Aug. 24, 1965 A. F. ARNOLD 3,201,908

CORNER SCREED BEAD

Filed Oct. 6, 1961 2 Sheets-Sheet 1

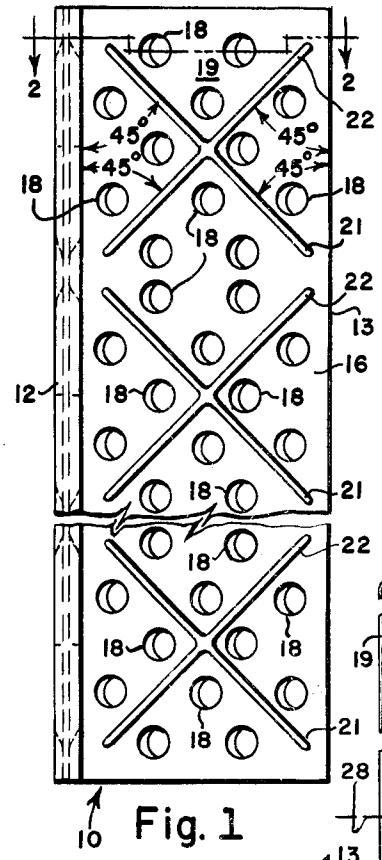


Fig. 1

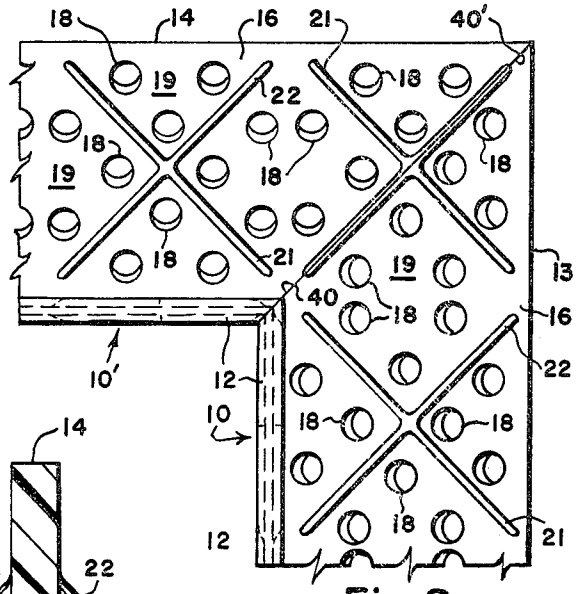
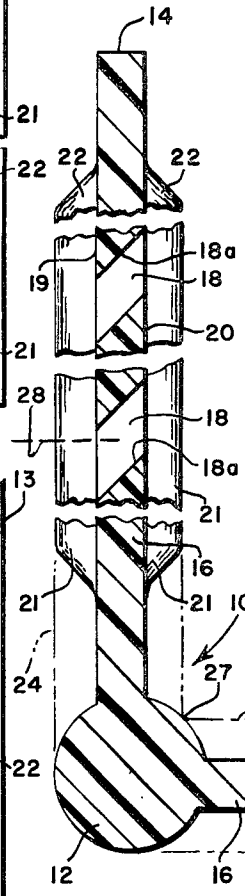


Fig. 9



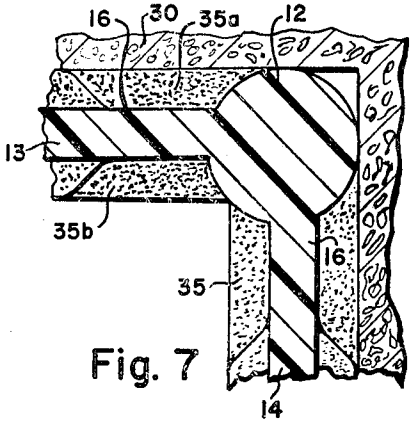


Fig. 7

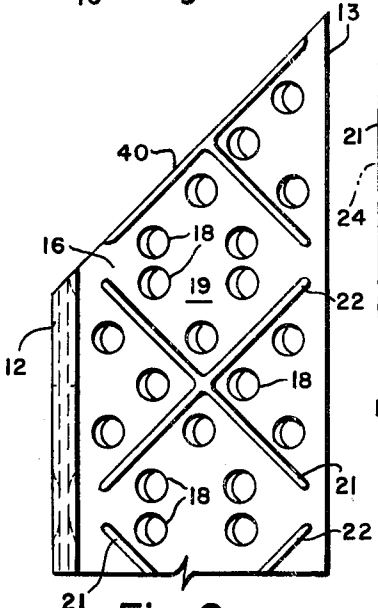


Fig. 8

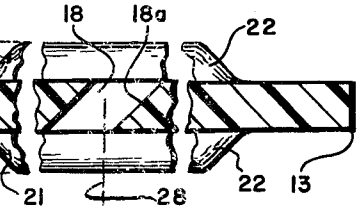


Fig. 2

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Aug. 24, 1965 A. F. ARNOLD 3,201,908

CORNER SCREED BEAD

Filed Oct. 6, 1961 2 Sheets-Sheet 2

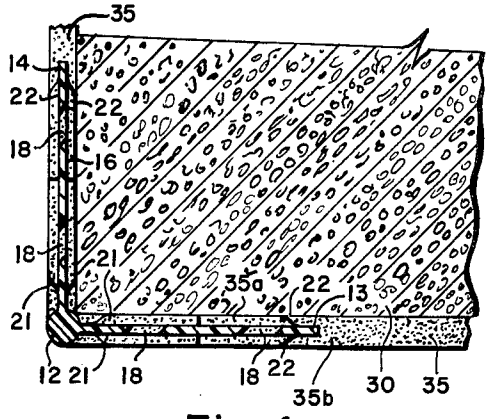


Fig. 4

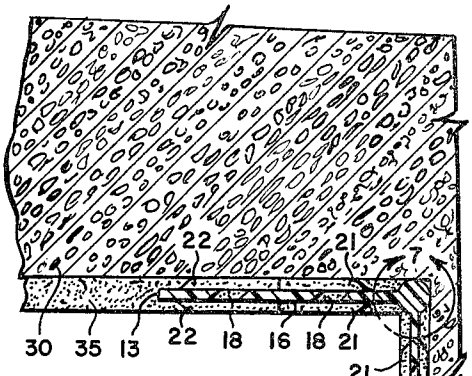


Fig. 6

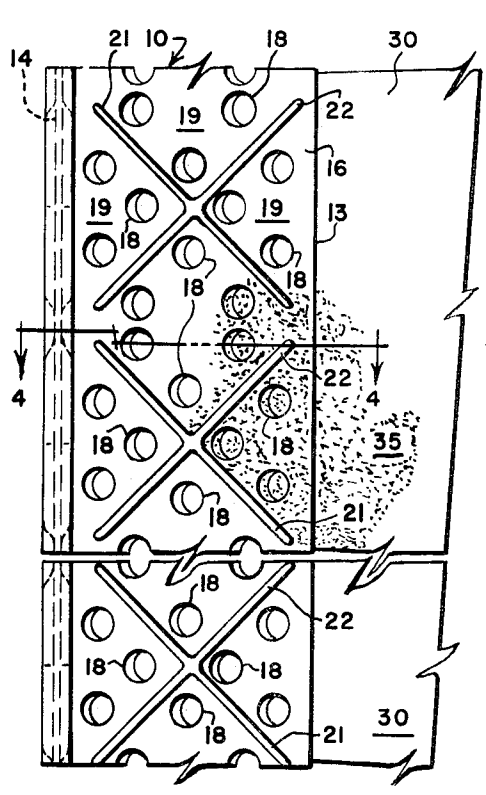


Fig. 3

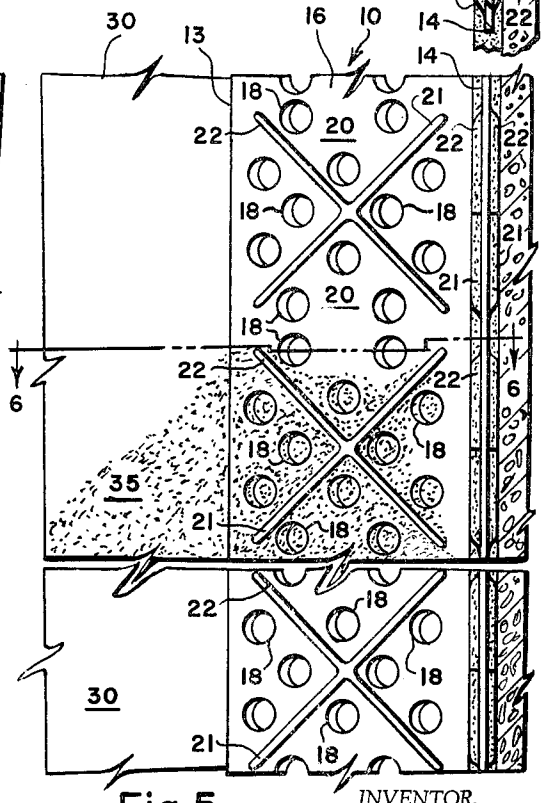


Fig. 5

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CORNER SCREED BEAD

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Filed Oct. 6, 1961, Ser. No. 143,438
2 Claims. (Cl. 52—255)

This invention relates to improvements in construction members of the type known as corner screed beads for use in forming corners in plaster work at the junctions of walls and around window and door recesses, for example. More particularly, the invention is directed to improvements in that kind of corner screed bead which is secured to the lath, studding, rough plaster, or dry wall where a corner is to be formed, and which is substantially buried by the application of a finish coat of plaster, the corner screed bead serving as a guide and anchor for the finish coat, thereby assuring corners or edges which are smooth and regular.

It is one object of this invention to provide an angular corner screed bead or strip, which is preferably formed of a resiliently flexible plastic material, and comprises first and second elongated flanges joined by a bead of circular cross section and extending normal to one another so as to permit installation to either an inside or an outside corner with the bead serving as a guide for the application of finish plaster in either instance.

Another object of this invention is the provision of such a corner screed bead wherein the flanges have a plurality of openings defined therein and surrounded by flat areas of the flange, through which openings finish plaster may flow and adhere to the rough plaster, lath, or dry wall base, and wherein the flanges are provided with a pattern of projections or raised embossments on the surfaces thereof and between the openings therein, the projections or embossments, in the form of ribs for example, serving to space the flanges from the rough plaster or other base material so that finish plaster can flow behind the flat imperforate portions of the flanges to make a more complete bond with the base material.

As another object this invention aims to provide an improved corner screed bead or strip of the above mentioned character for use in plastering corners and the like, and which corner screed bead may be readily cut with a hand shears to form mitered joints at intersections such as occur around window or door recesses, the pattern of projections or embossments comprising raised ribs on the surfaces of the flanges, the ribs being disposed so as to define 45° angles with respect to the edges of the flanges, and each rib being disposed at right angles with each rib adjacent thereto, whereby the ribs provide a visual guide for quickly and easily making accurate 45° miter cuts in either direction and at any place along the length of the corner screed bead without the use of any angle measuring instrument or the necessity of scribing. In one preferred form, the pattern comprises a series of crossed ribs.

Other objects and advantages of the corner screed beads embodying this invention will become apparent from the following detailed description of a presently preferred embodiment taken in conjunction with the accompanying sheet of drawings forming a part of this specification, and in which

FIG. 1 is an elevational view of one side of a corner screed bead embodying the present invention, with a portion broken out thereof;

FIG. 2 is an enlarged sectional view taken along line 2—2 of FIG. 1 with parts broken out;

FIG. 3 is an elevational view of the corner screed bead of FIG. 1 shown installed on an outside corner and partially covered with finish plaster;

FIG. 4 is a sectional view taken along line 4—4 of FIG. 3;

FIG. 5 is an elevational view similar to FIG. 3 but showing an inside corner;

FIG. 6 is a sectional view taken along line 6—6 of FIG. 5;

FIG. 7 is an enlarged fragmentary view of a portion of FIG. 6;

FIG. 8 is an elevational view of a corner screed bead which has been cut in preparation for forming a mitered joint; and

FIG. 9 is an elevational view of a mitered joint formed by corner screed beads of this invention.

In the form of the invention illustrated in the drawings, there is provided an angular corner screed bead 10 which is adapted to be used in forming smooth and regular plaster corners. Corner screed bead 10, which is preferably formed from a resiliently flexible plastic material such as polystyrene or polyvinyl, comprises a solid bead 12 of generally circular cross section, and first and second elongated flanges 13 and 14 which are formed integrally with bead 12 and extend radially therefrom at right angles to one another so that the flanges may be regarded as having inside and outside surfaces, as is best illustrated in FIG. 2.

The flanges 13 and 14 each comprise a flat web portion 16 the thickness of which is substantially less than the diameter of bead 12 so that the bead presents an exposed convex surface thereof between the inside surfaces of the flanges. A plurality of openings 18 extend through web portions 16 of flanges 13 and 14, and are surrounded by flat surface areas 19 on the outside of the flanges and the flat surface areas 20 on the inside thereof. A pattern of projections or raised embossments presented on the inside and outside surfaces of each of the flanges 13 and 14, and in the example shown the projections or embossments comprise a series of ribs 21 and a series of ribs 22 crossing ribs 21.

The ribs 21 and 22 preferably terminate short of the free edges of flanges 13 and 14 and short of the junction of the flanges with bead 12. The ribs 21 are parallel to one another and are disposed to define acute angles of 45° with the free edges of the flanges and with the junction of the flanges with the bead 12 as indicated in FIG. 1. Ribs 22 cross ribs 21 at right angles thereto and likewise form angles of 45° with the edges of the flanges on which they are embossed.

The ribs 21 and 22 are of such a size or height above the surface of webs 16 that the apexes of the ribs on the outside surfaces of the flanges lie in planes 24 which are tangential to the surface of bead 12, while the apexes of the ribs on the inner surfaces of the flanges lie in planes 26 which converge at a line passing through points 27 on the exposed convex surface of bead 12 between the flanges. The openings 18 are conveniently arranged in geometrical groups between the ribs as shown, although they may be randomly disposed therebetween if desired. It will be noted from FIGS. 1 and 2, that the side walls 18*a* of openings 18 are formed at an angle to a line 28 extending normally to the web portion 16, for a purpose which will become apparent as the description proceeds.

Although the corner screed bead 10 may be made in other sizes and other dimensions, as well as of other resiliently flexible plastic than polystyrene and polyvinyl, I have found that when formed with a bead 12 having a diameter of $\frac{5}{32}$ of an inch, flanges 13 and 14 of 2 inches in breadth, web portions 16 of $\frac{1}{16}$ inch thickness, openings of $\frac{1}{4}$ inch in diameter, and ribs standing $\frac{3}{64}$ inch above the surfaces of the webs provide the most satisfactory results in the majority of applications thereof. The corner screed beads 10 are supplied in convenient lengths such as eight or ten feet and may be readily cut with hand shears or scissors to form shorter lengths, miter joints, and

the like in a manner which will later be more fully described.

Corner screed beads embodying this invention may be used to advantage in forming either inside or outside corners, as well as three-way corners or intersections around window recesses, ceiling and wall corner junctions, and the like.

Referring more particularly to FIGS. 3 and 4, a corner screed bead **10** is shown embodied in the construction of a partly finished outside corner. In constructing such a corner, the corner screed bead **10** is pressed by hand over the corner formed by a base material such as rough plaster, lath, dry wall, or the like, the base material being shown as rough plaster **30** in this instance. The ribs **21** and **22** engage the rough plaster and assure a space between the inside surfaces **20** of the webs **16** and the rough plaster. The corner screed bead is secured in this position by the use of small nails, staples, or the like, which are preferably driven by an automatic hand gun.

A coat of finish plaster **35** is then applied by the plasterer so as to substantially bury the corner screed bead **10** while forcing a quantity of finish plaster through openings **18** and in the space provided by ribs **21** and **22**, behind the flat imperforate areas of webs **16** between holes **18**, so that a substantial quantity of finish plaster is disposed as at **35***a* between the flanges and the rough plaster to form a strong adhering bond therewith. The exposed surface of bead **12** provides a smooth, rigid guide against which the plasterer may cause his trowel to travel as he forms a layer of finish plaster over the exposed surfaces of flanges **13** and **14**, while the exposed ribs **21** and **22** thereon serve as a guide for the trowel assuring a uniform layer **35***b* of finish plaster over the exterior of the web portions **16**.

The angle of the side walls **18***a* of the openings **18** provides a locking effect in one direction to prevent any likelihood of finish plaster layer **35***b* from pulling away from the corner screed bead **10**, and provides a similar locking effect in the other direction to prevent the corner strip **10** from pulling away from the layer **35***a* of finish plaster. It will be recognized, therefore, that the completed construction will be uniform and regular in appearance by reason of the guiding characteristics of the bead **12** and ribs **21**, **22**, and that the construction will remain rigid and secure because of the layer **35***a* of finish plaster assured by the spacing action of ribs **21** and **22** against rough plaster **30** and because of the locking action of the angularly formed openings **18**.

A similar corner construction is illustrated in FIGS. 5, 6 and 7 in which the corner screed bead **10** has been applied to an inside corner or wall intersection, the steps in the construction being the same as those described with reference to FIG. 4 as will be readily understood by those skilled in the art to which the invention pertains.

In many instances it is desirable to join two corner screed beads **10** with mitered joints at intersections of more than two surfaces, such as occur at the corner formed by two walls and a ceiling, around window or door recesses, hallway entrances, and the like. Such mitered joints are easily and accurately made when using the corner strip embodying this invention by utilizing the ribs **21** and **22** as guides along which the workmen may cut the corner screed bead with simple hand shears or scissors so as to form a 45° mitered end surface **40** on the corner screed bead as is shown in FIG. 8. It will be recognized that the ribs may be utilized as mitering guides to form 45° cuts in either direction as necessary to provide the corner desired. One example of such a mitered joint is illustrated in FIG. 9 wherein a corner screed bead **10** has a mitered end surface **40** abutting a similar surface **40'** of another corner screed bead **10'**.

The corner screed beads **10** may be produced by suitable punches and dies or, by extrusion forming of the general angular shape of the corner screed bead followed by forming of the openings **18** and ribs **21**, **22** by continuously operating rotary dies. In addition, the plastic material from which the articles are formed may be suitably pigmented to provide white corner screed beads to blend with the conventional white finishing plaster, or to provide colored corner screed beads to blend with decorative colored plaster as is sometimes used. Because of the pleasing appearance provided by the embossed pattern, and because the corner screed beads **10** may be pigmented, other uses may be found therefor, for example as decorative molding pieces.

Although the invention has been described in considerable detail with reference to a specific example of corner screed bead embodying the invention, it will be understood that the invention is not limited thereto, but rather the invention includes all those modifications, adaptations, and uses as are reasonably embraced by the scope of the claims hereof.

Having thus described my invention, I claim:

1. A corner screed bead for use in forming inside and outside plaster corners, said corner screed bead being formed of resiliently flexible plastic material and comprising:

(a) a solid bead of circular cross section,

(b) first and second elongated flanges joined by said solid bead and each having a free edge, said flanges extending radially from said solid bead at right angles to one another so that the flanges have inside and outside surfaces,

(c) said flanges having flat web portions and a plurality of spaced ribs projecting above said flat web portions on the inside and outside surfaces of said flanges,

(d) said web portions being of a thickness which is substantially less than the diameter of said solid bead so that said solid bead presents an exposed convex surface thereof between said flanges, said web portions having a plurality of openings therethrough between said ribs,

(e) said ribs being disposed at angles of 45° to said solid bead and to said free edges of said flanges, the apexes of the ribs on the outside surfaces of said flanges lying in planes which are tangent to said solid bead, and the apexes of the ribs on the inside surfaces of said flanges lying in planes which converge at a line lying in said exposed convex surface of said solid bead between said flanges.

2. A corner screed bead for use in forming inside and outside plaster corners, said corner screed bead being formed of resiliently flexible plastic material and comprising:

(a) a solid bead of circular cross section,

(b) first and second elongated flanges joined by said solid bead and each having a free edge, said flanges extending radially from said solid bead at right angles to one another so that the flanges have inside and outside surfaces,

(c) said flanges having flat web portions and a plurality of spaced ribs projecting above said flat web portions on the inside and outside surfaces of said flanges,

(d) said web portions being of a thickness which is substantially less than the diameter of said solid bead so that said solid bead presents an exposed convex surface thereof between said flanges, said web portions having a plurality of openings therethrough between said ribs,

(e) said ribs being disposed at angles of 45° to said solid bead and to said free edges of said flanges, the apexes of the ribs on the outside surfaces of said flanges lying in planes which are tangent to said solid bead, and the apexes of the ribs on the inside surfaces of said flanges lying in planes which converge at a line lying in said exposed convex surface of said solid bead between said flanges,

(f) said ribs terminating short of said solid bead and of said free edges, and the ribs on each of said surfaces of the flanges comprising a series of parallel

ribs each crossing a rib of another series of parallel ribs at right angles thereto.

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