

Feb. 23, 1954

R. M. MILLER
WALL BASE CLIP

2,669,862

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2 Sheets-Sheet 1

Fig. 1

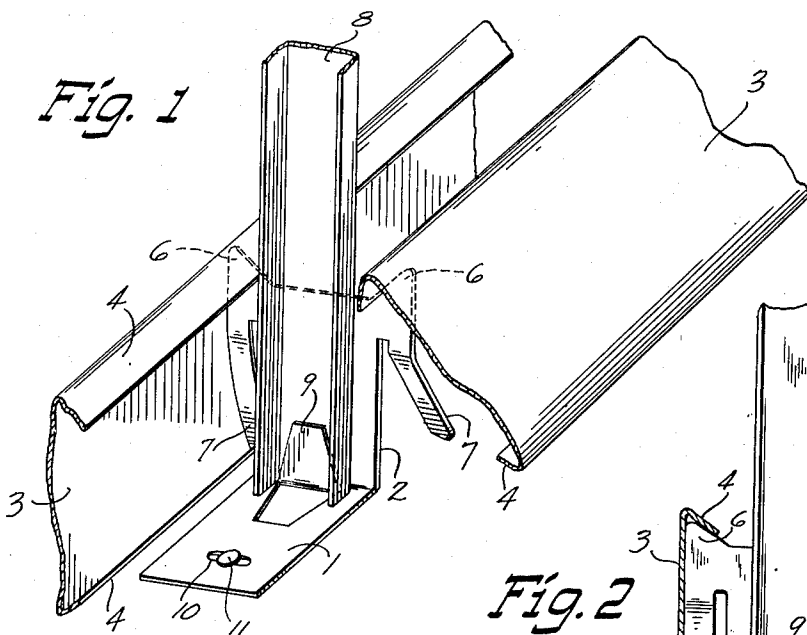


Fig. 2

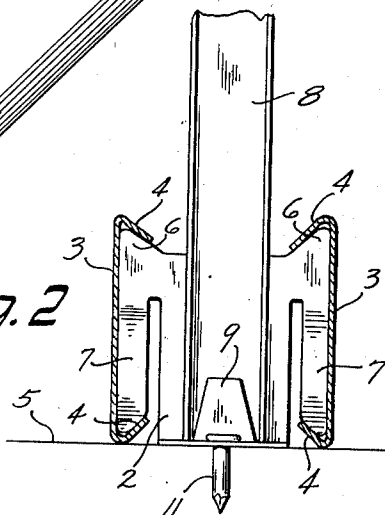


Fig. 3

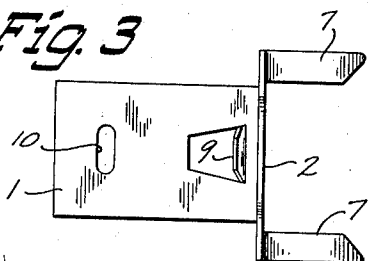


Fig. 4

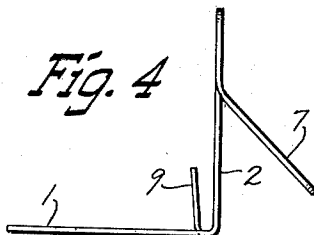
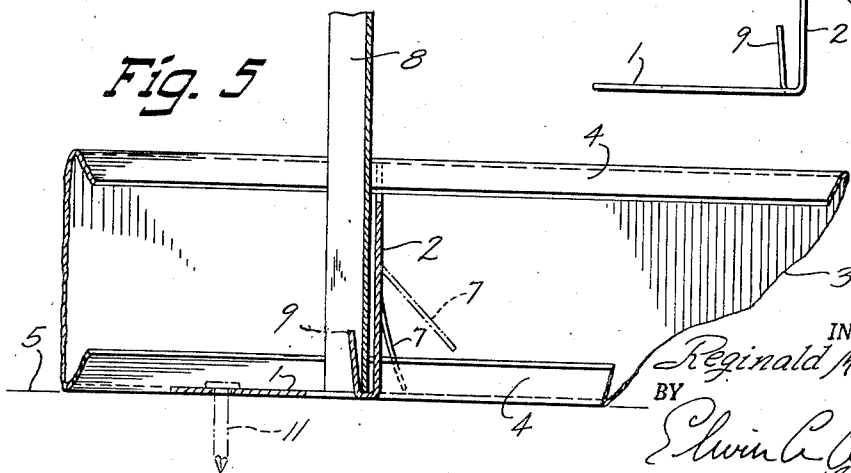


Fig. 5



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Fig. 6

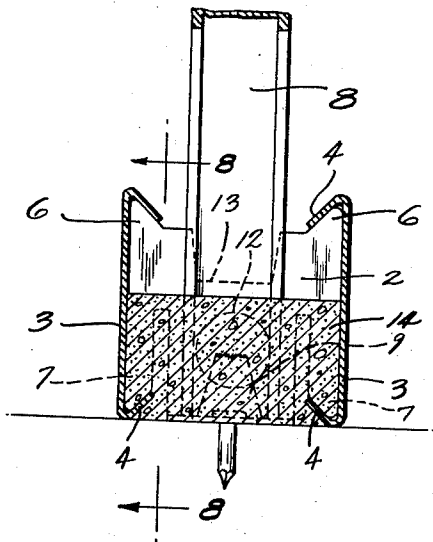


Fig. 7

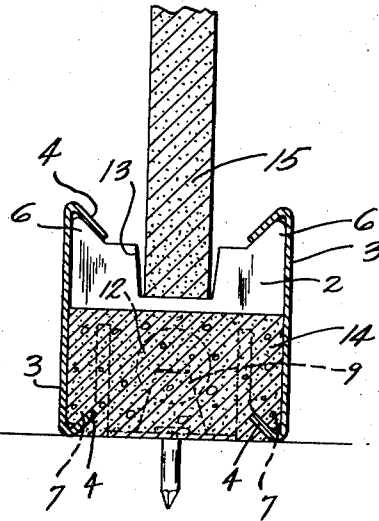
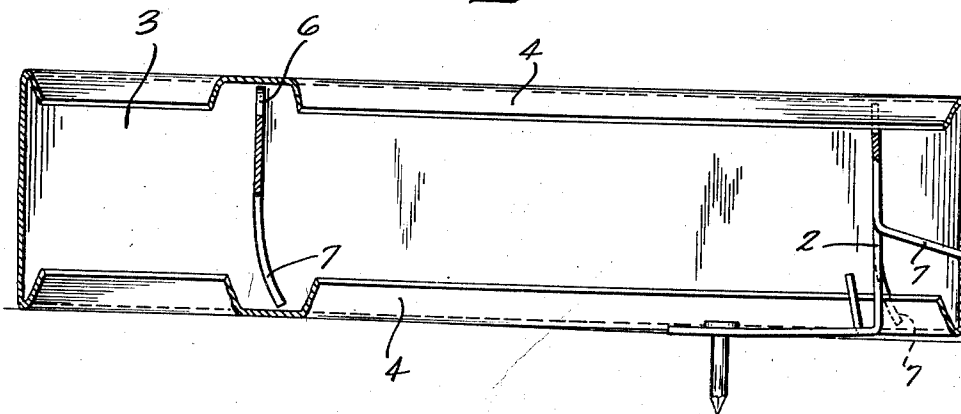


Fig. 8



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WALL BASE CLIP

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3 Claims. (Cl. 72-46)

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This invention relates to an assembly clip for metal bases for solid partition and furring wall systems.

This application is a continuation-in-part of the application of the present invention Serial No. 751,513 and filed May 31, 1947, for Wall Base Clip, now abandoned.

The invention provides an assembly clip adapted particularly for use in the construction of either furred or solid-partition plaster walls with metal bases. The clips serve to secure the bases in place and to hold the lower ends of the studs or the lower edge of the plaster boards.

One of the objects of the present invention is to provide an assembly clip which may be secured to the floor prior to the assembly of the metal base therewith, thereby saving in labor and avoiding the difficulties in use of former clips.

Another object of the invention is to provide an assembly clip which may be employed on floors of greater unevenness without the necessity of shimming and without looseness of the base thereon.

Another object is to provide a clip to which the metal base may be attached readily after the clip is secured in place on the floor.

Another object is to provide a clip employing a wedging action to grip and securely hold the metal base.

Another object is to provide a stronger clip having the stud seat integrally formed therewith without break of the clip corner.

Another object is to more securely hold the metal base and prevent possible rattle thereof.

Other objects and advantages of the invention are set forth hereinafter.

An embodiment of the invention is illustrated in the accompanying drawing in which:

Figure 1 is a perspective view of a partially assembled wall base;

Fig. 2 is a transverse vertical section of the wall base after assembly;

Fig. 3 is a top plan view of the clip before assembly;

Fig. 4 is a side elevation of the clip;

Fig. 5 is a detail central vertical section showing the clip and base after assembly;

Fig. 6 is a transverse vertical section of a wall base with grout poured between the bases supported by a base clip similar to that shown in Figs. 1 to 5;

Fig. 7 is a transverse vertical section of a wall base similar to that shown in Fig. 6 and employing plasterboard supported by the clip instead of metal lath supported by studs; and

Fig. 8 is a view similar to Fig. 5 showing the adjustment of the clips to irregularities in the floor level.

The clip is formed of a single piece of sheet

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metal by simple press and trimming operations, and comprises a lower horizontal support section 1 joined along one edge to a vertical section 2.

The width of the clip determines the thickness of the wall structure. The height of the vertical section 2 determines the height of the base 3 to be secured thereto.

The clip is particularly adapted for use with plane sheet-metal base 3 constructed with an inwardly bent flange 4 at both the top and bottom edge presenting a reverse bend pocket behind the flange. The base 3 is adapted to engage the floor 5, or a floor covering therefor, when assembled with a plurality of clips spaced therealong.

Each clip is constructed to provide an upstanding ear 6 on each side of the vertical section 2 and which enters behind the top flange 4 of the corresponding base 3.

Where a furred wall is constructed and only one base 3 is employed, the clip will have a width corresponding to the thickness of the furred wall from its foundation, and only one ear 6 will be provided on the outer edge of the clip.

The flanges 4 are angular, as shown, and each ear 6 is constructed to extend upwardly from the connection of the same with the central body of section 2 a distance substantially greater than the depth of the reverse bend on flange 4, and tapered on an angle so that entrance of the angular wedge-shaped ear behind the flange will securely hold the upper edge of base 3 by a wedging action after assembly.

Beneath each ear 6, the clip is provided with a depending locking arm 7 adapted to extend downwardly into the space behind the lower flange 4 of the corresponding base. The lower end of the arm 7 is tapered to fit with a wedging action behind the angular flange 4.

The locking arm 7 is constructed initially to extend rearwardly from section 2 at an angle so that base 3 can be hung upon ear 6 and then the locking arm 7 can be bent manually downwardly into locking engagement with the lower flange 4 of the base. The length of the locking arm 7 should be such that it will not reach a vertical position before it is wedged behind flange 4 and is locked therewith.

By employing a wedging action between ears 6 and the upper flanges 4 of bases 3 and between the tip of locking arms 7 and the lower flanges of bases 3, the bases are securely held in place against rattle.

The stud 8, which is of channel shape, seats with its back between an upstanding lug 9 and vertical section 2, and its sides partially surrounding the lug.

The lug 9 is struck up from the bottom section 1 adjacent to the vertical section 2 and is formed without interference with the angular corner between sections 1 and 2.

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A transverse slot 10 is provided in section 1 near its outer end for receiving a nail 11 or other means for securing the clip to the floor 5. The slot 10 allows the clip to be moved sideways to a limited extent for adjustment and alignment with other clips along a partition or wall.

Installation of the clips is simple. The clips are merely nailed to the floor 5 in spaced relation along the line of the partition or wall, there being one clip for each stud 8. Then the bases 3 are hung on the corresponding ears 6 on opposite sides of the clips and the locking arms 7 are bent downwardly to lock the bases in place.

Where the floor is uneven within reasonable limits, it is unnecessary to shim beneath low clips since the bending of the locking arms 7 may vary to lock the bases 3 regardless of some variation in height between the clips and bases.

The studs 8 are then applied and fastened at the ceiling, after which metal lath (not shown) is secured to one side of the studs for plastering.

The clips as shown in Figs. 6 and 7 are provided with the openings 12 and the recesses 13 in the vertical section 2 of each clip. Particularly where studs 8 are not employed as in the embodiment of the invention described hereinafter, openings 12 allow the grout 14 when poured between bases 3 to flow and distribute itself therebetween and to provide, with plastering, a completely solid wall.

Recesses 13 are formed in the upper edge of the upright section 2 of each clip and between ears 6 to receive the lower edge of the rigid plasterboard 15 or rib-type metal lath which may be substituted for other types of lath (not shown) normally supported by studs 8. In placing the plasterboard on a series of clips, ears 6 of the clips cooperate to receive the plasterboard and guide the lower edge thereof toward the recess.

The clip constitutes a substantial improvement over former clips which had to be assembled with the bases prior to securing the clips to the floor and which had to be shimmed where the floor was low.

In securing a base to the clip, locking arms 7 may be bent with any of several builders' trade tools or a special tool fitting over the clip. Arms 7 are particularly disposed and adapted to be struck, as with a hammer, to bend the arms into locking engagement.

The length of arms 7 may be varied by changing the length of the slot between section 2 and arms 7 without changing the other dimensions of the clip. The arms 7 of clips similar to those shown in the drawings may also be readily bent by hand into locking engagement where the clips are made of up to 16 gauge sheet metal for a 2½ to 3 inch base. Shorter arms 7 may require the use of tools.

In bending each arm 7 into locking engagement, the bending force, by convenience, is exerted against the arm between the ends thereof so that when the tip of the arm engages base 3 in the recess formed by flange 4 behind the base, the arm and the corresponding ear 6 becomes sprung between the flanges 4 of the base.

The bases 3 are thus secured tightly by the flexure of arms 7 and the wedging engagement of the tip of each arm behind the respective base.

The bending and flexure throughout arms 7 occurs normal to the plane of bases 3. The bases are accordingly firmly secured upright by reason thereof and against such accidental displacement as might shift the lower edge of the base inwardly or outwardly of the wall. While

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the arms 7 may be bent by hand to lock the bases, the arms will hold the bases securely in place as when the grout is poured therebetween, as described.

The wedging of the tips of the arms 7 behind the bases is maintained by the flexure of the arms and is effective even where the clip is not squarely in place as shown in Fig. 8.

Various embodiments of the invention may be employed within the scope of the accompanying claims.

I claim:

1. An assembly clip as for holding a sheet metal wall base having locking grooves formed by upper and lower reversely bent flanges, said clip comprising a formed sheet metal single member including a flat foot section adapted to be secured to a horizontal foundation and a flat upright section joined to one edge of said foot section and extending at right angles thereto, the upper edge of the upright section having at least one upper ear positioned thereon, said upper ear lying in the plane of the upright section, the outer side edge of said upper ear being co-extensive with the side edge of said upright section, a locking arm formed from the material of said upright section positioned beneath said upper ear, the upper extremity of said arm joined to said upright section along a line substantially parallel to said one edge of said foot section, the outer edge of the locking arm being coextensive with said outer side edge of said upper ear and said side edge of said upright section, said locking arm being angularly disposed with respect to the upright section and said side edges of said upper ear, locking arm and upright section being disposed in a plane normal to said edge of said foot section, the lower extremity of said locking arm forming a lower ear and being disposed above the plane of said flat foot section, said upper ear being adapted for engagement with the upper locking groove of said wall base and said locking arm being adapted to be bent downwardly to engage the lower groove of said wall base to lock said wall base to said clip.

2. An assembly clip as recited in claim 1 wherein the projecting ear of the upright section and lower extremity of the locking arm are shaped to be wedged between the wall base and flanges of the wall base and the locking arm is of such length and subject to bending so as to be sprung upon bending into such engagement with the lower groove of the wall base to maintain the tight assembly of the clip and wall base.

3. An assembly clip as recited in claim 1 and including a pair of spaced apart ears on the upper edge of said upright section and a wall-board receiving recess disposed between said spaced ears, said spaced apart ears serving to cooperate in receiving the lower edge of the wall board at least in the initial assembly thereof with the clip.

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