

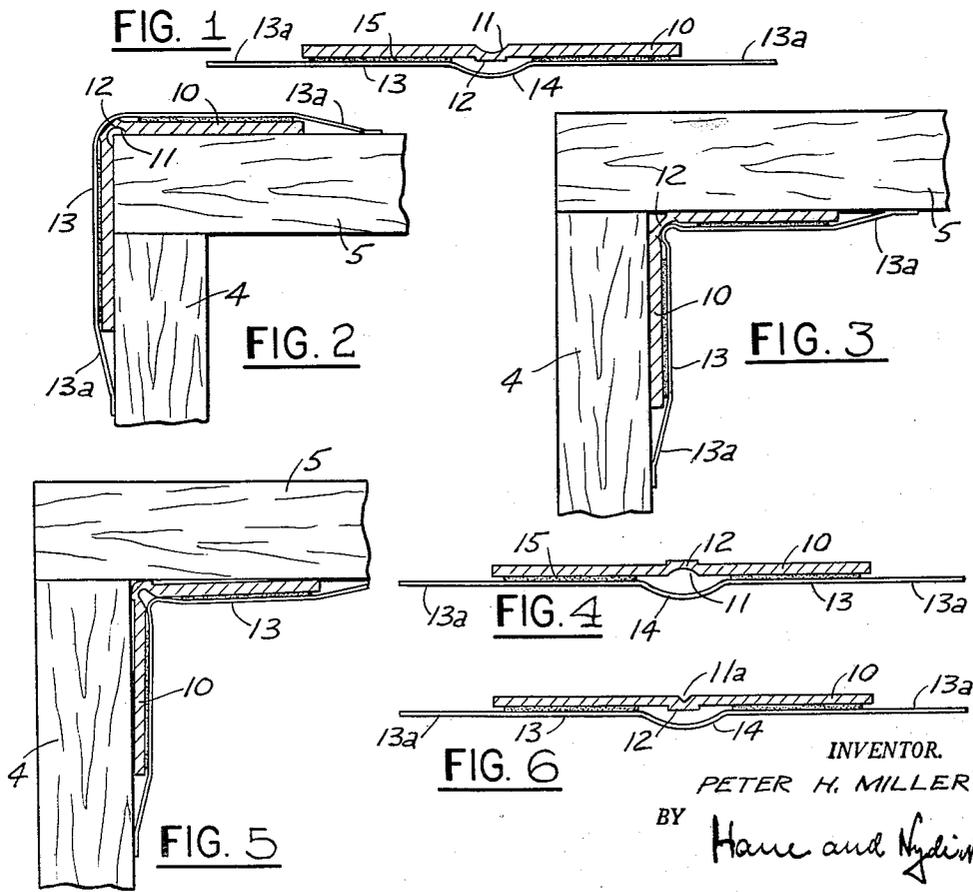
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STOCK MATERIAL FOR USE AS EDGING STRIP

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STOCK MATERIAL FOR USE AS EDGING STRIP

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5 Claims. (Cl. 20—92)

The present invention relates to stock material for use as edging strips for edging and protecting the corners of building structures, and more particularly for use as edging strips for corners formed by two walls meeting at an angle, usually a right angle.

The wall corners defined by two walls tend not to be even and smooth, partly due to inaccuracies during erection and partly due to damage inflicted upon the edges of the building material during erection. As a result, the ornamental appearance of the wall corners, after papering or painting, is not satisfactory.

The shortcomings and sensitivity of wall corners are well known in the building field, and it has been a customary practice for many years to provide protective corner edgings made of stiff metal angle strips. Such edgings are used for dry walls and wet wall constructions and also for various other types of building structures erected from sheet material. They are used for outside corners and also for inside corners to obtain a smooth transition from one wall to another. Many building codes require that exposed outside corners of non-load bearing walls in a house are protected by metal edging strips.

However, all corner protecting edging strips as heretofore known are inconvenient to handle in that they can be stored and transported in the form of rigid precut and preformed lengths only. There are known edging strips which are initially in the form of a flat but rollable ribbon and are folded into the required angle shape before they are used. However, strips as heretofore known are suitable only as edge straighteners since they do not provide a continuous metal protection at the corner, as demanded by the trade and in many building codes. Hence, such strips are generally used only when merely straightening but not protection of corners is required.

It is the broad object of the present invention to provide novel and improved rollable stock material which can be stored and transported in the form of rolls or coils and from which a desired length can be conveniently severed in situ. Such length can be readied for use as protective edging strip by simply longitudinally folding it and affords a strong and durable protection of the corner to which it is applied, by providing a continuous metal sheathing of the corner, thus satisfying all building codes.

A more specific object of the invention is to provide novel and improved edging strips which cover and protect the entire corner area of the building structures to which they are applied, by a continuous sheath of metal reinforced just at the corner. As is well known, the corners at which the walls meet are subjected to particularly hard wear and exposed to damage by impact. Accordingly, a strong protection of the corners is highly desirable and such is afforded by the continuous and reinforced metal sheathing of the invention.

Another more specific object of the invention is to provide novel and improved protective edging strips which when folded, form a rigid metal bead at the corner, from which extend rigid metal wings. Such rigidity affords the advantage that an edging strip installed at a corner cannot follow the often somewhat warped contours and the indentations of the wallboard material, such as sheet rock, but presents a smooth outer surface which permits a complete squaring and plumbing of the corner.

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Still another more specific object of the invention is to provide novel and improved protective edging strips which after being folded into the angular configuration, constitute a rigid structure due to the corner bead, whereby the strip has no tendency to revert to its original flat ribbon form. Furthermore, the presence of the corner beads effectively prevents splitting of the strips even if the strips are sanded after installation.

Still another specific object of the invention is to provide a novel and improved edging having a fibrous carrier web formed with a lengthwise loop or bulge opposite a groove and bead of the metal web adhered to the fibrous web. The web material defining the loop or bulge permits folding of the metal web without danger of splitting the fibrous web at the folding edge thereof.

The present application is a continuation-in-part of my co-pending application Serial No. 793,330, filed February 16, 1959.

Other and further objects, features and advantages of the invention will be pointed out hereinafter and set forth in the appended claims forming part of the application.

In the accompanying drawing, several preferred embodiments of the invention are shown by way of illustration and not by way of limitation.

In the drawing:

FIG. 1 is a cross-sectional view of an edging strip according to the invention.

FIG. 2 is a sectional view showing the strip of FIG. 1 applied to an outside corner.

FIG. 3 is a sectional view showing the strip of FIG. 1 applied to an inside corner.

FIG. 4 is a cross-sectional view of a modification of an edging strip according to the invention.

FIG. 5 is a sectional view showing the strip of FIG. 4 applied to an inside corner and,

FIG. 6 is a cross-sectional view of another modification of an edging strip according to the invention.

Broadly speaking, the concept of the invention resides in adhering to a pliable lengthwise looped flat carrier web a single comparatively stiff metal web of a width less than the width of the carrier web and longitudinally centered so that the carrier web over hangs the metal web on both sides, and in providing a continuous longitudinal groove in the metal web so that the gauge of the metal web is reduced along the entire length of the groove, but the integrity of the metal web as a single web or strip is preserved.

As is apparent, an edging strip of such design can be rolled or coiled when in its flat condition and a length severed therefrom, when longitudinally folded, will cover a corner to be protected with a continuous metal sheathing thereby effectively preventing damage to the corner and straightening the same.

The edging strip according to FIG. 1 comprises a metal web or ribbon 10 made of a suitable metal. It has been found that hard aluminum alloy 1100 H 16 is particularly suitable for the purpose. Web 10 has on one side a centered groove 11 of approximately semi-circular cross-section and extending along the entire length of the web. The width and the maximum depth of the groove may be such that the metal strip can be folded to define an angle of 90° or just a little less, at which angle the edges defining the groove come into abutment with each other. The other side of the web is formed with a reinforcing rib 12 disposed opposite groove 11 and also extending the length of the web. As is apparent, rib 12 strengthens the web material weakened along its center line by groove 11. The edging strip further comprises a fibrous web 13 made, for instance, of a suitable paper such as kraft paper. The paper web is formed with a lengthwise ex-

tending, centered shallow loop or bulge 14. The width of web 13 is in excess of that of web 10. In actual practice, the paper web may have a width of 2½" and the metal web a width of 1". The gauge of the paper web may be .008" and the gauge of the metal web .016". The gauge should be such that, depending upon the special properties of the metal used, it will lend the metal web sufficient rigidity to prevent longitudinal bending of the same except along groove 11, but will permit rolling of the metal web together with the carrier web. The metal web is adhered or bonded to the carrier by any suitable cement or adhesive. The metal web is adhered to the paper web so that the groove and the rib of the metal web are in superimposed registry with loop 14 in a position such that the rib faces the open side of the loop. The bonding of the metal web to the paper web, for instance, by two strips 15 of glue, is effected so that the loop of the paper web is left free of glue and accordingly, the web material forming the loop is loose and can be folded freely. Due to the greater width of the paper web, the same protrudes along both sides of the metal web to form marginal strips 13a. The marginal strips 13a may be coated with a suitable adhesive when the strips are installed, but it is generally preferable to precoat the marginal strips with a self-sealing adhesive on the same side on which the metal web is adhered, or the marginal strips can also be imbedded in plaster.

Turning now to FIG. 2, this figure shows two walls 4 and 5 meeting at a right angle. These walls may be visualized as consisting of wallboard, plasterboard, sheet rock or any other suitable dry or wet wall material. Let it now be assumed that it is desired to protect the outer corner defined by the two walls. The operator will then cut from a supply roll of edging strip as shown in FIG. 1 a suitable length of edging strip and will fold the same along groove 11. The metal web must always be next to the wall, and the paper or carrier must always be on the outside. As the corner of FIG. 2 is an outside corner, the edging strip evidently must be so folded that groove 11 is contracted. After having been applied to the corner, the edging strip is secured to walls 4 and 5 by means of the overhanging adhesive-coated marginal portions 13a of the carrier web.

After the strip has been secured it can be painted or papered over. If necessary, the transition areas between the strip and the walls proper can be built up by plaster or other suitable material, such as spackle or joint filler. As is evident, the metal web covers the corner with a continuous sheathing which is reinforced along the most critical edge by rib 12. This rib constitutes in effect a bead along the corner, thereby effectively preventing splitting of the metal web when being folded and also lending to the folded web such rigidity that the wings of the web extending from the bead do not tend to revert to the original plane shape before the edging strip is installed and that the wings after installation cannot conform themselves to any warpings or indentations that may be present in the wall material proper.

The installation of the edging strip according to FIG. 1 at an inside corner, as is shown in FIG. 3, is the same as has been described for an outside corner, and also affords the same advantages. Rib 12 again reinforces the edging strip along its most critical edge and lends a high degree of rigidity to the folded strip without in any way making the folding of the strip more difficult.

Due to the provision of loop or bulge 14, the fibrous material of web 13 is not subjected to any pull which may tear the material irrespective of whether the edging strip is folded according to FIG. 2 or according to FIG. 3.

FIG. 4 shows a metal web 10 and a paper web 13 of the same design as has been described in connection with FIG. 1, the only difference being that according to FIG. 4, groove 11 faces the open side of loop or bulge 14 and

that rib 12 faces outwardly. An edging strip according to FIG. 4 is specifically designed for application to inside corners and FIG. 5 shows the application of the strip to an inside corner. As is apparent, the strip according to FIG. 4 also affords the afore-described advantages as to reinforcing the strip along its folding edge and providing adequate material for folding the paper web without subjecting the same to stresses which may tend to tear the paper.

Finally, FIG. 6 shows an edging strip similar to FIG. 1 in which the semi-circular groove 11 is replaced by a V-shaped groove 11a. This groove is again so dimensioned that it permits a folding of web 10 so that the web defines an angle of about 90°. The edging strip of FIG. 6 may be used either for outside or for inside corners in the manner shown in FIGS. 2 and 3.

While the invention has been described in detail with respect to certain now preferred examples and embodiments of the invention, it will be understood by those skilled in the art after understanding the invention, that various changes and modifications may be made without departing from the spirit and scope of the invention, and it is intended, therefore, to cover all such changes and modifications in the appended claims.

What is claimed as new and desired to be secured by Letters Patent is:

1. A building-corner edging strip comprising a carrier web made of coilable fibrous material and having a shallow lengthwise looped portion extending intermediate the lengthwise edges of the web, and a reinforcing web made of coilable sheet metal and having in one of its sides a lengthwise groove extending intermediate the lengthwise edges of said web and on the other side a lengthwise rib opposite said groove, said rib being of a transverse width in excess of the maximum width of said groove, said fibrous web being coextensive in length with said sheet metal web but wider than said web and attached along the two lengthwise marginal portions of the fibrous web defined and separated by the looped web portion to the sheet metal web on the side thereof having said rib in a position in which said rib and said looped web portion are in lengthwise alignment and the marginal portions of the fibrous web protrude laterally from the lengthwise edges of the sheet metal web, the looped web portion being left unattached to the sheet metal web and having a transverse width in excess of the transverse width of said rib, whereby upon lengthwise folding of the edging strip to an angular cross section said rib forms a reinforcing metal bead located opposite the groove and extending within said unattached looped fibrous web portion, said coilable sheet metal web being of a rigidity sufficient to impede lengthwise bending of the web except along said groove, but permitting coiling of the metal web together with the fibrous carrier web.

2. An edging strip according to claim 1, wherein said groove in the sheet metal web has a substantially V-shaped cross section.

3. A building-corner edging strip comprising a carrier web made of coilable fibrous material and having a shallow lengthwise looped portion extending intermediate the lengthwise edges of the web, and a reinforcing web made of coilable sheet metal and having in one of its sides a lengthwise groove extending intermediate the lengthwise edges of said web and on the other side a lengthwise rib opposite said groove, said fibrous web being coextensive in length with said sheet metal web but wider than said web and attached along the two lengthwise marginal portions of the fibrous web defined and separated by the looped web portion to the sheet metal web on one side thereof in a position in which said rib and said looped web portion are in lengthwise alignment and the marginal portions of the fibrous web protrude laterally from the lengthwise edges of the sheet metal web, the looped

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web portion being left unattached to the sheet metal web and having a transverse width in excess of the transverse width of said rib, whereby upon lengthwise folding of the edging strip to an angular cross section said rib forms a reinforcing metal bead opposite said groove, said coil-
 5 able sheet metal web being of a rigidity sufficient to impede lengthwise folding of the web except along said groove, but permitting coiling of the metal web together with the fibrous carrier web.

4. An edging strip according to claim 3, wherein said
 10 groove in the sheet metal web has a width and a maximum depth such that the lengthwise edges of the groove abut against each other when said webs are jointly lengthwise folded to define an angle of about 90 degrees.

5. An edging strip according to claim 3, wherein said
 15 sheet metal web is made of a hard aluminum alloy.

853,094
 1,440,615
 1,524,292
 1,917,920
 2,123,842
 2,234,701
 2,240,256
 2,314,523
 2,800,224
 2,862,264

693,160

6

References Cited in the file of this patent

UNITED STATES PATENTS

Leitch	-----	May 7, 1907
Meyercord	-----	Jan. 2, 1923
Dinsmoor	-----	Jan. 27, 1925
Bliss	-----	July 11, 1933
Cox	-----	July 12, 1938
Lyman	-----	Mar. 11, 1941
Elmendorf	-----	Apr. 29, 1941
Speer	-----	Mar. 23, 1943
Walter et al.	-----	July 23, 1957
Perna	-----	Dec. 2, 1958

FOREIGN PATENTS

Great Britain	-----	1953
---------------	-------	------