

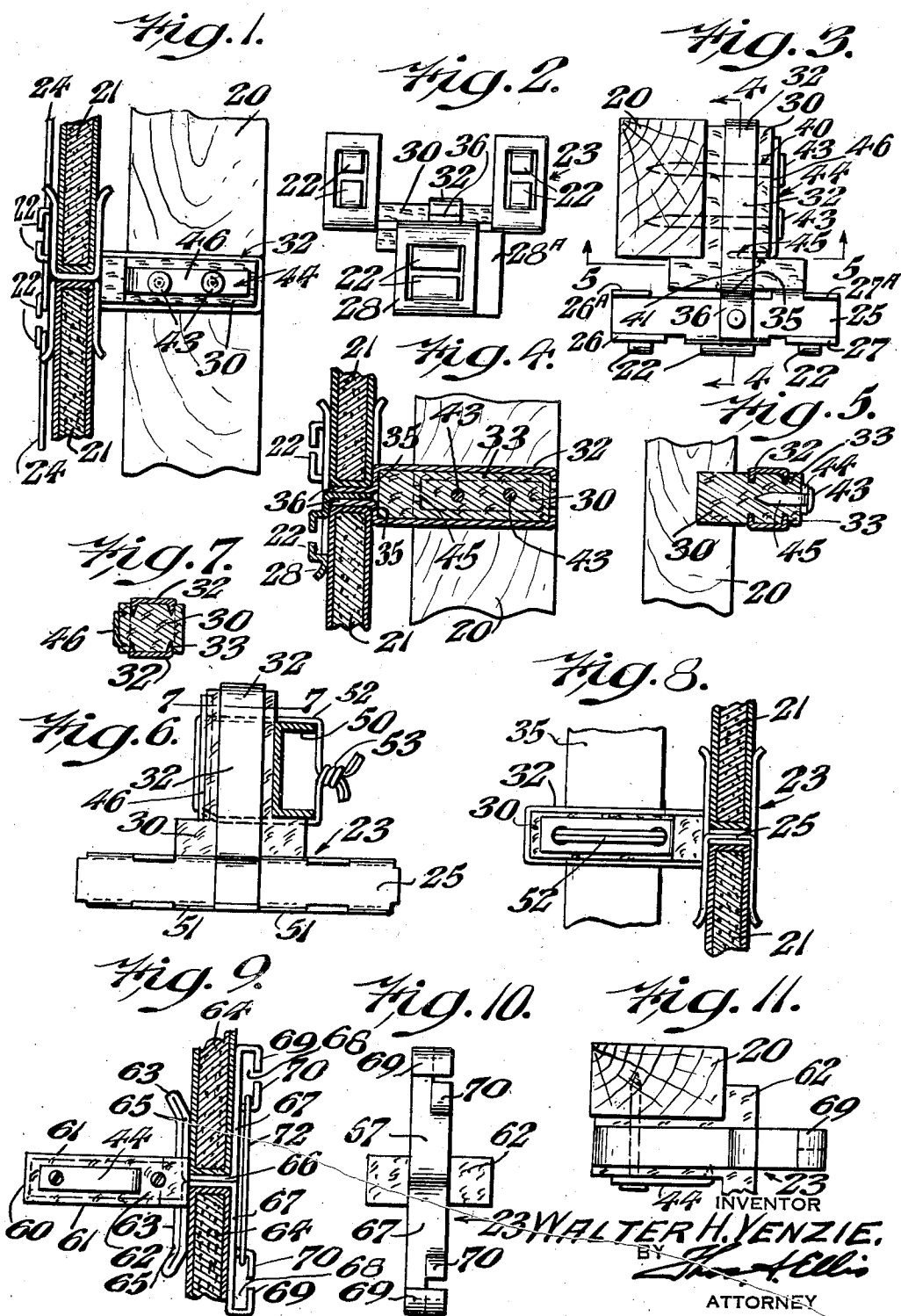
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BUILDING. INTERIOR CONSTRUCTION

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BUILDING INTERIOR CONSTRUCTION

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4 Claims. (Cl. 72-118)

This invention relates to building construction and more particularly to a novel combination of plaster boards, clips and studs and to a novel clip, the latter being adapted to eliminate to a large extent the transmission of sound from the plaster board to the studs.

Heretofore attempts have been made, in walls involving the use of plaster board connected to studding by metallic clips, to reduce the transmission of sound from the boards to the studs by constructing a portion of the clip of resilient metal. It has been found in actual practice that the efficiency of such clips in reducing sound transmission is relatively low. The present invention contemplates overcoming the inefficiency of the prior art structures by the elimination of the resilient metallic portions of the clips heretofore used and the substitution for such portions of a non-metallic, resilient, sound-absorbent material such for instance as cork, means being provided in accordance with the present invention for positioning the cork between a metal portion of the clip and the stud, whether of wood or metal, to which the clip may be fastened. Insofar as the present invention relates to means for connecting clips by wires passing across the room side of the plaster boards, it comprises a continuation in part of my co-pending United States application, Serial #193,549 filed March 2, 1938.

A primary object of the invention is to provide a novel combination of plaster boards, clips and studs whereby a wall of increased sound-absorbent capacity is obtained.

A more specific object of the invention is to provide novel clips comprising in part sound-absorbent material, together with means for attachment to a stud and with means for engaging plaster boards.

Other objects and advantages of the invention will be apparent from the following specification, claims, and from the drawing in which:

Fig. 1 is a side elevational view of an embodiment of the invention showing the application thereof to a wood stud;

Fig. 2 is a front elevational view of the clip shown in Fig. 1;

Fig. 3 is a plan view of the structure shown in Fig. 1;

Figs. 4 and 5 are vertical sectional views taken at right angles to each other on the lines 4-4 and 5-5 respectively of Fig. 3;

Fig. 6 is a plan view of another embodiment of the invention showing the application thereof to a metal stud;

Fig. 7 is a vertical sectional view taken on the line 7-7 of Fig. 6;

Fig. 8 is a side elevational view of the structure shown in Fig. 6; and

Figs. 9, 10 and 11 are side elevational, front elevational and plan views respectively of another embodiment of the invention.

Referring now particularly to the construction shown in Figs. 1 to 5 inclusive, wood studs 20 may be mounted in any preferred and well known manner to support plaster boards 21 connected thereto as by clip 23, the clips being vertically spaced from one another and locked together across the face of the plaster boards 21 as by wires 24 connecting hooks 22 on adjacent clips. Each of the clips 23 may comprise a plate 25 from the opposite ends of which extend upwardly pairs of spaced fingers 26-26A and 27-27A in plane normal to the plane of the plate 25. A pair of opposed fingers 28-28A extend downwardly from the plate intermediate the upwardly extended pairs of fingers in the same plane as said fingers. A block of sound-absorbent material such as cork indicated at 30 may be formed roughly to a T shape in plan view as shown in Fig. 3, for practical purposes it being immaterial whether the cork is of one piece or more. A clamp 32 substantially U shaped in side elevation and having inwardly turning flanges 33 on the legs of the U engages the upper and lower surfaces of the cork and its open ends may be bent inwardly as at 35 into parallelism with the closed end thereof and then into parallelism with the legs of the clamp as at 36. The ends 36 then may be spot welded or otherwise fastened to the plate 25 intermediate its ends to hold the cork in firm engagement with the other portions of the clip. The cork may be perforated as at 40-40 and 41, the perforations 40 permitting the passage therethrough of nails 43 engaging the stud 20. In order to reinforce the cork an L shaped metal strip 44 with tongue 45 of the L entering the perforation 41 in the cork is positioned with the upright arm 46 thereof along the edge of the cork with which the heads of the nails 43 would otherwise be in engagement, the arm 46 being perforated in alignment with the perforations 40-40.

It will be obvious from the above description that no metal comes into contact with the stud 20 except for the nails 40 which themselves are insulated by the cork from the other metal portions of the clip. Since the reinforcing strip 44 is separable along with the nails from the remainder of the clip it may be positioned on the

opposite side of the cork 30 to permit the connection of the clip to the side of the stud opposite from that shown.

In the embodiment of the invention shown in Figs. 6 to 8 inclusive a metal stud such as plasterer's channel 50 is contemplated and the number of fingers on the plate 25 may be increased to include additional pairs 51 and 52 extending upwardly. In this embodiment of the invention in place of the nails 40 a wire 52 passes through one of the holes 40 and through the perforation 41 in the cork and is tied as at 53 about the channel 50. Otherwise the embodiment shown is identical with the embodiment shown in Figs. 1 to 5 and similar numbers are applied thereto. The embodiment shown in Figs. 9 to 11 inclusive, contemplates a more narrow clip, as illustrated, and this may be stamped from a single metal blank except for the reinforcement 44 which may be identical with the one heretofore described. In this embodiment a flat narrow strip of metal is first bent substantially to a U shape having a base 60 and two parallel legs 61 engaging the T shaped piece of cork 62. Each leg 61 is then bent at right angles to itself and in opposite directions as at 63—63 to form oppositely extending fingers engaging plaster boards 64, the metal being bent back upon the fingers as at 65 and meeting midway of what would be the open end of the U at which point they are bent into parallelism and in contact with each other as at 66 and thence oppositely from each other at right angles as at 67 to form fingers engaging the opposite side of the plaster board. The entire end of each of the fingers 67 may be bent back upon itself and spaced therefrom as at 68 to form oppositely directed hooks 69 and a second pair of hooks 70 oppositely directed and also directed oppositely to the pair of hooks 68 may be stamped from the fingers 67 medially of the hooks 69. A wire 72 passing around the hook 70 locks the upper and lower portions thereof in place about the cork 62.

Various modifications may be made in the above described embodiment of my invention without departing from the spirit and scope thereof as set forth in the following claims.

I claim as my invention:

1. In interior building construction, the combination of studs, plaster boards and means for connecting the plaster boards to the studs, said last named means comprising a plate, plaster board engaging fingers on said plate, a T-shaped non-metallic substance interposed between said studs and the other portions of said connecting means, and engaging two adjoining faces thereof, means for connecting said substance to said plate and means for engaging said studs.

2. In interior building construction, the combination of a stud, a plaster board and means connecting the plaster board to the stud, said last named means comprising plaster board engaging fingers, a sound-absorbent, non-metallic shape connected to said fingers, means for connecting said shape to said fingers and means extending through the shape and into the stud for maintaining said shape in contact with said stud, the fingers being devoid of communication with said last mentioned means except through said shape.

3. In interior building construction the combination with a stud and a wall board, of means for connecting said stud and board comprising a non-metallic sound-absorbent block, means extending through the block for securing it to one face of the stud in overlying relation with another face thereof, a block-embracing clamp disposed in substantial parallelism with the first face and projecting beyond the other face of the stud and a board engaging finger secured to the clamp and embracing an edge of the wall board.

4. A building clip of the character described comprising a finger adapted to engage a panel, a clamp having a generally rectangular aperture and secured adjacent one end to the finger, an insulating block having opposed faces and ends embraced by said clamp, and another face adapted to engage a structural member, and means for securing the block to said member with said other face in engagement therewith to thereby maintain the clamp and fingers spaced therefrom.

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