

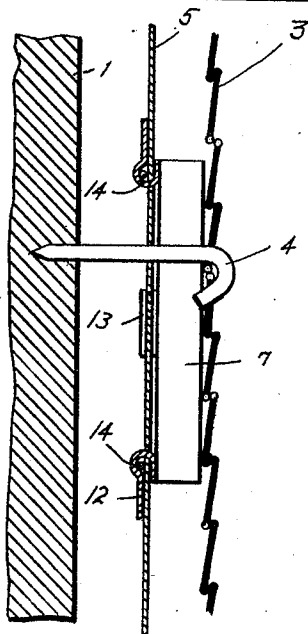
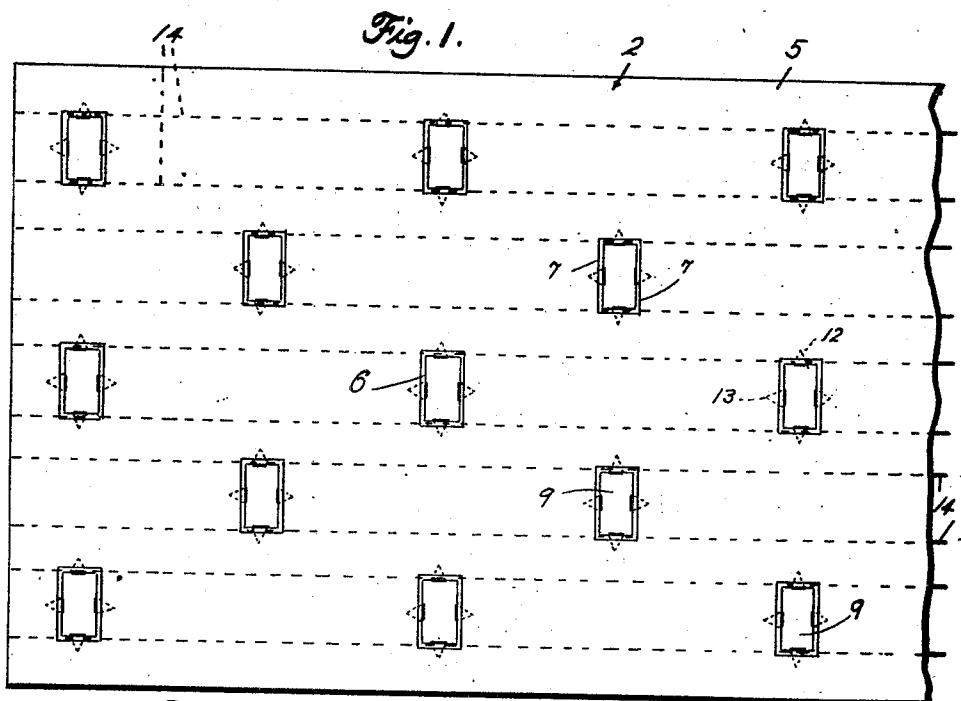
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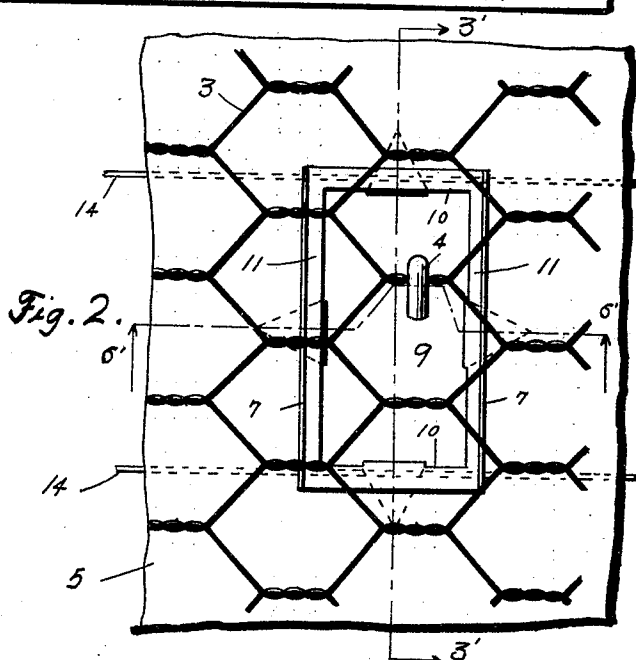
G. F. VOIGHT

WALL SHEATHING

Original Filed Oct. 13, 1923 2 Sheets-Sheet 1



*Fig. 3.*



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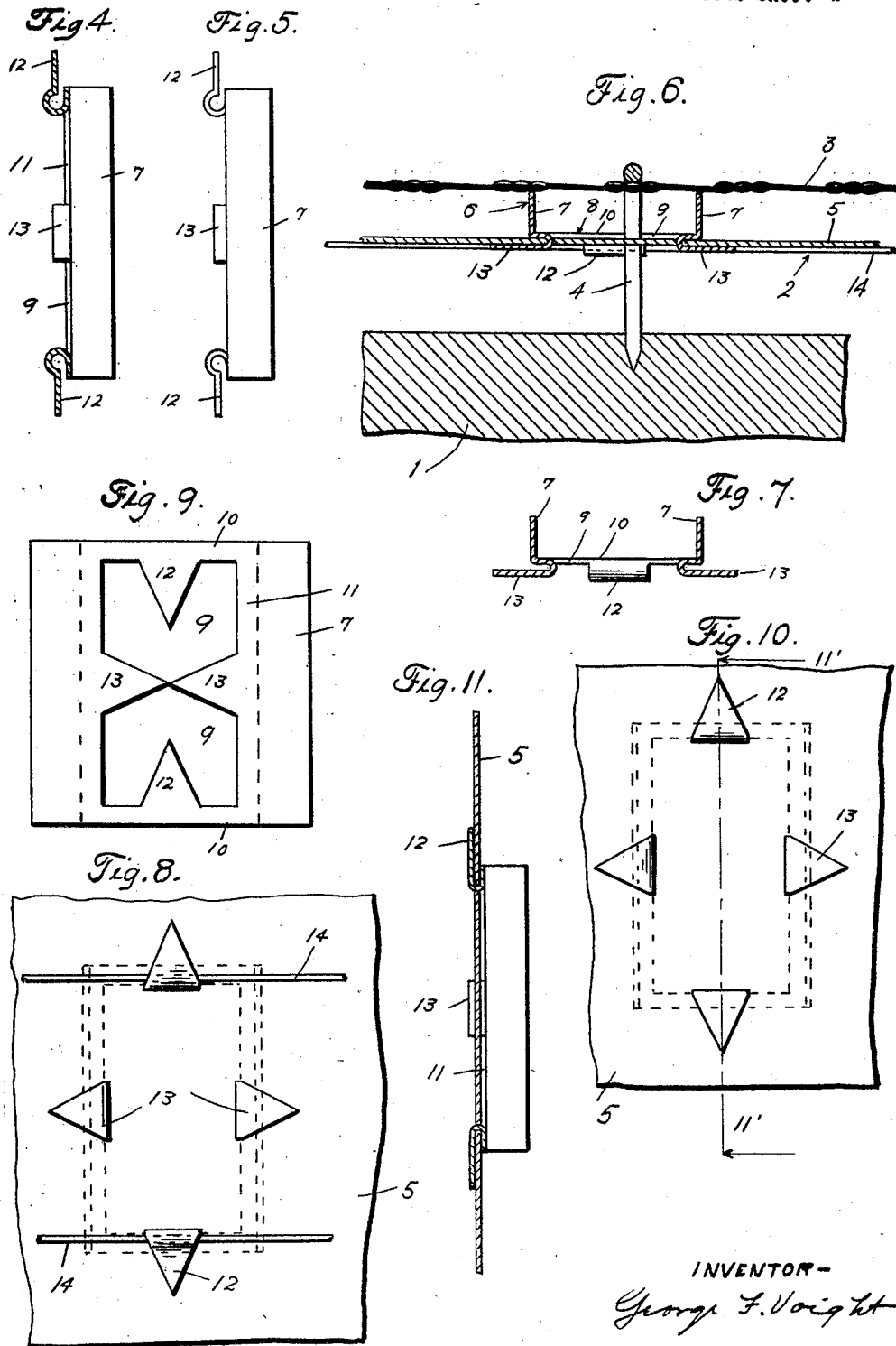
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## UNITED STATES PATENT OFFICE.

GEORGE F. VOIGHT, OF OAKLAND, CALIFORNIA.

## WALL SHEATHING.

Application filed October 13, 1923, Serial No. 668,371. Renewed April 14, 1926.

My invention relates to improvements in wall sheathing primarily adapted as backing for stucco composition, although useful for other purposes, and one of the objects of my improvements is the provision of metal furring units integrally attached to paper sheets; a further object is the provision of reinforcing wires secured to the back of the paper.

With the foregoing and still further objects and purposes in view which will appear as the description proceeds, my invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings—

Figure 1 is a face view of a section of wall sheathing constructed in accordance with my invention, portion thereof being torn away;

Figure 2 is a fragmental section of the wall sheathing and a portion of the metal lathing disposed across the face thereof;

Figure 3 is a vertical section on line 3'—3', Fig. 2, also a sectional view of a portion of the frame-work of a structure and into which a fastening nail is shown partly driven;

Figure 4 is a vertical median sectional view of one of the furring units with the paper and reinforcing wires omitted;

Figure 5 is a left-hand side elevation of one of the furring units with the paper and reinforcing wires omitted;

Figure 6 is a view on line 6'—6', Fig. 2, showing the fastening nail driven part way into a portion of the frame-work of a structure to the face of which the wall sheathing is being secured;

Figure 7 is a median cross section of one of the furring units disassembled from the paper;

Figure 8 is a rear elevation of a portion of the wall sheathing, showing method of attaching the reinforcement wires to the paper;

Figure 9 is a plan view of a partly completed stamping of one of the furring units, showing the clinching lips before being struck rearwardly preparatory to being projected through the paper for clinching against the back thereof;

Figure 10 is a rear elevation of a portion of the wall sheathing in a modified form to the extent that the reinforcing wires have been eliminated; and

Figure 11 is a vertical section of the modification on line 11'—11', Fig. 10.

It is to be observed that the drawings shown in Fig. 1, were made on a smaller scale than the rest of the figures.

Referring to the drawings in detail, throughout which like reference characters designate like parts:

The numeral 1 designates a portion of the wood-work of the wall of a frame structure, my improved wall sheathing, 3 the metal lathing and 4 the fastening nail for securing the lathing and sheathing to the wall.

The wood-work 1 may consist of the frame timbers of a wall such as the studding or the like or it may represent the siding boards sometimes nailed across the face of the studding.

The metal lathing 3 comprises a plurality of wires intertwisted on the principal of what is commonly known as a "poultry netting".

The fastening nail 4, while in the present instance comprising a one-limbed staple, may be in the form of a regulation two-limbed staple, or, if preferred, may consist of an ordinary nail, in which case the nail would be driven part way into the wood-work and then bent over and down upon the lathing to force it, together with the wall sheathing, against the wood-work.

The wall sheathing 2 comprises a sheet of paper 5 of suitable thickness, width and length. I have found in practice that a sheet having a width of about three feet and a length of about seventy-five feet, when rolled up makes a very convenient bundle to handle both as to purposes of transportation as well as for applying the paper to the wall of a building.

The paper is preferably impregnated with a preparation embodying tar or bitumen pitch or other like substance as a preservative for the paper and to make it as nearly as practicable impervious to water so that it may properly withstand without disintegration the wet plastic material when operatively applied thereagainst.

Along on the face side of the paper 5 are disposed, at regular intervals, furring units 6, which are formed of sheet metal and embody each a pair of laterally spaced apart

outstanding marginal lath supports 7, an intermediate body portion 8 having its median section cut out thereby forming an extended opening 9 and a rectangular frame comprising upper and lower end members 10 and side members 11 disposed in the same plane and from the inner edges of which extend clinching lips 12 and 13, which lips project through the paper 5 and are bent down against the back thereof, thereby confining portions of the paper between said lips and the frame members.

The furring units 6 are disposed on the face of the paper in vertically spaced apart rows, each row comprising a plurality of furring units disposed in regular and horizontally spaced apart order (see Fig. 1). It is preferable that the several rows of units be so arranged that the collective units will appear in staggered formation on the paper.

In the preferred form of the invention as illustrated in Figs. 1 to 8 inclusive, there is provided reinforcement for the paper in the form of a pair of paralleling wires 14 for each row of furring units, said wires being disposed along the back of the paper and confined between the upper and lower clinching lips 12 and the paper.

The reinforcing wires 14 are intended to form integral parts of the wall sheathing and are particularly useful as reinforcement therefor when the sheathing is applied directly to the frame timbers of a wall, for by their incorporation into the sheathing the latter may readily be stretched taut from stud to stud, thereby preventing the usual and objectionable sagging or bagging inwardly of the paper as is often times the case when the plastic material is applied to paper that has not been properly stretched or secured. The reinforcement also prevents rupturing of the paper when excessive force is used in spreading the plaster against it, the reinforcement wires 14 incidentally acting also as permanent ties for the framework of the wall.

In the modified form of my wall sheathing, illustrated in Figs. 10 and 11, the reinforcing wires 14 are omitted and the clinching lips 12 disposed directly against the back of the paper. The elimination of the reinforcement wires permits of certain economy of construction over the preferred form and provides a very useful and practical wall sheathing for application to walls and the like provided with siding boards nailed over the face of the frame timbers, thereby providing a comparatively smooth and continuous backing for the paper.

In Figs. 3 and 6 of the drawings, the wall sheathing 2 is shown disposed at distances outwardly from the wood-work 1; it is intended, however, that the wall sheathing be disposed against the wood-work and the nail 4 driven thereinto until the lathing 3

seats firmly against the outer edges of the lath supports 7. If preferred, the nail 4 may be driven until the lathing becomes deflected inwardly intermediate the supports 7 of the units 6; in some cases the nail may be accidentally driven excessively thereby causing a deflection of the lathing. However, such deflection of the lathing does not effect the general spacing or furring thereof relative to the sheathing but is sometimes desirable for removing local bagging of the lathing between adjacent furring units.

In Fig. 1, to prevent confusion, the outer edges of the lath supports 7 are represented by single vertical lines, and the broken parallel lines extending horizontally across the sheathing indicate the reinforcement wires 14.

In projecting the clinching lips 12 and 13 through the paper 5 for securing the units, it is unnecessary to prepare any openings through the paper for the passage of the clips for the reason that the clips may be readily caused to pierce the comparatively thin paper when mechanically applying the furring units thereto.

It is obvious from the foregoing description of the invention that the wall sheathing may be readily rolled up into compact bundles for convenience in handling it, and as readily unrolled for applying it to the wall of a structure.

Any number of sheets of the sheathing may be employed coactingly for covering a wall, and the furring may be spaced on the paper at distances most suitable for the work.

A practical method of applying the wall sheathing to the wall of a building, is to unroll one of the bundles horizontally along the face of the wood-work and to tack it thereto temporarily and to then apply the lathing separately across over the furring units and to drive a fastening staple as the lathing is being applied between each pair of supports 7.

The stucco composition when applied, is adapted to be spread on the paper 5 and on and around the furring units 6 and the lathing 3.

I claim:

1. In means of the character described, a furring unit formed of sheet metal and comprising a pair of laterally spaced apart lath supports, an intermediate body portion connecting said supports together, and lips on the furring unit adapted to be projected through a sheet of paper and to clinch against the back thereof for securing the furring unit thereto.

2. In means of the character described, a plurality of furring units attached to one side of a sheet of paper, each of said units including a pair of spaced apart lath supporting members projecting substantially

equal distances outwardly from said paper, and clinching lips projecting through said paper and bent against the back thereof for securing the units to the paper.

5 3. In means of the character described, a plurality of furring units disposed against the face side of a sheet of paper, said units disposed in a plurality of vertically spaced  
10 apart rows of units extending longitudinally along said paper, each of said units provided with an outstanding lath support and a clinching lip, said clinching lip projecting  
15 through said paper and bent into a position approximately parallel with the plane of the paper, said furring unit adapted to form an integral part of the paper.

4. The combination with a sheet of paper, of a plurality of sheet metal furring units disposed in regular spaced apart order  
20 against the face of said paper, said units having members extending through said paper and clinched against the back thereof for securing said units integrally thereto.

5 5. In wall sheathing of the character described, a sheet of paper, a wire disposed against the rear side thereof, a furring unit disposed against the front side thereof, and a clinching lip integral with said furring  
25 unit projecting through said paper and engaging said wire for holding it against the rear side thereof.

6. In wall sheathing of the character described, a sheet of stucco backing, a reinforcing wire engaging one side thereof, a fur-  
30 ring unit engaging the opposite side thereof, means on said furring unit projecting through said backing and engaging said reinforcing wire for connecting the latter and said backing and said unit together, and  
40 metal lath disposed across the face of said furring unit at a distance outwardly from said backing.

7. In wall sheathing, a sheet of backing adapted to receive a coat of stucco composition on its face side, a plurality of reinforcing  
45 wires engaging the opposite side thereof, a plurality of furring units disposed against said face side at spaced apart intervals, and

means projecting through said backing for connecting it and said furring units and said  
60 reinforcing wires together, said stucco composition adapted to be spread on said face side of the backing and on and around said furring units.

8. In wall sheathing, a sheet of stucco  
55 backing, reinforcing wire engaging the rear side thereof, a furring unit seating against the face side thereof, said furring unit having a clinching lip projecting through said  
60 backing and engaging said reinforcing wire for connecting the latter and said backing and said furring unit together, said furring unit adapted to receive and hold metal lath on the opposite side of said backing from  
65 said reinforcing wire, said backing adapted to receive a coat of stucco composition spread on its face side and on and around said metal lath and said furring unit.

9. In combination, reinforcing wire, metal  
70 lath, stucco backing disposed therebetween and engaging said reinforcing wire, a furring unit disposed intermediate said backing and metal lath and engaging both, and a nail projecting through said backing and engag-  
75 ing said metal lath for binding it against said furring unit.

10. The combination with a sheet of paper, of a plurality of furring units disposed against the face of the paper in regular  
80 spaced order, each of said units embodying a pair of opposed lath supports, a plurality of reinforcing wires disposed on the opposite side of said paper and connected to each of said furring units, and a fastening nail  
85 projecting through each of said units between said lath supports, said nail adapted for engagement with metal lathing for securing it to the face of said lath supports and for securing said lathing and paper and  
90 wires and units to the frame work of a structure.

In testimony of the foregoing being my own, I have hereunto affixed my signature this 4th day of October, 1923.

GEORGE F. VOIGHT.