Nov. 5, 1963 J. A. COOPER 3,109,207

CORNER STRIP FOR WALLBOARD CONSTRUCTION

Filed Nov. 30, 1960

FIG _ 1

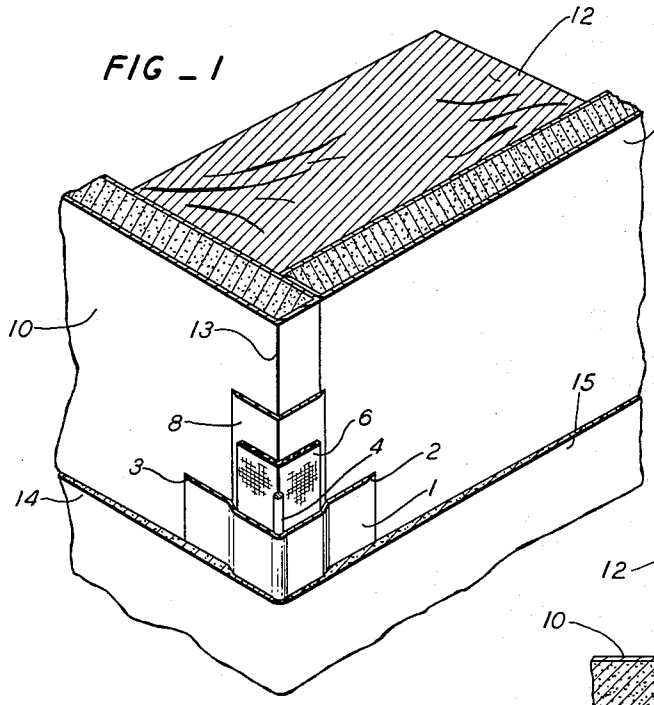


FIG _ 2

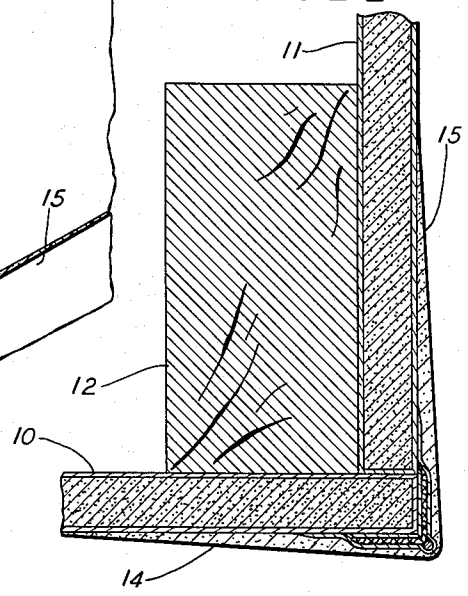


FIG _ 3

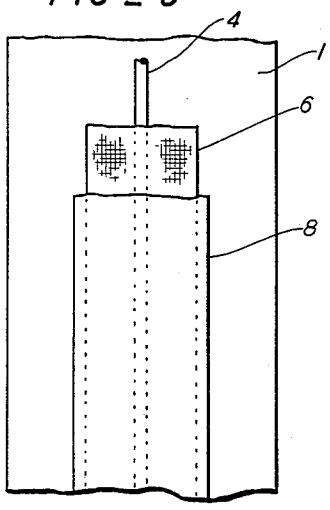
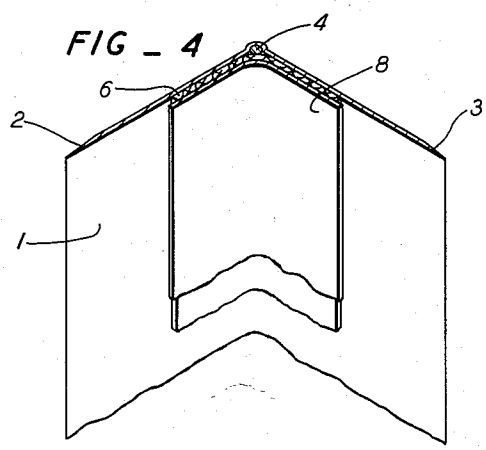


FIG _ 4



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CORNER STRIP FOR WALLBOARD CONSTRUCTION

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This invention relates to wallboard construction and especially to a corner strip for reinforcing the corner formed by two sheets of wallboard.

In wallboard construction the joint between adjacent sheets of wallboard which form a wall is usually covered by a paper tape extending lengthwise of the joint. Said joining tape is made of paper and scarfed along its edges to provide a smooth juncture between the paper and the wallboard to which it is secured. Joint cement is generally applied to the margins of the wallboard sheets adjacent the joint in order to adhere the paper and additional joint cement is applied over the paper to cover the same and provide a smooth uninterrupted surface. Such a practice is extremely effective on joints in the wall proper but cannot be followed when two sheets of wallboard are used to form a corner. Since the corner is extremely vulnerable to injury, it is necessary to provide reinforcement in addition to joining tape to project the relatively weak corner of the wallboard.

Heretofore several schemes have been proposed to protect wallboard corners. Strips of metal bent to provide angles have been employed, in which case the legs of the angles are nailed or otherwise secured to the adjacent margins of the corner edge. In some cases the corners of such angles are bullnosed to provide a smooth juncture.

Other prior art corner strips combine conventional joining tape with elongated flat bars of steel, aluminum and other materials so that the rigid metal bars overlie the edge of the corner to reinforce the same. In addition to the substantial expense of such prior art devices, an important additional disadvantage resides in the fact that the operation of applying the reinforcing strip usually involves a procedure different from that involved in the typical joining of two sheets of wallboard.

The main object of the present invention is the provision of an effective corner strip for wallboard which is less expensive than prior art devices used for the same purpose.

Another object of the invention is the provision of a corner strip for reinforcing a wallboard corner joint and which strip may be applied in substantially the same manner as conventional joining tape thereby effecting a saving in the labor involved.

Still another object of the invention is the provision of a wallboard corner strip which lends itself to manufacture by continuously operating machinery.

Other objects and advantages will be seen in the following specification and the claims.

FIG. 1 is a perspective of a portion of a corner with the invention applied thereto and with portions broken away and in section.

FIG. 2 is a typical cross section through a corner joint showing the completed corner.

FIG. 3 is a side elevation, with portions broken away, of the corner strip of the invention, showing the same in a flat form.

FIG. 4 is a partial elevation and section showing the strip bent to the form in which it is merchandised and used.

In detail, and first with reference to FIG. 3, the invention comprises a length of conventional paper wallboard joining tape 1 which is scarfed along its side edges as at 2, 3 to form feather edges so as to provide a smooth juncture between the tape and the wallboard to which it is secured.

Centrally of the tape 1 and extending longitudinally thereof (FIG. 3) is a wire 4 which is preferably of steel and coated in any desired manner to make the same rust proof. However the wire 4 may be of aluminum, plastic or any suitable material provided it is relatively rigid and capable of withstanding the impacts to which a corner is usually subjected.

On the opposite side of wire 4 from tape 1 is a length of textile material, preferably cotton fabric, and indicated at 6. The thickness of the textile strip 6 is considerably greater than the thickness of paper tape 1 so as to increase the thickness of the finished strip at the central portion of the same and at the same time protect the assembled strip against breaking or tearing adjacent the wire 4. The strip 6 is preferably somewhat narrower than tape 1.

Overlying the fabric 6 is a second length 8 of wallboard joining tape which may be about the same width as tape 6 but which is shown slightly wider so as to completely cover the fabric strip 6.

It will be understood that the assembly shown in FIG. 3 may be formed economically and at great speed by simultaneously unreeling the various elements from reels, including the wire 4. At such assembly glue is applied to the various parts so that a unitary strip is formed with paper comprising the exterior sides. Preferably the additional step of bending the finished strip to form an angle as shown in FIG. 4 is also carried out. However the strip may be merchandised in a flat condition as shown in FIG. 3, if desired.

FIGS. 1 and 2 illustrate the manner in which the strip is used at a typical corner joint. In such a typical joint two sheets 10, 11 of wall board are secured to stud 12 or whatever rough framing is involved. In the example shown a longitudinally extending edge 13 is formed by sheet 10 and this edge 13 must be protected against injury.

The strip shown in FIG. 4 is applied to the corner so that the wire 4 overlies the edge 13 thereby protecting it. Before the strip is applied, however, a thin layer of joint cement is applied to the margins of wallboard so that the inner faces of tapes 1, 8 adhere to said wallboard. Since the strip is in the form of an angle as shown in FIG. 4, no skill is required to position the same so that the wire 4 is overlying and protecting the edge 13. Additional joint cement is applied at 14, 15 to provide a smooth juncture as shown in FIGS. 1 and 2.

It will be apparent that the steps involved in applying the strip are substantially the same as those involved in forming the joint between adjacent sheets of wallboard on a wall.

It will be noted that the fabric strip 6 gives additional body to the strip adjacent the wire where it is needed. There is no tendency for the strip to tear or break adjacent the wire because of the presence of said fabric strip. Despite the presence of the fabric material, the corner strip may be handled as if it were paper because the only exterior surfaces are paper. In this connection it will be understood that the adhesive which secures the various parts 1, 4, 6, 8 together is preferably waterproof and dries hard and this would tend to make the assembled strip brittle were it not for the relatively thick fabric 6 which contributes resiliency to the finished strip.

The resiliency provided by the fabric 6 is important in that it strengthens the finished corner. If no resiliency were provided as by strip 6, the finished corner would be vulnerable to impacts and would be much more likely to chip off. For the above reasons a strong cotton drill is preferred for fabric strip 6.

Another important feature of the above-described structure is that the wire 4 is completely encased in adhesive

fabric and paper, and it is thus effectively protected against rust.

The specific description of the preferred form of the invention herein set forth should not be taken as restrictive of the scope of the invention as it will be apparent that various modifications in design may be resorted to without departing from the scope of the following claims.

I claim:

1. In combination with a pair of vertical disposed wallboard sheets in abutment along vertical ends and connected together to form a unitary corner having an exposed exterior edge at the intersection of the planes of the outer faces of said sheets; a corner strip reinforcing said edge comprising:

a first elongated rectangular wallboard joining tape cemented substantially over its entire inner surface lengthwise along said corner with the central portion of said tape overlying said edge and with the side portions of said tape that are on opposite sides of said central portion in covering relation respectively with the adjacent margins of said corner,

a length of rigid wire coextensive in length with said tape in covering relation with said exposed edge and on the outer side of said first elongated tape for protecting said edge against injury,

a second elongated rectangular wallboard joining tape overlying and secured to said wire and said first tape and cemented to said sheets.

2. Corner construction according to claim 1 wherein an elongated tape of fabric is interposed between said wire and said first tape and adherently secured to said first and second tapes.

3. In combination with a pair of vertically disposed wallboard sheets in abutment along vertical ends and connected together to form a unitary corner having an exposed exterior edge at the intersection of the planes of the outer faces of said sheets; a corner strip reinforcing said edge comprising:

a relatively narrow first length of rectangular wallboard joining tape cemented substantially over its entire inner surface lengthwise along said corner with the central portion of said tape overlying said edge

and with the side portions of said tape that are on opposite sides of said central portion in covering relation respectively with the adjacent margins of said corner,

a length of rectangular textile tape overlying said first tape along the central portion thereof,

a length of rigid wire overlying said textile tape and in covering relation with said exposed edge,

a relatively wire second length of wallboard joining tape overlying and secured to said wire and of sufficient width to cover said textile tape and said first joining tape and to provide a pair of marginal portions outwardly of said first tape and said textile tape,

said joining tapes and said textile tape being adherently secured together with said wire interposed between said textile tape and said second tape,

and said marginal portions of said second length being secured to said corner margins outwardly of said first tape by wallboard joint cement.

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CERTIFICATE OF CORRECTION

Patent No. 3,109,207 November 5, 1963

Jack A. Cooper

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 4, line 9, for "wire" read -- wide --.

Signed and sealed this 28th day of April 1964.

(SEAL)
Attest:

ERNEST W. SWIDER
Attesting Officer

EDWARD J. BRENNER
Commissioner of Patents