No. 658,387. Patented Sept. 25, 1900.

F. A. MITCHELL.

CORNER STRIP OR BEAD.

(Application filed July 14, 1900.)

(No Model.)

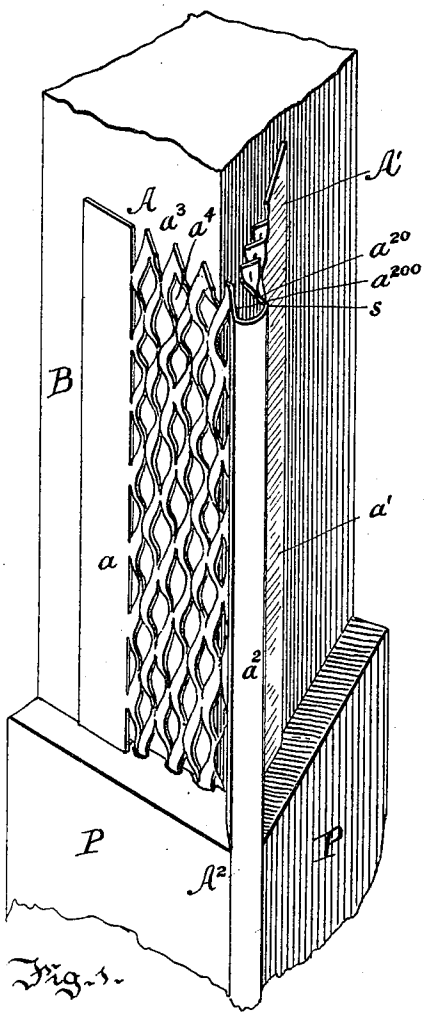


Fig. 1.

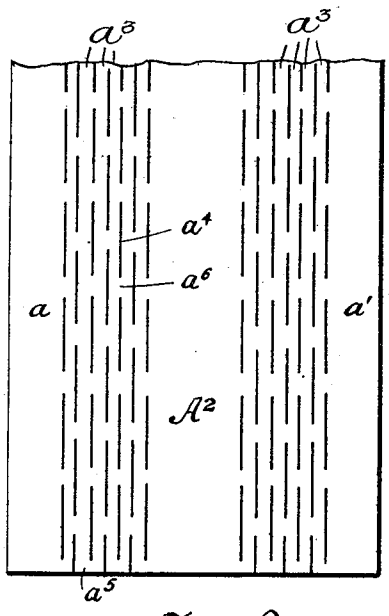


Fig. 2.

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UNITED STATES PATENT OFFICE.

FERRIS A. MITCHELL, OF NEW YORK, N. Y.

CORNER STRIP OR BEAD.

SPECIFICATION forming part of Letters Patent No. 658,387, dated September 25, 1900.

Application filed July 14, 1900. Serial No. 23,625. (No model.)

To all whom it may concern:

Be it known that I, FERRIS A. MITCHELL, a citizen of the United States, residing in the city, county, and State of New York, have invented a certain new and useful Improvement in Corner Strips or Beads, of which the following is a specification, reference being had to the accompanying drawings, wherein like letters of reference will refer to like parts throughout.

My invention relates to corner strips or beads such as are used to protect the angles of plastered walls, and has for its object the production of such a device that will be more efficient in use than those which have preceded it and which will also be cheaper to manufacture.

Heretofore it has been the usual practice to form corner-strips of solid metal plates—*i. e.*, not built up of separate pieces—fastened to the joists or other portions of the walls either directly or by means of separate clips. To so form a corner-plate is advantageous in many respects; but there have been two disadvantages which I seek by the present invention to overcome. The first is the difficulty in obtaining a good bond between the plaster on the adjacent walls at their junction because of the interposed metal plate or straight edge. Even where this plate has been provided with orifices for the passage of the plaster the difficulty is not altogether obviated, as sufficient metal has to be left to make a stiff edge. The second difficulty is the expense of making the metal plates and having the edges stiff enough to remain true in spite of rough handling.

I attain my end and overcome the disadvantages named by forming a corner-plate of metal which has been punched with numerous parallel slits expanded to form a network in two parallel longitudinal bands with a solid strip left between them, the band thus formed being bent longitudinally along the solid middle portion until it has substantially a V-shaped cross-section, the solid portion being at the point of the V and being in itself the bead or straight edge of the plate. By this construction, which is both light and cheap, I am enabled to produce a plate that will stand rough handling without deterioration. Moreover, the numerous slits when expanded render the body of the plate no more than a network and permit the easy and free passage of plaster for the bond at the corner of the wall.

My invention is fully illustrated in the accompanying drawings, wherein—

Figure 1 is a perspective view of a short length of my corner-plate, and Fig. 2 is a similar length of metal from which it is made already slitted but not expanded.

Referring to the drawings, in Fig. 1 I have shown a perspective view of a section of my corner-strip applied to a corner-joist B of a partition or wall which is to be plastered. Instead of being applied to a joist this corner-strip may obviously be applied to the corner of any wall, whether of stone, brick, tile, or other materials. It consists, essentially, of two wings or flanges A and A', each consisting of expanded metal with a solid edge, the two flanges being connected by an intermediate solid strip A^2. The formation of the strip is best shown in Fig. 2, where it is represented in the form of a blank not yet struck up into shape. In this figure the slits for the expanded portion are shown as already produced, although they may be formed as the metal is expanded by the action of suitable dies. A strip of sheet metal of a suitable width is slitted throughout its length in parallel broken lines a^4, forming two similar and parallel bands a^3 a^3, which are to be expanded, a strip of metal A^2 lying between the two perforated bands throughout their length, being left solid, and a certain portion of each edge being also left solid, as at a'. A bend is produced in the sheet or strip thus prepared along the central solid portion A^2 by means of suitable dies, and at the same time the bands a^3 a^3 have their solid portions a^5 a^6 subjected to pressure to expand them into the shape shown in Fig. 1.

In producing the bend referred to in the central portion A^2 the latter may be given various shapes, according to the shape of the dies. The shape which I prefer is that shown in Fig. 1, where a flat or slightly-rounded face a^2 is produced, and the sides a^{20} a^{200} are bent inward toward each other to form pronounced shoulders *s s*. These shoulders form what are known as the "plaster-lines" of the straight edge or bead, the part A^2 forming said bead. By this method of bending the bead A^2 is ren-

dered stiff enough to resist any ordinary efforts to bend it out of shape, its stiffness being increased by the expanded metal flanges integrally attached to its two sides a^{20} and a^{200}. The openings or slits a^4 along these edges do not materially affect their support and yet permit the passage of the plaster through and across the space between the bead A^2 and the corner of the wall.

In applying my corner-strip to a wall I may secure it by nails or staples through the solid portions a and a' or through or over the expanded metal part; but I prefer to use the mode of attachment described in another application filed July 3, 1900, Serial No. 22,406. According to that method I provide certain deposits of gage-mortar on the corner of the wall, this gage-mortar being used by plasterers to form a "screen" or gage for the depth of plaster on a wall. I then apply my corner-strip directly to the wall, the gage-mortar thereon passing through the meshes a^4 of the expanded metal flanges A and A', so that when the bead A^2 has been adjusted to true vertical position and the gage-mortar has set the entire strip is rigidly held in position and ready to be covered to the plaster-line s with plaster. The formation of this plaster-line by means of the shoulders s is of great importance, for with corner-plates as they have been heretofore constructed it has been found that the lack of adherence between the plaster and the metal along the plaster-line has caused chipping and cracking upon slight blows or pressure coming upon the face of the bead. This is avoided in my case, because the meshes a^4 of the expanded metal permit a free passage of the mortar and plaster behind the bead and around the corner of a wall, an excellent bond being thus assured between the two plaster faces, and the angle of the sides a^{20} a^{200} of the bead A^2 is such that the support for the plaster along each shoulder s is continuous rearwardly through the bond between the faces of the wall. Moreover, I find that my corner-strip made as herein described does not vibrate so readily as those heretofore constructed and used, and this in itself lessens the liability of cracking or separation of the plaster.

In Fig. 1 I have shown the plaster on the walls at P covering the strip on both sides to the shoulder s.

What I claim, and desire to secure by Letters Patent, is—

1. A plasterer's corner-strip comprising a corner-bead or straight edge and a support therefor, of sheet metal expanded or punched out to form a network, substantially as described.

2. A plasterer's corner-strip comprising a body flange or support of sheet metal punched out or expanded to form a network, and a straight edge or bead supported by and integral with said network, substantially as described.

3. A plasterer's corner-strip composed of a sheet of sheet metal bent longitudinally to form substantially a V shape in cross-section, the metal at the bent edge being left solid to form a corner-bead or straight edge, and on both sides thereof being slitted or perforated and expanded into a network, substantially as described.

4. A plasterer's corner-strip composed of metal slitted and expanded to form a network, and bent to form a straight edge, substantially as described.

In witness whereof I have hereunto set my hand, in the presence of two witnesses, this 13th day of July, 1900.

FERRIS A. MITCHELL.

Witnesses:
EDWARD E. CLEMENT,
HARRY S. STODDART.