Sept. 22, 1953 E. W. MILLER 2,652,998

HANGER

Filed Dec. 9, 1949 2 Sheets-Sheet 1

Fig. 1

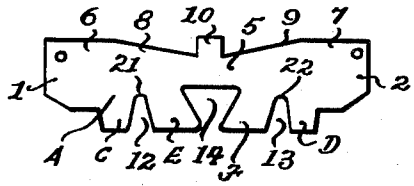


Fig. 2

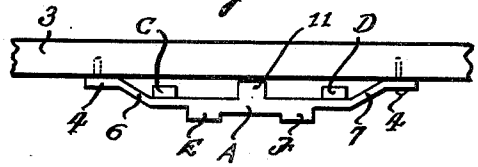


Fig. 3

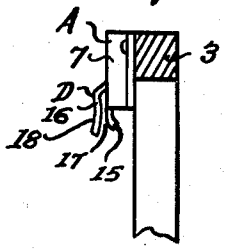


Fig. 4

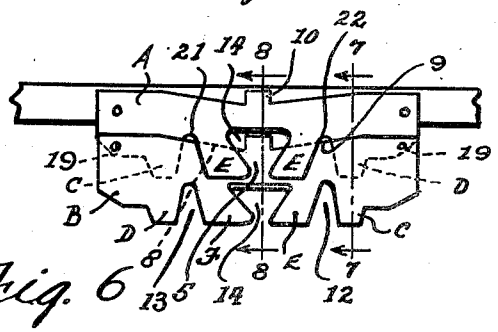


Fig. 7

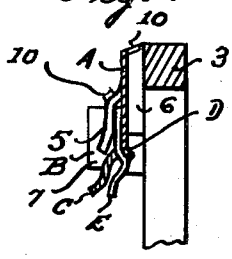


Fig. 6

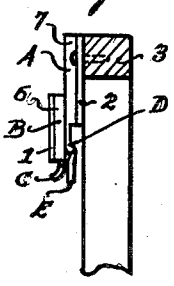


Fig. 8

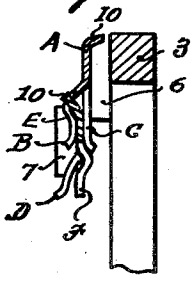
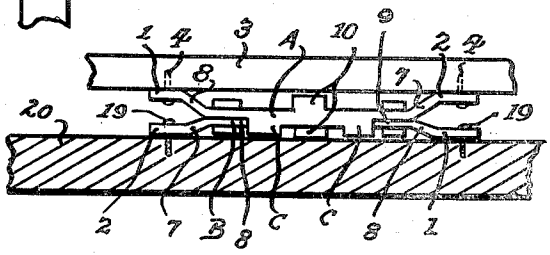


Fig. 5



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HANGER

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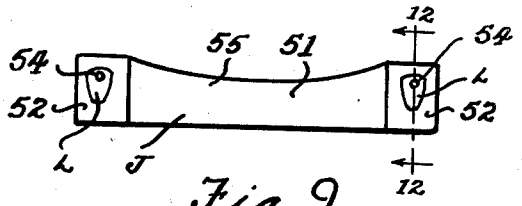


Fig. 9

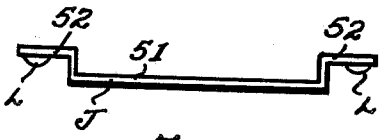


Fig. 10

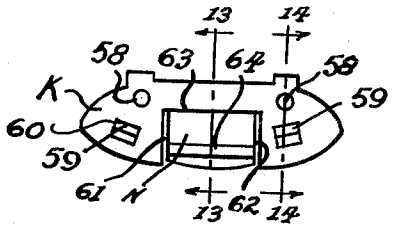


Fig. 11

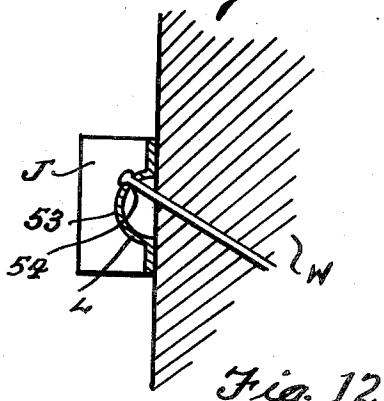


Fig. 12

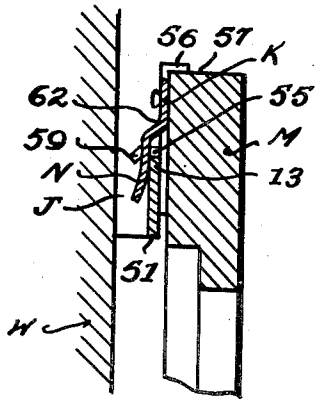


Fig. 13

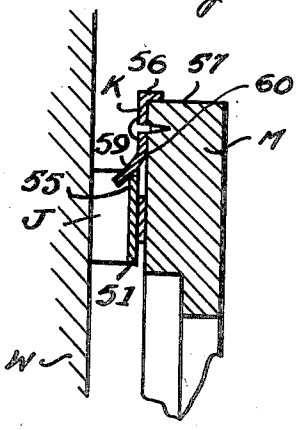


Fig. 14

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HANGER

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Application December 9, 1949, Serial No. 131,994

1 Claim. (Cl. 248—29)

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The present invention relates to a hanger but more specifically to a hanger for suspending pictures, mirrors, and other objects on a wall and has as its primary object the provision of a device of such a character that the objects can be quickly and conveniently adjusted as to position and when once adjusted will not be easily displaced during dusting operations or the shaking of the wall but if displaced can be quickly and easily readjusted into proper position or alignment.

Another object of the invention is the provision of a hanger composed in its entirety of two parts one of which is applied to the wall or the like and the other to the picture or object to be suspended on the wall.

A further object of the invention is to make the two parts comprising the hanger of identical construction thereby greatly simplifying and reducing the cost of production making it possible to produce a hanger which can be sold at a low price.

A still further object of the invention is the provision of a hanger the parts of which are extremely simple of construction and can be rapidly and comparatively cheaply manufactured by stamping or casting operations.

Other objects, benefits and novel features of construction of the invention will appear from the following description when read in the light of the accompanying drawings.

In the drawings:

Fig. 1 is a view in front elevation of one of the hanger parts, it being understood that both hanger parts are of identical construction.

Fig. 2 is a top view of the hanger part showing its application to a picture frame.

Fig. 3 is an end view of Fig. 2.

Fig. 4 is a view in front elevation showing the hanger parts in operative engagement.

Fig. 5 is a top view of Fig. 4.

Fig. 6 is an end view of Fig. 5.

Fig. 7 is a vertical sectional view on the line 7—7 of Fig. 4, looking in the direction indicated by arrows.

Fig. 8 is a vertical sectional view on the line 8—8 of Fig. 4, looking in the direction indicated by arrows.

Fig. 9 is a view in front elevation of a modified form of hanger bracket.

Fig. 10 is a top plan view of the bracket.

Fig. 11 is a view in elevation of the front or outer face of the modified form of plate.

Fig. 12 is a vertical sectional view on the line 12—12 of Fig. 9, looking in the direction indicated by arrows.

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Fig. 13 is a vertical sectional view of a suspended picture utilizing the modified form of bracket and plate, the section being through the plate on the line 13—13 of Fig. 11.

Fig. 14 is a vertical sectional view of the suspended picture, the section being through the plate on the line 14—14 of Fig. 11.

In the practice of the broad inventive concept it is possible to utilize hangers having specifically different constructions. One form of hanger is illustrated in Figs. 1 to 8 inclusive while the second form is illustrated in Figs. 9 to 14 inclusive.

Description will first be given of the hanger illustrated in Figs. 1 to 5 inclusive wherein like parts are designated by similar reference numerals and characters throughout the description.

Although it is intended that the hanger be constructed from metal it could be, without departing from the invention, made of plastic or any other suitable material but it is essential that the material composing the hanger parts have some resiliency.

The hanger comprises two pieces or parts of identical construction and description of one part will therefore serve to describe the other. In the following description however the hanger part which is attached to the wall is referred to as a bracket and the hanger part which is attached to the picture, or other object to be hung, is referred to as a plate. In the drawings the hanger is illustrated as supporting a framed picture but it is to be understood that the invention is not limited to this specific use.

Referring to Figs. 1 to 3 and assuming that the hanger part there illustrated is the plate, that is the part applied to the picture frame, this plate, designated as an entirety by A, is provided at its opposite ends with flat portions 1 and 2, referred to for convenience as ears, which are placed against the rear face of the upper cross picture frame element 3 and secured thereto by screws 4 or the like, as appears in Fig. 2.

The main portion of the plate intermediate its ends comprises a skirt 5 which, when the plate is applied to the frame, is in spaced parallel relationship thereto due to the outwardly bulged or inclined portions 6 and 7 which interconnect the skirt ends to the ears 1 and 2. The upper edge of the skirt is oppositely downwardly and inwardly inclined as at 8 and 9 and centrally is provided with an upwardly extending lug 10 the upper edge 11 of which is bent or formed to extend rearwardly toward the picture frame but stops short thereof.

The bottom of the skirt is provided with a plurality of fingers C, D, E and F all of which are spaced apart to provide adjacent the skirt ends slots 12 and 13 and centrally of the skirt an enlarged cut-out portion forming a notch 14. The fingers C and D are curved backwardly and inwardly as at 15 while the fingers E and F have an outward bend 16. This construction provides a space 17 between the rear faces of the fingers E and F and the front faces of the fingers C and D. This space is constricted by the inward bend 18 provided in the fingers E and F with the result that the width of the space is less than the thickness of the material of which the hanger parts are made. This is of importance as will more clearly hereinafter appear.

An identical hanger part, designated as an entirety by B, is illustrated in Fig. 4 of the drawings. In use this hanger part which is the bracket is secured to the wall by screws 19 or the like which pass through its flat ends or ears 1 and 2. Attention is directed to the fact that when the bracket is secured to the wall 20 its skirt 5 is in spaced parallel relationship to the wall and the outer face of the bracket is opposed to the outer face of the plate.

With the plate A secured to the picture frame and the bracket B secured to the wall an operator, to hang the picture, elevates the picture to a position where the plate is approximately central with but slightly above the bracket. The picture is then lowered allowing the plate to slide down the wall until engagement between the plate and the bracket occurs. If the lug 10 of the bracket is not in alignment with the notch 14 of the plate interlocking engagement between the parts will not occur and continued downward movement of the picture is prevented. The operator then shifts the picture slightly from side to side, continuing his downward pressure, and when the lug of the bracket becomes aligned with the notch of the plate the downward pressure on the picture will cause the parts to assume the position illustrated in Figs. 4 to 8 inclusive of the drawings. Here it will be seen that the lug 10 of the bracket is in the notch 14 of the plate and the upper edge of the bracket skirt 5 has entered the space 17 between the fingers of the plate and is disposed behind the plate fingers E and F and in front of the plate fingers C and D. Due to the resiliency of the fingers and particularly the inward crimp 18 of the plate fingers E and F the skirt of the bracket is resiliently secured between the fingers. The frictional pressure is sufficient to prevent accidental movement of the plate along the bracket but is not sufficiently great as to prevent intentional longitudinal movement of the plate in respect to the bracket.

It is in fact this longitudinal movement which provides the adjustment for horizontally aligning the upper edge of the picture.

It is to be noted that the upper edge of the skirt 5 of the bracket is in engagement with the upper ends 21 and 22 of the plate slots 12 and 13. Due to the fact that these skirt edges 8 and 9 are oppositely inclined it will be seen that upon sliding the plate along the bracket the ends of the picture frame will be raised and lowered and that by properly positioning the plate longitudinally of the bracket the upper end of the picture frame will be brought in horizontal alignment. Due to the frictional engagement between the parts the alignment of the picture frame will be maintained against accidental displacement but that if the picture gets out of

horizontal alignment it can be quickly brought into alignment by merely sliding the picture in one direction or the other along the bracket.

It will be seen that actually the upper edge of the bracket enters the spaced parallel vertically extending slots 12 and 13 of the plate. Longitudinal movement of the plate along the upper edge of the bracket is limited by the bracket lug 10 which will at the extremities of its travel come into abutment with the side walls of the notch 14. By making the bracket and plate of identical construction manufacturing expense is greatly reduced when the parts are produced by use of a die. A single die can be utilized in the production of both of the parts comprising the hanger.

In the modified form of the invention the hanger parts can be made of metal or suitable plastic. In this instance it is essential that at least the finger be resilient so as to function properly.

The hanger illustrated in Figs. 9 to 14 comprises a wall bracket J and a plate K. The bracket is secured to the wall and the plate is secured to the picture or other article which is to be suspended on the wall. In the drawings the hanger is illustrated as supporting a framed picture but the invention is not limited to this specific use.

The wall bracket is a comparatively narrow rectangular shaped member having an off-set skirt 51 and is provided at its ends with ears 52. The skirt of the bracket parallels but is spaced from the wall W when the bracket is secured thereto. Each ear is formed to provide a protuberance L. The convex outer face 53 of each protuberance is provided with a nail hole 54 which is directed downwardly at an angle of approximately 30 degrees. The manner of application of the bracket to the wall clearly appears in the drawings. With the nail entering the wall at approximately a 30-degree angle the nail will carry more load than if it were driven straight in. With the nail so driven into the wall the tendency for the bracket to rotate about its lower line and loosen or pull the nail from the wall is greatly reduced with the result that the bracket is able to carry a much greater load without harmful distortion or loosening. In the functioning of the invention it is important that the bracket be rigidly secured to the wall. A further advantage is that it is easier for an unskilled person to drive a nail into the convex surface of the tab which is raised above or beyond a wall surface than would be the case if the nail had to be driven home against an ear having a straight face which is inset or back of the skirt 51 of the main portion of the bracket.

The upper edge of the skirt or central portion 51 of the bracket is arcuate with the result that this edge of the bracket is concaved as indicated at 55. This concavity extends from end to end of the upper edge of the central portion of the bracket.

The plate K at its upper edge is provided with a pair of spaced inwardly bent ears or tabs 56 which when the plate is applied to the frame M of a picture overhang and abut the upper or top edge 57 of the frame. A pair of spaced holes 58 are for the reception of screws, nails or similar elements for securing the plate to the rear face of the picture frame.

Adjacent each of its ends the plate is provided with a prong 59. These prongs are provided by cutting the plate out at the bottom and edges of

the prongs and then bending the metal outwardly so that the prongs extend outwardly from the skirt of the plate. The upper secured ends 60 of the prongs extend at an inclination to the horizontal and, as appears in the drawings, rest upon the concaved upper edge of the bracket at spaced apart points thereon.

The plate is provided with slots 61 and 62 to provide between the prongs a finger N which is preferably of considerable length. This finger is free of the plate except at its upper edge 63. This edge is disposed in a plane above the upper edges of the prongs with the result that when the plate is placed on the bracket the upper edge of the finger never engages the upper edge of the bracket.

The finger, like the prongs, is bent outwardly from the face of the bracket. The finger is given a curvature so that a portion 64 of the finger, which extends throughout the length thereof, frictionally engages the rear face of the skirt 51 of the bracket.

The manner of use and operation of the hanger is extremely simple. The wall bracket is secured to the wall and the plate is secured to the rear upper edge of the picture frame. The plate is then placed into engagement with the bracket. The bracket skirt enters the plate slots 61 and 62 and the main portion of the plate is disposed in front of and in abutment with the outer face of the skirt 51 of the bracket. The plate prongs are in engagement with the upper concaved edge of the bracket skirt and are disposed in the space between the bracket skirt and the wall. The plate finger is likewise disposed in this space and due to its resiliency frictionally holds the plate against endwise movement on the bracket. This frictional engagement however can be overcome by the application of manual pressure to move the plate lengthwise of the bracket. Due to the arcuate shape of the upper edge of the bracket skirt and the engagement therewith by the plate prongs it will be evident that movement of the plate along the bracket will raise and lower either of the corners of the picture frame in accordance with the direction of movement of the plate in respect to the bracket. The picture can accordingly be rapidly levelled up and when once so adjusted will ordinarily remain so due to the friction exerted by the spring finger. This spring finger tends to clamp the bracket skirt between itself and the rear face of the plate J.

The construction provides a device susceptible of being manufactured cheaply. Additionally the device is extremely simple of installation and use and affords a means of efficient and improved support for objects suspended upon a wall or the like.

Departures from the specific constructions illustrated can be made without departing from the inventive concept and the invention is accordingly to be limited only by the scope of the hereinafter following claim.

I claim:

A two part device for hanging pictures or the like comprising a bracket and a plate, the bracket having an elongated skirt portion, means securing the bracket to a support to position its skirt in spaced parallel relationship to a support, the opposite ends of the upper edge of the skirt being oppositely inclined, the upper edge of the skirt at a point intermediate its ends being provided with an upwardly extending lug, the plate being elongated and provided with means securing it to the back of a picture or the like with the plate positioned in spaced parallel relationship to the back of the picture, the lower edge of the plate adjacent each of its ends being provided with a resilient finger each of which is offset to extend inwardly toward the picture back, a pair of resilient spaced apart fingers positioned intermediate and spaced from the first mentioned fingers and each being offset to extend outwardly away from the picture back, the plate portion between each end finger and the adjacent finger of said pair of intermediately positioned fingers being cut away to provide a slot having an open bottom and a closed top, the skirt of the bracket being disposed in said slots with the upper edge of the skirt in abutment with the slot tops, the plate portion between the pair of intermediately positioned fingers being cut away to provide a notch having an open bottom and a closed top, the bracket lug being disposed in the notch, the upper end of the notch being of much greater width than the width of the bracket lug, the plate fingers resiliently engaging both sides of the bracket skirt, and the plate being slidable along the bracket skirt, the side walls of the notch acting as a stop to longitudinal movement of the plate by engagement with the bracket lug.

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