July 19, 1960 J. W. SCHNELLER 2,945,329

LATHING CLIPS

Filed Aug. 23, 1955 2 Sheets-Sheet 1

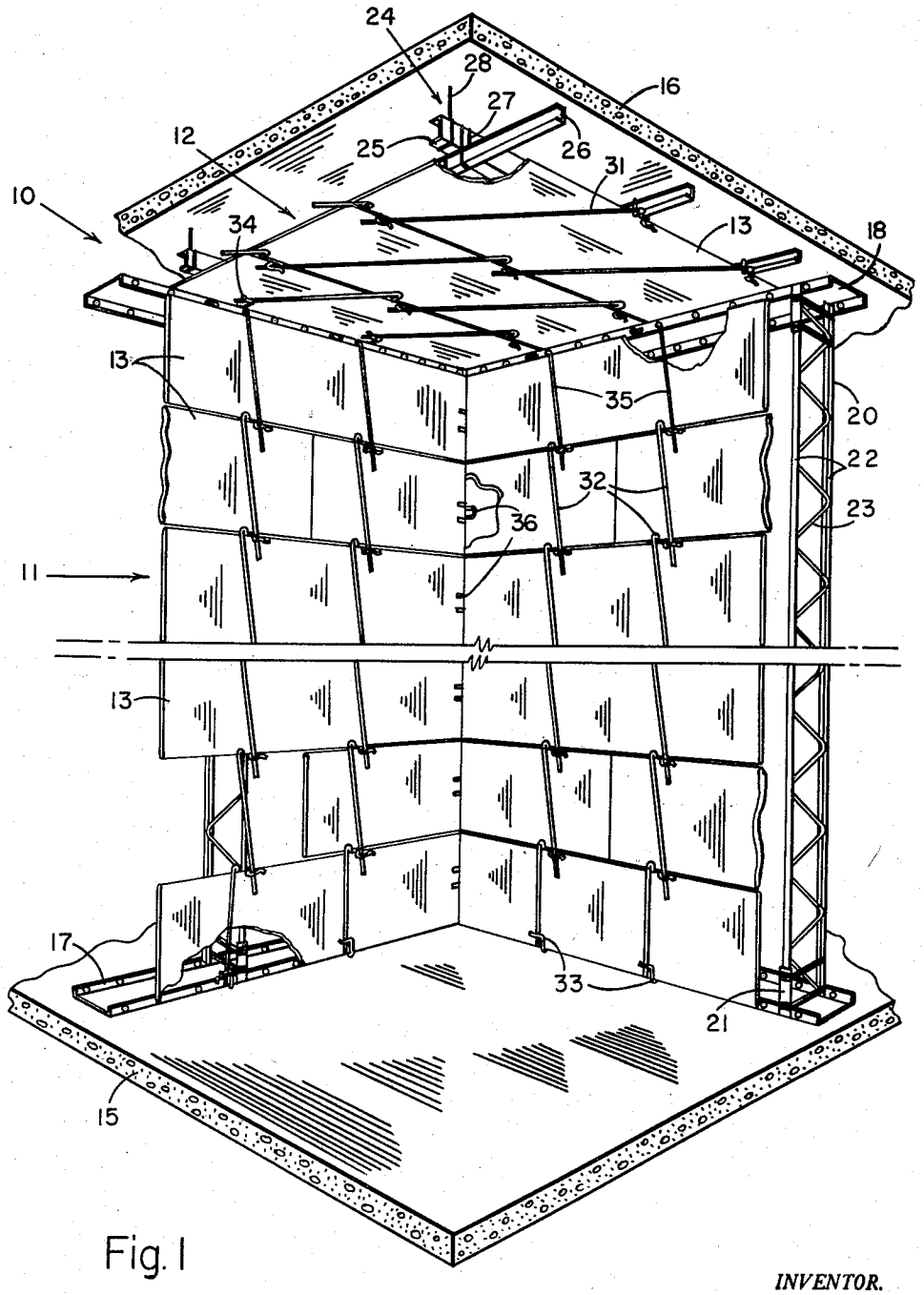


Fig. 1

INVENTOR.
Joseph W. Schneller
BY
Robert F. Hause
ATTORNEY

July 19, 1960 J. W. SCHNELLER 2,945,329

LATHING CLIPS

Filed Aug. 23, 1955 2 Sheets-Sheet 2

Fig. 8

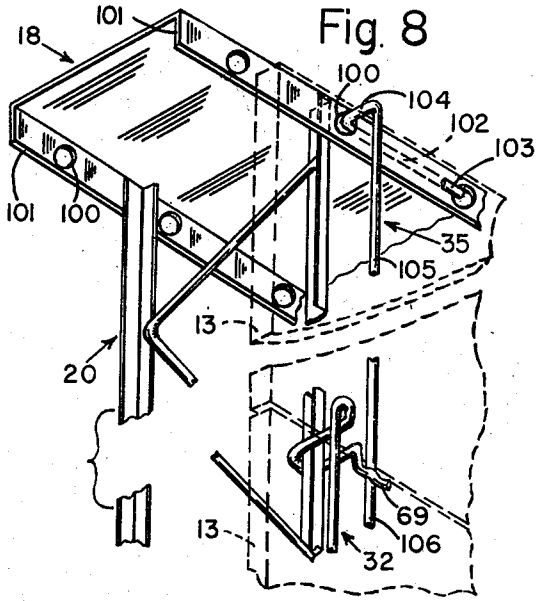
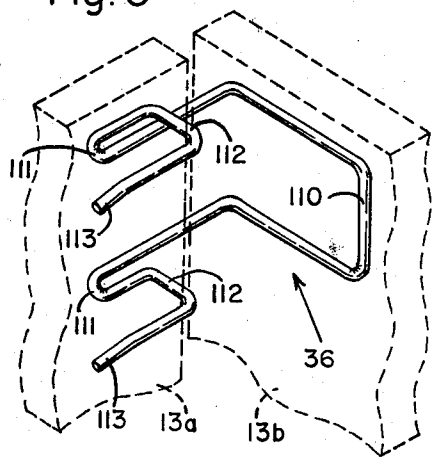


Fig. 9



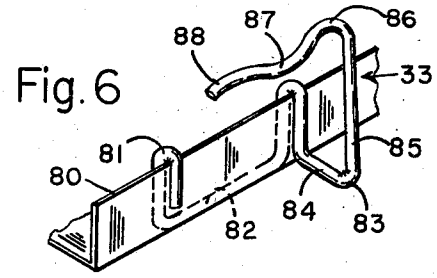


Fig. 6

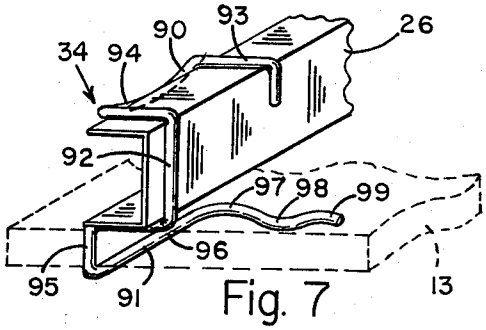


Fig. 7

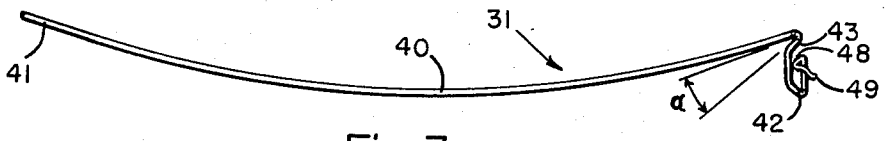


Fig. 3

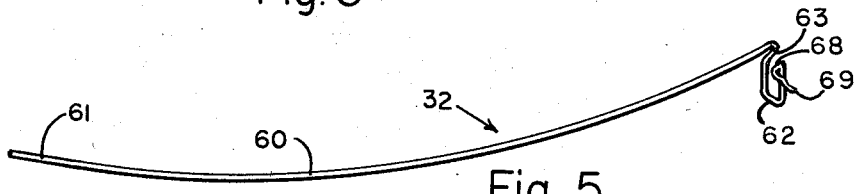


Fig. 5

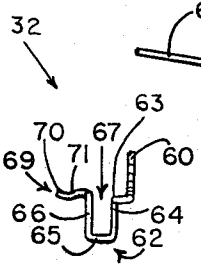


Fig. 4

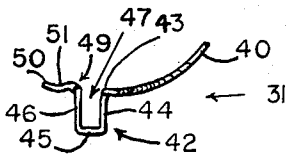


Fig. 2

INVENTOR.
Joseph W. Schneller
BY Robert F. Hause
ATTORNEY

United States Patent Office 2,945,329 Patented July 19, 1960

2,945,329

LATHING CLIPS

Joseph W. Schneller, Eggertsville, N.Y., assignor to National Gypsum Company, Buffalo, N.Y., a corporation of Delaware

Filed Aug. 23, 1955, Ser. No. 530,179

5 Claims. (Cl. 50—479)

This invention relates generally to a clip system for use in the application of gypsum lath to studs and joists and is directed further to the novel and improved clips included therein. It will be understood that the invention applies generally to the construction of partitions, including walls, ceilings or the like or any combinations thereof.

An object of the present invention is to provide a novel series of construction clips any group of which may be used individually or in any of various combinations to form an improved partition structure, such structures comprising elongate frame elements and any suitable board-like lath material fixed relative to one another and to the frame elements by the novel clips.

A principal object of the invention is the provision of partition construction clips capable of improved ease and facility of application which also provide the improved partition structure.

These and other objects of the invention will be more readily apparent when considered in relation to the preferred embodiments as set forth in the specification and shown in the drawings in which:

Fig. 1 is a perspective view of a portion of a room constructed in accordance with the present invention and embodying the several cooperative elements of the invention.

Fig. 2 is an end view of the diagonal lathing clip constructed in accordance with the invention, a portion being broken off.

Fig. 3 is an isometric view of the clip of Fig. 2.

Fig. 4 is an end view of the straight lathing clip constructed in accordance with the invention, a portion being broken off.

Fig. 5 is an isometric view of the clip of Fig. 4.

Fig. 6 is an isometric view of the wall starter clip constructed in accordance with the invention.

Fig. 7 is an isometric view of the ceiling starter clip constructed in accordance with the invention.

Fig. 8 is an isometric view of the wall finishing clip, constructed in accordance with the invention, in fully assembled position.

Fig. 9 is an isometric view of the corner clip constructed in accordance with the invention.

General description—Environment

In the drawings, Fig. 1 shows a corner of a room, wherein the partially constructed partitions **10**, namely walls **11** and ceiling **12**, have been framed in, and had lath **13** applied and fastened in accordance with the present invention in a usual condition prior to plastering. In the form shown, two floors **15** and **16** exist, on and from which the partitions **10** are mounted and suspended, respectively.

The framework for the walls **11** includes, in the present embodiment, floor-runners **17** fixed along floor **15** throughout the extent whereat the walls are being constructed. Ceiling-runners **18** are wire-suspended from

floor **16** at the desired ceiling height, directly over the extent of floor-runners **17**. Sinuously-webbed, steel studs **20** extend vertically therebetween at suitably apaced apart positions. The ends of studs **20** are disposed within the channels of runners **17** and **18**, in the usual manner, and are fixed thereat by clasps **21**, which are attached to the studs **20** at the ends of the chords **22**. Studs **20**, in the present embodiment include chords **22** and sinuous webwires **23**.

The ceiling **12** is suspended from floor **16** by a suspension system **24** including parallel, spaced apart, elongate carrying-channels **25** extending generally parallel to one wall **11** and suspended from floor **16** by supporting-wires **28**. Furring-runners **26**, at spaced apart, parallel positions, are fixed by suitable tie-wires **27** in abutting relation, below, and generally perpendicular to carrying channels **25**, and are disposed with bottom faces thereof substantially in the horizontal plane of the top faces of ceiling runners **18**.

Any usual sheets of lath **13**, in the present embodiment being ⅜" x 16" x 48", paper covered, gypsum lath, are affixed, as described below, to the suspension system **24** and to the studs **20** by clips constructed in accordance with the invention which are adapted to engage the furring runners **26** and the adjacent chords **22** of studs **20**. The chords **22**, in the present embodiment, are elongate angle irons having a transverse extending flange of a dimension substantially equal to the vertical dimension of furring runners **26**, allowing interchangeability of ceiling and wall clips when so desired, this dimension being in the order of ¾ inch.

Description—Clips

The two principal clips of the present invention are the diagonal lathing clip **31**, Figs. 2 and 3, and the straight lathing clip **32**, Figs. 4 and 5. The auxiliary, cooperating clips are the wall starter clip **33**, Fig. 6; the ceiling starter clip **34**, Fig. 7; the wall finishing clip **35**, Fig. 8; and the corner clip **36**, Fig. 9. All clips, in the present embodiment, are formed of resilient bent spring steel wire having a diameter in the order of 5/32".

Lathing clips

Referring now to the diagonal, wire, lathing clip **31**, in the present embodiment, the major part of the clip is a twenty-five inch elongate body portion **40**, curved at a 16½ inch radius throughout its extent, with the exception of a tail **41** which may be formed unbent. Opposite from the tail **41** of body portion **40**, the wire extends to form a complexly bent head portion **42**. At the junction of the body and head portions, the wire is bent 135°, making a 45° angle *a* in the wire, which small bent portion forms a short edge-receiving lip **43**. The angle *a*, seen in Fig. 3, and, thus, lip **43**, are disposed in a plane, which in Fig. 2 would be the horizontal plane. Lip **43** will be seen to form an outermost extension of head portion **42**, the function of which will be clearly disposed further below. The wire is thence bent perpendicular to lip **43**, in a radially outward direction in reference to the curved body portion **40**, to form a runner leg **44**. Leg **44** is equal in length to the sum of lath thickness and furring runner height, of the lath and runner to be ultimately used therewith. The wire is thence bent perpendicular to leg **44**, in a direction also perpendicular to the body portion **40**, to form a bottom leg **45**, equal in length to the horizontal width of furring runners **26**, and thence bent again to form leg **46** parallel and equal in length to leg **44**. Legs **44**, **45** and **46** thus form a runner receiving loop **47**. A short offsetting leg **48** extends perpendicular to the plane of loop **47**, on the opposite side of the plane

from the edge-receiving lip 43, and a sinuous prong 49, or hook, extends therefrom generally parallel to leg 45 in a direction away from loop 47. Sinuous prong 49 consists preferably of one and one half small sinuations, the end most half sinuation 50 extending away from loop 47 for ease of insertion of the tail 41 of an adjacent clip, the full sinuation 51 forming a holding portion for grasping and retaining the above said tail portion.

The straight lathing clip 32 is generally similar in structure to the diagonal lathing clip with the exception that a 180° turn, or 0° angle rather than a 45° angle, is formed at the end of a body portion 60, opposite a tail 61, that is, at the junction of the body portion 60 and the head portion 62. Body portion 60 is formed from a nineteen-inch section of wire curved about a 16½" radius with the possible exception of the tail 61 portion. The head portion 62 of straight lathing clip 32 includes an edge-receiving lip 63, legs 64, 65, and 66 forming loop 67, offsetting leg 68 and sinuous prong 69 including a half sinuation 70 and a full sinuation 71, all similar in structure to the form of head portion 42 of diagonal lathing clip 31, described above.

In Fig. 1, diagonal clips 31 and straight clips 32 are shown as applied to and holding strips of standard 16" wide gypsum lath 13. Diagonal clips 31 have been applied throughout ceiling 12 and straight clips 32 throughout walls 11, as would normally be done, although both clips may be used interchangeably. The use of diagonal clips in preference to straight clips, due to the obviously greater supporting ability, will be limited only by the increased cost due to greater length. Thus, its use in ceilings, where its advantages have been unquestionably proven, will be by far the most common.

Clips 31 have body portions 40 extending diagonally each across one sheet of lath 13, with the radially outer surface, formed by the curvature shown in Fig. 3, disposed abutting the lath outer face. Head portions 42 are disposed where adjoining edges of lath sheets cross runners 26, which extend perpendicular to the lath length. Loops 47 extend between the adjoining lath edges and over and about runners 26.

The tail portion of the clip 31 will be normally disposed, at a time immediately after positioning loops 47, at a point spaced outwardly from the lath face, substantially over a diagonally adjacent clip head portion 42. The tail 41 of said first mentioned clip is then slid under the sinuous prong 49 of said second mentioned clip. In so doing, the body portion 40 of said first mentioned clip, is straigthened and forced tightly against its respective sheet of lath, holding it upward in a flat condition, greater tightness being provided by the normal curvature. The diagonal extent of clip 31 provides support, in a structure such as ceiling 12, to an entire length of lath 13, at every segment of length throughout the lath length, with the exception of a negligible strip along the ceiling edge, to which there may subsequently be applied a further reinforcement such as angular strips of expanded metal (not shown).

With the incorporation of an offsetting leg 48, it will be seen, Fig. 1, that sinuous prong 49 is disposed over the lath face at a position spaced from the lath joint. This construction assures the easy accessibility of the prong for insertion of the tail 41, which would not be provided if the prong extended along the joint, and were thus free to recede into the joint.

Receiving lips 43, extending from loops 47 in a direction away from the sheet of lath being supported by the respective clip body portion 40, provide a leading edge or receiving member for the support, during application, of an abutting edge of another adjacent sheet of lath, prior to the placement and securing of the clips for said adjacent sheet. This feature alone provides a marked improvement in the process of applying lath to a framework, as will be readily recognized by one skilled in the art.

The availability of means for supporting one edge of the sheet of lath, throughout its length, at the time it is first placed into its desired position, removes to a great extent the awkwardness existant in the original positioning of the normally bendable and frangible sheet of lath. It will be apparent that the additional available preliminary support is especially advantageous since a sheet of lath, while being applied, cannot otherwise be flatly disposed and held by an applicator's one available hand.

The straight clip 32 is applied on walls 11 in substantially the same manner as the above application of diagonal clips 31. Body portions 60, however, extend generally along the extent of studs 20 to which the clips 32 are affixed, rather than extending diagonally between supporting members as in the case of diagonal clips 31. Receiving lips 63 extend beyond the lath edge to provide a leading edge or receiving member for the support of an abutting edge during the application of an adjacent sheet of lath. Sinuous prong 69 is provided, disposed in spaced relation to the lath sheet edge by means of offsetting leg 68.

Accessory system clips

Referring now to Figs. 1 and 6, wall starter clip 33 is shown attached to upright flanges 80 of floor runners 17. Wall starter clip 33 is formed from a short length of wire and includes two spaced apart, inverted U-shaped attaching hooks 81 for slip-on attachment to flange 80. Hooks 81 are joined by cross-leg 82 forming a unitary stabilized attaching portion to hold the body portion 83 which extends outward from the outer extremity of one hook 81. Body portion 83 includes an end-leg 84 for passing under the bottom thickness of lath, a perpendicular upright leg 85 for holding the lath bottom end relative to runner 17 and a sinuous prong 86 perpendicular to leg 85 extending along the lath outer face. Sinuous prong 86 includes a full sinuation 87 for holding the tail portion of a field clip and a half sinuation 88 for facilitating the insertion of the field clip tail. Prong 86 will be seen to be disposed at a position spaced from the lath edge, providing the improved accessibility as is provided by the field clip prongs.

Figs. 1 and 7 show the ceiling starter clip 34, including an attaching portion 90 for application to a furring runner 26, and a body portion 91, similar in structure to the body portion 83 of wall starter clip 33. Attaching portion 90 includes a U-shaped hook 92, an L-shaped hook 93, and an inwardly arced connecting leg 94. With the proper dimensions of hooks 92 and 93, it will be seen from the drawing the manner in which the combination thereof with arcuate leg 94 forms a stabilized attaching portion when applied to a channel-sectioned furring-runner. Body portion 91 includes end leg 95 for extending across the edge thickness of an end of a sheet of lath 13, a perpendicularly extending lath supporting leg 96 disposed along the lath outer face, and a sinuous prong 97 perpendicular to leg 96 and also extending generally along the lath outer face. Sinuous prong 97 includes the previously described full sinuation 98 and half sinuation 99, and is also disposed spaced from the lath edge for ease of accessibility.

The wall finishing clips 35 are shown in Figs. 1 and 8 as applied to ceiling runners 18. Ceiling runners 18 are provided with evenly spaced apart holes 100 throughout the length of the downward side flanges 101. Finishing clip 35 includes an upper ceiling-runner engaging portion having a horizontally disposed back leg 102 substantially equal in length to the spacing between the holes 100 of ceiling runner 18 to which clip 35 is to be affixed. At one end of leg 102, a short hook 103 is provided for insertion through a hole 100. From the opposite end of leg 102, a horizontal outward leg 104 extends in generally the direction which hook 103 extends from leg 102, with a length substantially equal to the thickness of the lath to be held thereby. The body portion 105 of clip 35 extends perpendicularly and downwardly from

the outer end of outward leg **104**. Body portion **105** is formed with a normal large diameter arc (not shown) and a short, straight tail **106** at the end thereof, similar in structure to the body portions of the field clips, which, when the clip **35** is applied to a structure, is straightened out and provides an additional inward urging of the lath throughout the length of the body portion **105**.

The general arrangement of the ceiling-runner engaging portion of clip **35** is such that the distance from the end of hook **103** to the outer end of outward leg **104** is greater than the distance to the inner end. Thus, prior to affixing the tail **106** of the clip **35**, the outward leg **104** may be moved through its hole **100** to within the runner flanges **101**, permitting hook **103** to pass into its respective hole **100**. Upon withdrawal of outward leg **104** to without flange **101**, the above described shorter distance to the end of hook **103** causes hook **103** to become lockingly engaged within its hole **100**. Clips **35** are applied to ceiling runners at positions closely adjacent vertical studs **20** and body portions **105** extend generally parallel to studs **20**. Thus, when clips **35** are applied over lath **13**, the stud and lath will hold leg **104** without flange **101** after tail **106** has been inserted under a sinuous prong **69** of an immediately lower straight field clip **32**, maintaining the locked condition of hook **103** in its hole **100**.

The corner clip **36** of Figs. 1 and 9 is a marked improvement over prior corner clips in that its structure, though simple and easily applied, provides for grasping and firmly holding the edges of both of the two sheets of lath **13**, one sheet being disposed in each of two walls **11**. For clarification of description one sheet of lath **13** will be designated sheet **13*a*** and the other sheet of lath, sheet **13*b***. In Fig. 9, the corner will be seen to have been formed by abutting the edge of sheet **13*a*** against the end of the face of sheet **13*b***. Corner clip **36** is formed of a continuous wire and includes a relatively large loop **110** for engaging the back of sheet **13*b***. At each end of loop **110**, clip **36** is bent perpendicularly to the plane of loop **110** and two complementary small loops **111** are formed for engaging the back of sheet **13*a***. At the ends of loops **111** opposite the above described perpendicular bend, the clip includes two parallel perpendicular bends forming short edge legs **112** for engaging the edge of sheet **13*a*** on one side and the face of sheet **13*b*** on the other side. Clip **36** is thence bent at the inner end of each edge leg **112** in a direction parallel to small loops **111** to form end legs **113** for engaging the face of sheet **13*a***. Thus, loops **111** and legs **113** grasp the two sides of sheet **13*a*** and loop **110** and legs **112** grasp the two sides of sheet **13*b***, firmly holding sheet **13*a*** and **13*b*** relative to one another, providing an improved and strengthened corner structure.

By the provision of grasping means for both corner sheets of lath, corner clip **36** may be applied first on either the abutting sheet **13*a*** or the abutted sheet **13*b***, but would ordinarily be applied first on sheet **13*b***, as this abutted sheet would ordinarily be the first applied during construction.

In summary, the above specification describes and sets

forth a complete system of clips capable, in several respects, of improved ease of application and erection, and which cooperate to provide the superior base or lathed structure.

Having completed a detailed disclosure of the preferred embodiment of my invention so that those skilled in the art may practice the same, I contemplate that variations may be made without departing from the essence of the invention or the scope of the appended claims.

I claim:

1. A clip of formed wire for attaching a sheet of lath to a structural framing element comprising loop means for attaching said clip to a framing element, said loop means lying substantially in a first plane, one end of said loop means forming an end leg, an offsetting leg extending substantially perpendicularly from the outer end of said end leg, and a prong formed for receiving and holding a straight tail portion of another clip, said prong extending angularly from the opposite end of said offsetting leg, said offsetting leg and said prong being in a common second plane which is substantially perpendicular to said end leg, said second plane being substantially perpendicular to said first plane, whereby when in operative position said end leg is adapted to be disposed adjacent an end surface of an associated lath sheet and to extend perpendicularly to the general plane of the sheet, and said offsetting leg is adapted to extend parallel to and adjacent the outer face of an associated lath sheet with the prong being adapted to extend parallel and adjacent to the outer face of an associated lath sheet.

2. A wire clip as defined in claim 1 wherein the wire extending from the opposite end of said loop defines an elongated body portion terminating at the opposite end in a substantially straight tail portion adapted for insertion between the prong of an adjacent clip and the outer face of a lath sheet.

3. A wire, straight lathing clip as defined in claim 2, wherein said elongate body portion extends substantially perpendicularly to the plane of said loop.

4. A wire, diagonal lathing clip as defined in claim 2, wherein said elongate body portion extends at substantially a 45° angle from the plane of said loop.

5. A wire starter clip as defined in claim 1 consisting essentially solely of said attachment means, said end leg, said offsetting leg and said prong.

References Cited in the file of this patent

UNITED STATES PATENTS

1,779,184	Makowski	Oct. 21, 1930
1,803,632	Makowski	May 5, 1931
2,016,874	Raynor	Oct. 8, 1935
2,164,464	McNabb	July 4, 1939
2,307,898	Olsen	Jan. 12, 1943
2,620,531	Chandler	Dec. 9, 1952
2,641,035	Nelsson	June 9, 1953
2,661,515	Nelsson	Dec. 8, 1953
2,714,305	Nelsson	Aug. 2, 1955