Sept. 26, 1961 W. M. RIES 3,001,615

STUDDING

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Fig. 1.

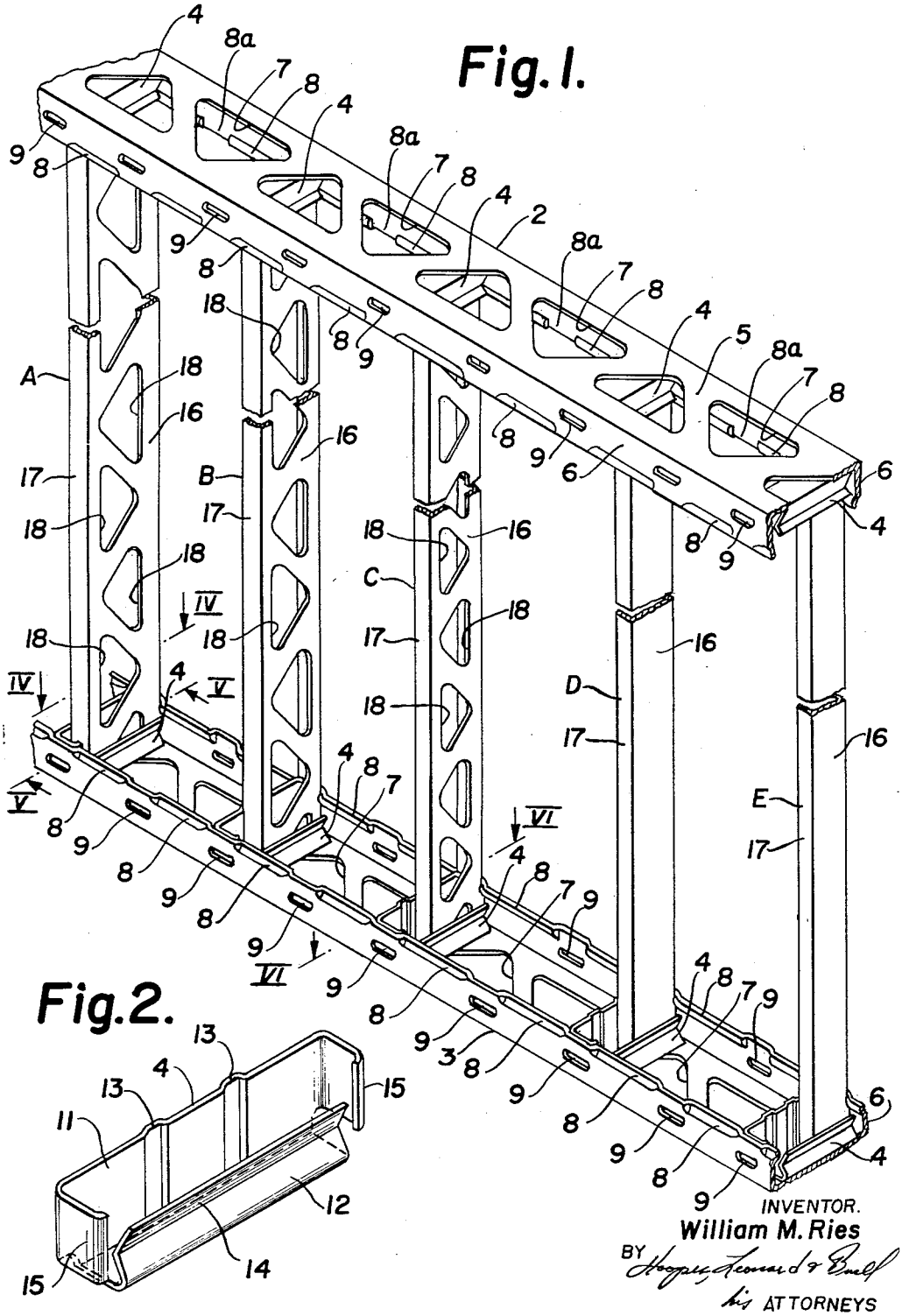

Fig. 2.

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Fig.3.

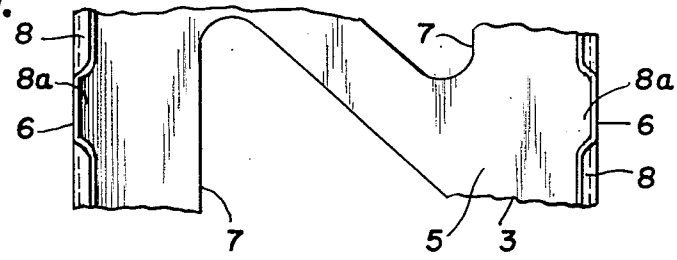


Fig.4.

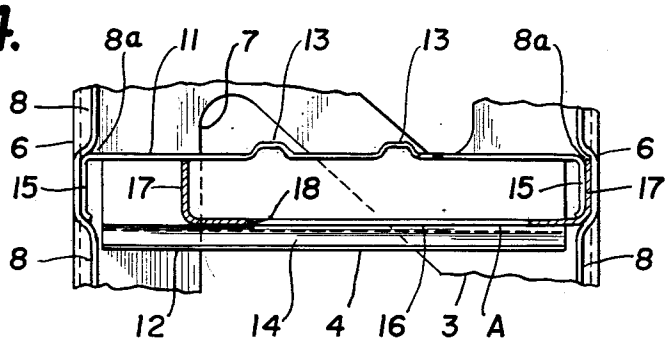


Fig.5.

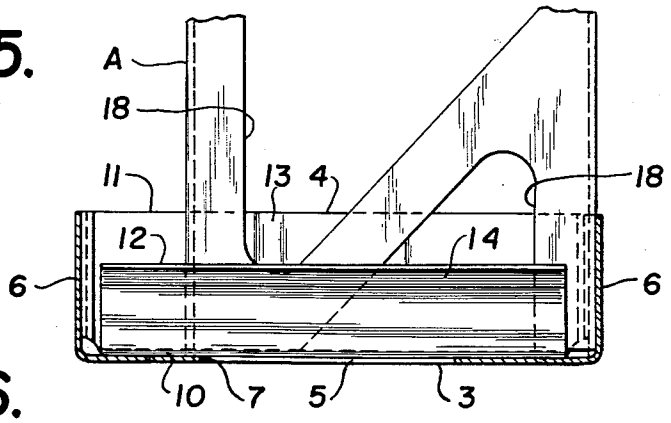
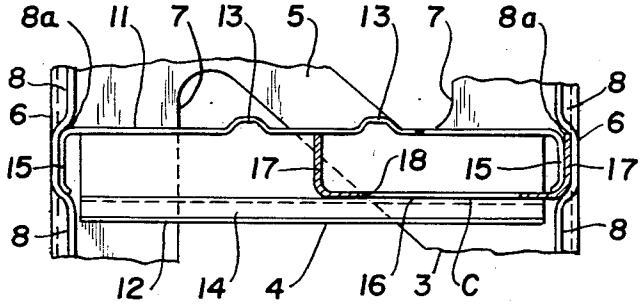


Fig.6.



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3,001,615
STUDDING

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10 Claims. (Cl. 189—35)

This invention relates to studding and more particularly to an improved studding clip and a studding structure embodying a runner, stud and clip cooperating in novel manner.

It is standard procedure in the erection of studding to position runners against the ceiling and floor and dispose studs between the upper and lower runners. Runners of various shapes have been employed and devices of various kinds for positioning the studs relatively to the runners and fastening the same thereto have been proposed. It has also been proposed to utilize studs of less dimension than the runners transversely of the runners, possibly employing in a single studding structure studs of varying dimensions transversely or crosswise of the runners. Structures embodying studs of different dimensions crosswise of the runners are disclosed in copending application Serial No. 734,937, filed May 13, 1958. According to the disclosure of that application studs of different dimensions crosswise of the runners may be positioned and fastened in place relatively to the runners by clips of special forms.

I provide for positioning and fastening in place studs of different dimensions crosswise of the runners by the use of a studding clip of novel form which I term a universal type studding clip. The same studding clip may be used with a runner of predetermined width to position and fasten in place with respect to the runner studs of different dimensions crosswise of the runner.

I provide studding comprising a generally horizontal runner having a length substantially greater than its width, a generally vertical stud having one of its ends disposed crosswise of the runner and a clip fitted to the runner and having opposed generally vertically extending portions extending across the runner, each of said opposed generally vertically extending portions being of generally constant height across the runner, said opposed generally vertically extending portions of the clip gripping the end portion of the stud, so that the clip may be used to mount to the runner studs of various dimensions crosswise of the runner. The runner may have generally vertical flanges at its side edges and a portion of the stud may lie against one of the flanges of the runner. The clip preferably has a portion holding that portion of the stud against the flange of the runner. Preferably an end portion of the clip holds a portion of the stud against a flange of the runner.

The preferred form of clip has a base portion and opposed generally vertically extending side portions connected with the base portion and extending across the runner, the clip having end portions extending transversely of the clip pressing against the runner, the opposed generally vertically extending side portions of the clip gripping the end portion of the stud. The end portions of the clip may constitute continuations of at least one of the opposed generally vertically extending side portions of the clip but turned at substantially right angles thereto. The end portions of the clip preferably press against the flanges of the runner.

My studding clip may comprise an elongated base and opposed side portions extending generally perpendicular to the base throughout the entire length of the clip and adapted to grip an end portion of a stud between them, the clip having transversely extending end portions adapted to press against a runner to which a stud is to be mounted by use of the clip. As above indicated, the clip may have end portions constituting continuations of at least one of the opposed side portions of the clip but turned at substantially right angles thereto, and each of the opposed side portions of the clip may be of generally constant height throughout its length. The opposed side portions of the clip are desirably of different heights. At least one of the opposed side portions of the clip may have stiffening formations formed therein extending generally perpendicular to the base of the clip, and at least one of the opposed side portions of the clip may have therein a laterally projecting formation extending from end to end thereof adapted to engage the stud.

Other details, objects and advantages of the invention will become apparent as the following description of a present preferred embodiment thereof proceeds.

In the accompanying drawings I have shown a present preferred embodiment of the invention in which:

FIGURE 1 is a fragmentary perspective view of studding incorporating my invention;

FIGURE 2 is a perspective view to enlarged scale of one form of my universal type studding clip;

FIGURE 3 is a fragmentary plan view to enlarged scale of a portion of the floor runner;

FIGURE 4 is a fragmentary horizontal cross-sectional view to enlarged scale taken on the line IV—IV of FIGURE 1;

FIGURE 5 is a fragmentary vertical transverse cross-sectional view to enlarged scale taken on the line V—V of FIGURE 1; and

FIGURE 6 is a fragmentary horizontal cross-sectional view to enlarged scale taken on the line VI—VI of FIGURE 1.

Referring now more particularly to the drawings, FIGURE 1 shows a ceiling runner **2**, a floor runner **3**, a series of studs A, B, C, D and E respectively mounted to the runners and a uniform or universal type of studding clip **4** which is used at the top and bottom of each of the studs A, B, C, D and E to mount the stud to the runners. The ceiling and floor runners are identical and the manner of mounting the studs and clips to the ceiling runner is the same as the manner of mounting the studs and clips to the floor runner so the invention will be described with specific reference to the mounting of the studs and clips to the floor runner **3**.

The floor runner **3** is arranged generally horizontally and positioned upon a floor where a partition is to be erected. The floor runner **3** has a length substantially greater than its width and comprises a base or body portion **5** and upstanding flanges **6** at the respective longitudinal edges of the body portion so that the runner is of generally channel form. The runner is preferably made out of light gauge sheet material such as steel and is desirably made of galvanized sheet steel. Portions of the base or body portion **5** of the runner **3** are cut away to reduce the weight of the runner and provide openings for wiring and plumbing as shown at **7**.

In the form of runner shown each of the flanges **6** of the runner is die-formed at intervals adjacent its edge as shown at **8** to provide a series of spaced apart opposed inwardly open recesses or pockets **8***a*, the recesses or pockets being arranged in opposed pairs in the respective flanges **6** with the recesses of each pair opening toward each other. Portions may be cut out of the flanges **6** to provide elongated openings **9** therein to further lighten the runner and provide for the insertion of tie wires for attaching metal lath to the runners.

Each of the studs A, B, C, D and E is mounted to the runner **3** by a clip **4** and although the studs are of different dimensions crosswise of the runner all of the

clips 4 are of uniform construction, the construction of the clips being such to adapt them to mount to the runner studs of different dimensions crosswise of the runner. Since the clips are of uniform construction description of one will suffice for all. Each clip 4 has an elongated base 10 and opposed side portions 11 and 12 extending generally perpendicular to the base 10 and adapted to grip an end portion of a stud between them. The opposed side portions 11 and 12 of the clip extend throughout substantially the entire length of the clip and are shown as being of different heights, the side portion 11 being of substantially greater height than the side portion 12. The side portion 11 is shown as having formed therein stiffening formations 13 extending generally perpendicular to the base portion 10 making that side portion relatively rigid. The side portion 12 is relatively flexible or springy and has therein at the upper portion thereof a laterally projecting formation 14 extending from end to end thereof adapted to engage the stud. Each of the side portions 11 and 12 is of generally constant height throughout its length. The laterally projecting formation 14 of the side portion 12 resiliently presses the stud against the relatively rigid side portion 11 below the top thereof to finally mount the stud in the runner.

Each clip 4 has end portions 15 constituting continuations of the side portion 11 but turned at substantially right angles thereto and adapted to press against the flanges 6 of the runner in the recesses 8*a* which provide transversely aligned pockets to receive the clips. The horizontal distance transversely of the clip between the side portions 11 and 12 at the level of the formation 14 is slightly less than the thickness of a stud which is to be mounted to the runner by means of the clip so that the end portion of the stud will be grippingly received by the clip. When the end portion of the stud is inserted into the clip the side portion 12 of the clip may yield slightly under the pressure of the stud and when the stud has reached its ultimate position it is firmly gripped between the side portions 11 and 12 of the clip.

The studs A, B, C, D and E are of different widths, i.e., of different dimensions crosswise of the runner, the stud A being the widest, the stud B somewhat narrower and so on, the stud E being the narrowest. Studs of five different widths would not normally be employed in the same structure but are shown in the drawings for the purpose of demonstrating the utility of the invention. The stud A has a width somewhat less than the width of the runner while the stud E has a width which is a relatively small fraction of the width of the runner, perhaps one-fifth or one-sixth. Each of the studs has a web 16 and flanges 17, the shape of each stud being in the form of a channel. Portions are cut out of webs of the wider studs to reduce their weight and provide openings for wiring and plumbing as shown at 18. Each stud is applied by disposing one of its flanges 17 in a recess or pocket 8*a* between one of the end portions 15 of the corresponding clip and the corresponding flange 6 of the runner, the parts being shaped so that the flange of the stud is snugly received in a recess 8*a* of the runner and the end portion of the clip presses the stud flange against the runner. To accomplish the holding of the stud as just described the opposed side portions 11 and 12 of the clip are spaced apart a distance at least approximately equal to the dimension of the end portions 15 of the clip in the direction normal to the side portions 11 and 12 so that when the stud is applied as described one of its flanges 17 may lie outside the corresponding end portion of the clip as clearly shown in FIGURES 4 and 6. The opposite end portion 15 of the clip engages the opposite flange of the runner and is disposed in the opposed recess 8*a* thereof.

Thus, each stud, no matter what its width, is firmly positioned and mounted relatively to the runner with one flange of the stud disposed between a flange of the runner and an end portion of the clip, the side portions of the clip tightly gripping the end portion of the stud as above

explained and as shown in the drawings. My structure obviates the necessity of providing clips of different forms for mounting studs of different widths to runners of standard width. My clip is of relatively simple construction and economical to fabricate so that considering that only one form of clip is needed for all widths of stud the cost of my studding is unprecedentedly low for studding employing studs of different widths.

While I have shown and described a present preferred embodiment of the invention it is to be distinctly understood that the invention is not limited thereto but may be otherwise variously embodied within the scope of the following claims.

I claim:

1. Studding comprising a generally horizontal runner having a length substantially greater than its width, the runner having a center portion and side portions at both edges of the center portion, the center portion being disposed in a generally horizontal plane, a generally vertical stud having one of its ends disposed crosswise of the runner and a clip fitted to the runner and having opposed generally vertically extending portions extending across the runner, each of said opposed generally vertically extending portions being of generally constant height across the runner, said opposed generally vertically extending portions of the clip gripping the end portion of the stud, so that the clip may be used to mount to the runner studs of various dimensions crosswise of the runner.

2. Studding comprising a generally horizontal runner having a length substantially greater than its width and having a center portion with generally vertical flanges at its side edges, the center portion being disposed in a generally horizontal plane, a generally vertical stud having one of its ends disposed crosswise of the runner and having opposed generally vertically extending portions extending across the runner, each of said opposed generally vertically extending portions being of generally constant height across the runner, a portion of the stud lying against one of the flanges of the runner, the clip having a portion holding said portion of the stud against said flange of the runner, said opposed generally vertically extending portions of the clip gripping the end portion of the stud, so that the clip may be used to mount to the runner studs of various dimensions crosswise of the runner.

3. Studding comprising a generally horizontal runner having a length substantially greater than its width and having a center portion with generally vertical flanges at its side edges, the center portion being disposed in a generally horizontal plane, a generally vertical stud having one of its ends disposed crosswise of the runner and a clip fitted to the runner and having opposed generally vertically extending portions extending across the runner, each of said opposed generally vertically extending portions being of generally constant height across the runner, a portion of the stud lying against one of the flanges of the runner, an end portion of the clip holding said portion of the stud against said flange of the runner, said opposed generally vertically extending portions of the clip gripping the end portion of the stud, so that the clip may be used to mount to the runner studs of various dimensions crosswise of the runner.

4. Studding comprising a generally horizontal runner having a length substantially greater than its width, the runner having a center portion and side portions at both edges of the center portion, the center portion being disposed in a generally horizontal plane, a generally vertical stud having one of its ends disposed crosswise of the runner and a clip fitted to the runner and having a base portion and opposed generally vertically extending side portions connected with the base portion and extending across the runner, the clip having end portions extending transversely of the clip pressing against the runner, said opposed generally vertically extending side portions of the clip gripping the end portion of the stud, so that

the clip may be used to mount to the runner studs of various dimensions crosswise of the runner.

5. Studding comprising a generally horizontal runner having a length substantially greater than its width, the runner having a center portion and side portions at both edges of the center portion, the center portion being disposed in a generally horizontal plane, a generally vertical stud having one of its ends disposed crosswise of the runner and a clip fitted to the runner and having a base portion and opposed generally vertically extending side portions connected with the base portion and extending across the runner, the clip having end portions constituting continuations of at least one of said opposed generally vertically extending side portions but turned at substantially right angles thereto, the end portions of the clip pressing against the runner, said opposed generally vertically extending side portions of the clip gripping the end portion of the stud, so that the clip may be used to mount to the runner studs of various dimensions crosswise of the runner.

6. Studding comprising a generally horizontal runner having a length substantially greater than its width and having a center portion with generally vertical flanges at its side edges, the center portion being disposed in a generally horizontal plane, a generally vertical stud having one of its ends disposed crosswise of the runner and a clip fitted to the runner and having a base portion and opposed generally vertically extending side portions connected with the base portion and extending across the runner, the clip having end portions constituting continuations of at least one of said opposed generally vertically extending side portions but turned at substantially right angles thereto, the end portions of the clip pressing against the flanges of the runner, said opposed generally vertically extending side portions of the clip gripping the end portion of the stud, so that the clip may be used to mount to the runner studs of various dimensions crosswise of the runner.

7. A studding clip comprising an elongated base and opposed side portions extending generally perpendicular to the base throughout the entire length of the clip and adapted to grip an end portion of a stud between them, the clip having transversely extending end portions adapted to press against a runner to which a stud is to be mounted by use of the clip, the opposed side portions of the clip being spaced apart a distance at least approximately equal to the dimension of the end portions in the direction normal to the side portions.

8. A studding clip comprising an elongated base and opposed side portions extending generally perpendicular to the base and adapted to grip an end portion of a stud between them, the clip having end portions constituting continuations of at least one of said opposed side portions but turned at substantially right angles thereto and adapted to press against a runner to which a stud is to be mounted by use of the clip, the opposed side portions of the clip being spaced apart a distance at least approximately equal to the dimension of the end portions in the direction normal to the side portions.

9. A studding clip comprising an elongated base and opposed side portions extending generally perpendicular to the base and adapted to grip an end portion of a stud between them, said opposed side portions extending throughout the entire length of the clip, each of said opposed side portions being of generally constant height throughout its length, the clip having transversely extending end portions adapted to press against a runner to which a stud is to be mounted by use of the clip, the opposed side portions of the clip being spaced apart a distance at least approximately equal to the dimension of the end portions in the direction normal to the side portions.

10. A studding clip comprising an elongated base and opposed side portions extending generally perpendicular to the base and adapted to grip an end portion of a stud between them, said opposed side portions extending throughout the entire length of the clip and being of different heights, at least one of said opposed side portions having therein a laterally projecting formation extending from end to end thereof adapted to engage the stud, the clip having transversely extending end portions adapted to press against a runner to which a stud is to be mounted by use of the clip, the opposed side portions of the clip being spaced apart a distance at least approximately equal to the dimension of the end portions in the direction normal to the side portions.

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