April 27, 1943. O. L. GENT 2,317,907

WALL

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FIG. 1.

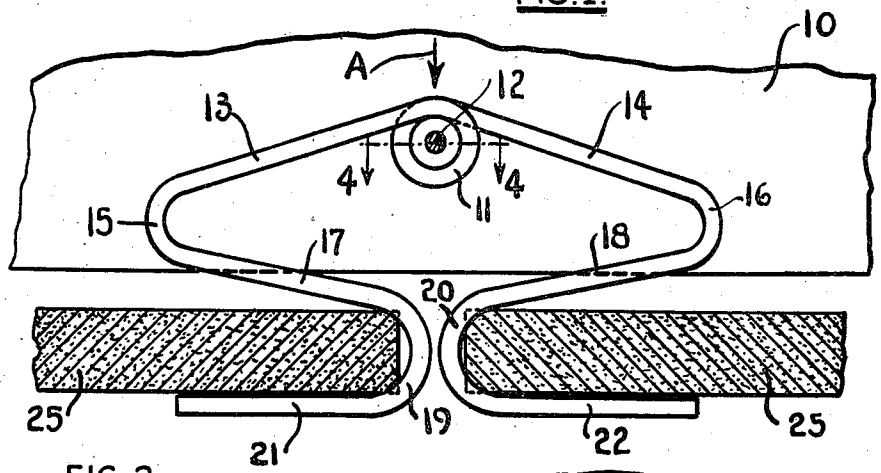


FIG. 2.

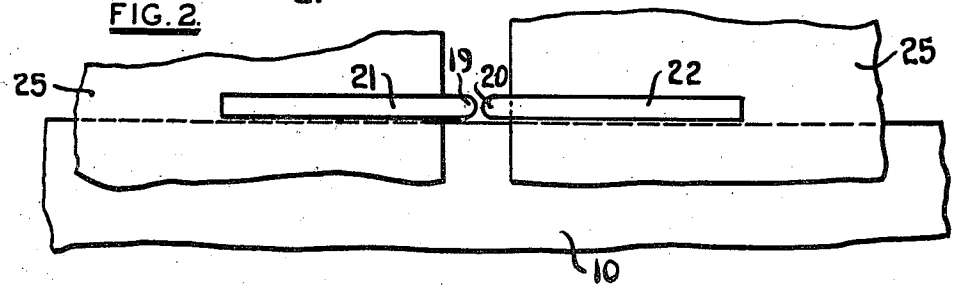


FIG. 3.

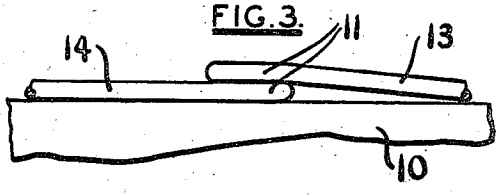


FIG. 4.

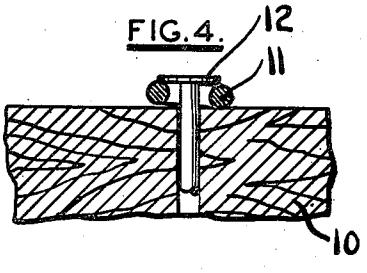


FIG. 5.

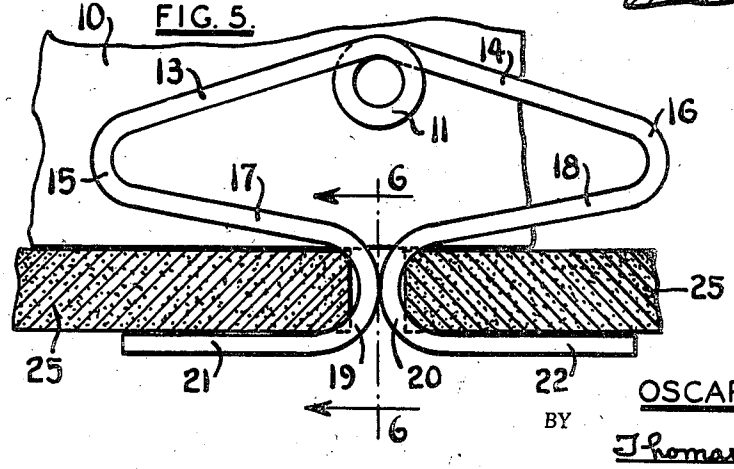
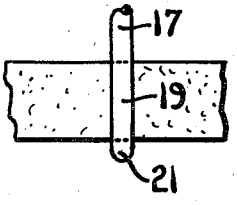


FIG. 6.



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FIG. 7.

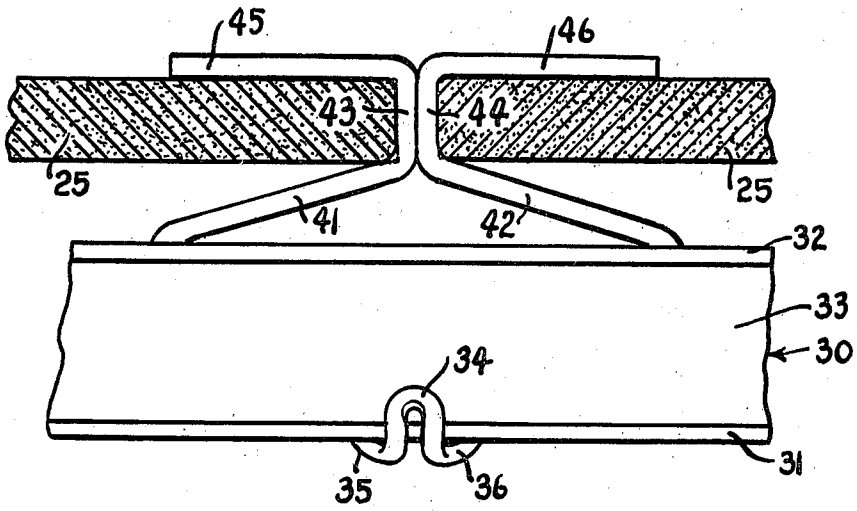


FIG. 8.

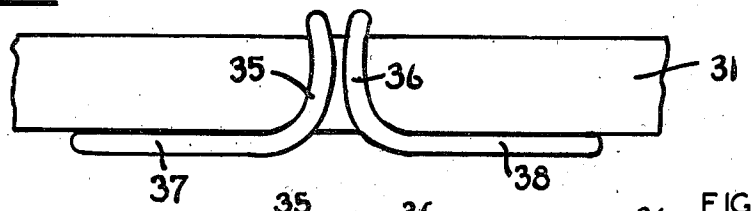


FIG. 9.

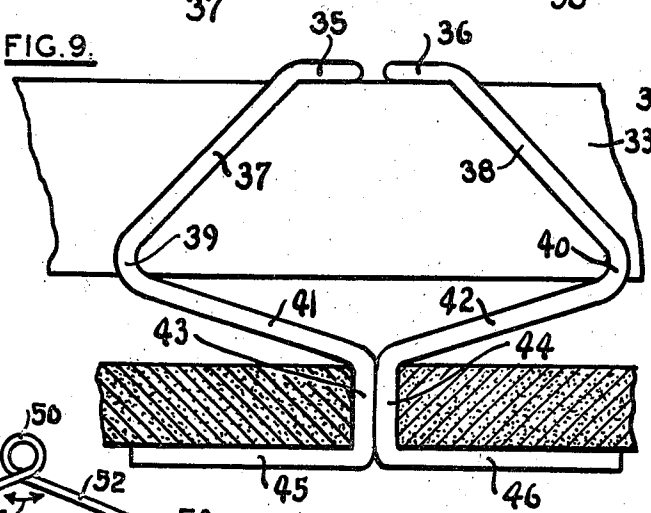


FIG. 10.

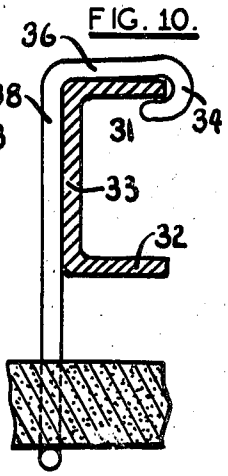
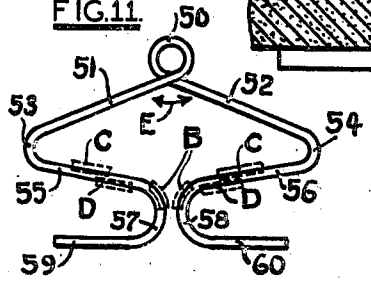


FIG. 11.



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WALL

Oscar L. Gent, Tulsa, Okla.

Application July 19, 1941, Serial No. 403,140

4 Claims. (Cl. 72—118)

My invention relates to the construction of walls and the like and more particularly to inner walls, partitions and ceilings.

The present invention is along the same lines as my previous invention which is set forth in my Patent No. 1,782,034 patented Nov. 18, 1930.

Through extensive study in this field I have found that cracks in the finished job, either immediately after the job has been finished or else at much later dates, can be avoided. At least, more conservatively stated, cracks may be eliminated in a large majority of installations.

My previous patent outlined structures so built as to partly overcome this very objectionable cracking and in passing it is explained that a large share of the remodeling cost of the older houses lies in the taking care of this defective plastering. The plaster may be partly renewed and the cracks repaired or else, as is done in quite a number of cases, the plaster may be completely removed and new plaster installed or applied. As stated, my structure as disclosed in my previous patent has been widely used and results in longer lived plaster jobs and the instant disclosure relates to still further improvements along this same line.

One of the main features of the present invention lies in the structure whereby the lath units, as plaster board, are suspended away from the joist or stud to the extent of ⅛ inch to ¼ inch. And, the supporting clips are so formed as to permit movement between the finished plaster wall and the supporting members, this construction eliminating practically all danger of cracks in the finished plaster job.

Along this same line it is explained that the supporting studs or joist may gradually be displaced from position due to foundation sinking or the like, or many other factors, or else sudden impulses, as the passing of a train or heavy truck, especially if the house is built upon a fill, may result in vibration of the supporting members.

However, in either of the above mentioned instances, the novel wall construction eliminates transmission of strains or stresses to the finished plaster job whereby damage thereto would result.

With respect to the above it is explained that a spring connection is had between the supporting members and the plastered wall installation whereby several desirable results are had. First, large relative movements between the wall and its supports are taken care of by flexing of the spring portions of the clips. Also, smaller movements of high frequency or movements of a vibratory character are greatly dampened by the spring action and thus are prevented from reaching the wall proper.

Another feature of my invention is that its use will retard the transmission of sound through the plastered ceiling or wall.

Another important factor is that my wall is practical due to low cost of materials and also low cost of installation.

Still further objects, advantages and meritorious qualities reside in the special construction, combination and arrangement of the various elements forming the invention, as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein:

Fig. 1 is a fragmentary sectional view through a wall showing one of the clips applied to a wooden stud.

Fig. 2 is a view taken at right angles to Fig. 1.

Fig. 3 is a view taken as indicated by the arrow A of Fig. 1.

Fig. 4 is a sectional view taken along the plane of the line 4—4 of Fig. 1.

Fig. 5 is a view similar to the showing of Fig. 1, the clip, however, being positioned differently upon its supporting member whereby the plaster boards are held immediately against the said members or even in compression thereagainst.

Fig. 6 is a fragmentary sectional view taken along the plane of the line 6—6 of Fig. 5.

Fig. 7 is a view looking at the web of a metal channel, this forming the stud or joist, with a modified form of clip encircling the same and carrying the plaster board.

Fig. 8 is a view similar to Fig. 7 but looking at the web of the channel.

Fig. 9 is a view similar to Fig. 7 but looking at the opposite side of the web thereof.

Fig. 10 is an end view, in section, of Fig. 9.

Fig. 11 shows a side view of my clip.

Similar numerals refer to similar parts throughout the several views.

Referring to Figs. 1 to 6, inclusive, numeral 10 indicates the supporting member. This may be a joist, or a stud or a furring member. These supporting members 10 carry the desired number of clips and the clips, in turn, hold and support the plaster boards or the like.

Each of the clips comprises a central looped portion 11. This looped portion is of sufficient diameter to receive a nail or the like therethrough and the nail is, of course, driven into the wooden supporting member. The nail is shown in cross section in Fig. 1 and in side view

in Fig. 4. The nail, designated 12, has its head against the top part of the loop 11, but it would not prevent the clip from turning about the nail as a pivot should such action be necessary in order to secure easing or alinement of the several parts due to contraction or expansion or vibration thereof.

The loop 11 overlaps as shown in Fig. 3, and then the wire or suitable material from which the clip is formed extends outwardly in arms 13 and 14. These arms next bend inwardly in short curves 15 and 16, respectively, as shown, and then converge inwardly at 17 and 18, respectively.

The arms 17 and 18 are now curved at 19 and 20 and terminate in sections 21 and 22 to form suitable shapes for receiving the edges of the sections of the plaster board 25. As shown in Fig. 1 the plaster board is slid or wedged into the U-shaped portions comprising the parts 17, 19 and 21 and the oppositely facing U-shaped portion 18, 20 and 22. A slight crushing of the board may occur which makes for better attachment as will be understood by those skilled in this art.

Referring now to Figs. 7 to 10, inclusive, numeral 30 indicates a channel, preferably formed of steel, and having the flanges 31 and 32 connected by the web 33.

One of my improved clips is shown in place on the channel. An intermediate portion of the clip, the clip being formed of wire, is return bent upon itself and then bent to form a hook 34. This hook part 34, see Figs. 7 and 10, is hooked around the flange 31 and thus holds the clip in position. As is shown in Figs. 8 and 10 the portions of the clip extend over the flange 31 as at 35 and 36 and then extend outwardly from each other across the rear side of the channel web 33. These diverging portions are indicated by numerals 37 and 38, respectively.

Next, the portions 37 and 38 are curved into the short semi-circles 39 and 40 and then portions 41 and 42, respectively, converge towards each other, then extend alongside as at 43 and 44, and terminate in the portions 45 and 46.

Sheets of plaster board 25 fit into the U-shaped portions 41, 43 and 45 and 42, 44 and 46.

Referring now to Fig. 11, this showing a modified form of clip, 5 indicates a loop from which arms 51 and 52 extend, these continuing in curves 53 and 54, then inwardly extending arms 55 and 56 which curve around semi-circles 57 and 58 and terminate in the outwardly extending arms 59 and 60.

The loop 50 of the form shown in Fig. 11 receives a nail or similar fastening device whereby the clip is held in position. Thus the device or clip, as indicated by the arrow E can tilt when necessary to prevent undue strains or stresses in the finished structure and thus cracking is prevented.

The above action is also present in the other forms of structure. The only difference between the form shown in Fig. 11 and that discolsed by Figs. 1 to 6, inclusive, is in the location of the central looped portion. When located interiorly of the clip the entry of the nail near the central part of the stud or furring member is assured and this makes for better construction in the building practice.

Again referring to Fig. 11, dotted lines indicated by C show how the clip may be compressed under strains to prevent these strains from cracking the plaster which is, as is well understood by those skilled in this art, applied to the plaster board.

The dotted lines D disclose how expansion of the width between the plaster boards and their support may occur without damage to the plaster.

The dotted lines B disclose how the plaster boards may move the clip loops during its installation.

From the above it will be appreciated that my wall is cheap to install, yet it will be very long-lived and plaster failure and cracks will be practically done away with.

Having thus described my invention, I desire it to be understood that the invention is in no wise limited to the particular illustrative embodiment disclosed, the scope thereof being set forth in the following claims.

I claim:

1. A structure comprising members, sheets of plaster board or the like laid across the faces of the members, and clips for connecting the boards onto the members, said clips comprising a portion connected onto the particular member away from the face thereof, said clip having portions extending away from said connection in diverging relationship, said portions then being return bent to approach each other, whereby spring action is obtained in either portion then being bent to respectively form outwardly facing loops capable of receiving the edges of the plaster board.

2. A structure as set forth in claim 1 in which the terminal portions of the clip extend in parallelism away from each other.

3. In a structure of the class described, a supporting member, a wire clip having an intermediate portion, means for fastening said intermediate portion onto the member whereby a limited amount of pivotal movement may be had, said clip extending in two diverging portions across one face of the said member, then each of said portions being bent more than a right angle and extending towards each other, then outwardly away from the member and then apart to form a loop portion at each side thereof to receive a sheet of supporting material as, for example, plaster board.

4. In a wall construction the combination of: a row of stud members; sheets of plaster board placed haphazardly adjacent the stud members in slightly spaced relation thereto; and clips for maintaining them in this spaced relation for the purpose described, each of said clips having a U-shaped portion receiving the edge of the plaster board, then extending alongside of the adjacent stud, and being coiled to form a closed loop, then having a portion extending away from the loop, means for holding the said portion relatively stationary, and fastening means extending through the closed loop into the stud for the purpose described

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