Nov. 9, 1937. A. V. SPINOSA 2,098,261

PLASTER BASE

Filed Nov. 22, 1933

Fig. 1.

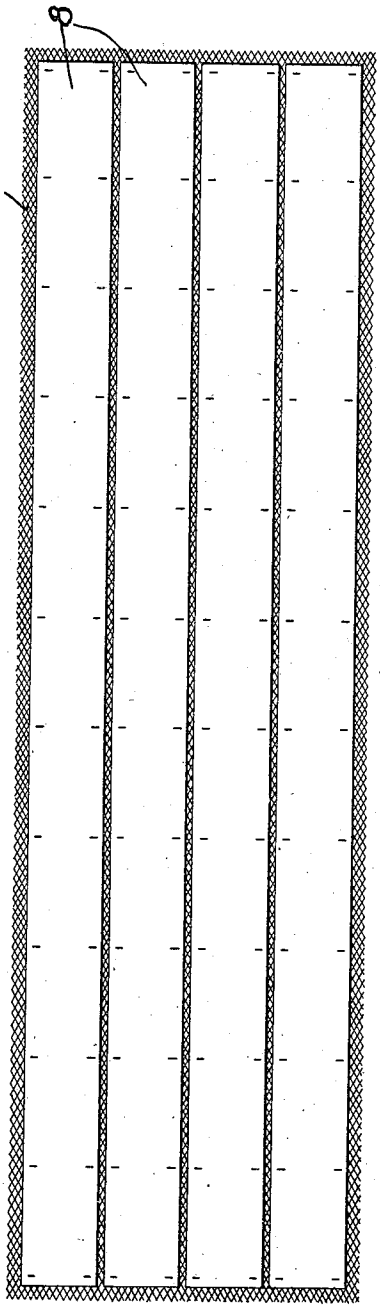


Fig. 2.

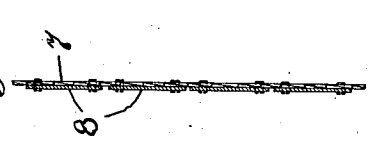


Fig. 3.

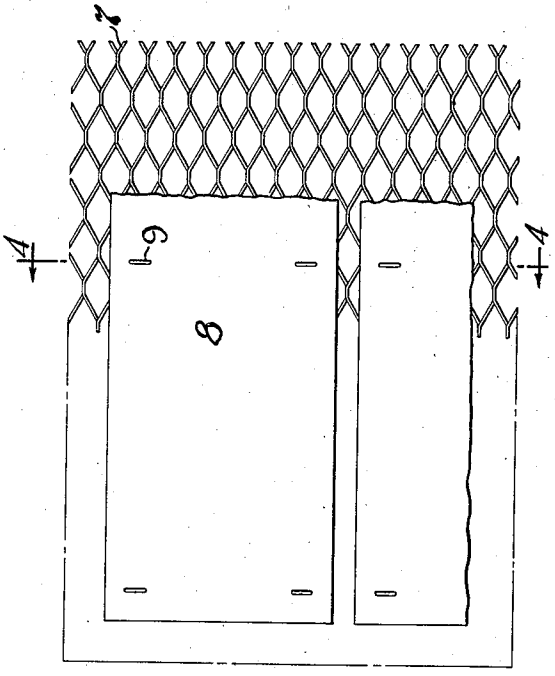


Fig. 4.



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PLASTER BASE

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Application November 22, 1933, Serial No. 699,104

6 Claims. (Cl. 72—116)

This invention relates to improvements in plaster bases and one of its primary objects is to provide an improved base whereby a quality plaster job may be obtained at lower cost than heretofore.

Another object of the invention is to provide a base requiring less plaster mortar than heretofore.

Still another object is to provide a base which enables the use of a less expensive mix.

A further object of the invention is to provide a base which will permit of two-coat work, if desired, dispensing with what is known as the "brown" coat.

The invention also contemplates a base which will, of itself, provide corner reinforcement, thereby dispensing with and eliminating the cost of the angle reinforcements customarily employed.

An additional object of the invention is to provide a base which may be readily, quickly and economically set in place.

More specifically my invention contemplates a plastic base composed of paper-back metal lath in which, among other things, the paper has structural strength whereby lighter weight metal lath may be employed, bringing the cost of the base to approximately that of the unbacked metal lath which would be required for similar work.

The foregoing, together with such other objects and advantages as may hereinafter appear or are incident to my invention, are realized by a base which I have illustrated in the preferred form in the accompanying drawing, wherein—

Fig. 1 is a plan view of a sheet of my improved base, from the backed side thereof.

Fig. 2 is a transverse section through the base of Fig. 1.

Fig. 3 is a fragmentary view drawn on an enlarged scale to illustrate certain features of the invention, and

Fig. 4 is a section taken on the line 4—4 of Fig. 3.

Referring now to Fig. 1, it will be seen that the plaster base comprises a sheet of expanded metal lath 7 to which is secured the backing shortly to be described. The lath is of the deployed metal type ordinarily employed for plastering purposes and is of standard size, approximately 27" wide by 96" long.

The backing consists of sheets or strips 8 of paper, there preferably being four of such strips to a sheet of metal lath. The strips are preferably about 6" wide, which leaves margins at the sides and uncovered sections between the strips of a width approximately ¾ths of an inch. The strips have a length such as to leave exposed about 1" of lath at each end of the lath sheet.

The metal lath of the base is, therefore, backed substantially over its entire area but at the same time provision is made by reason of the uncovered areas for the ready attachment of the base. To be economically feasible such a base must be capable of ready attachment. When the base is applied for ceiling work the exposed strips permit the workmen to quickly wire the base to the channel runners. When the base is applied for wall work, the exposed portions disclose the location of the studs for nailing.

The base is applied with the back side against the runners or the studding, with the long dimension of the base extending horizontally.

The exposed strips betwen the sheets of paper thus permit of bending at ceiling corners, whereby the base provides its own angle reinforcement at no added cost.

The exposed margins permit of lapping without interfering with the facility of attachment to runners or studding.

The means for fastening the paper strips to the lath is of importance and must be of an economical nature and capable of quick application. To this end I staple the paper to the wire by means of a stapling machine of the type using a roll of stapling wire, the staples 9 being located approximately every six inches lengthwise of the backing at the edges. The staples are applied from the paper side and through the paper, for thus even if one of the prongs strikes the metal lath and is turned over against the paper, the paper will nevertheless be adequately held. In this connection it is practically impossible for both prongs to strike metal. The bending of one prong over the metal is sufficient for the reason that the paper need only be held in place until the base is applied to the ceiling or wall when, of course, the wiring or the nailing will hold the paper in place.

Coming now to the paper backing, I employ what is known as "Prime Kraft" board i. e., first quality wood pulp paper board composed essentially of long fibre unbleached wood stock. This board is strong enough to add structural strength, thereby making it possible to reduce the weight of the metal lath employed. It is sufficiently springy to yield upon the application of the mortar or other cementitious material whereby sufficient mortar will pass through the metal lath to cover the lath completely and key itself to the lath. The paper board, however, has only spring enough for that purpose so that that amount and no more plaster passes through. The relatively

stiff but yielding paper thus reduces the amount of mortar required per square yard and effects a very substantial saving.

At the same time the paper is sufficiently absorbent to permit of the mortar bonding itself to the paper but not absorbent enough to lose its strength or soften. In other words, when mortar is applied the paper does not lose its structural characteristic in the base.

The paper thus permits of the use of a less expensive mix for the first coat, it being possible to employ more water than heretofore, which, of course, reduces the plastering expense.

The keying of the mortar to the metal lath, in addition to protecting the metal, provides a reinforced slab which reduces the care, time and labor required in applying the scratch coat. In this connection the uncovered areas between the paper sheets permits more mortar to pass through to provide what may be termed reinforcing ribs of mortar, giving somewhat of the effect of ribbed metal lath.

In connection with the above, it is to be noted that the staples are bent over so as to permit of some yielding of the paper back at the points of connection whereby some mortar finds its way around and over the metal at the points of attachment. The desired result can readily be obtained by the selection of or the proper adjustment of the stapling machine.

The use of paper backing of the character described also makes the base suitable for two-coat work, eliminating the brown coat and thus reducing plaster costs. The paper also has insulating and sound deadening properties.

In the preferred form of my invention I employ metal lath of 2.5 lbs. per square yard and the paper weighs from .8 lb. to .9 lb. per square yard, the heavier weight of paper being employed for outside work to receive stucco or for inside work on exposed walls. For outside work and inside work on exposed walls I prefer to employ a single sheet of paper of the characteristics described to obtain the maximum of insulating and sound deadening effects and to permit also of the application of water-proofing material such as asphalt. The base may be also used for floor work, as, for example, in showers, in which case the cinder fill ordinarily employed may be dispensed with and cement applied to be used as a base for tile. For such use, if desired, the strips of paper backing may be applied to ribbed lath.

I claim:—

1. A plaster base comprising a sheet of expanded metal lath and a backing therefor secured thereto at spaced intervals and consisting of paper board, said board being of lesser weight per unit area than and possessing an inherent stiffness at least as great as that of said lath and thereby substantially reinforcing the latter, and having an elasticity permitting the board to yield under pressure sufficiently to allow the plaster to cover the lath and key itself thereto.

2. A plaster base comprising a sheet of expanded metal lath and a backing therefor secured thereto at spaced intervals and consisting of paper board of lesser weight per unit area than and possessing an inherent stiffness at least as great as that of said lath and thereby substantially reinforcing the latter, and having an elasticity permitting the board to yield under pressure sufficiently to allow the plaster to cover the lath and key itself thereto, said backing being in the form of strips running lengthwise of the sheet of lath, the strips being spaced slightly apart laterally and being of a size to leave the sheet of lath slightly exposed at its margins.

3. A plaster base comprising a sheet of expanded metal lath and a backing therefor secured thereto at spaced intervals and consisting of paper board having substantial reinforcing properties combined with elasticity permitting the board to yield under pressure sufficiently to allow the plaster to cover the lath and key itself thereto, said backing being in the form of strips running lengthwise of the sheet of lath, the strips being spaced slightly apart laterally to expose narrow strips of the lath permitting ready attachment of the base and the formation of plaster ribs.

4. A plaster base comprising a sheet of expanded metal lath, a paper backing therefor, and staples of the stapling machine applied type for securing the backing to the lath, said staples having their prongs thrust through from the paper side of the base.

5. A plaster base comprising a sheet of deployed metal lath, a paper backing therefor and staples of the stapling machine applied type for securing the backing to the lath, said staples having their prongs thrust through from the paper side of the base.

6. A plaster base comprising a sheet of expanded metal lath, a backing therefor consisting of paper board having sufficient inherent strength and stiffness to substantially reinforce said lath, and staples of the stapling machine applied type having their prongs thrust through from the backing side of the base and securing the said backing to the lath.

ARTHUR V. SPINOSA.

CERTIFICATE OF CORRECTION.

Patent No. 2,098,261. November 9, 1937.

ARTHUR V. SPINOSA.

It is hereby certified that the name of the assignee in the above numbered patent was erroneously described and specified as Penn Metal Company, of Parkersburg, West Virginia, a corporation of Massachusetts, whereas said name should have been described and specified as Penn Metal Company, Inc., a corporation of Delaware, as assignee by mesne assignments, as shown by the record of assignments in this office; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 22nd day of February, A. D. 1938.

Henry Van Arsdale,
Acting Commissioner of Patents.

(Seal)