

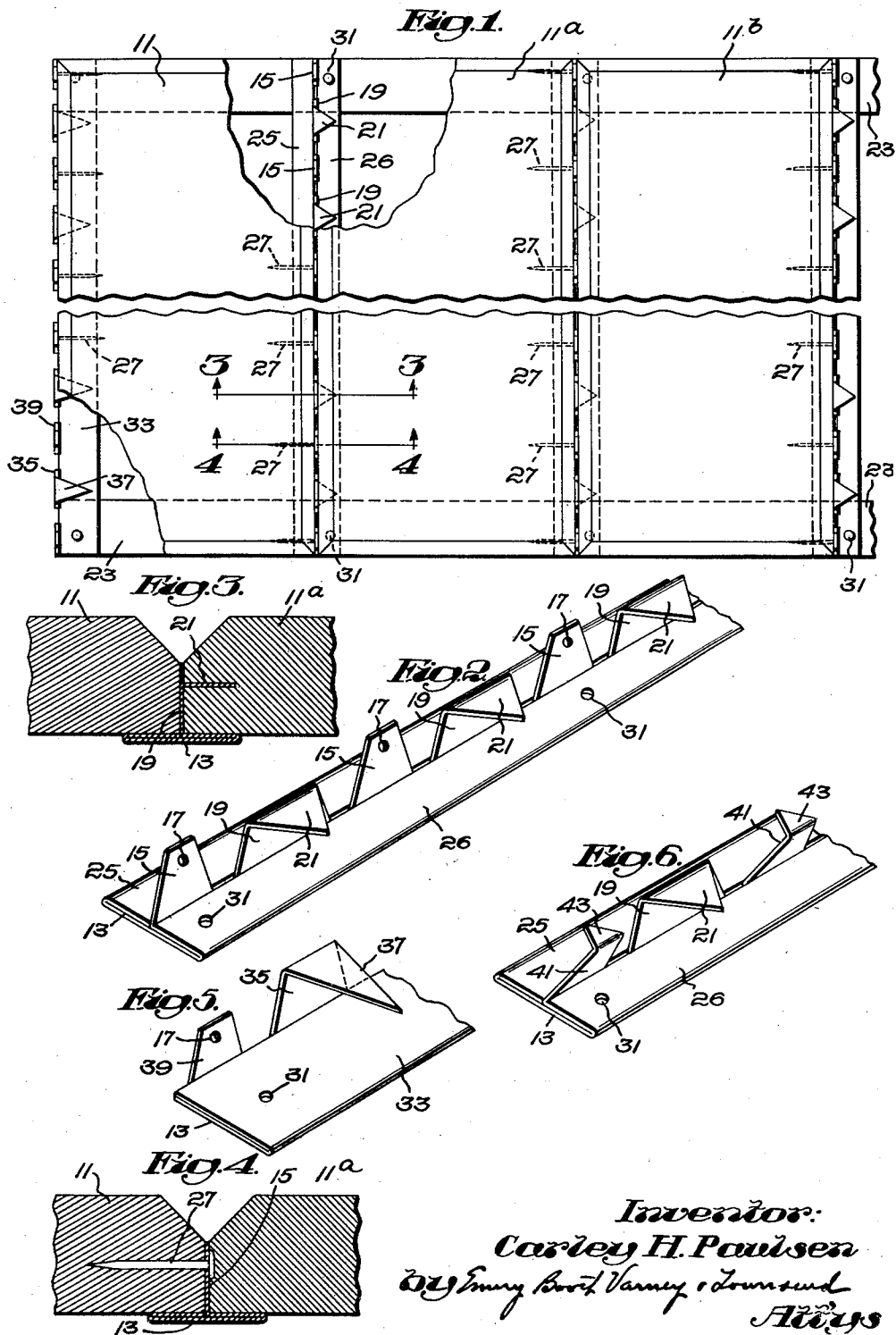
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C. H. PAULSEN

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FASTENING MEANS FOR WALL AND CEILING BOARDS

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Inventor:
Carley H. Paulsen
By Emory Brock Varney & Townsend
Attys

UNITED STATES PATENT OFFICE

CARLEY H. PAULSEN, OF HINGHAM, MASSACHUSETTS

FASTENING MEANS FOR WALL AND CEILING BOARDS

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This invention relates to fastening means for securing wall or ceiling boards in position on the supporting elements of a wall or ceiling, and has for its object the provision of a simple form of fastening through which adjacent wall or ceiling boards may be easily and quickly fastened and securely held in the required position of smooth, even alignment.

The invention will be best understood by reference to the following description when taken in connection with the accompanying illustration of one specific embodiment thereof, while its scope will be more particularly pointed out in the appended claims.

In the drawing:

Fig. 1 is a plan view, partly broken away, showing a number of boards fastened in place, edge to edge, with fastening means embodying one form of the invention;

Fig. 2 is a view in perspective showing the construction of one form of fastening device;

Fig. 3 is a sectional elevation on an enlarged scale, taken on the line 3—3 of Fig. 1, showing the relation of one of the fastening prongs to the lateral edges of one of the two adjoining boards after the board has been forced into place;

Fig. 4 is a similar section, on the line 4—4 in Fig. 1, showing one method of securing the other one of the two adjoining boards to the fastening shown in Fig. 2;

Fig. 5 is a perspective view showing a part of the fastening device which may be employed for one of the end boards of the series; and

Fig. 6 is a perspective view showing a modified form of fastening.

Referring to the drawing and to the embodiment of the invention which is therein shown for illustrative purposes, its application is illustrated in Fig. 1 to the fastening of a series of wall or ceiling members 11 required to be permanently secured in close relationship, side by side, to the metal or wood lathing, studding or other supporting elements of a structure to form a continuous wall or ceiling panel thereover. Such wall or ceiling members are herein referred

to generically as boards, this term being intended to include panels, tiles, strips or other board-like members formed of wood, plaster, fibrous material, cork, rubber, or any other natural or artificial composition suitable for the covering of walls or ceilings and the material of which permits penetration by the fastening devices.

Referring to Fig. 2, the specific form of fastening means here illustrated is in the form of an elongated strip or base 13, formed from this sheet metal and bent or folded over to give stiffness. Struck up from the sheet metal there is presented a plurality of spaced tongues 15 extending at substantially right angles to the base in alignment with each other, and here located each about midway between the outer lateral edges of the base. These tongues extend outwardly from the base 13 a distance less than the thickness of the board to be fastened and are provided each with a perforation 17 spaced from the base preferably at approximately one-half of the thickness of the board.

The base also presents a second series of tongues 19, also extending at substantially right angles to the base, these being spaced from each other and from the tongues 15 and here arranged in alternation but in substantial alignment with the tongues 15. Each one of the tongues 19 is provided with a prong 21, the several prongs being bent in the same direction approximately at right angles to the tongues, these constituting outwardly and laterally extending, penetrating fastenings positioned to enter the lateral edges of a board when the latter is forced into abutment against the series of tongues while the latter are backed or held against the side of the next adjoining board.

The method of applying the described form of fastening device will be readily understood from Figs. 1, 3 and 4. Assuming that the board 11, or that shown at the left-hand end of the series in Fig. 1, is already held in place on the laths or other supporting elements 23 of the wall or ceiling structure to be covered, the fastening strip base 13 is slipped under the edge of the panel 11 in the relationship shown in Figs. 1, 3 and 4. One side

of the base forms a seat or rest for the inner edge of one board to be fastened thereto, and the opposite side 26 forms a similar seat for the next adjoining board. With the bottom
 5 of the board held firmly against the fastening base 13 on the seat 25, the tongues 15 are then secured to the lateral edges of the board 11 by driving a nail 27 through the nail hole or perforation 17 of each tongue of the series,
 10 the nails penetrating the material of the tongue through the lateral edges of the board and serving to securely fasten the board to the strip. The opposite side 26 of the base, and which is still exposed, is then fastened
 15 to the structural supporting members 23 by driving nails through the perforations 31 formed therein.

The edge of the next board 11a required to be fastened in close adjoining relationship to the board 11 is then placed with its inner edge
 20 on the exposed side 26 of the base 13, this bringing the laterally projecting prongs into cooperative and penetrating relationship to the lateral edges of the board. While held
 25 to its seat in this position, the board member 11a is forced against the prongs by any suitable means, as by pressure or blows applied to its opposite lateral edges, until it is driven into close cooperative adjoining relationship
 30 to the lateral edges of the first board 11, the prongs penetrating the lateral edges of the board 11a until they assume the relationship illustrated in Fig. 3. This leaves the second board 11a with one side securely fastened in
 35 position in snug fitting and aligning relation to the first board 11.

In the illustrated form of the invention the outer adjoining edges of the panels are beveled, as shown in Figs. 3 and 4, but the described form of fastening may be employed
 40 without the bevel and with closely fitting right-angled edges if desired. The joint between the two adjoining panels may be closed to form a blind or concealed fastening by filling the same in with some suitable covering
 45 substance, or, if the material of which the boards are composed is sufficiently yielding, their edges may be brought into contact to cover the joint by the edge pressure applied
 50 to each board in securing it in position, or the adjoining edges of the boards may be so formed as to overlap the gap and cover the intervening fastening devices.

Having fastened one edge of the panel 11a as described, the opposite edge is fastened
 55 in the manner already described by applying another fastening strip thereto through the medium of the nails 27, and after the strip has been nailed to the supporting elements
 60 23 the next adjoining panel 11b is fastened in place by forcing its lateral edges against the laterally extending prongs 21 of the same fastening strip, this process being repeated for successive panels until the required
 65 area has been covered.

It will be seen that this provides a simple, quickly applied means for fastening successive wall or ceiling boards to form a continuously covered area, and by fastening devices
 70 which are so applied as to hold the boards permanently and securely against displacement.

The end one of the series of boards, which is initially fastened to the supporting members 23, may be secured thereto in any desired
 75 manner. Its edge will be frequently covered by a molding, or it may be nailed directly to the supports 23 with no special fastening required. Where a concealed fastening is needed to bring its exposed end flush against
 80 a wall or other surface, a fastening of the same general type as that already described may be employed, but suitably modified, as, for example, shown in Fig. 5, and also at the left-hand edge of the panel 11 in Fig. 1.

This comprises an elongated base 33 presenting a series of tongues 35 having laterally extending prongs 37, the tongues being
 85 formed at one side of the base strip 33 and preferably of somewhat greater length than the prongs 21. Combined with the series of
 90 tongues 35, and also aligned therewith, there is formed a series of tongues 39 alternating with the tongues 35, the tongues 39 being provided with perforations or nail holes 17
 95 through which nails 27 may be driven into the adjoining edge of the board. When this fastening is employed, the edge of the board is forced to a seat against the series of
 100 tongues, the prongs 37 penetrating and holding the panel in place, after which, if the edge of the board is exposed to permit nails to be driven, it may be additionally fastened by means of nails 27 driven through the tongues 39.

It will be seen that the disclosed form of
 105 fastening means provides a thin metal fastening member in the form of the tongue 15 which is secured to the supporting structure of the wall or ceiling and is adapted to lie
 110 against the exposed lateral edge of one of the boards and to be fastened thereto by a fastening adapted to penetrate such lateral edge, this being combined with a second thin metal fastening member adapted to lie
 115 against the same lateral edge of the board, the second fastening member presenting a penetrating fastener extending laterally in the opposite direction to penetrate and hold
 120 the lateral edge of the next adjoining board when forced toward the first mentioned board.

Instead of employing fastening nails to be driven through tongues 15 into the exposed
 125 lateral edge of the board already in place, a fastening such as shown in Fig. 6 may be employed, in which, instead of the right-angled tongues 15, there are employed tongues 41 provided with the prongs 43 extending in a
 130 direction opposite to the prongs 21, the tongues 41 being preferably bent slightly

backward, so that, when the fastening strip is placed in position, the prongs 43 may be driven by a hammer or other implement into the exposed lateral edge of the board which is already in position.

While the two fastening members 15 and 19 might be provided on separate detached supports and separately fastened to the supporting members of the structure, the operation of securing the panels in place and the certainty of their alignment is facilitated by providing a series of such fastening members on the same supporting strip as already described. The supporting strips may have any desired length and any desired number of fastening members may be mounted in the same strip, dependent upon the character of the support to which the wall or ceiling is to be fastened and the length of the individual boards, but the operation is obviously facilitated by making the strips as long as can be conveniently handled.

While I have herein shown and described for the purpose of illustration one specific embodiment of the invention, it is to be understood that extensive deviations may be made from the form and relative arrangement of parts, all without departing from the spirit of the invention.

I claim:

1. A fastening device for wall or ceiling boards comprising a flat metal strip presenting a rest for the underlying edges of adjacent boards and having two sets of alternately arranged, aligned, thin metal tongues outwardly extending from said strip and adapted to lie between adjacent boards when in position, one set of said tongues having each an outwardly bent prong adapted to penetrate the abutting lateral edge of one of said boards, and the other set having each a perforation to receive a nail in penetration of the opposed adjoining lateral edge of the other board.

2. A fastening device for wall or ceiling boards comprising a metal strip presenting a rest for the underlying edges of adjacent boards with means for fastening the same to a wall or ceiling structure and presenting two sets of outwardly extending, thin metal tongues arranged to lie between adjacent boards when in position, one set of said tongues having each an outwardly bent prong adapted to penetrate the adjoining lateral edge of one of said boards and the other set having each a perforation to receive a nail adapted to penetrate the adjoining lateral edge of the other board.

3. A fastening device for wall or ceiling boards comprising a substantially flat metal strip with means for securing the same to the supporting structure of a wall or ceiling, said strip presenting one or more outwardly projecting thin metal tongues adapted to lie against the exposed lateral edge of a board

and to be fastened thereto by a fastening penetrating said lateral edge, and presenting also one or more outwardly projecting thin metal tongues having each a fastening prong extending laterally in the opposite direction to penetrate the lateral edge of the next adjoining board when forced toward said tongue.

4. A fastening device for wall or ceiling boards comprising a flat strip adapted to be secured to a wall structure and to underlie and form an aligning rest for the edge of a board and presenting a series of outwardly directed thin metal tongues adapted to lie between the lateral edges of adjacent boards when in position, certain of said tongues being provided with prongs extending outwardly and laterally with relation to said tongues and adapted to penetrate and fasten the lateral edges of one adjoining board and other tongues provided with means extending outwardly and laterally with relation to said last named tongues and oppositely to said prongs and adapted to penetrate and secure the lateral edges of the adjoining board.

5. A fastening device for wall or ceiling boards comprising a substantially flat metal strip with means for securing the same to the supporting structure of a wall or ceiling, said strip presenting one or more outwardly projecting thin metal fastening members adapted to lie against the exposed lateral edge of a board and to be fastened thereto by a fastening penetrating said lateral edge, and presenting also one or more outwardly projecting fastening members also adapted to lie against said lateral edge of said board, said fastening members presenting each a penetrating fastening extending laterally in the opposite direction to penetrate and hold the lateral edge of the next adjoining board when forced toward the first mentioned board.

6. A fastening means for wall or ceiling boards comprising a thin metal fastening member adapted to be secured to the supporting structure of a wall or ceiling, said member being adapted to lie against the exposed lateral edge of a board and to be fastened thereto by a fastening penetrating said lateral edge, and a second thin metal fastening member also adapted to be secured to said supporting structure and to lie against said lateral edge of said board, said second fastening member presenting a penetrating fastening extending laterally in the opposite direction to penetrate and hold the lateral edge of the next adjoining board when forced toward the first mentioned board.

In testimony whereof, I have signed my name to this specification.

CARLEY H. PAULSEN.