Aug. 2, 1932. J. C. JOHNSON 1,870,011

ERECTING STRIP FOR BUILDING MATERIALS

Filed March 31, 1931

Fig. 1.

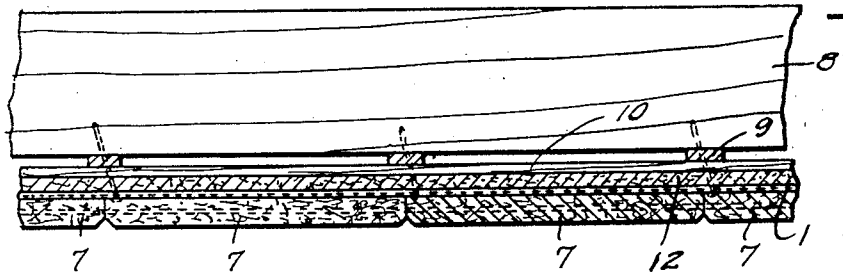


Fig. 2.

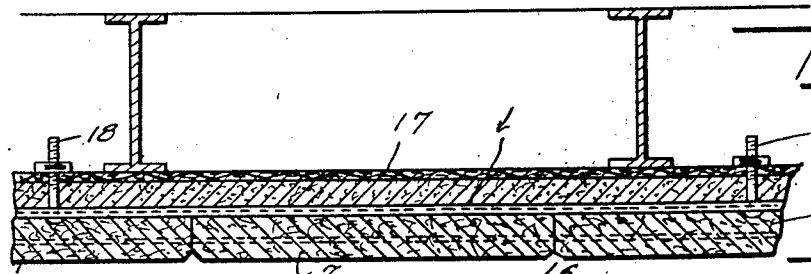


Fig. 3.

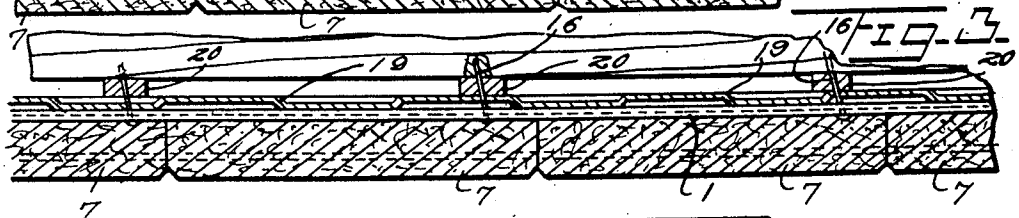


Fig. 7.

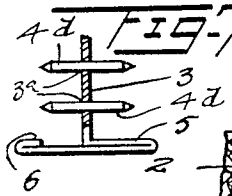


Fig. 4.

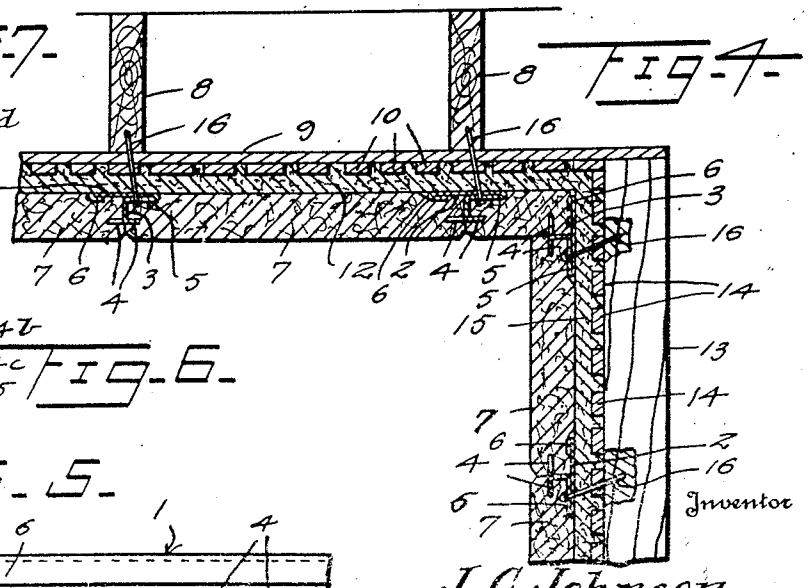


Fig. 6.

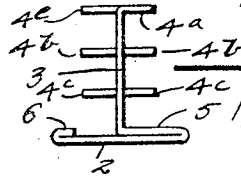
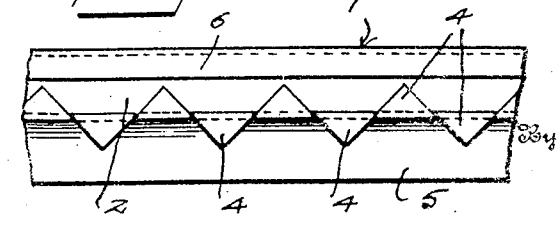


Fig. 5.



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UNITED STATES PATENT OFFICE

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ERECTING STRIP FOR BUILDING MATERIALS

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This invention relates to an erecting strip for building materials of the type known as insulite, maftex, celotex, cork-board and the like, and also for harder building materials, and has for one of its objects to provide a novel strip of this character through the medium of which slabs of building materials may be secured firmly to ceilings, walls or the like, through the medium of which the slabs may be secured in place in a comparatively short time and at the expenditure of comparatively little labor, and which will be rendered invisible by the slabs when secured in place.

The invention has for a further object to provide an invisible erecting strip of the character stated which shall be adapted to be secured to wood, plaster or metal ceiling or wall structures, which shall be simple and efficient, which shall be adapted to be manufactured and sold at a comparatively low cost, and which may be made in any required length ranging from one inch upwards.

To attain the foregoing and other objects, the nature of which will appear as the description proceeds, the invention comprehends the provision of an erecting strip which shall embody a base adapted to be nailed, bolted or otherwise secured to a ceiling or wall structure, a flange arranged at right angles to and extending longitudinally of the base and adapted to be received between the opposing edges of adjacent slabs, and prongs extending laterally in opposite directions from the flange and adapted to be embedded in said edges of the slabs to secure the slabs to the strip.

The invention further comprehends the provision of an erecting strip wherein the prongs may be formed integrally with the flange or formed separately and secured thereto, the prongs when formed separately being in the form of dowel double pointed valve pins passing through openings formed in the flange.

The invention is hereinafter more fully described and claimed, and illustrated in the accompanying drawing, wherein:—

Figure 1 is a sectional view illustrating the manner in which the erecting strip is adapted to be secured to the wood joist of a ceiling, the section being taken on a plane parallel to the strip.

Figure 2 is a similar view illustrating the manner in which the erecting strip is adapted to be secured to the metal lathing of a ceiling.

Figure 3 is a similar view illustrating the manner in which the erecting strip is adapted to be secured to the strappings of a stamped metal ceiling.

Figure 4 is a sectional view illustrating the manner in which the plurality of the erecting strips are adapted to be secured to wood ceiling joints and to wall studdings, and also illustrating the manner in which the strips are adapted to engage the slabs of building material, the section being taken on a plane at right angles to the strip.

Figure 5 is a top plan view of the erecting strip.

Figure 6 is a sectional view taken on a plane extending transversely through a modified form of the strip, and

Figure 7 is a view similar to Figure 6 of a further modified form of the strip.

Referring in detail to the drawing and particularly to Figures 4 and 5, 1 designates the erecting strip which is adapted to be made from a single blank of sheet metal and of any desired or required length. The erecting strip 1 comprises a base 2, a flange 3 and prongs 4.

The base is of elongated rectangular formation in plan, and is provided with reinforcing and gauging depth ribs 5 and 6 which extend inwardly from its longitudinal edges, the reinforcing rib 5 being of greater width than the reinforcing rib 6 and having its inner edge arranged in alinement with the longitudinal center of the base. The flange 3 is arranged at right angles to and extends longitudinally of the base 2, and is connected at its inner edge to the inner edge of the reinforcing rib 5. The prongs 4 which are of triangle formation in plan, are arranged at the free edge of the flange 3 and extend laterally in opposite directions from the flange. All parts of the erecting strip 1 are formed integrally.

As shown in Figures 1 to 4, erecting strips constructed in accordance with my invention are adapted to be used for the purpose of securing to walls and ceilings, slabs 7 of such building materials as insulite, maftex, celotex, cork-board and the like. The erecting strips are also adapted to be used for the purpose of securing to walls and ceilings slabs of building materials that are harder than insulite and the other previously named building materials. The slabs 7 may be secured to ceilings for the purpose of repairing old, cracked and falling plaster, as suggested in Figures 1 and 4, wherein 8 designates the joist, 9 the strappings, 10 the lathing, and 12 the plaster of ceilings. Also, as shown in Figure 4, the slabs 7 may be secured over the old or cracked plaster of a wall, and in this figure 13 designates a studding, 14 the lathing and 15 the plaster of a wall.

The erecting strips 1 are arranged with their bases 2 against the plaster of the ceilings and walls, and are secured in place by nails 16. The flanges 3 of the erecting strips 1 are located between the adjacent edges of the slabs 7, and the prongs 4 of the erecting strips are embedded in such edges of the slabs.

As shown in Figure 2 the slabs 7 may be secured over ceiling plaster secured to metal lathing 17, and when the slabs are to be secured to a ceiling structure of this character the erecting strips 1 are secured to the metal lathing by toggle bolts 18. Also the slabs 7 may be secured over old metal ceilings, as shown in Figure 3, wherein 19 designates the stamped metal plates of the ceiling of this character, and in this instance the erecting strips are secured in place by nails 20. Slabs may be also secured by the erecting strips to ceilings and walls for acoustical purposes, and when used for this purpose they will be thicker than the slabs used for repairing old walls and ceilings.

As the bases 2 of the erecting strips 1 are firmly secured to the ceiling or wall structure, and as the prongs 4 engage in the adjacent edges of the slabs 7, the slabs are firmly held in place. When slabs of different thicknesses are to be secured in place, the erecting strip 1 may be provided at each side of its flange 3 with a plurality of rows of prongs 4*a*, 4*b* and 4*c*, as shown in Figure 6. The only difference between this erecting strip and the one shown in the other figures, is that the flange is higher for different thicknesses of materials or that the prongs are higher up on the flange. Two or more rows of the prongs 4*a*, 4*b* and 4*c* at one side of the flange will be engaged with the thicker slab and one or more rows of these prongs at the opposite side of the flange will be engaged with the thinner slabs, and the flange may be provided at one side with one or more rows of the prongs and at the opposite sides with two or more rows of the prongs or it may be provided with a similar number of rows of prongs at each side.

If desired, the prongs may take the form of double pointed dowel pins, as shown in Figure 7. These pins 4*d* pass through openings 3*a* extending transversely through the flange 3. After this particular type of erecting strip has been secured in place and one of the slabs applied, the double pins 4*d* are passed through the flange and engaged with an edge of such slab, and the other slab is applied in a manner to cause the dowel pins to engage in an edge of the same. When the slabs are of the same thickness the flanges of the erecting strips, which are of less width than the thickness of the slabs, together with the bases and prongs of the erecting strips, are hardened by the slabs, rendering the erecting strips invisible.

While I have described the principle of the invention, together with the structure which I now consider the preferred embodiment thereof, it is to be understood that the structure shown is merely illustrative and that such changes may be made, when desired, as fall within the scope of the invention as claimed.

What is claimed is:—

1. An erecting strip of the character set forth, comprising a base, a flange extending longitudinally of the base centrally between the side edges of the latter and arranged at right angles thereto, and a plurality of rows of prongs carried by the flange and extending laterally in opposite directions therefrom, the rows of prongs being arranged in relatively spaced relation on and extending longitudinally of the flange.

2. An erecting strip of the character set forth, comprising a base of elongated rectangular formation in plan and provided with reinforcing ribs extending inwardly from the side edges thereof, one of the ribs having its inner edge arranged at the longitudinal center of the base, a flange extending from the inner edge of said last rib at right angles to the base, and prongs carried by the flange.

3. An erecting strip of the character set forth, comprising a base, a flange arranged at right angles to and extending longitudinally of the base, the flange being provided with openings extending transversely therethrough, and prongs in the form of double dowel pins extending through said openings.

4. An erecting strip for wall or ceiling slabs, comprising a base adapted to be secured to the wall or ceiling, reinforcing ribs for the base extending inwardly from opposite edges of the base, a flange carried by one of the reinforcing ribs and adapted to be positioned between the adjacent edges of the slabs, and prongs extending in opposite directions from the flange and adapted to be

embedded in the edges of the slabs to secure them to the wall or ceiling.

5. An erecting strip for wall or ceiling slabs, comprising a base adapted to be secured to the wall or ceiling, reinforcing ribs for the base extending inwardly from opposite edges of the base, one of the ribs having its inner edge located centrally between said edges of the base, a flange carried by the inner edge of such rib and arranged at right angles to the base, and prongs extending in opposite directions from the flange and adapted to be embedded in the edges of the slabs to secure them to the wall or ceiling.

In testimony whereof I hereunto affix my signature.

JOHN CLEMENT JOHNSON.