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NAIL WITH AFFIXED COVERING FOR HEAD

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2 Claims. (Cl. 85-28)

The invention herein relates to an improvement in nails which are of the type used for the installation of dry walls.

Most standard dry wall panels are four feet wide and of varying lengths. These panels being mounted to studding set centers to centers of sixteen inches. In present practice of mounting wall panels the panel when erected is left with rows of exposed nail heads from top to bottom, and other disfigurations that must be patched, plastered, and sandpapered before the panel may be painted or is ready for use. This new and improved nail with its plaster or plate overcomes these undesirable faults gaining an undefaced panel.

More specifically, the nail is intended for use with dry wall panels of the type which are easily damaged by hammer blows, and particularly with dry wall panels having a plaster core. Panels of this type usually have a surface of paper or other fibrous material, and presently, many are coated with a plastic. Due to the fact that the core of such panels is plaster, a hammer blow will result in a dent or dimple and oftentimes the surface will be broken. The dents, dimples or breaks must be repaired by patching with plaster, followed by sandpapering, to restore the panel surface to a condition suitable for painting.

It takes a high degree of skill to install plaster boards without damage. When such skill is available, and even though damage does not result, the nail heads will show. This is a very undesirable feature, particularly when the panels have a colored surface. Extreme care must be exercised in driving the nails, and as a result the nail may not be driven completely home. The boards also react to changes in atmospheric conditions and when the nail heads are not sunk into the board, subsequent shrinking will cause further exposure of the head.

The principal object of the invention is to provide a nail having an affixed plaster, of any suitable fibrous material which, when used, will overcome the difficulties described above. More specifically, the nail includes the usual shank and a metal head and an overlying plaster, the latter affixed to the metal head with any type of adhesive or cement. Preferably, the plaster will be of a like material to the surface of the panel, which in most instances is a fibrous material, usually paper, such as "sheetrock," but the plaster may be of like material to the surface of "Celotex," cardboard, or other panels.

The plaster bearing nail may be set and driven home, whereupon the metal head will be hidden and the plaster not only hides the metal head, but when it is of greater cross-sectional area prevents damage to the panel. It has been determined in actual use that a minimum of skill is required in driving the nails without damage to the wall boards. It has been further determined that the plaster serves as a cushion distributing stresses, preventing mis-setting of the nail and damage to the panel.

Although the preferred embodiment, as above described, a nail having a thin flexible plate of metal foil affixed to the nail head is within the scope of the invention.

The foregoing and other advantages of the invention will be fully understood by reference to the accompanying drawings wherein:

FIGURE 1 is an exploded view showing the nail and plaster or plate.

FIGURE 2 is a view showing the assembled nail and plaster, or plate.

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FIGURE 3 is a cross-sectional view of a panel showing the nail in position with the metal head embedded in the panel, and the plaster, or plate, in planar relation to the panel.

Referring to the drawings, the nail may be of any suitable type having a shank 1 and a head 3 of greater cross-sectional area than the shank. Heretofore 4d nails have been most frequently recommended for this type of work, although most any type of metal nail is satisfactory. The head 3 of this type of nail is relatively thin and it is desirable that it be completely set and embedded within the wall board when the board is in mounted position.

In accordance with the invention herein, there is provided a plaster or plate 7 for the metal head. The plaster or plate is preferably of like material to the surface material of the type of wall board being erected. If the surface is paper, in this embodiment the plaster 7 is of paper having a suitable thickness. In practice it has been found that the tape used to conceal the joints of plaster board is of a suitable thickness for the plaster 7. The plaster should be as thin as possible to avoid being conspicuous, and in the drawings its thickness is exaggerated. The plaster or plate 7 adjusts to the planar surface of the panel.

The plaster or plate 7 is secured to the upper planar surface of the nail head by an adhesive 5, preferably an adhesive which permits ready handling and shipping of the nails. The adhesive or resin can be a thermosetting phenolic which has been cured approximately 95%. In this stage, the resin is sufficiently set to permit ready handling. The applicant has found that "Elmer's" glue may be used providing a unitary article of the plaster or plate 7, and the nail head 3.

Referring to FIGURE 3, there is shown a wall board 9, having a plaster core 11 and surface layers 13 of paper, the view being exaggerated for purposes of illustration. The board 9 is shown attached to a wooden stud 15 by a driven nail designated at A. In the position shown at A for the nail 9 the head portion 3 is embedded in the board and stresses of hammer blows will be distributed by the plaster or plate 7 and damage will not occur. Some shrinkage of the board may occur but the nail head 3 will not project beyond the board and is concealed by the plaster or plate 7 which is of greater cross-sectional area than the metal head 3.

A further advantage of having the plaster or plate 7 of greater cross-sectional area than the metal head 3 is that the plaster or plate 7 assures proper positioning or setting of the rigid nail head, thus preventing oversetting of the nail and damage to the panel. The plaster or plate 7 affixed to the nail head results in distributing the stresses of driving over a large area of the panel and damage or defacing of the panel is eliminated.

Although the nail has been described and shown as being used primarily with a wall board having a plaster core, it is apparent that it would find use with any type of wall board wherein the surface may be readily damaged by hammer blows, such for example, as types of wall board having relatively thick plastic surfaces, or fibrous bodies, such as "Celotex" or cardboard. Similarly, the nail will find extensive use in application of aluminum or other metal panels which tend to dent when a nail is driven home.

In such instances a variant of the invention may be a thin flexible plate 7, of metal foil, affixed to the nail head 3.

Although the plaster, or plate, 7 has been described as being fibrous or metallic, any suitable material may be used,

In practice it has been found, when the nail is driven, no mis-setting is possible. Practice and use has demonstrated that when the planar surface of the plaster, or

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plate, meets the planar surface of the wall panel, damage is prevented, requiring no plastering, patching or sand-papering. The panel is immediately ready for painting.

In practice it is further established that the plaster, or plate, will adhere to the panel by the compression created by the indrawing of the set nail, and when the panel is painted bonding is created.

The invention having been described, the following is claimed:

1. A metal nail, including a shank, and a head of greater cross-sectional area than the shank, said head having substantially planar top and bottom surfaces, a substantially planar layer of flexible material dissimilar from that of the nail, secured to the top planar surface of the nail head by a layer of adhesive, said layer of flexible material extending laterally beyond the entire periphery of the nail head and being covered on its undersurface by the adhesive, the material of said flexible layer being substantially the same as that of the panel into which the nail is to be driven.

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2. A metal nail including a shank and a head of greater cross-sectional area than the shank, said head having substantially planar top and bottom surfaces, a substantially planar layer of flexible material dissimilar from that of the nail, secured to the top planar surface of the nail head by a layer of adhesive, said layer of material extending laterally beyond the entire periphery of the nail head and being covered on its undersurface by the adhesive, said flexible layer being a thin flexible plate of metal foil.

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