This invention relates to self furnishing plaster mesh and more particularly to an improved wire mesh for use in connection with plaster, stucco and the like.

Many types of metal lathing or reinforcing mesh for plaster and stucco have heretofore been proposed, but all have been subject to various deficiencies. Flat meshes require the use of forking nails or furring spacers which are expensive and troublesome to use. Both flat and self furring mesh, as heretofore construed, tends to bag when installed and requires tight stretching to prevent bagging, which makes the installation difficult. In self-furring mesh, the furring projections, if spaced closely enough to provide adequate furring, interfere with rolling of the mesh into a tight roll and both the flat and self furring meshes when unrolled tend to recoil. This not only makes the installation difficult, but creates a dangerous situation due to projection of the short wire ends when cut outs are made for doors or windows.

It is accordingly an object of the present invention to provide a self furring plaster mesh which is relatively inexpensive to form, which is easy to install, with no tendency to bag so that no stretching is required, which provides a large number of relatively large furring cramps for proper furring over any type of supporting structure, but which will still be rolled into a compact roll with a minimum tendency to recoil when unrolled and which provides an effective bonding for the plaster or stucco.

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 drawings, in which:

FIG. 1 is a perspective view of a section of self furring mesh embodying the invention;

FIG. 2 is a face view illustrating an installation of the plaster mesh;

FIG. 3 is a section on the broken line 3--3 of FIG. 2;

FIG. 4 is a section on the line 4--4 of FIG. 2;

FIG. 5 is a section on the line 5--5 of FIG. 2;

FIG. 6 is a section of the mesh itself on the line 6--6 of FIG. 1; and

FIG. 7 is a view similar to FIG. 2 showing an alternative type of installation.

The mesh itself, as best seen in FIG. 1, comprises a hexagonal wire mesh fabric formed of a plurality of wires 10 twisted together in pairs at spaced elongated twist points 11 and spread between the twists to define hexagonal openings 12. Each of the hexagonal openings is formed by a pair of opposite parallel twist points 11 and by spread portions of the wires 10 between twist points.

The fabric further includes a plurality of spaced parallel line wires 13 extending longitudinally of the fabric and intertwisted with the wires 10 at aligned twist points 14 which are crossed by the line wires. Selvage wires 15, similar to the line wires 13, may be intertwisted with the wires 10 at the edges of the fabric.

The fabric is formed with a plurality of relatively closely spaced furring projections to hold it spaced from a supporting surface. As shown, each of the line wires 13 and the selvage wires 15 is offset, as indicated at 16, between adjacent twist points to form a projection extending out of the plane of the fabric in the central portion of each of the hexagonal openings traversed by a line wire. The offset bends 15 may be relatively short rebends in the line wires, as shown.

Additionally, the wires 10 are bent out of the plane of the fabric at each end of each twist point 11 in a line of twist points between adjacent line wires, as shown at 17. The elongated twist points 11 remain straight and are bodily offset from the plane of the fabric in the same direction as the offset bends 16 to provide additional furring projections.

It will be seen that with this construction in the completed fabric there are a large number of furring projections spaced relatively close to each other so that the fabric will be properly furred whether it is installed directly over sheathing or in direct installation over spaced studs. When the fabric is formed and is ready to be rolled it is preferably rebent in a direction reverse to the direction in which it is rolled so that after rolling it will tend to lay flat. The line wires 13 contribute materially to this function since they are relatively straight and act more or less as wire spring elements to bias the fabric to a flat condition. Furthermore, when rolling the fabric into a roll, it will be noted that the offset twist points 11 will always fall into the groove defined by offsetting of the twist points in the adjacent turn of the fabric so that the fabric can be rolled into a tight roll with the turns lying closely adjacent to each other. While the offset bends 16 in the line wires will not necessarily drop into notches formed by corresponding offsets in the adjacent turn, the line wires being straight and relatively thin can slide to one side or the other of the line wire they engage in an adjacent turn so that these offsets will not interfere with tight rolling of the fabric. Additionally, interlocking of the offset twist points 11 in the grooves defined by offsetting of the corresponding twist points in an adjacent turn will hold the fabric against telescoping in the roll so that the fabric will not be twisted or distorted, as occurs with flat fabrics.

An installation of the fabric of the invention over studs is illustrated in FIGS. 2 to 5. As shown, the fabric is to be attached directly to spaced studs 18 which may be conventional wood studs. For this purpose, the fabric is laid across the studs with the furring projections extending toward the studs and with the line wires running horizontally. Due to the close spacing of the furring projections, it is inevitable that certain of the furring projections aligned across the fabric will register with the studs and may be secured thereto. The fastening can be accomplished with conventional nails driven into the studs adjacent to the offset furring projections and engaging the furring projections or by the use of staples, as shown at 19. It will be noted that stapling can be accomplished relatively easily with a power stapling gun at the offset points 11 where adequate space is available for use of the stapling gun. Even if the nails or staples are placed on a furred out portion of the mesh to draw it inward, the adjacent closely spaced furring crimps will properly for the mesh.

It is further to be noted that no stretching of the fabric is required during installation because it will have no tendency to bag. This is due in part to the provision of the line wires and in greater part to the pattern of the crimps which give a substantial degree of rigidity to the fabric so that it will not have a tendency to bag. Therefore, in installation the fabric may simply be laid against the supporting surface and nailed or stapled without any stretching and will remain uniformly in a flat plane.

Due to the provision of the line wires, the fabric may be raked into interior angles relatively easily or can be bent around outside corners. The straight line wires when so bent will hold the fabric in the desired configuration to fit against the supporting surface with a minimum
tendency to spring away from it. Additionally, because of the close spacing of the wires from each other due to the presence of the line wires, the fabric will fit closely around openings for windows, doors, and the like, without tending to roll or cup out to leave raw sharp ends. In fact, in many cases a line wire will fall directly under or over such an opening to provide a highly desirable selvage. Also, due to the relatively close spacing of the wires, a large bonding area for bonding with the plaster is provided to make the improved plaster lath more efficient than plaster laths as hitherto known.

With the mesh installed over the studding, as shown in FIGS. 2 to 5, plaster or stucco, as illustrated at 21, may be applied to the fabric easily. The numerous longitudinal wires make application of the scratch coating easy, as compared to application over known types of fabrics, and the fabric adequately reinforces and strengthens the plaster or stucco coat. Also, because of the stiffness of the fabric plaster or stucco may be applied flat thereto.

Instead of being installed over studding, the fabric of the present invention may be applied over sheathing, as shown at 22 in FIG. 7. The installation in this case is similar to the installation over studding except that the nails or staples, as shown at 23, can be secured at uniform intervals to hold the fabric evenly against the sheathing and properly furred out therefrom. The several advantages mentioned above in connection with the installation over studding apply also to installation over sheathing.

While one embodiment of the invention has been shown and described herein, it will be understood that it is illustrative only and 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:

Self-furring plaster mesh in strips of indeterminate length comprising a wire mesh fabric formed of a plurality of wires twisted together in pairs at spaced elongated twist points and spread between the twist points to define a fabric having hexagonal openings therein, opposite sides of which are defined by the elongated twist points, the twist points lying in spaced parallel lines extending longitudinally of the fabric, a plurality of spaced parallel line wires extending along certain only of said spaced parallel lines longitudinally of the fabric and inter-twisted with the first named wires at the aligned twist points in said certain of the lines, the line wires extending across certain of the hexagonal openings and being formed with offset bends defining furring projections extending beyond the plane of the fabric in the central portions of the openings, each of the bends lying in a plane normal to the fabric and which includes the line wire in which the offset bend is formed, the first named wires being bent out of the plane of the fabric in the same direction as the line wires adjacent to and beyond each end of twist points in a line between and parallel to adjacent line wires to displace said twist points from the plane of the fabric to serve as furring projections, the offset bends in the line wires and in the first named wires lying in lines extending longitudinally of the fabric to interfit when the fabric is rolled longitudinally and to prevent the rolled fabric from telescoping.

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