This invention relates to building wall construction and it has reference more particularly to improvements in the design and mode of use of metal runners for the securing of ribbed metal lath, plasterboard, or other plaster base materials, to a floor or base surface for the construction of plaster walls and partitions.

It is the principal object of this invention to provide a strong, durable, lightweight, and easily applied combination runner and base, that may be nailed or otherwise suitably secured to a concrete, wood or other form of floor, as an aligning and securing means for a plaster base material such as metal lath, plasterboard or the like, and which will serve additionally as a base board and will provide the grounds to which the surfaces at one or both sides of the plaster wall, as made, may be gauged.

It is also an object of this invention to provide a combined runner and base which is adapted, after being secured in place, to receive a filler, or grout, to seal the joint between it and the floor to which it is applied.

Other objects of the invention are to be found in the specific forms of metal runners as used both for solid single wall, and for double wall constructions.

Still further objects of the invention reside in the details of construction embodied in the various forms of runners and in their combination and use with various plaster bases for the making of walls, as will hereinafter be fully described.

In accomplishing these and other objects of the invention, I have provided the improved details of construction, the preferred forms of which are illustrated in the accompanying drawings, wherein:

Fig. 1 is a side view of a portion of a solid partition wall utilizing therein one form of metal runner embodied by the present invention.

Fig. 2 is a vertical cross-section of the wall, taken substantially on line 2—2 in Fig. 1.

Fig. 3 is a horizontal section of the wall, taken on line 3—3 in Fig. 1.

Fig. 4 is a cross-sectional view of a wall of “double construction” wherein a modified form of runner embodied by the present invention is used.

Fig. 5 is a perspective view of a length of the runner used in the solid wall construction shown in Figs. 1 to 3.

Fig. 6 is a perspective view of paired runners as applied to the wall of double construction shown in Fig. 4.

Fig. 7 is a cross-sectional view of a runner designed to serve additionally as a base board.

Fig. 8 is a cross-sectional view of a wall in which a runner of still another modified form is used.

Fig. 9 is a perspective view of a portion of the runner used in the wall of Fig. 8.

While it is the intention that the present device be used and designated as a combined runner and base board, it is not to be implied that in some instances, base boards or ordinary or special types might be used in addition thereto. In the following specification and claims the device, which I have designated as a combination runner and base, will be referred to merely as a “runner,” whether or not it be employed also as a base.

In the making of what are referred to as solid plaster walls, of those kinds quite extensively used in present day apartment construction for partitions, it is the practise to attach strips of wood or metal to the floors and ceilings and to secure panels of selected plaster base material to these strips, and then to apply plaster to the secured base material.

Generally, ribbed metal lath, plasterboard, or the like, is used as plaster base material. Here-tofore, wooden strips have been extensively employed as floor runners but have not proven entirely satisfactory for various reasons, one of which is the lack of their fire and moisture resistance. Another is the difficulty in securing the plaster base or lath thereto. Also, metal strips both of angle and channel form have been employed as runners, but such have not heretofore provided means for the easy and satisfactory securing of the runner to the floor.

In view of the above, and for other reasons, it has been an object of this invention to devise a metal runner that avoids all the objectionable features of wooden and metal strips or runners as heretofore used, and which also has many advantages thereover, among which are their use as grounds for the finishing of opposite surfaces of the plaster wall; the provision for receiving a joint sealing grout; their use as a finishing base and base molding for opposite sides of the walls, and as a self-centering means for the plaster base material.

Referring more in detail to the drawings—

In Figs. 1, 2 and 3, I have shown a runner embodied by the present invention as used in the making of a solid plaster wall. The runner comprises an elongated strip of sheet metal, of a gauge that will insure the necessary rigidity, and
so formed or bent as to give it a cross-sectional shape substantially like that of the letter M. This runner has vertical opposite side walls, 10—10 from the top, longitudinal edges of which the material is sloped downwardly and inwardly, at about 45 degree angle, thus providing the opposite side walls 11—11 of a longitudinally extending trough 12. The two sloping walls are joined at their lower longitudinal edges by a narrow, horizontal bottom wall 13. In a practical size as adapted for ordinary uses, such runners are about 24 inches wide, with the side walls 10—10 about one inch high and the bottom wall 13 about 1/4 inch across and disposed substantially flush with the bottom edges of the side walls, as best shown in Fig. 2. The trough-like structure that is formed by the downwardly converging walls 11—11 and the bottom or base wall 13, serves as holding and centering means for the panels or strips of plaster base material to be used. This material might be expanded metal lath, plaster board, or any suitable material to which plaster can be applied. In Figs. 1 and 2, I have indicated the plaster base material to be ribbed metal lath, designated by reference numeral 18. Such lath is usually made in strips about two feet wide, which in use, are disposed vertically, edge to edge and wired or otherwise secured together along their adjoining edges.

In using the present metal runners, they are cut or joined to give the required lengths, and are then secured to the floor. To permit their securement, the base wall 13 of the trough-like portion is perforated at regular intervals, as at 19, in Fig. 5, and special wall 20, are applied throughout, such as perforations and driven into the floor whether it be wood, cement or other material.

In applying the plaster base material, which I will hereinafter refer to as “lath” regardless of its specific nature, the panels or strips are cut to proper lengths and are then seated at their lower ends in the trough-like portion of the runner. The downwardly converging walls 11—11 cause the automatic centering of the strips on the base wall 13 of the trough. The vertical edges of the strips or panels may be joined in various ways. Then to better retain the lath strips in place in the runner, partially detached metal ears, or tabs, 25 that are formed in the sloping walls 11—11, in staggered relationship at regular intervals along the runner, are now bent upwardly and inwardly against opposite sides of the lath as has been shown in Fig. 2. Preferably the tabs 25 are of triangular form and are upwardly pointed. When they are bent from the walls 11—11 to holding positions against opposite sides of the lath panels, they provide openings 26 in the runner through which a thin grout, or other fluid sealing medium may be poured to fill the hollow spaces in the runner thus to seal the joint between floor and runner. Such a joint sealing grout is designated at 28 in Fig. 2. Preferably it would be a quick setting material, as a thin cement.

In the making of a wall, a lath holding strip of suitable kind is applied to the ceiling in proper alignment with the runner. Such strips may be of various kinds. Preferably an angularly formed strip of sheet metal or metal lath is used. In Figs. 1 and 2 the ceiling strip 35 is shown to be of angle form, with a horizontal flange that is nailed to the ceiling and a vertical flange that is formed with holes 36. The top edge portions of the lath overlap this vertical flange and are wired or otherwise secured thereto. In Fig. 1 wire ties 40 are used.

It is to be understood that it is not material to this invention what kind of plaster base material is used. However, whatever it may be, it is properly secured at the lower edge in the runner and at its top edge to the strip 35 and the plaster is then applied thereto, at one or both sides to build a wall of a desired thickness.

In Figs. 4 and 6 I have shown use of a runner of modified form, especially designed for what is referred to as “double wall” construction, that is, a partition comprising two parallel, spaced, plate-ter-walls providing an air space between them. Such runners are made of metal strips in various suitable lengths, each bent to a specific cross-sectional form that provides a vertical outside wall 45, and an inclined wall 45 that extends downwardly and inwardly from the top longitudinal edge of wall 45, at an angle about 45 degrees, and at the level of the lower edge of wall 45, continues as a narrow horizontal flange 43 that rests on the floor. A runner of this kind, of practical dimensions would have an outside wall 45, about one inch high. The flange 43 would be about 1/4 inches wide and the horizontal flange 45 about 1/16 inch wide. This flange is perforated, at regular intervals along the same as at 49, to receive anchor nails 50 therethrough.

In the making of a double wall, “right” and “left” runners are used, and they are laid on the floor in parallel relationship with the walls 45 thereof at the opposite or outside of the partition, as noted in Fig. 4 and are secured by the nails 50. The spacing of the runners preferably should provide about one inch between their inside flanges. Plaster base material, such as ribbed metal lath or plaster board, is then applied as shown, by resting the lower edges of the panels of lath on the flanges 45. These runners, as the runner previously described, have partially detached tabs 52 formed in the sloping walls 45 at spaced intervals therealong, and these are bent upwardly and inwardly as shown to retain the lath properly spaced from the walls 45. The paired runners, similarly as in the disclosure of Fig. 2, may then be filled with a joint sealing grout as shown at 55 in Fig. 4 to seal the joints between runners and floor.

At the ceiling, angle strips 56—56 may be secured for the attachment of the upper edges of the lath. These strips may be of angular form as previously shown, or may comprise a single strip of channel form serving both sides of the wall. Such a strip, made of expanded metal lath, serves well and can be readily secured to the ceiling by cement nails or the like.

After the plaster base or lath has been secured to runners and ceiling strips, then the walls are plastered and the outer surfaces of the plaster walls brought flush with the outer walls 45 of the runners, which serve as grounds. The finishing of plaster surfaces may be carried out as desired for various decorative effects.

Yet another modified form of metal runner is shown in Figs. 8 and 9. This form is especially desirable for use in the making of enclosing walls for pipe and vent shafts and the like. The runner is made of sheet metal, in strip form in suitable lengths. The metal strip has a cross-sectional form similar to that of the letter H, with a vertical outer wall that is nailed to the ceiling and a horizontal flange that is formed with holes 66. The top edge portions of the lath overlap this vertical flange and are wired.
a narrow horizontal wall 53 that is perforated as at 64 in Fig. 9 to receive anchor nails 65 therethrough.

In use, this strip is applied about the enclosure and secured to the floor by nails 65 as previously explained. The plastic base material 66 is then set on the trough of the runner and secured to the inner walls 61 in the manner previously described in connection with the showing in Fig. 2, or by the application of vertical channel bars 68 to the walls 61 and the securing of the lath to those channels. Plaster is then applied to the outside of the lath only and is finished flush with the outside walls 60 of the runners.

Still another modification of runner 70 is shown in Fig. 7 wherein the runner construction is substantially like that first described in that it has a cross-sectional form of the letter M but in this case the vertical walls are of substantial height, for example, from 3 to 6 inches, to serve as base boards. The outer walls 70 preferably are beaded at 71 along their top edges as shown to provide a line of demarcation between plaster and base board. These runners may also have base shoe moldings 75 integrally formed therewith. The mode of use and application of lath to this runner is the same as was previously described.

Runners of these kinds may be easily and readily applied. They provide an easy application and securement of the plaster base or lath thereon; they are long wearing, fire and water proof, and serve well as base plasters, and as base boards.

Having thus described my invention, what I claim as new therein and desire to secure by Letters Patent is—

1. A wall runner comprising an elongated body including a narrow bottom wall midway its width extending its full length and upon which the lower edge of a wall board is adapted to rest, said bottom wall being formed with grout-receiving openings, diagonally disposed side walls extending upwardly along opposite side edges of the bottom wall at an outward incline and along their upper edges carrying depending vertically disposed walls companion to and spaced outwardly from the walls of the body and cooperating therewith to provide grout-receiving chambers along opposite sides of the runner, lower edges of the depending walls being in the plane of said bottom wall, and tongues cut from the diagonally disposed side walls of said body for the major portion of the depth thereof, each tongue being tapered upwardly and free along opposite side edges, said tongues having lower ends integral with the diagonally disposed side walls adjacent lower edges thereof and being bent upwardly and away from the diagonally disposed walls, said tongues being adapted for engagement with confronting side faces of the wall board, the diagonal walls including openings resulting from bending said tongues outwardly from the diagonally disposed walls, said openings communicating with the grout-receiving chambers and constituting passages through which plastic is adapted to be forced into the grout-receiving chambers.

2. A metal wall runner comprising an elongated sheet metal structure including a flat bottom wall extending its full length and upon which the lower edge of a wall board is adapted to rest and a diagonally extending side wall along a side edge of the bottom wall extending upwardly therefrom at an outward incline and carrying a depending wall united along its upper edge with the upper edge of the said side wall, the depending wall being spaced outwardly from said side wall and cooperating therewith to form a grout-receiving chamber between the said walls, said chamber extending the full length of the runner, and tongues cut from the diagonally extending wall, each tongue being integral with the diagonally extending wall across only one end of the tongue, said tongues extending upwardly and away from said diagonal wall, said tongues being adapted for engagement with the confronting face of the wall board, the diagonal wall including openings resulting from bending said tongues outwardly from the plane of said diagonally extending wall, said openings communicating with the grout-receiving chamber and constituting passages through which plastic is adapted to be forced into the chamber.

GEORGE B. COLLMAN.

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