

[54] WALLBOARD STAPLE

[76] Inventor: Julian Andruskiewicz, 280 Willow Road, Elmhurst, Ill. 60126

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[51] Int. Cl. F16b 15/00

[58] Field of Search 85/11, 13, 49;
287/20.92 C

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Primary Examiner—Marion Parsons, Jr.

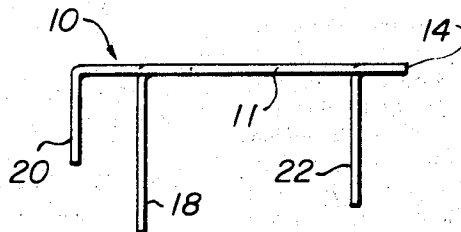
Attorney—Dominik, Knechtel & Godula

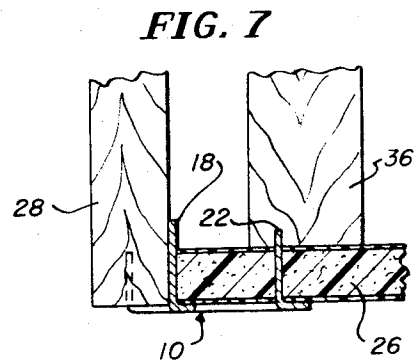
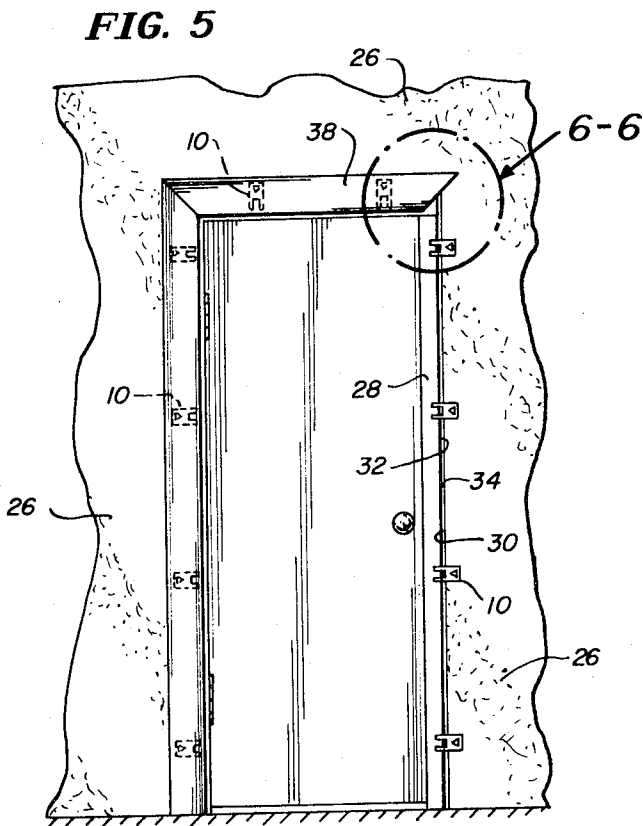
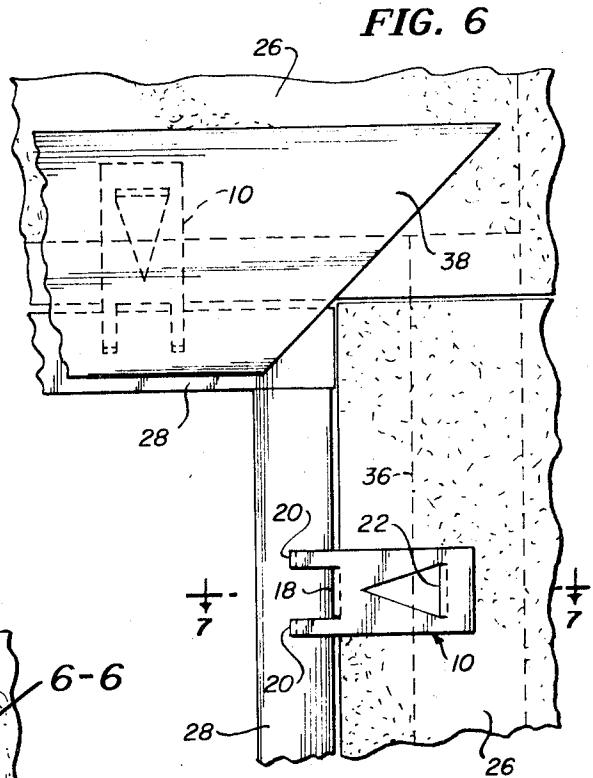
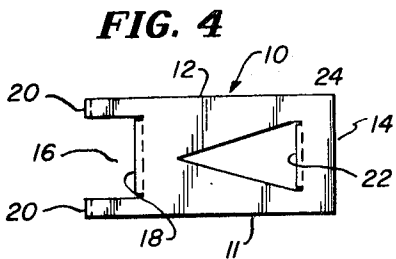
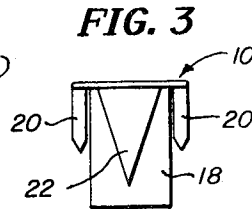
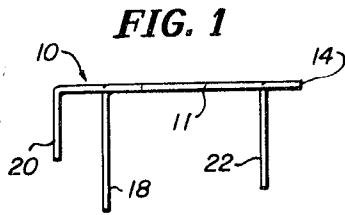
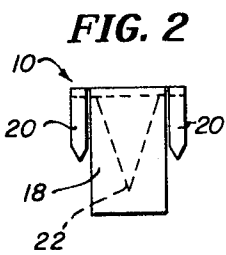
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ABSTRACT

A staple for anchoring wallboard to a jamb, wherein the staple spans the gap between the wallboard and the jamb, such staple having down bent portions, including an intermediate spacer to move into the gap and against the jamb, forward piercing points to be embedded in the jamb at a distance no greater than about one-half its thickness, and a rearward point to pierce the drywall and be embedded in the underlying structure, said spacer being the longest and the rearward part being the next longest that the rearward part may be first driven through drywall after the staple is positioned.

4 Claims, 7 Drawing Figures





INVENTOR
Julian Andruszkiewicz
BY
Dominik, Knechtel & Godula
ATTYS.

WALLBOARD STAPLE

This application is a continuation-in-part of copending application Ser. No. 43,413 filed June 4, 1970, by the same applicant.

This invention relates to an improved staple for anchoring wallboard or plaster to an adjoining wood jamb.

In construction work, it is common to employ wallboard, also commonly known as drywall. This preformed material is mounted in sections which are then taped together to form a seam prior to decorative finishing, such as painting. An edge of wallboard adjoins wooden door or window jambs to which the wallboard is then anchored. The edge of the wallboard is slightly spaced from the jamb to form a gap therebetween.

Various fasteners have been used for anchoring the adjoining portions of the wallboard and the wood jamb, such as filling the gap with a wooden shingle and driving nails through the jamb, shingle and wallboard. Clips may be used such as those shown in U.S. Pat. No. 3,226,781, but such clips also require nails driven in from the front of the jamb. Such means require front driven nails and other time consuming procedures such as trimming the shingle and removing portions of the clips. The nails must be accurately mounted and they detract from the appearance of the front face of the jamb.

It is accordingly an important object of the present invention to provide an improved fastener for fastening wallboard or plaster to a jamb across a gap, said staple being economically produced as a unitary element, while still realizing advantages in use.

It is another important object to provide an improved staple which can be properly positioned relative to the jamb, gap and wallboard or plaster.

It is another important object to provide an improved staple of the type described, which securely fastens the wallboard or plaster to a jamb across an intervening gap while allowing predetermined extension of the staple across the width of the jamb, while at the same time allowing said staple to be mounted in an improved and speedier manner by the practitioner.

Such objects are attained, together with still other objects which will occur to practitioners, by the invention of the following disclosure which includes drawings, wherein:

FIG. 1 is a side elevational view of the improved staple;

FIG. 2 is one end view of the staple shown in FIG. 1, looking at the straight rear edge;

FIG. 3 is an opposite end view of the staple of FIG. 1, looking at the open end provided with piercing points;

FIG. 4 is a top plan view of the staple shown in FIG. 1.

FIG. 5 is a front view showing a plurality of the staples of FIG. 1 in use;

FIG. 6 is an enlarged portional view indicated at 6—6 in FIG. 5;

FIG. 7 is a sectional view along line 7—7 of FIG. 6.

The staple is shown to comprise a unitary body 10 having opposite long sides 11, 12; a straight, unmodified end 14; and an opposite rectangular open end or cut-out 16. The body 10 is shown to be planar with down bent portions 18—22 disposed normally to the plane of the body.

The down bent portions include a spacer plate 18 at the open end 16, and inboard of the long sides 11, 12. The spacer is flanked by a pair of forward piercing points 20, which are down bent portions at the opposite long sides 11, 12. The body has a down bent rearward piercing point 22 which formation leaves an enclosed triangular cut-out 24 in the plate 10. The rearward piercing point 22 is shown as a triangular piercing point, and the forward piercing points 20 are shown as having a stake configuration. The open end 16 is an open cut-out formed by down bent positioning plate 18 and the down bent forward piercing points. The spacer plate is the longest down bent portion and the rearward piercing point is the next longest. The forward piercing points are the shortest, and the rearward piercing point has an effective length so that it may be driven to substantially pierce through the wallboard or plaster before the forward points pierce the jamb. In this way, the rearward point pierces the underlying stud at about the same time as the forward points pierce the jamb. All three piercing points are then in contact with wood to stabilize the staple under successive hammer blows which embed the points in the wood. The spacer plate is substantially closer to the forward points than to the rearward points, for reasons which will be made clear.

The use of the improved wallboard staple may be seen in the view of FIGS. 5—7. The plurality of the improved staples are used to fasten a wallboard 26 (which term hereinafter shall also refer to plaster) to an adjoining jamb, shown as door jamb 28. The edge 30 of the wallboard adjoins edge 32 of the door jamb, and defines a small gap or spacing 34 therebetween. The staple is correctly positioned relative to the adjoining wallboard and door jamb by the spacer plate 18 engaging the inside of the jamb in gap 30. The rearward piercing point 22 first contacts the wallboard. It is then driven through the wallboard to contact any underlying structural material, such as stud 36. The placing of the spacer plate 18 closer to the forward piercing points 20 than to the rearward piercing point 22 results in correction positioning and secure fastening of the wallboard 26 to the door jamb 28. The planar body 10, which remains exposed following placement of the staple, is of sufficiently thin dimension so that it may be easily covered by material such as casing or molding 38. In other words, only a flat, thin body portion remains after engaging the staple or fastener. The staple is quickly driven into the wallboard and structural material by a hammer impact directed against the planar body portion. Such staple, therefore, obviates the need of nails in the outside or front face of the jamb.

The spacer plate is longer than the rearward piercing point so that such plate can be first placed in the gap 30 a sufficient distance for rearward piercing point 22 to make surface contact. The forward piercing points are the shortest of the down bent portions so that such points are the last to pierce the structural material upon impact forces being delivered to the planar body portion. The relative length of the piercing points and spacer plate, therefore, are important features in quickly positioning the staple, and then quickly embedding same into the adjoining materials. First contact by the rearward piercing point provides stability which is improved as the rearward and forward piercing points make surface contact with the structural wood material.

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The triangular rearward piercing point is positioned substantially closer to the straight end edge than to the rectangular spacer plate which, in turn, is positioned substantially closer to the end piercing points than to the spacer plate. This leads to improved fastening in that the planar body portion serves somewhat as a strap to hold the softer wallboard, to the harder wood jamb. Door and window jambs having a width of three-fourth inch are used almost universally. It is accordingly required that the spacing between the positioning plate and the forward piercing points be no more than about one-half the thickness of the jamb, or about three-eighth inch. The spacing, further, should not be less than about two-eighth inch to assure sufficient area to pierce the jamb, even when accidental misalignment of the staple occurs by not positioning plate 18 against the inside of the jamb. The jamb can then be covered with the casing or molding such as 38, while still leaving the desired exposed margin 39 on the jamb. Such a margin is needed for installing hinge or lock plates, or the like.

The rearward piercing point should be substantially farther from the spacer plates than from the forward points, and should be close to the rear of the planar body. The actual distance need not be as carefully set as the distance between the spacer plate and forward points, but the distance should be sufficient to prevent breaking away of the softer wallboard which would occur if too close to the edge thereof. A larger distance will, of course, require the body member to be longer for more effective fastening. The best mode presently contemplated provides a distance of at least about 1 inch.

It will be appreciated that the illustrated staple may be formed in a simple stamping operation where the down bent portions are formed without forming waste material. These economies are realized while still attaining improved placement of the down bent portions. The forward points are widely spaced at the opposite long sides for more stable anchoring and the front cut-out allows good visual view for positioning the spacer plate. The rearward piercing point in the triangular form provide good piercing a greater area to anchor the softer plaster material, and the forward points are smaller for better piercing the harder wood jamb.

The rearward piercing point may contact the underlying wood at about the same time, shortly prior to, or shortly after the forward points pierce the jamb. It is important only that the rearward part effectively pene-

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trate the wallboard which is conventionally one-half inch thick. The three point contact should be obtained substantially simultaneously or in generally quick succession to attain the stability for efficiently embedding the staple points into the wood. By way of representative example, the forward points may be one-half inch long, and the rearward points about 1 inch long, say, five-sixteenth inch. The claims of the invention are now presented, and the terms of such claims may be further understood in view of the foregoing disclosure.

What is claimed is:

1. A stamped metal staple for fastening a wallboard to an adjoining jamb across a gap, including a planar body portion having opposite sides, a plurality of down bent portions extending normally to the plane of the body portion, one of said down bent portions being a rearward piercing point, other of said down bent portions being forward piercing points, the remaining down bent portion being a spacer plate, and

said spacer plate being the longest down bent portion, said rearward piercing point being the next longest down bent portion, and said forward piercing points being the shortest down bent portions, said rearward piercing point having an effective length so that the rearward point pierces through the wallboard and contacts the underlying wood about the same time as the forward piercing points pierce the jamb, and said spacer plate and forward piercing points having a distance therebetween about one-half the thickness of the jamb.

2. A stamped metal staple as in claim 1 wherein said rearward piercing point has a triangular shape, and said forward piercing points are formed along the opposite sides of the planar body.

3. A stamped metal staple as in claim 2 wherein the spacer plate is inboard of the opposite sides of the planar body and between the forward piercing points, said down bent spacer plate forming a substantially rectangular cut-out between the forward piercing points.

4. A stamped metal staple as in claim 3 wherein the distance between the spacer plate and the forward piercing point is no less than about two-eighth inch, and the distance between the rearward piercing points and the spacer plate is at least about 1 inch.

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