May 9, 1933. F. A. MANSKE 1,907,990

EXPANDED METAL CORNER BEAD

Filed Nov. 12, 1931

Fig-1

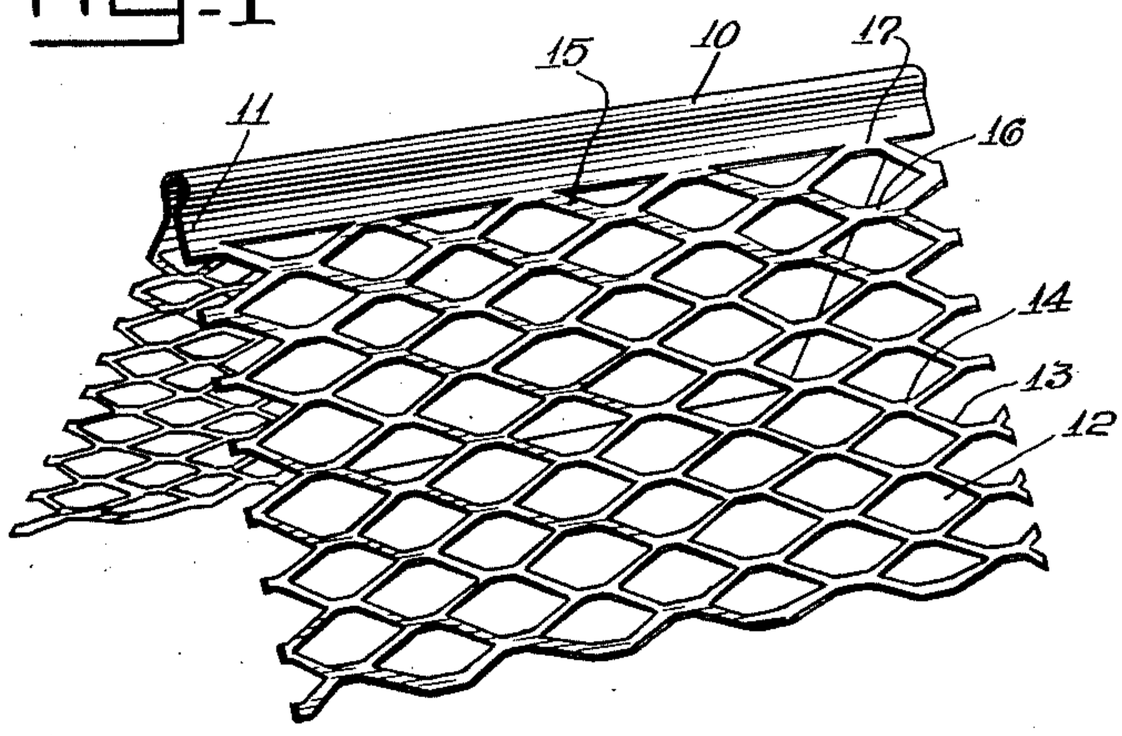


Fig-2

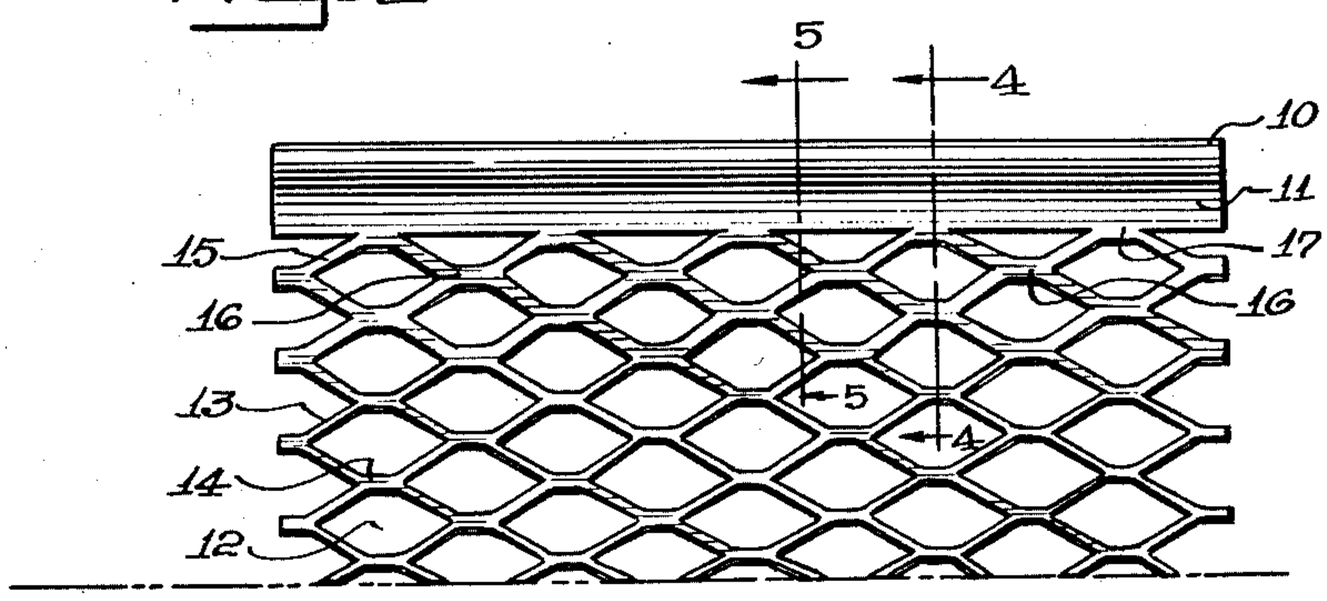


Fig-3

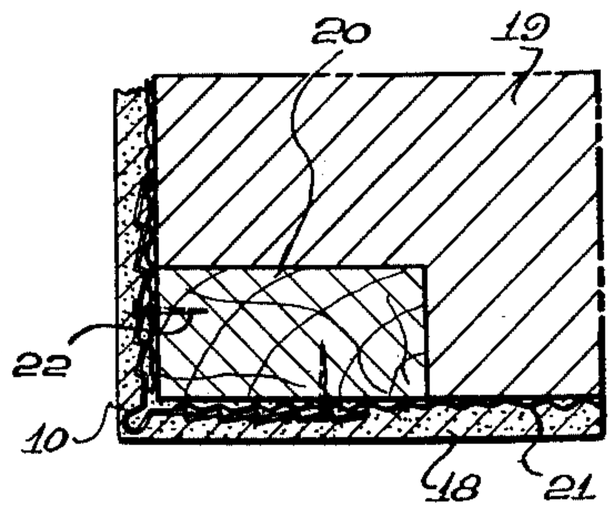


Fig-4

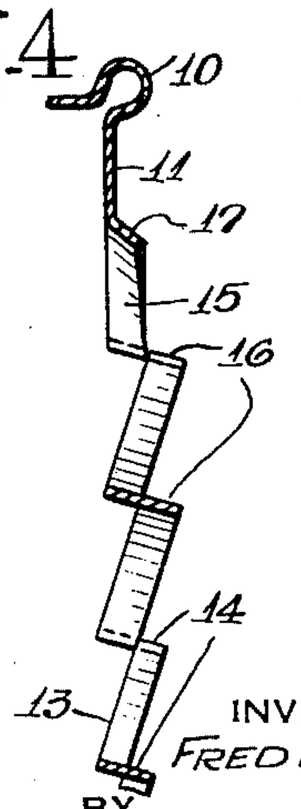
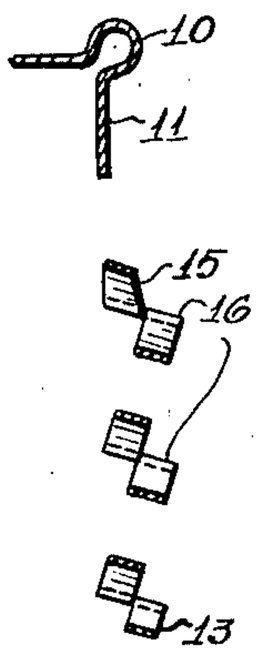


Fig-5



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Patented May 9, 1933 1,907,990

UNITED STATES PATENT OFFICE

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EXPANDED METAL CORNER BEAD

Application filed November 12, 1931. Serial No. 574,563.

This invention relates to expanded sheet metal products and has reference more particularly to angular corner beads with expanded metal wings, said corner beads being adapted to be used in the corners of rooms under a coat of plaster.

In the manufacture of corner beads, it is common practice to form a bead of metal with wings of expanded metal, the angle between said wings being substantially 90 degrees. It is desirable that these wings of expanded metal be of increasing stiffness near the bead so that if it becomes necessary to flex the wings on the job slightly to make the corner bead fit a corner of a room, the bead will not be distorted out of a straight line. It is also desirable that this increasing stiffness of the wings be utilized to prevent breakage of the wings adjacent the bead as the wings are flexed at the job. A firm bond between the bead and the plaster is also essential so as to prevent the plaster from breaking away from the bead.

An object of this invention, therefore, is to provide a corner bead having expanded metal wings extending from the bead, the stiffness of said wings increasing near the bead to avoid breakage thereof and to also permit flexing of the wings without distorting the bead out of line.

Another object of the invention is to provide a corner bead with expanded wings in which a firm bond with the plaster is secured adjacent the bead; also to improve corner beads in other respects hereinafter specified and claimed.

Reference is to be had to the accompanying drawing forming a part of this specification, in which

Fig. 1 is a perspective view of a section of my improved corner bead,

Fig. 2 is a fragmentary elevation on a large scale showing one of the wings and the bead of the invention,

Fig. 3 is a sectional view through the corner of a wall showing the application of the corner bead,

Fig. 4 is a sectional view through the corner bead taken on line 4—4 of Fig. 2, and

Fig. 5 is a sectional view through the corner bead taken on line 5—5 of Fig. 2.

My improved corner bead consists of a bead 10 which is approximately semi-circular in cross section, and is composed of metal, preferably galvanized iron. A pair of flanges 11 extend outwardly from the bead 10, the angle between said flanges 11 being substhe bead 10, the flanges 11 are provided with then expanded to form diamond shaped meshes 12, bounded by strands 13 and bond sections 14.

One of the salient features of my invention consists in making strand 15 and bonds 16 adjacent the flanges 11 of substantially greater width than the strands 13 and bonds 14 near the outer edges of the expanded metal wings. The bonds 17 immediately adjacent and attached to the unexpanded flanges 11, are also turned outwardly at an angle to said flanges, as best seen in Fig. 4, which also causes the strands 15 to extend outwardly at an angle to the plane of the expanded metal wing. By making the strands wider and by also turning them partly on edge at an angle, the expanded metal wings for about three meshes adjacent the flanges 11, are substantially stiffer in character than the outer edges of the wings which are more flexible. As a result, when it becomes necessary to flex the expanded metal wings somewhat in adjusting the corner bead to suit job conditions, the bead 10 is not distorted out of a straight line. Furthermore, the expanded metal wings are stronger and stiffer adjacent the flanges 11 so that they will not break away from said flanges. Another important advantage of turning the bonds 17 at an angle to the flanges 11 is that when a plaster coating 18 is applied to the outside of a wall 19 about a stud 20, the plaster tends to work under the bonds 17 and thus increase the firm grip of the plaster on the bead 10 and prevents said plaster from breaking away from the bead at the corner of the room.

In constructing the wall, metal lath 21 of any desired type is applied to the studding 20 by means of nails 22, and the nails 22 may also be used to attach the expanded

metal wings of the corner bead to said stud. After application of the expanded metal 21 and corner bead to the stud 20, the layer of plaster 18 is applied in a manner well known to the art.

The improved corner bead may be constructed in a number of different ways. The bead may be formed into annular shape, and the wings are then slitted and expanded. Rotary cutters or reciprocating dies may be used and the expanding may be accomplished simultaneously with the slitting if desired.

I would state in conclusion that while the illustrated example constitutes a practical embodiment of my invention, I do not wish to limit myself precisely to these details, since manifestly, the same may be considerably varied without departing from the spirit of the invention as defined in the appended claims.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. In a corner bead construction, a bead formed of sheet metal, a pair of flanges extending outwardly from said bead, and expanded metal wings integrally attached to said flanges, the strands and bond of said wings being wider adjacent the bead than at the outside edges of said wings so as to give added strength to said wings adjacent said flanges.

2. In a corner bead construction, a bead of sheet metal, a pair of flanges extending outwardly from said bead, and expanded metal wings integrally attached to said flanges, the strands of said wings being wider adjacent said flanges than at the outer edge of said wings, said strands being bent at an angle to the plane of said wings.

3. In a corner bead construction, a bead of sheet metal substantially semi-circular in cross section, a pair of flanges extending outwardly from said bead, an expanded metal wing integrally attached to each of said flanges, bonds immediately adjacent each of said flanges and connecting said wings to said flanges, said bonds extending outwardly at an angle to the plane of said flanges, and strands composing said wings, the strands adjacent said flanges being wider than the strands near the outer edge of said wings.

FRED A. MANSKE.

CERTIFICATE OF CORRECTION.

Patent No. 1,907,990. May 9, 1933.

FRED A. MANSKE.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 1, line 59, before "the" first occurrence, insert the syllable and words "stantially 90 degrees. A short distance from"; and in the same line, after "with" insert the words "slits in a manner well known to the art, and"; and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 11th day of July, A. D. 1933.

M. J. Moore.

(Seal) Acting Commissioner of Patents.