March 22, 1960 A. H. DAHLHAUSER ET AL 2,929,239

LATHING CONSTRUCTION

Filed May 5, 1958

Fig. 1

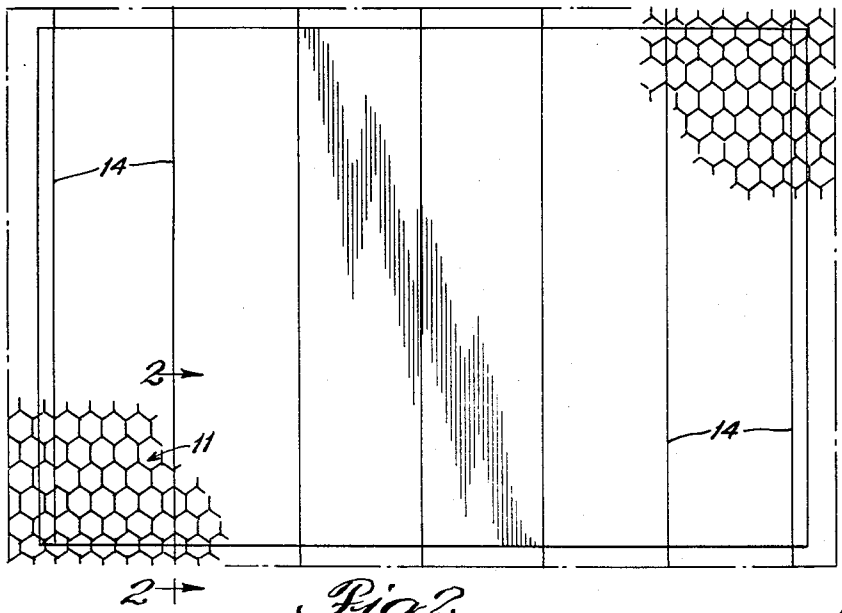


Fig. 2



Fig. 3

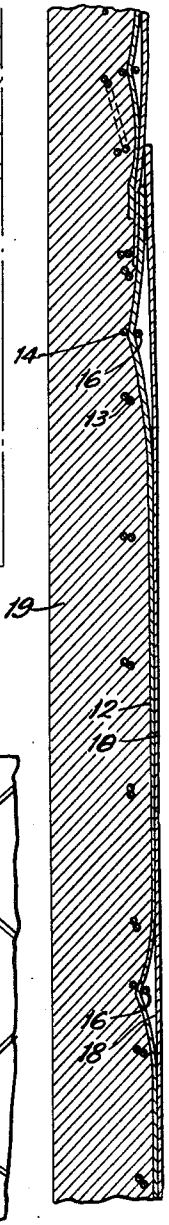
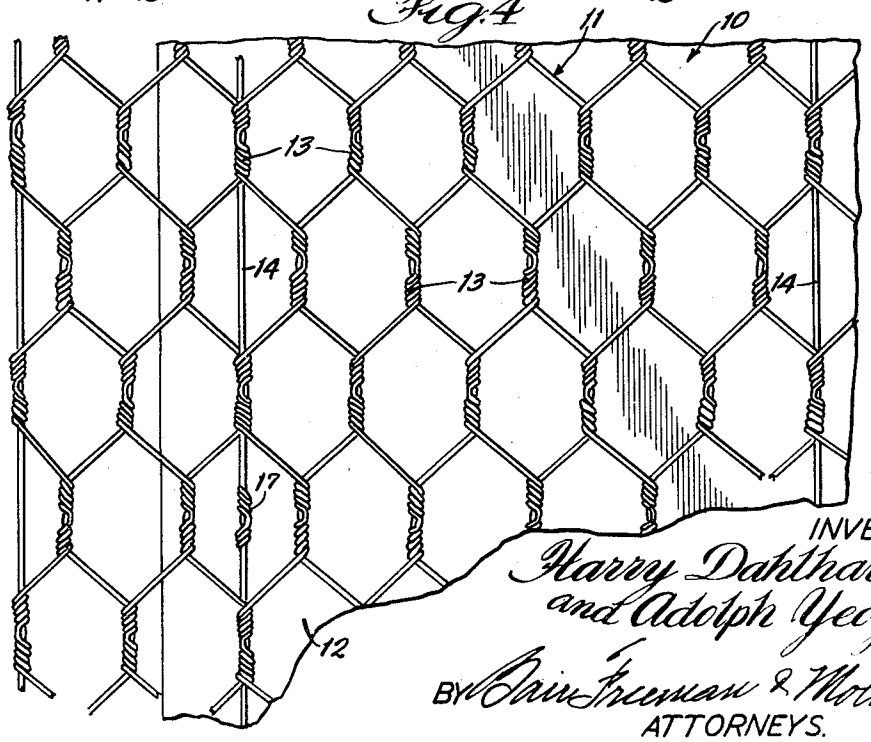


Fig. 4



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LATHING CONSTRUCTION

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1 Claim. (Cl. 72—119)

This invention relates to lathing construction and more particularly to lathing for use on exterior walls such as outside stucco walls and the like.

For outside plastered walls such as stucco walls it is necessary to provide a good moisture barrier on the inside of the plaster or stucco but to permit a certain amount of breathing of the wall. In constructing outside plaster or stucco walls it has been customary to nail a series of spaced wires, called "belly band" wires, horizontally over the studding, next to nail paper such as building paper to the studs over the belly band wires, and finally to nail lathing such as metal mesh fabric to the studs over the paper. This is a slow process in that it involves three separate nailing operations. Further, unless the belly band wires and paper are very carefully applied one or both may be slack at various points so that when the plaster or stucco is applied the paper may balloon out between the studs to produce irregular wall thickness and waste of material.

It is a primary object of the present invention to provide a lathing construction which can be applied as a single unit in one nailing operation.

Another object is to provide a lathing construction which is easy to install and which provides a high degree of uniformity when installed.

A further object is to provide a lathing construction which will in itself produce a good moisture barrier and which will permit breathing of the wall.

Another object is to provide a lathing construction in which a continuous, unbroken sheet of paper covers the interior side of the lathing to provide a continuous moisture barrier.

According to a feature of the invention, a wire mesh fabric is secured to a first backing sheet by securing wires extending through openings in the backing sheet and a second backing sheet is then secured over the back surface of the first backing sheet to provide a continuous, unbroken sheet. The wire mesh fabric is preferably in the form of twisted wires which are secured to the first backing sheet by securing wires extending across the first backing sheet and through openings therein to be connected to the fabric.

The above and other objects and features of the invention will be more readily apparent from the following description when read in connection with the accompanying drawing, in which:

Figure 1 is a front elevation of a lathing construction embodying the invention;

Figure 2 is an enlarged cross section on the line 2—2 of Figure 1;

Figure 3 is a sectional view of a completed wall embodying the lathing construction of the invention; and

Figure 4 is an enlarged plan view of the lathing construction.

The lathing construction of the present invention is particularly designed and suitable for exterior plaster walls such as outside stucco walls, although it will be understood that it could be used equally well for interior

walls where desired. As shown, the lathing construction comprises a composite backing sheet, indicated generally at 10, to which a wire mesh fabric, indicated generally at 11, is secured. The fabric overlies one face of the composite backing sheet and is secured thereto loosely at spaced points. With this construction the lathing can be stretched to a limited degree in either direction to facilitate installation. When installed, the backing sheet will provide a moisture barrier but will permit limited breathing as is required for wall constructions. The plaster or stucco cement may be applied to the wire mesh surface and will embed the wires of the fabric which serve to hold the plaster or stucco and to reinforce it. The plaster or stucco will be forced against the backing sheet which will define the inner surface of the wall and which may be forced back away from the wire mesh fabric sufficiently to permit the fabric to be thoroughly embedded. Furthermore, the lathing construction, due to the connection between the fabric and backing sheet, has sufficient strength to be substantially self-supporting so that it can be installed over spaced studs or over siding, as desired.

The composite backing sheet 10 is made up of a first backing sheet 12 of paper or the like which may be water proofed but which need not be water proofed for most installations. When it is desired that the plaster or cement be supported at least in part by the backing sheet, the sheet 12 may be a type of material to which the plaster will bond or key so that it assists in supporting the plaster during setting.

The wire mesh fabric may be any desired type of open fabric but is preferably hexagonal twisted wire mesh formed by twisting pairs of wires together at spaced points in twists indicated at 13 and spreading the wires between the twists to define an open hexagonal mesh. The fabric is preferably reinforced and strengthened by additional line wires 14 extending along the length of the fabric and secured thereto by being intertwisted with the fabric at certain of the twist points 13. This fabric is placed over the front face of the sheet 12 and the sheet 12 is formed with spaced slits therein, as shown at 15 in Figure 2, which are in registry with the line wires 14 at points therein between adjacent twists 13. It will be noted that the line wires are preferably spaced several rows apart crosswise of the fabric and the slits 15 are similarly spaced several rows of mesh lengthwise of the fabric so that they occur at relatively widely spaced points.

To secure the fabric to the sheet 12 securing wires 16 extend along the rear face of the sheet 12 in registry with the line wires 14. Opposite each of the slits the securing wires 16 extend through the slits in the sheet 12 and are secured to the line wires at points in the length thereof between adjacent twists 13. Preferably, the securing wires are intertwisted with the line wires, as indicated at 17 in Figure 4, although other means of fastening could be employed if desired.

The lathing is completed by a second sheet 18 preferably formed of water repellent paper such as conventional building paper or water repellent kraft paper. The sheet 18 is secured to the back surface of the sheet 12 overlying the securing wires 16 preferably by continuously cementing the sheets together throughout their overlapping area. The sheet 18 is continuous with no openings or perforations therein to form a continuous water repellent barrier but is preferably so made that it will permit the limited passage of air so that the wall can breathe.

To install the lathing of the invention, strips or sheets of the material may be nailed over open studding, or over siding where used, with the line wires 14 and securing wires 16 running horizontally and with the wire

mesh fabric on the outside. The material is normally made up in rolls with the line wires **14** and securing wires **16** running longitudinally and can easily be applied by running the unrolled strips horizontally around the building and nailing it at spaced points to the studs or siding. With the spaced relatively loose connections between the backing sheet and fabric, the fabric can be stretched to enable accurate fitting. Since the entire material is installed as a unit a very uniform installation can be made.

To connect adjacent strips the backing sheet is preferably made slightly narrower than the wire mesh fabric, as best seen in Figure 4. When the material is made in the form of panels the backing sheet is made slightly smaller in both dimensions. Where adjacent strips or panels overlap they are fitted together backing sheet to backing sheet and fabric to fabric, as shown in Figure 3.

With the lathing installed, plaster or stucco may be applied as shown at **19** in Figure 3. The supporting wires **16** will support the outer sheet **12** to limit deflection of the backing sheet but the backing sheet can deflect sufficiently between the supporting wires to allow the wire mesh fabric to be completely embedded in the plaster to reinforce it. Where adjacent strips or panels join, the plaster will key in around the overlapping portions of both wire fabrics to connect them securely and will press the overlapping backing sheets together to form a good joint therebetween.

While one embodiment of the invention has been shown and described in detail, it will be understood that it is illustrative only and is not to be taken as a definition of the scope of the invention, reference being had for this purpose to the appended claim.

What is claimed is:

A lathing construction comprising a first paper backing sheet formed with a plurality of spaced slits therein, a wire mesh fabric overlying one side of the backing sheet and formed of a plurality of wires twisted together in pairs at spaced points and spread between the twist points to define an open mesh fabric, spaced parallel line wires extending along the fabric and twisted therewith at certain of the twist points, the portions of the line wires between the twist points registering with the slits in the backing sheet, securing wires extending over the other side of the backing sheet and through the slits and secured to said portions of the line wires, and a second backing sheet overlying the other side of the first backing sheet and the securing wires and secured to the first backing sheet, the securing wires lying parallel to the line wires and being intertwisted with the line wires between the first named twist points.

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