April 23, 1957 H. T. JONES 2,789,783

HANGER

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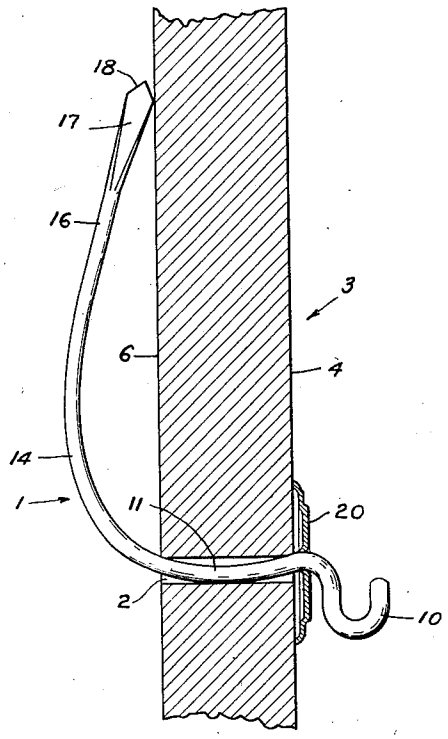

Fig. 1.

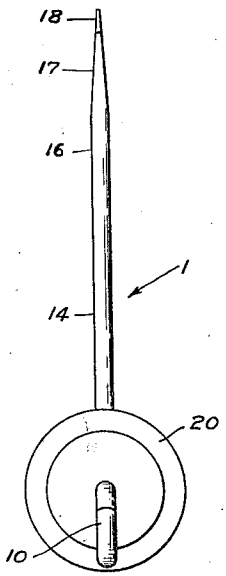

Fig. 2.

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HANGER

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3 Claims. (Cl. 248—220)

This invention relates to a hanger for a plaster wall.

Experience shows that when a nail, or the like, is driven into a plaster or composition wall the diameter of the hole made by the nail is considerably larger than that of the nail, and for that reason the latter when inserted in said hole cannot serve as an anchor or a support.

The primary object of this invention is to provide a hanger which when inserted in a plaster or composition wall will remain under certain tension giving said hanger necessary rigidity for supporting a picture or the like.

Another object of this invention is to provide a hanger which has one end thereof made into a means for making a hole in a plaster wall, the size of the hole being such as to keep under certain tension the portion of the hanger occupying said hole.

Another object of this invention is to provide a hanger of the type described which is insertable in a hole in a plaster wall, leaving only an article supporting portion of said hanger on the front side of the wall for hanging articles thereon.

Another object of this invention is to provide a hanger of the type described the body of which is curved so that when said hanger is inserted in a hole in a plaster wall, a major portion of the hanger projects beyond the back side of the wall and abuts the same.

Another object of this invention is to provide a hanger of the character described which, when used, transmits the weight of the supported article to the middle vertical cross-section of the wall.

Other objects and advantages will appear as the specification proceeds and the novel features of the device will be particularly pointed out in the claims hereto annexed.

In this specification and the annexed drawing, the invention is illustrated in the form considered to be the best, but it is understood, that the invention is not limited to such form; and it is also to be understood that in and by the claims following the description, it is desired to cover the invention in whatsoever form it may be embodied.

This invention is illustrated in a drawing forming a part of this specification, in which:

Fig. 1 is a side view of the hanger shown inserted in a plaster wall, and

Fig. 2 is a front view of the hanger.

In detail, the hanger generally indicated at 1, forming the subject matter of this invention, is made out of proper gauge steel wire. The hanger 1 is shown inserted in a hole 2 which is provided in a plaster wall 3 with a front side 4 and a back side 6. The diameter of the hole 2 is slightly larger than that of the wire of which the hanger is made.

The hanger 1 consists of an article supporting portion or a hook 10 formed on one end thereof preferably by bending the same in substantially half circle of small diameter. The hook 10 is located in front of the front side 4 and is intended to support pictures and the like.

An arcuate portion 11 is formed immediately adjacent to the hook 10. Said portion is in the form of a segment, the chord of which is slightly shorter than the length of the hole 2, and the height of said segment is slightly greater than the diameter of said hole, so that when said arcuate portion 11 is inserted in said hole 2, the ends of said segment bear on the ends of said hole and the middle of said segment bears against the wall of said hole substantially in the middle thereof and oppositely to the points of contact of the ends of said segment and the wall of said hole, thus holding said segment under tension.

The hanger 1 also includes a portion 14 of general parabolic form with the curvature gradually diminishing as said portion extends upwardly and terminates with a straight portion 16, the chord of said parabolic portion 14 is generally at the right angle to that of the segment 11 with the concavity being toward the said segment. The end of the hanger 1 is formed into a drill 17 by flattening the sides of said portion 16 and providing a cutting tip 18. The parabolic portion 14 extends beyond the back side 6 of the wall 3, and is of such shape as to abut forceably said back wall, and thus serve as an anchor for said hanger by preventing the same from rotating in the hole 2.

The hanger 1 is provided with a small face plate 20 which is located at the junction of the hook 10 and the hole portion 11, which covers the hole 2 when the hanger is inserted in a wall.

Then an article is hung on the hook 10. The weight of the same is transmitted to the wall substantially at the center of said hole 2, that is at the central vertical cross-section of the wall.

The drill 17 is of such dimensions as to drill the hole 2 of a diameter slightly larger than the diameter of the wire of which said hanger is made, thus assuring the proper tension and tightness of the hole portion 11 when the same is in said hole. The diameter of the hole 2 is also so selected as to permit the parabolic portion 14 to be easily inserted therethrough.

If the wall 3 is thin, the load on the hook 10 tends to rotate the hanger about a point at which it contacts the wall. This is prevented by the parabolic portion 14 firmly abutting the wall 3 from the rear, thus giving the hanger the necessary stability and firmness.

I claim:

1. For use in a hole extending through a house plaster wall, an article supporting device comprising a wire of smaller diameter than that of said hole, an arcuate portion of said wire while unstressed being in the shape of a segment, the chord of which is shorter than the length of said hole so that the ends of said arcuate portion bear against the wall of said hole at the opposite ends thereof, the height of said segment being greater than the diameter of said hole so that the middle of said segment bears against the wall of said hole generally in the middle between and oppositely to the points of contact of the ends of said segment and the wall of said hole, thereby holding said segment under tension in said hole; an article supporting hook formed on one end of said segment; a parabolic portion formed in extension of the other end of said segment, the chord of said parabolic portion being at the right angle with that of the segment with the concavity of said parabolic portion being toward said segment, and the end of said parabolic section abutting the wall to transmit in part the tension of said segment to said wall.

2. For use in a hole extending through a house plaster wall, an article supporting device comprising a wire of smaller diameter than that of said hole, an arcuate portion of said wire while unstressed being in the shape of

a segment, the chord of which is shorter than the length of said hole so that the ends of said arcuate portion bear against the wall of said hole at the opposite ends thereof, the height of said segment being greater than the diameter of said hole so that the middle of said segment bears against the wall of said hole generally in the middle between and oppositely to the points of contact of the ends of said segment and the wall of said hole, thereby holding said segment under tension in said hole; an article supporting hook formed on one end of said segment; a parabolic portion formed in extension of the other end of said segment, the chord of said parabolic portion being at the right angle with that of the segment with the concavity of said parabolic portion being toward said segment; and a sharpened edge on the end of said parabolic portion for holding the latter portion in engagement with said wall so as to prevent turning of said wire in said hole.

3. For use in a hole extending through a house plaster wall, an article supporting device comprising a wire of smaller diameter than that of said hole, an arcuate portion of said wire while unstressed being in the shape of a segment, the chord of which is shorter than the length of said hole so that the ends of said arcuate portion bear against the wall of said hole at the opposite ends thereof, the height of said segment being greater than the diameter of said hole so that the middle of said segment bears against the wall of said hole generally in the middle between and oppositely to the points of contact of the

ends of said segment and the wall of said hole, thereby holding said segment under tension in said hole; an article supporting hook formed on one end of said segment; a parabolic portion formed in extension of the other end of said segment, the chord of said parabolic portion being at the right angle with that of the segment with the concavity of said parabolic portion being toward said segment; and a sharpened edge on the end of said parabolic portion for holding the latter portion in engagement with said wall so as to prevent turning of said wire in said hole, said sharpened edge being formed in the shape of a drill of a diameter slightly smaller than the height of said segment so as to drill a hole fitting said segment for said tension.

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