger support. The other end of the strap is adapted to be bent away from the frame or plaque to give an easel-type support. Intermediate the two ends of the strap is a slot for receiving a friction-holding device or other fastening means. The strap may be rotated off-center in either a clockwise or counterclockwise direction to compensate for unbalanced picture frames or plaques. The strap may also be moved relative to the fastening means to permit vertical adjustment of the strap in relation to the plaque.

10 Claims, 7 Drawing Figures



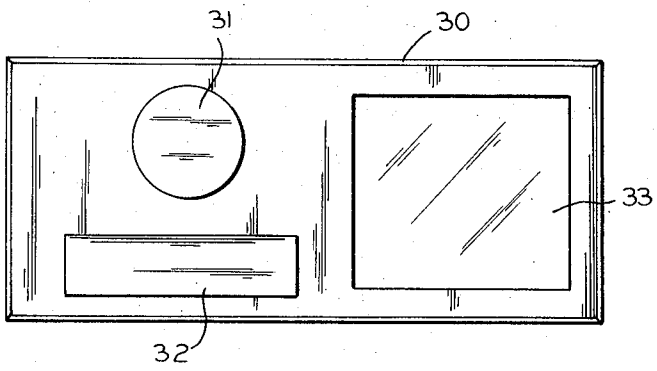


FIG.2

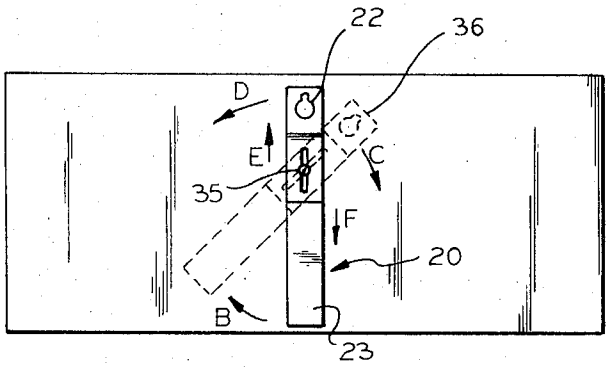


FIG.3

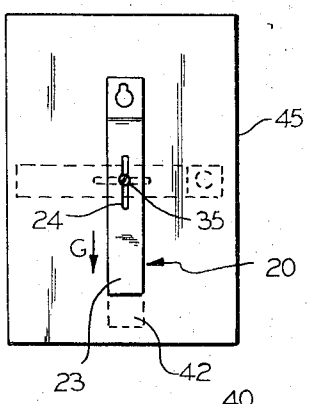


FIG.6

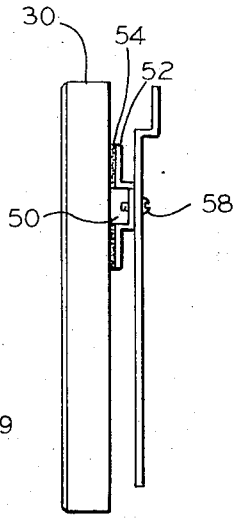


FIG.7

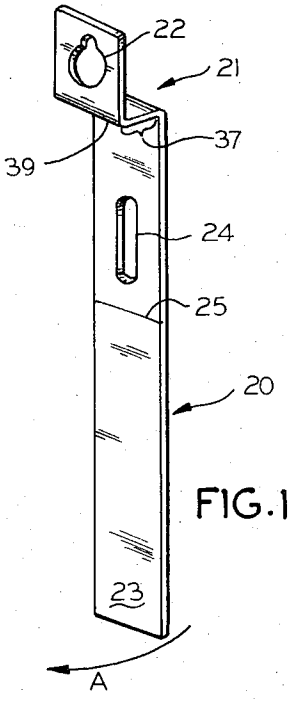


FIG.1

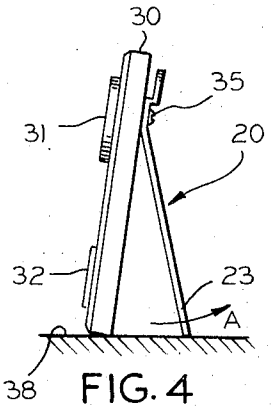


FIG. 4

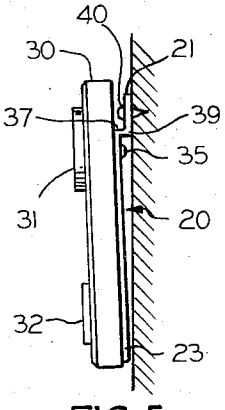


FIG.5

SUPPORT FOR FRAME, PLAQUE, OR THE LIKE

BACKGROUND OF THE INVENTION

This invention relates to picture frame supports and more particularly to combined hanging and easel type supports.

Many things may be broadly classified as suitable for use with the described support, such as picture frames, plaques, mirrors, bulletin boards, calendars, and the like. Therefore, as used herein, the terms "picture frame" and "plaque" are intended to broadly cover all of these and any suitable similar devices.

In general, a picture frame may be set on a desk, table, or the like, in either of at least two (vertical and horizontal) positions; or it may be hung from a hook, screw, or nail, again in either of two positions. Moreover, the picture frame may be balanced so that it always hangs straight, or one side may be heavier than the other so that it hangs crooked or askew unless restrained or corrected.

Heretofore, these problems have been solved in a relatively expensive manner, considering the low cost of the total frame. For example, the back of a picture frame often has a leg diagonally attached thereto by means of a metal hinge attached between leg and back. The hinged leg usually has two perpendicularly disposed edges so that, when extended, the leg forms an easel support for the frame when it is in either a vertical or a horizontal position. To hang the frame, an independent ring is usually secured to the back, and often there are two such rings, one centered in the vertical position and another centered in the horizontal position. To compensate for any unbalance of a picture frame, elongated sawtoothed or serrated bars are sometimes employed. A hook, nail or other hanger may then be positioned in any of the teeth so that the picture is balanced.

All of the foregoing devices are expensive, lack adjustability, and otherwise leave much to be desired.

Accordingly, an object of the invention is to provide new and improved supports for picture frames, plaques, and the like. A further object is to provide a support for a picture frame which may act as a free-standing easel or as a hanging device. A still further object is to provide a frame or plaque support which is adjustable to compensate for unequal weight distribution of the frame or plaque. Another object is to provide all of the above described and other features by a single inexpensive device which may be used on virtually any form of a picture frame, plaque or related device. Further objects will become manifest from the following description, the drawings and the claims.

SUMMARY OF THE INVENTION

The invention includes a strap of malleable material which may be stamped, molded or otherwise formed in a low cost manner. One end of the strap has an off-set, step-like portion which includes a hole for hanger support. The other end of the strap may be optionally bent by the user away from the frame, to give an easel support. Intermediate the two ends of the strap is a slot for receiving an adjustable friction-holding device. The strap may be pivoted or rotated off-center about the holding device, either in a clockwise or a counterclockwise direction to compensate for unbalanced picture frames or plaques. By tightening the friction-holding device, the strap is tightened in place to secure the balanced hanging point for the frame. The slot permits vertical adjustment of the support and frame by permitting the strap to be moved with respect to the fastening means in a vertical direction.

DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view of the supporting device of this invention;

FIG. **2** is a front elevational view of an exemplary plaque on which the supporting device of FIG. **1** would be used;

FIG. **3** is a rear elevational view of the plaque of FIG. **2** showing the supporting device of FIG. **1** connected thereto and the manner in which this device may be adjusted so that the plaque may be aligned;

FIG. **4** is a side elevational view of the plaque of FIG. **2** standing on a table or other surface;

FIG. **5** is a side elevational view similar to FIG. **4**, with the plaque of FIG. **2** hanging on a wall or other support;

FIG. **6** is a rear elevational view of a plaque showing how the inventive hanger may be positioned to balance the picture for hanging or standing in either a vertical or horizontal orientation; and

FIG. **7** is a side elevational view of a modification of the invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The inventive picture frame support **20** is best seen in FIG. **1.** The support **20** is a strap which is stamped, formed, or otherwise molded from any suitable malleable material, such as steel or other metal or plastic. When metal is used, it may be painted or coated with plastic to eliminate rough or sharp edges or corners. One end **21** of the strap **20** includes a hole **22** formed in an off-set or step-like portion providing hanger support. This hole may be in the form of an inverted keyhole to help position the support on a nail, screw or other hanger. The other end **23** of the strap may be optionally bent away from the frame to give an easel-like support. The two ends of the strap are separated by an elongated hole or a slot **24** for receiving an adjustable screw **35** (see FIG. **3**) or other suitable friction-holding device. By loosening the screw **35,** the strap may be rotated off-center in either a clockwise or counterclockwise direction to compensate for unbalanced picture frames. The strap may be then tightened in place by tightening the screw **35** to secure the hanging point for the frame. Immediately below the hole **24** (as viewed in FIG. **1**), the strap is scored, weakened, or indented slightly at **25** to form a hinged place transverse to the strap length. The scoring **25** is located at a preferred place for bending. When the end **23** is pulled in direction A, the strap tends to bend along score line **25.**

The slot **24** permits the strap **20** to be moved in relation to the fastening means **35** so that a plaque may be adjusted, e.g., upwardly or downwardly. From a production standpoint, it is more desirable and economical to locate the fastening means **35** in only one position on the frame or plaque. By employing the slot **24** on the support **20,** the latter can be moved relative to the fastening means **35** to accommodate plaques having more rectangular shapes and the location of the fastening means may remain the same.

The manner of using the inventive support will become more apparent from a study of FIGS. 2–6. FIG. 2 illustrates a typical plaque 30 which comprises an elongated rectangle having a medallion 31 and a name plate 32 on one end and a picture 33 on the other end. The medallion and nameplate are here assumed to be metal and the picture is assumed to be paper. Thus, in this example the left-hand end of the plaque will be much heavier than the right-hand end. Accordingly, unless a balance compensation is provided, the left-hand end will droop and the plaque 30 will be askew if hung on the wall.

To compensate for the extra weight on the left-hand end of the plaque 30, and to balance it for hanging, the screw 35 is loosened and the strap end 23 is rotated in direction B, as shown in FIG. 3. This moves hole 22 in direction C to an off normal position 36. If the other end of the plaque is the heavier, obviously the direction of movement would be reversed so that the hole 22 moves in direction D. After the picture is balanced, the screw 35 is tightened to lock the support 20 in the selected off-normal position. If desired, the screw 35 may be loosened and the strap 20 moved upward in direction E or downward in direction F.

FIG. 4 illustrates how the end 23 of the support may be bent (in direction A) away from the back of the plaque 30. Thus, the plaque 30 is capable of being supported in an acceptable position on a table or other suitable surface 38.

FIG. 5 shows how a plaque or picture frame may be hung when the end 23 is not bent away, but lies flat against the plaque. To facilitate such hanging, the end 22 is provided with an off-set, step-like bend at 39, with a riser 37 sufficient to allow clearance for the head of a nail or hanger 40.

When it is necessary or desirable, the support 20 may be attached to the picture frame or plaque 45 in a manner which enables it to be rotated through 90° or more. Thus, the support may be rotated to display the picture frame or plaque 45 in either a horizontal or vertical position. As shown in FIG. 6, the outer perimeter of the picture frame or plaque 45 is nearly square, at least to a degree which creates no problem when the support 20 is rotated to the two positions shown.

FIG. 6 also shows how the support 20 may be moved in relation to the fastening device 35. For example, the support 20 may be moved vertically in direction G until the fastening means 35 travels the full length of the slot 24. At that point the support 20 will be in the position shown in the dotted lines designated as 42.

While the fastening device 35 is shown in FIGS. 3, 4 and 5 to be a screw, other devices may be employed to hold the strap 20 in place. The nature of the fastening device used will depend, at least in part, on the material of the frame. For example, with cardboard-backed frames, a bolt and burr combination may be used since a screw would not provide effective holding characteristics in these circumstances. FIG. 7 shows another manner of fastening the support 20 to a plaque. In this illustration a fastening assembly 50 is provided which consists of a plate 52 having a pressure-sensitive adhesive or other adhesive backing 54 which is adapted to adhere to the back of the frame 30. The plate 52 is stepped to provide clearance between it and the frame 30, and is adapted to receive friction-holding means, such as a screw 58. Assembly 50 is especially useful with frames or plaques constructed of materials, such as cardboard, which cannot be effectively used with screw-type frictional means.

While the foregoing has set forth specific structures and features of the invention, it should be understood that modifications may be made therein without departing from the invention. Therefore, the appended claims are to be construed to cover all equivalent structures falling within the spirit and scope of the invention.

I claim:

1. A frame or plaque support comprising a strap having a first end with a hole for hanger support, a second end opposite the first end which may be bent away from the frame or plaque to allow easel support thereof, and an opening intermediate the two ends for receiving a holding means which lockingly secures the strap to the frame or plaque, said strap being adapted to be rotated off-center in either a clockwise or counterclockwise direction and to be locked in the rotated off-center position by said holding means to compensate for any unbalance of said frame or plaque.

2. The support of claim 1 wherein said strap may be rotated between vertical and horizontal support positions.

3. The support of claim 1 wherein the second end of said strap is scored adjacent the intermediate opening to facilitate bending at a selected location.

4. The support of claim 3 wherein the first end of said strap has an off-set step-like form in the vicinity of the hanger hole to provide relief for receiving the head of a hanger.

5. The support of claim 4 wherein the opening is elongated and the holding means is adapted to slide in said opening so that the support may be adjusted relative to the holding means.

6. A support for a frame or plaque comprising:

a. a strap rotatably secured to said frame or plaque, said strap having a first end and a second end opposite the first end, said first end having a hole therein for receiving a hanger and said second end being adapted to be bent away from the frame or plaque;

b. an opening in said strap located intermediate the first and second ends of the strap; and

c. means inserted through the intermediate opening for lockingly holding the strap on the frame or plaque and for permitting said strap to be rotated off-center in either a clockwise or counterclockwise direction and to be locked by said holding means in an off-center position to compensate for unbalanced frames or plaques.

7. The support of claim 6 wherein the holding means is adapted to be loosened to permit rotation of the strap and tightened to secure the hanging point for the frame.

8. The support of claim 7 wherein the holding means is a friction-held device.

9. The support of claim 7 wherein the holding means is an adjustable screw.

10. The support of claim 6 wherein the holding means includes a plate having an adhesive facing which is adapted to be adhered to the back of the frame, and means adapted to be frictionally inserted through the intermediate opening to the strap and into the plate.

* * * * *

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,865,342 Dated February 11, 1975

Inventor(s) JAMES C. KANZELBERGER

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

Column 4, line 64 (last line), "opening to the strap" should be --opening in the strap--

Signed and sealed this 13th day of May 1975.

(SEAL)
Attest:

RUTH C. MASON
Attesting Officer

C. MARSHALL DANN
Commissioner of Patents
and Trademarks