June 13, 1944. M. L. LEARY 2,351,525

WALL CONSTRUCTION AND DEVICE THEREFOR

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Fig. 1

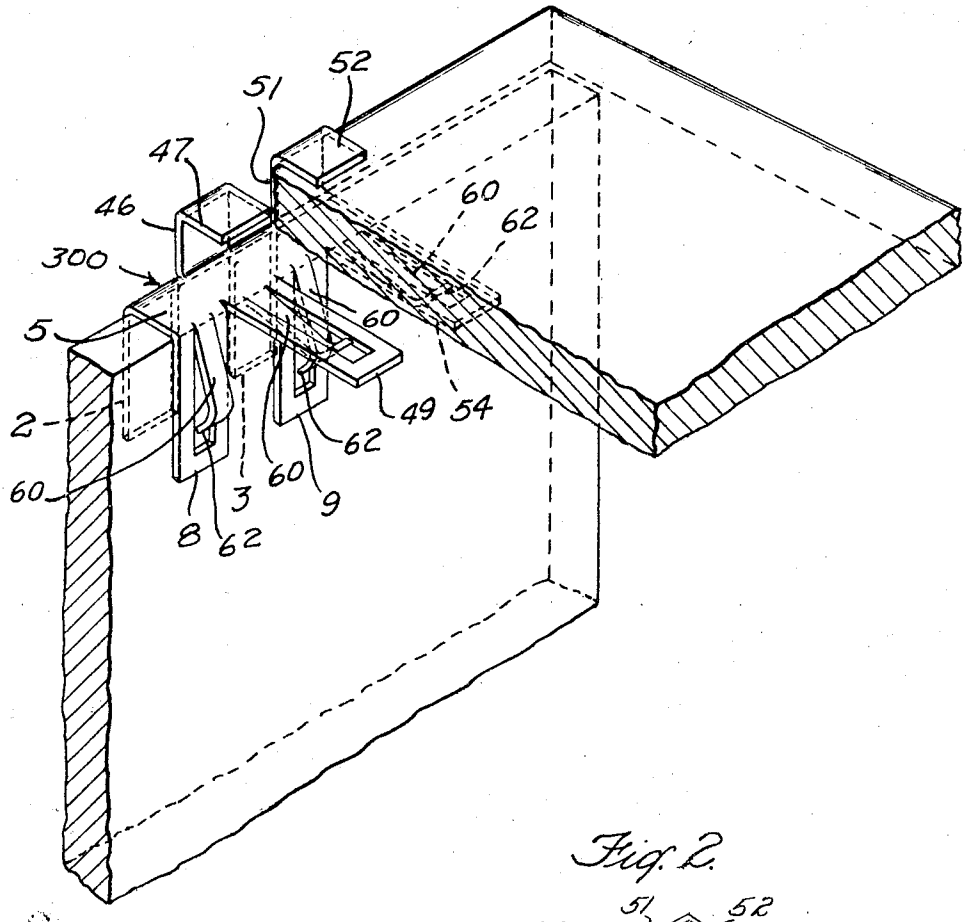
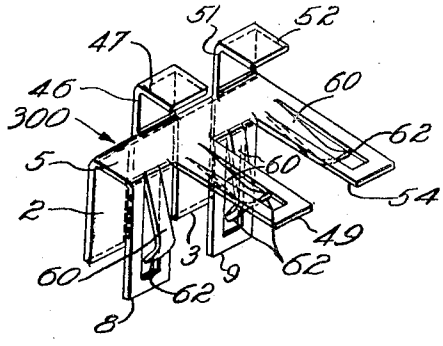


Fig. 2.



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WALL CONSTRUCTION AND DEVICE THEREFOR

Marshall L. Leary, Columbus, Ga.

Original application January 6, 1939, Serial No. 249,545. Divided and this application May 2, 1941, Serial No. 391,505

7 Claims. (Cl. 72—46)

This invention relates to wall constructions especially to wall constructions utilizing a plaster receiving base such as plaster board or plaster lath. The invention particularly relates to such constructions utilizing a plaster receiving base supported on studs by means of a device fastened to the studs and engaging the edge of the plaster receiving base or plaster board.

Many devices and constructions have been proposed in which a plaster receiving base such as a plaster lath or plaster board is supported upon the frame of the wall, usually constructed with studs and ceiling joists. In many of these constructions a clip of metal is fastened to the stud or the joist in such a way that the board or lath may be held in place by the bearing of a portion of the clip upon the outer face of the board or lath. Some of the devices utilized have been formed so that the board may be slipped into place after the device has been fastened to the supporting stud or joist. In some cases such devices also have been used to engage the meeting edges of two adjacent lath or boards or other types of panels without being fastened to a support, the panels being fastened at other points, such as to intermediate studs or joists, as by nailing.

In such prior devices and constructions certain disadvantages and inconveniences in handling and erection have been experienced. In part these have been due to the particular method of fastening or the design and arrangement of the device in relation to the supporting stud or joist. Moreover, it has not been thoroughly realized in the prior art devices and constructions that the primary purpose for which they are intended, namely, the prevention of cracks in the plaster which is applied to the plaster base or plaster board or lath, cannot be attained unless movement of the supporting structure is provided for without transmission of said movement to the plaster receiving base and the plaster facing. The principal cause of such cracks, contrary to the conception of some or not realized by others of the prior inventors, is the movement of this supporting frame rather than the movement of the relatively rigid and fixed plaster surfacing and its base, that is, movement of the studs or ceiling joists caused by drying thereof and contraction or expansion or settling thereof which causes strain to come upon the plaster facing if rigidly fastened thereto. If the support of the plaster receiving base can be accomplished with such lack of rigidity of fastening to the stud or joist as to allow for movement of the stud or beam relative to the completed combined plaster base and its facing without transmitting thereto the moving force, then cracking of the plaster facing over the joints between the abutted plaster boards or other base sheets or panels will be prevented or greatly minimized.

In some of the prior art devices which have attempted to bring about this condition movement of the stud or joist has been permitted by a rather stiff though resilient spring member fastened to the stud or joist at the outer part of which spring member is attached a clip or device for engaging the edge or edges of the panels. In most of the prior art devices, however, such a somewhat resilient connection between the clip and the stud or joist is absent as such devices become complicated and difficult of attachment. Moreover, the position of such fastening devices must be predetermined upon the stud in order that the clip portions, that is, the flange portions of the device which engage the edges of the abutting plaster board or lath, shall become correctly positioned to receive these plaster boards or lath for proper construction of the wall with these boards or lath in substantially abutting relation when the other end of the spring member is fastened to the stud or joist. Other devices of the prior art have been attached rigidly to the stud or beam and either held by friction of a fastening nail or in most cases with the nail driven through the device and through the edges of the plaster board or lath itself. When the last-mentioned condition obtains there is no opportunity for movement of the stud or joist to take place relative to the plaster and relative to the plaster coating carried on the face of said base. The result is that cracking is not prevented. In certain of the prior art devices, also, friction of the plaster board or lath or other base sheet against the face of the stud or joist has not been eliminated, in fact, has been relied upon to hold the board in place, the clip or fastening device bearing on the outer face to hold the board against the stud or joist.

In the applicant's invention a feature of certain devices of the prior art is retained, namely, that flanges are provided in the clip between which the edges of a plaster board or lath may be slipped. The device or clip of the invention is made of thin material, for example, of sheet metal, so that conveniently these flanges may project from a supporting web, which supporting web is of such limited thickness as not to require substantial separation of the abutting edges of the plaster boards or lath engaged thereby and

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between the edges of which the web of the device is positioned. Thus plaster boards or plaster lath of normal or standard size may be used without trimming and may be erected with their meeting edges lapped properly upon a stud or joist without interference occurring because of the presence of the device. The boards need not be separated a greater distance than is usual and this separation does not therefore accumulate in a series of boards extending across the wall. The result of such accumulation of edge separation in a series of boards across the wall or ceiling surface, namely, that at some studs or joists some boards cannot be lapped upon the stud or joist for support of their edges, is avoided.

In simple form the applicant's device consists of a web having a pair of flanges extending generally in the same direction at right angles to the plane of the web. One of these flanges may in some cases bear flat upon the outer or front face of the stud or ceiling joist which is parallel to the face of the wall and the other flange is intended to bear or lap upon the outer face of the panel of plaster board or lath inserted between the flanges with an edge thereof closely adjacent the web. The device is so formed that it will engage the plaster board or lath inserted between the flanges without the use of nails or other fasteners. While not limited to sheets between boards meeting at a corner, it is particularly advantageous when used in such positions. The device is of such form that it will cooperate with the device disclosed and claimed in my co-pending U. S. application, Serial No. 249,545, filed Jan. 6, 1939, and in constructions utilizing the device there disclosed, in allowing movement of the studs or supporting structure to take place without bringing strain upon the plaster facing or the plaster board upon which this facing is applied. A particular feature of the present invention is the means which are provided for engaging or gripping the plaster boards to hold the device in its proper operative position without fastening the device to studs or a supporting frame.

The invention will be more clearly understood from the description to follow taking into consideration the drawing, in which

Fig. 1 shows a wall construction at a corner utilizing the clip of the invention.

Fig. 2 shows a separate view of a clip embodying the invention.

In the figures the clip **300** is formed with flanges **2, 3, 8, 9, 46, 47** and **49** extending from the web **5** at right angles thereto and parallel to each other. In addition, in the particular embodiment illustrated in the figures the clip has an additional flange **51** with a portion **52** thereof formed to extend parallel to the web **5** as does also the portion **47** of the flange **46**. There also is provided an additional flange **54**, similar to flange **49**, extending in the plane of the web **5** and generally parallel to the flange **49**.

A feature of the invention embodied in the clip **300** of the figures is that provided by the fingers **60** which are formed in flanges **8, 9, 49** and **54**, these flanges being those which will bear upon the outer face of the panel or plaster board or base. The fingers **60** may be formed by suitably cutting or slitting the material of the flanges **8, 9, 49** and **54** and bending the tongue or finger thereby formed outwardly as shown in the figures, with the end portion **62** thereof bent over so as to be in angular or even normal relation to the plane of the flanges. It will be apparent that the plaster boards or panels may be inserted between the flanges, as in the manner described, and that the fingers **60** will be positioned outwardly of the outer faces of these plaster boards or panels. After the boards or panels are in place, and particularly with penetrable material such as gypsum plaster board or other common wall boards or plaster base panels, the fingers then may be caused to enter the plaster board or panel, for example, by striking the finger with a hammer to cause the end thereof to puncture the upper cover sheet of the plaster board and to enter the core material.

There is thus secured the grip or anchoring of the clip **300** itself to the plaster board or base so that when the plaster coating is applied thereto the coating and the base to which it adheres as well as the clip are strongly held together in rigid relation. As the clip of Fig. 1 is not attached to the studding or ceiling beams, movement of this studding or beams with respect to the clip may take place without transmitting any destructive force to the plaster board and the plaster coating carried thereby. It will be apparent, as openings are formed in the respective flanges by virtue of forming these fingers **62**, that the plaster to some extent may enter the space thus provided and assist in the grip and anchorage of the coating thereto.

From the above description and a consideration of Fig. 1 it will be apparent that clips of the type described may be used at the joint between wallboards to hold the edges thereof in proper relation to form a plaster receiving base. The fingers which are struck out from the flanges may be embedded in the faces of the boards which are at the room side of the wall. As above described, the clip of the invention may be placed to hold the boards either while bearing upon a stud or support at the rear of the wall or while free of such support. This relation of the support and the clip of the invention by suitably forming the flanges may occur either at the flat wall or at a corner between walls. Particularly when used in connection with clips of the type disclosed in my co-pending application above referred to a strong support for the plaster facing and its base together with provision for movement, settlement or deflection of the support without transmitting the destructive forces of said movement to said facing and said base may be secured.

This present application is a division of my co-pending U. S. application, Serial No. 249,545, filed Jan. 6, 1939, Patent No. 2,258,574 of Oct. 7, 1941.

Having thus described my invention, I now claim:

1. A clip for engagement with the edges of wallboards to be supported in a wall construction which comprises a pair of flanges like-extending and in spaced relation, a portion of the clip connecting said flanges to leave the space therebetween open at one end for the edge portion of a wallboard to be placed therebetween, a finger having an end portion thereof extending at an angle to the other portion thereof, said finger having said other portion thereof hingedly attached to said clip with said end portion free, said finger being so formed and so positioned adjacent to one of said flanges with said free end portion extending toward said flange that when said finger is hingedly moved upon said point of attachment said free end portion thereof will pass by the flange and through the plane there-

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of to enter the face of a wallboard placed between the flanges.

2. A sheet metal clip for engagement of the edges of wallboards to be supported in a wall construction which comprises a web, a pair of flanges like-extending from said web, said flanges being spaced apart a distance sufficient to provide a space open at the end opposite the web for the edge portion of a wallboard to be placed therebetween, a finger having an end portion thereof bent at an angle to the other portion thereof, said finger having said other portion thereof hingedly attached to said clip with said end portion free, said finger being so formed and so positioned adjacent to one of said flanges with said free end portion extending toward said flange that when said finger is hingedly moved upon said point of attachment said free end portion thereof will pass by the flange and through the plane thereof to enter the face of a wallboard placed between the flanges.

3. A sheet metal clip for engagement of the edges of wallboards to be supported in a wall construction which comprises a web, a pair of flanges like-extending from said web, a second pair of flanges connected to said web and having at least the end portions thereof like-extending but in planes which are at an angle to the planes of said first pair of flanges, said flanges of each of said pairs being spaced apart a distance sufficient to provide a space open at the ends opposite the web for the edge portion of a wallboard to be placed therebetween, a finger associated with at least one flange of each of said pairs of flanges, said finger having an end portion thereof bent at an angle to the other portion thereof, said finger having said other portion thereof hingedly attached to said clip with said end portion free, said finger being so formed and so positioned adjacent to its flange with said free end portion extending toward said flange that when said finger is hingedly moved upon said point of attachment said free end portion thereof will pass by the flange and through the plane thereof to enter the face of a wallboard placed between the flanges.

4. A wall construction comprising a wallboard mounted with the face thereof like-extending with the face of the wall, and a pair of flanges like-extending and in spaced relation, a portion of the clip connecting said flanges to leave the space therebetween open at one end, said clip being positioned with the edge portion of the wallboard between said flanges, said clip being provided with a finger having an end portion thereof extending at an angle to the other portion thereof, said finger having said other portion thereof hingedly attached to said clip with said end portion free, said finger being so formed and so positioned adjacent to one of said flanges with said free end portion extending toward said flange that when said finger is hingedly moved upon said point of attachment said free end portion thereof will pass by the flange and through the plane thereof to enter the face of the wallboard placed between said flanges.

5. A wall construction comprising a plurality of wallboards each having parallel faces and mounted with their edges adjacent in wall forming relation, and a clip inserted between said adjacent edges of said boards, said clip having for each wallboard a pair of flanges in spaced relation extending generally parallel to each other and to the faces of the respective wallboards, said flanges being connected together by a common connection to leave the space therebetween open at the end opposite the connection, the edge portion of the respective wallboards being inserted in said space between the flanges, a finger associated with at least one flange of each pair, said finger having an end portion thereof extending at an angle to the other portion thereof, said finger having said other portion thereof hingedly attached to said clip with said end portion free, said finger being so formed and so positioned adjacent to said flange with said free end portion extending toward said flange that when said finger is hingedly moved upon said point of attachment said free end portion thereof will pass by the flange and through the plane thereof to enter the face of the wallboard upon which said flange extends.

6. A sheet metal clip for engagement with the edges of wallboards to be supported in a wall construction which comprises a web, a pair of flanges like-extending from said web, said flanges being spaced apart a distance sufficient to provide a space open at the end opposite the web for the edge portion of a wallboard to be placed therebetween, a finger struck from the metal of one of the flanges but attached to the clip at the portion thereof adjacent the web with the outer end portion of the finger free of the flange, said finger being bent at said outer end portion at an angle to the portion thereof which is attached to the clip, said finger initially having said portion attached to the clip extending outwardly at an angle to the plane of the flange with said outer end portion extending again toward the plane of the flange, whereby when said finger is hingedly moved upon the point of attachment to the clip said outer end portion will pass through the plane of the flange in the space of said flange from which said finger was struck.

7. A wall construction according to claim 5 in which the wallboards which are mounted with their edges adjacent form a corner in the wall construction and in which the clip inserted between said adjacent edges has the parallel flanges of one pair of flanges which is connected to the common connection extending at an angle to the parallel flanges of the other pair of flanges connected to said common connection.

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Wall Construction and Device Therefor (US Patent 2,351,525, 1944)
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