Jan. 7, 1936. J. A. IRWIN 2,026,835

BUILDING CONSTRUCTION FABRICATING DEVICE

Filed Oct. 11, 1933

Fig. 1

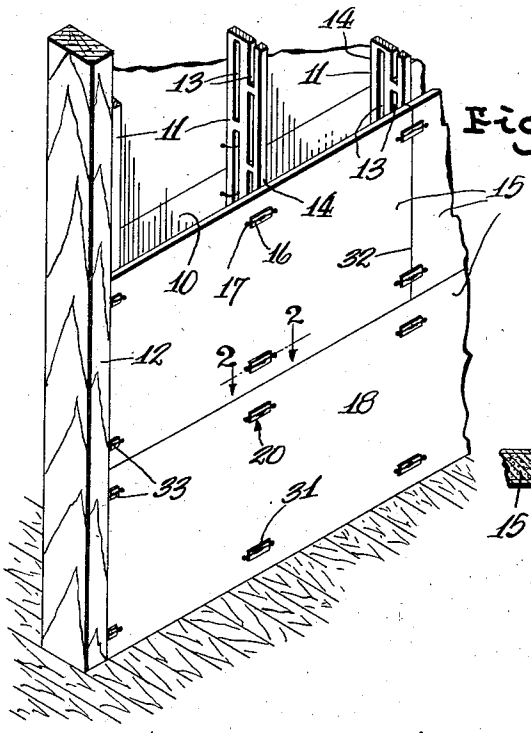


Fig. 2

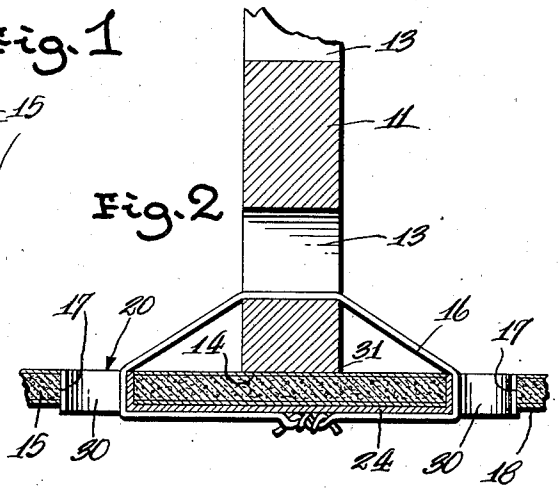


Fig. 3

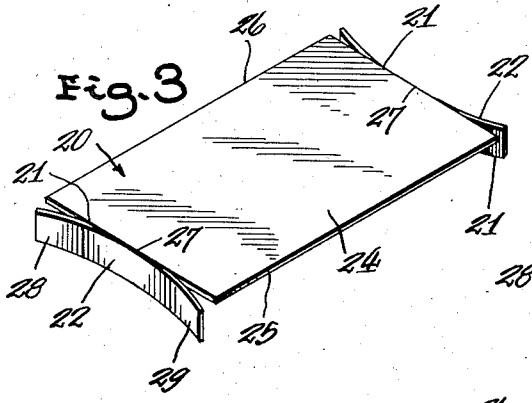


Fig. 4

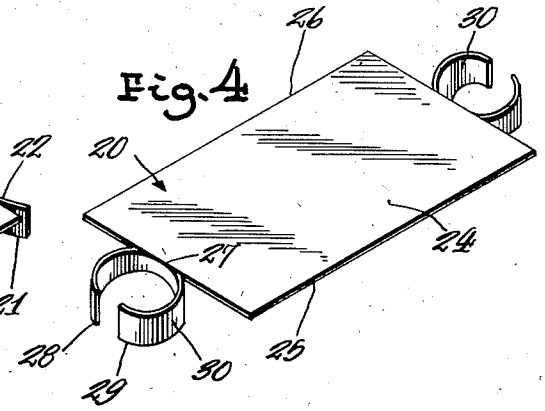


Fig. 5

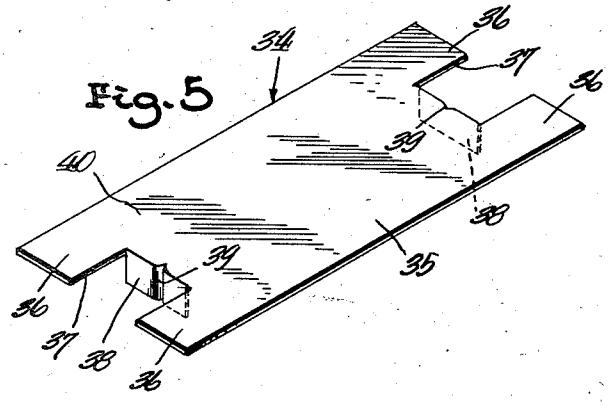
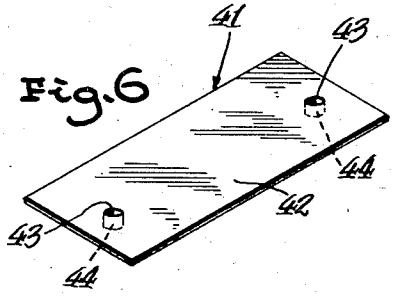


Fig. 6



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BUILDING CONSTRUCTION FABRICATING DEVICE

Joseph A. Irwin, Cleveland, Ohio

Application October 11, 1933, Serial No. 693,120

13 Claims. (Cl. 72—118)

This invention relates to building construction fabricating devices, and an object of the invention is to provide new and improved devices of this character.

In the drawing accompanying this specification and forming a part of this application, I have shown, for purposes of illustration, certain embodiments which my invention may assume, and in this drawing:

Figure 1 is a fragmentary perspective view of one embodiment of my invention,

Figure 2 is an enlarged fragmentary, horizontal sectional view, corresponding substantially to the line 2—2 of Figure 1,

Figure 3 is a perspective view of a fabricating element employed in connection with the embodiment of the invention disclosed in Figure 2, but showing the manner in which the fabricating element is formed,

Figure 4 is a perspective view of the fabricating element disclosed in Figure 2 in its final form,

Figure 5 is a perspective view of a different embodiment of the fabricating element, while

Figure 6 is a perspective view of another embodiment of the fabricating element.

As shown in Figures 1 through 4, the invention comprises a wall structure which in this instance is shown as a hollow partition 10 formed of spaced studs 11, one of which is disposed adjacent a duck board 12 which defines one end of the partition 10, and the studs 11 are provided with staggered elongated slots 13, and bearing against the oppositely disposed sides 14 of the studs 11 are panels, which in this instance may be plaster boards 15. The plaster boards 15 are secured to the studs 11 by means of tie-wires 16, each of which extends through one of the elongated slots 13 and through adjacent apertures 17 in the plaster boards 15, and the ends of the tie-wires 16 are tied together in front of the outer surface 18 of the plaster boards 15.

Interposed between each tie-wire 16 and the plaster board 15 is a shield 20, of non-corrosive metal, which prevents the tie-wire 16 from contacting the plaster board 15, and protects the apertures 17 and the inner and outer surfaces of the plaster board from injurious contact with the tie-wire 16.

The shield 20, disclosed in Figures 1 through 4, is constructed from a flat rectangular piece of metal, the opposite end sections of which are bent back, as indicated at 21, forming flanges 22, as shown in Figure 3, which define therebetween a flat base portion 24, and the latter is cut from its longitudinal edges 25 and 26 transversely along the bent edges 21 to a point short of the longitudinal axis of the flat base portion 24, the remaining uncut metal 27 providing an integral connection between the flanges 22 and the flat base portion 24. The free ends 28 and 29 of the flanges 22, formed as a result of cutting the flat base portion 24, along the bent edges 21, are curved to form eyelets, or grommets 30, as shown in Figure 4.

When the plaster board 15 spans one of the studs 11, as indicated at 31, the holes 17 are spaced apart a distance equal to that between the grommets 30, which are inserted in the holes 17 so as to extend completely through the thickness of the plaster board 15, and the rear surface of the flat base portion 24 rests against the outer surface 18 of the plaster board and forms a relatively large bearing surface therefor. One end of the tie-wire 16 is passed through one grommet 30, and the adjacent elongated slot 13 in the stud 11, and then through the other grommet 30, and the ends of the tie-wire 16 are then tied together along the front surface of the base portion 24 of the shield 20. The grommets 30 line the interior of the apertures 17, and at no point does the tie-wire 16 contact the plaster board 15.

In the construction where the shield 20 spans the adjoining ends of adjacent plaster boards, as indicated at 32, one hole is punched out in each adjacent plaster board and these holes are spaced apart a distance equal to that between the grommets 30, and the grommets 30 disposed in the holes, and the tie-wire 16 rigidly secures the adjoining plaster boards and shield 20 to the supporting stud, as will be understood.

In the construction where the plaster board abuts the duck board 12 only one-half of the shield 20 is used, as indicated at 33, and in this instance only one of the grommets 30 is inserted in a hole punched out in the plaster board, and the tie-wire is passed through the grommet employed, the apertured stud, and is tied in front of the flat portion of the shield 20.

The foregoing construction provides a shield wherein the grommets 30 extend completely through the plaster board, and protect the plaster board from injurious contact with the tie-wire 16, and provides a large bearing surface abutting the plaster board between the grommets 30.

Referring to Figure 5, I disclose another embodiment of my invention comprising a shield 34, of non-corrosive metal, having a flat portion 35 provided at its opposite longitudinal ends with bifurcated extensions 36, defining therebetween open mouthed recesses 37 formed by bending back a portion of the shield 34, providing laterally projecting shields or lips 38. Extending centrally of each of the lips 38 is a groove 39 terminating in the front face 40 of the flat portion 35, for the accommodation of the tie-wire 16.

In use, holes are punched in the plaster board to accommodate the lips 38, and the tie-wire 16 fits within the grooves 39 and one of the slots 13 in the stud 11, without contacting the plaster board 15 at any point. In this construction the

bifurcated extensions **36** support the plaster board beyond the holes punched therein, and reinforce the plaster board about the edges of the holes punched out for the lips **38**.

Figure 6 discloses still another embodiment of my invention and comprises a shield **41**, of non-corrosive metal, having a rectangular flat portion **42** provided with a pair of spaced openings **43** formed by punching out portions of the flat portion **42** to provide arcuate eyelets or grommets **44**.

The arcuate eyelets **44** are inserted in corresponding openings in the plaster board and shield the same from injurious contact with the tie-wire **16**, and the flat portion **42** of the shield **41** surrounds the openings **43** and prevents mutilation of the plaster board around the edges of the holes therein.

Although I have particularly described my invention in connection with protecting plaster board panels when secured to the studs of a hollow partition, it will be understood that I may employ my shields in other wall constructions, for example, ceilings; and that panels of composition other than plaster board may be protected by my shield; and it will be perceived that my device does not interfere with any coating that may be applied to the panels.

It will be understood by those skilled in the art that I have accomplished at least the principal object of my invention, and at the same time it will be obvious that the embodiments of my invention herein disclosed and described embody advantages other than those particularly pointed out or suggested herein, and that they may be variously changed and modified without departing from the spirit of my invention or sacrificing the advantages thereof; accordingly it will be understood by those skilled in the art that the disclosure herein is illustrative only and that my invention is not limited thereto.

I claim:

1. A device of the character described, the combination with a support; of a panel; securing means passing about said support, and transversely of the thickness of said panel at spaced points and to the outer side of said panel, and extending along the outer surface of said panel, said securing means being operable to secure said panel to said support; and shielding means having a base portion lying beneath said securing means where they pass along the outer surface of said panel, and having transverse portions interposed between said securing means and said panel to the points where said securing means pass transversely of said panel, to protect said panel against injurious contact with said securing means.

2. A device of the character described, the combination with a support; of a panel; securing means for securing said panel to said support; and metal shielding means having a base portion of substantial area bearing against said panel, and an eyelet cut out from said base portion, formed in laterally offset relation with respect thereto, and extending transversely of the thickness of said panel; said base portion and said eyelet being interposed between said securing means and said panel to protect said panel against injurious contact with said securing means, and to provide a substantial bearing surface for said panel, said eyelet accommodating a portion of said securing means.

3. A device of the character described, the combination with a support; of the adjoining edges of adjacent panels, each panel having an opening extending transversely of the thickness thereof; securing means passing about said support and through each opening in said panels for securing said adjacent panels to said support; and shielding means having a base portion of substantial area spanning the adjoining edges of said panels, bearing against said adjacent panels, and having offset portions each disposed in one of the openings in said panels, extending transversely of the thickness of said panel; said base portion and said offset portions being interposed between said securing means and said panel to protect said panel against injurious contact with said securing means, and to form a substantial bearing surface for said panels.

4. A device of the character described, the combination with a support; of a panel; securing means, passing transversely of the thickness of said panel for securing the same to said support; and metal shielding means having a base portion of substantial area bearing against said panel, and having a laterally offset portion extending transversely of the thickness of said panel, said offset portion being disposed at the point where said securing means pass transversely of the thickness of said panel, said base portion and said offset portion being interposed between said securing means and said panel to protect said panel against injurious contact with said securing means, and to provide a substantial bearing surface for said panel.

5. A device of the character described, the combination with a support; of a panel; securing means passing about said support and transversely of the thickness of said panel and to the outer side of said panel, and extending along the outer surface of said panel, said securing means being operable to secure said panel to said support; and metal shielding means having a base portion of substantial area bearing against said panel and lying beneath said securing means where they pass along the outer surface of said panel, and having a laterally offset portion extending transversely of the thickness of said panel, interposed between said securing means and said panel at that point where said securing means pass transversely of the thickness of said panel, to protect said panel against injurious contact with said securing means, and said offset portion having a concave seat for the reception of said securing means.

6. A device of the character described, the combination with a support; of a panel having an opening extending transversely of the thickness thereof; securing means passing about said support and through the opening in said panel and to the outer surface of said panel, and extending along the outer surface of said panel, said securing means being operable to secure said panel to said support; and shielding means having a base portion of substantial area bearing against said panel and lying beneath said securing means where they pass along the outer surface of said panel, and having a laterally offset portion extending through said opening, interposed between said securing means and said panel, to protect said panel against injurious contact with said securing means, and to provide a substantial bearing surface for said panel.

7. A device of the character described, the combination with a support; of a panel having an opening extending transversely of the thickness thereof; securing means passing about said support through the opening in said panel and to

the outer surface of said panel, and extending along the outer surface of said panel, said securing means being operable to secure said panel to said support; and shielding means having a base portion of substantial area bearing against said panel and lying beneath said securing means where they pass along the outer surface of said panel, and having a laterally offset portion extending through said opening, interposed between said securing means and said panel, to protect said panel against injurious contact with said securing means, and to provide a substantial bearing surface for said panel, and said offset portion having a concaved seat for the reception of said securing means.

8. An article of manufacture, comprising a shield of irregular configuration adapted to be interposed between a surface and transverse edge of a secured member and an irregularly arranged securing member, said shield having operative portions extending at an angle to each other, and formed from a single member, one of said operative portions being formed to present an enlarged bearing surface between said surface and said securing member, and another operative portion being formed to extend between said transverse edge and said securing member, to prevent injurious action of said securing member with respect to said secured member, and to provide a substantial bearing surface for said secured member.

9. An article of manufacture, comprising a shield adapted to be interposed between a surface and a transverse edge of a secured member and an irregularly arranged securing member, and having a base portion formed to present an enlarged bearing surface between said surface and said securing member, and having a laterally offset portion formed to extend transversely of the thickness of said secured member between said transverse edge and said securing member, to prevent injurious action of said securing member with respect to said secured member, and to provide a substantial bearing surface for said secured member.

10. An article of manufacture, comprising a shield adapted to be interposed between a surface and a transverse edge of a secured member and an irregularly arranged securing member, and having a base portion formed to present an enlarged bearing surface between said surface and said securing member, and having a laterally offset portion formed to extend transversely of the thickness of said secured member between said transverse edge and said securing member, to prevent injurious action of said securing member with respect to said secured member, and to provide a substantial bearing surface for said secured member, said offset portion having a concaved seat for the reception of said securing member.

11. A device of the character described, the combination with a support; of a plaster panel having an opening extending transversely of the thickness thereof; securing means passing through the opening in said panel and along at least one surface thereof for securing said panel to said support; and shielding means having a base portion of substantial area bearing against the outer surface of said plaster panel, and having a laterally offset portion with respect to said base portion and extending through the opening in said panel; said base portion and said offset portion being interposed between said securing means and said panel to protect said panel against injurious contact with said securing means, said offset portion preventing said securing means from cutting into the defining walls of said opening and said base portion preventing said securing means from cutting into the outer surface of said plaster panel, providing a substantial bearing surface for said plaster panel, and said offset portion having a concaved seat for the reception of said securing means, for holding said securing means from slipping off of said offset portion into injurious contact with the defining walls of the opening in said plaster wall.

12. A device of the character described, the combination with a support; of a plaster panel having a pair of spaced openings extending transversely of the thickness thereof, said openings being disposed on opposite sides of said support; securing means passing along the outer surface of said plaster panel, through the openings in said plaster panel and about said support for securing said plaster panel to said support; and shielding means having a base portion of substantial area extending between said spaced openings and bearing against the outer surface of said plaster panel, said shielding means having spaced portions offset laterally with respect to said base portion extending through the openings of said plastic panel, and formed with respect to said openings to line at least that portion of the defining walls of said openings that are adjacent said support; said base portion and said offset portions being interposed between said securing means and said panel to protect said panel against injurious contact with said securing means, said offset portions preventing said securing means from cutting into at least that portion of the defining walls of said openings adjacent said support, and said base portion preventing said securing means from cutting into the outer surface of said plaster panel and also providing a substantial bearing surface for said plaster panel.

13. A device of the character described, in combination with a support; of a plaster panel having a pair of spaced openings extending transversely of the thickness thereof; securing means passing along the outer surface of said panel, through the openings in said panel and about said support for securing said plaster panel to said support; and shielding means having a base portion of substantial area extending between said spaced openings and bearing against the outer surface of said panel, said shielding means having spaced portions laterally offset with respect to said base portion, each extending through one of the openings in said plaster panel and formed substantially to the configuration of said openings to substantially line the exposed defining walls of said openings; said base portion and said offset portions being interposed between said securing means and said panel to protect said panel against injurious contact with said securing means, said offset portions preventing said securing means from cutting into the defining walls of said openings and said base portion preventing said securing means from cutting into the outer surface of said plaster panel and also providing a substantial bearing surface for said plaster panel.

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