Feb. 13, 1923.

J. W. WAGNER.

HOOK.

FILED OCT. 15, 1921.

1,445,372.

Fig. 1.

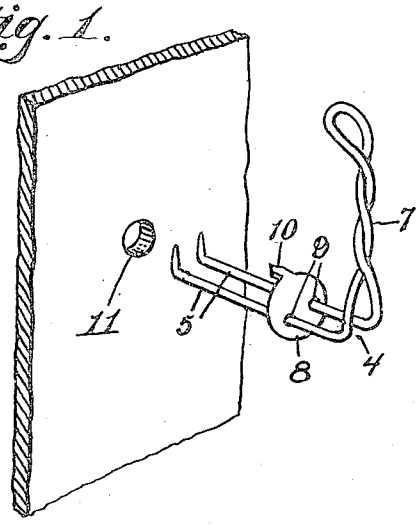


Fig. 2.

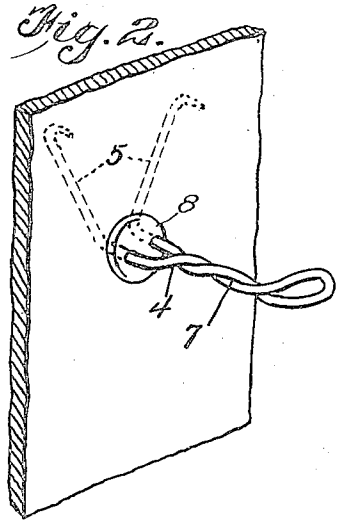
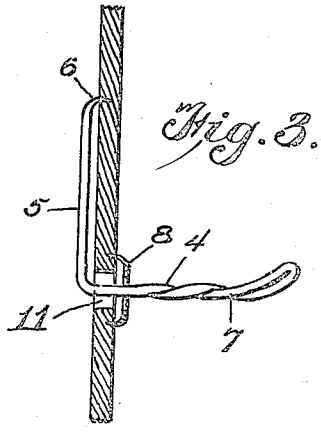


Fig. 3.



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UNITED STATES PATENT OFFICE.

JENE WALLACE WAGNER, OF CROSS PLAINS, TEXAS.

HOOK.

Application filed October 15, 1921. Serial No. 507,942.

To all whom it may concern:

Be it known that I, JENE WALLACE WAGNER, a citizen of the United States, residing at Cross Plains, in the county of Callahan and State of Texas, have invented new and useful Improvements in Hooks, of which the following is a specification.

This invention relates to hooks, being particularly adaptable to walls, ceilings or the like of that type wherein relatively heavy sheets of wall covering, such as beaver-board, is employed, the primary object of the invention being to provide a hook of such character and construction as to be readily applied to the wall board and rigidly attached thereto.

A further object of the invention is to provide a hook of the character and for the purpose stated which is equipped with means of an improved nature for securely anchoring the hook to the wall board both from the inside and outside faces thereof.

A still further object of the invention is to provide a hook of the character stated which may be easily detached from the wall when required, and which, when secured to the wall, presents the least possible opportunity for pulling out or tearing away from the wall board.

A still further and particular object of the invention is to provide a wall hook of such character that with the increase of weight applied to the hook, such weight is utilized to more securely anchor the hook to the wall.

With these and other objects in view, the invention consists of the features of construction, combination and arrangement of parts, hereinafter fully described and claimed, reference being had to the accompanying drawing, in which:—

Figure 1 is a perspective view of a hook constructed in accordance with the invention and illustrating the same in the position it will assume prior to being applied to the wall board,

Figure 2 is a perspective view showing how the hook will appear when attached to the wall board, and

Figure 3 is a vertical sectional view taken through the wall board and illustrating the operation of the securing means for the improved hook.

In instances where it is desired to apply a hook, such as a coat or hat hanger, or the like, to a wall board formed of comparatively thick heavy material, it has been found impossible heretofore to secure the screw hook rigidly in the wall board unless the screw of the hook is passed through the board and anchored securedly in a joist or beam lying behind the wall board. It has therefore been impractical to apply the ordinary screw hooks to the wall board in places other than those backed by a joist or beam. The hook of the present invention is adaptable particularly to wall coverings of the type stated, and anchored to such wall board in such manner as to minimize the danger of the hook pulling loose from the wall board or tearing the material thereof.

In carrying out the invention a hook body 4 is provided, and from this hook body extends a pair of arms 5, the outer extremities of the latter being provided with inturned prongs or teeth indicated at 6. In the present instance, the arms 5 are disposed at substantially right angles to the body portion 4 of the hook, while the teeth 6 may be disposed at substantially right angles to the arms 5 and in substantial parallelism to the hook body 4.

In the preferred embodiment of the invention, the improved hook is constructed of a single strand of relatively stout or heavy wire, the latter being bent upon itself intermediate its ends and twisted as indicated at 7 to form a reinforced body, and at the end of the twisted portion the arms 5 are spaced apart a slight distance, being bent so as to normally tend to expand or spread away from each other by their own spring action, as shown by dotted lines in Figure 2. These arms carry between them a ferrule indicated at 8, the latter being formed of suitable metal and preferably being round, having a pair of spaced openings 9 therein to slidably receive the arms 5, and prongs or teeth 10 formed integral with the ferrule 8 extend inwardly from the edges thereof.

In applying the hook to a wall board, the latter is pierced at the desired point to provide an opening 11 which need only be sufficiently large to receive the hooked ends 6 and arms 5 when compressed. The hooked ends are inserted through the opening and the arms 5 passed therein as well as the bent portion at the juncture of hook 4 with arms 5. By twisting or turning the hook as shown in Figures 2 and 3 of the drawing, the arms 5 will then extend upwardly upon the rear

surface of the wall board, and further insertion of the hook will be arrested by engagement of ferrule 8 with the front surface of the wall board. The teeth 10 of this ferrule will then engage and anchor firmly in the front surface of the wall board, completely obscuring the opening through which the hook passes, and this ferrule acts as a fulcrum for the hook. Weight applied to the twisted or body portion 4 in a downward direction will cause the hook to lock slightly upon the ferrule 8, and the teeth 6 at the free ends of arms 5 will securely embed themselves in the rear surface of the wall board. It will be noted that the arms 5 spread themselves apart in divergent relation, due to the resilient action of the material of which the device is constructed, so that the points of contact of the sharpened ends 6 of the arms will be relatively remote. Thus when the hook as a whole is drawn or slid forward and the hook part proper thereof is depressed to cause the teeth 6 of the arms or prongs 5 to embed themselves in the wall-board, a double locking action is secured, the forward sliding movement of arms 5 in the openings 9 causing said arms to be brought to a lesser degree of divergence against the resistance of their spreading tendency, causing said arms to bind frictionally against the outer walls of openings 9 and to thereby lock the ferrule 8 thereto, while at the same time the rocking action produced by the depression of said hook proper will cause the teeth 6 of the arms 5 and the teeth 10 of the ferrule 8 to be forced into the wall-board, thereby fixing the parts at both sides of the wall-board firmly and rigidly in position. This double locking action is an important part of my invention, as, besides ensuring a secure fastening connection of both the arms 5 and the ferrule 8 to the wall-board, it also ensures a firm non-shifting locking connection between the ferrule and the hook, whereby any possibility of displacement of the ferrule and casual loosening of the parts from the wall-board is effectually obviated in a simple and reliable manner.

By constructing the device in the manner stated, it is apparent that I have provided a hook for the uses mentioned which is of extremely simple and inexpensive construction, which may be readily applied to or removed from the wall, which firmly embeds itself in the wall, and by the use of which the weight to which the hook must necessarily be subjected when articles are applied thereto, is distributed to three separate and distinct elements in contact with the wall board at points remote from each other.

While the above is a description of the invention in its preferred embodiment, it is to be understood that various changes in the construction and arrangement of parts may be resorted to if desired without departing from the spirit of the invention as defined by the claims.

Having thus fully described my invention, I claim:—

1. A support comprising a hook member having diverging spring arms provided with right angularly bent portions terminating in teeth lying substantially parallel with said hook member, and a ferrule having openings for the passage of the body portion of the arms and provided with teeth for engaging a surface, said ferrule being locked in binding engagement with the arms by the resilient spreading action thereof.

2. In a support, a body formed of a single strand of twisted wire the ends of which extend from said body in spaced relation to provide divergent resilient arms, teeth projecting laterally from the free ends of said arms, and a ferrule slidable upon said arms.

3. In a support, a body, arms extending at substantially right angles to said body, the said arms being resilient and tending normally to move away from each other, a ferrule slidable relatively to said arms so as to be locked thereon by the spring pressure thereof, teeth on said ferrule, and teeth on the free ends of said arms and bent laterally thereof.

4. In a support, a body formed of a single strand of wire bent intermediate its ends and twisted together adjacent the said intermediate portion, the ends of said strand being bent angularly to said twisted portion and in spaced relation to form resilient diverging arms, teeth on the outer ends of said arms, a ferrule comprising an annular plate having spaced apertures therein to slidably receive the said arms, and prongs extending angularly from the edges of said ferrule.

In testimony wherof I affix my signature.

JENE WALLACE WAGNER.