Nov. 25, 1941. E. W. NICHOLSON 2,263,814

METAL PARTITION

Filed Oct. 4, 1940

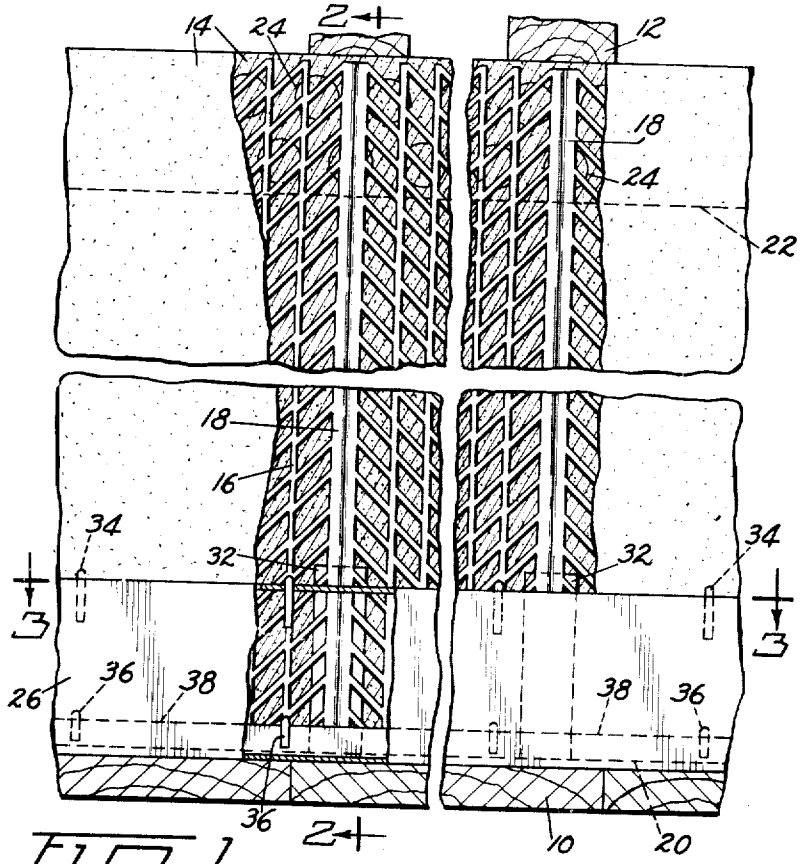


Fig. 1.

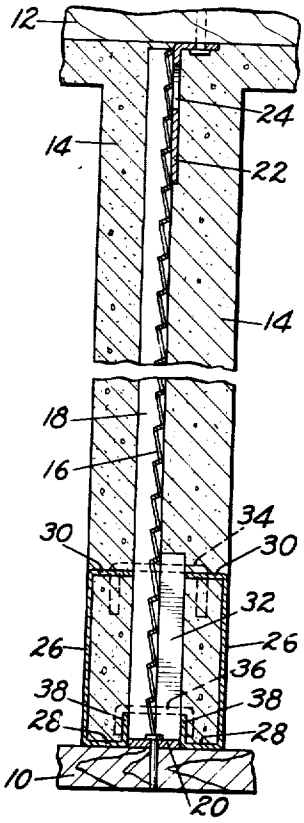


Fig. 2.

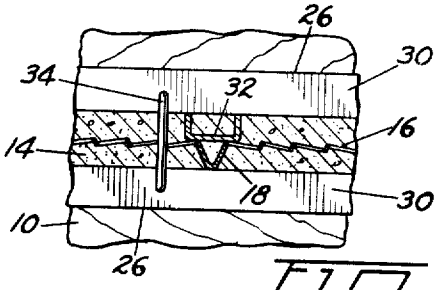


Fig. 3.

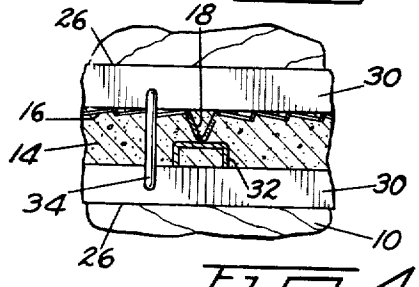


Fig. 4.

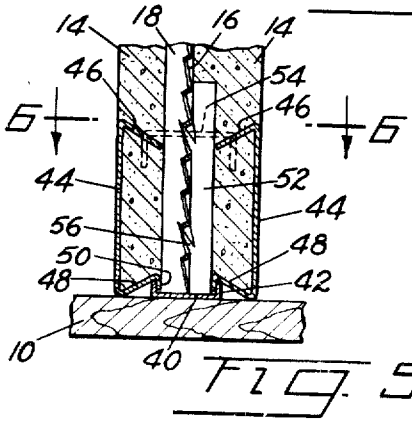


Fig. 5.

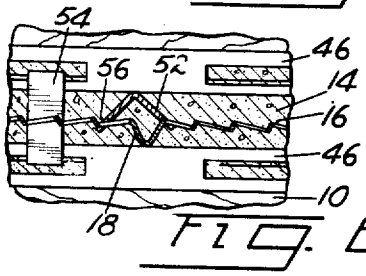


Fig. 6.

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2. MASONRY & CONCRETE STRUCTURES.
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UNITED STATES PATENT OFFICE

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METAL PARTITION

Edward W. Nicholson, Detroit, Mich.

Application October 4, 1940, Serial No. 359,659

7 Claims. (Cl. 72—46)

This invention relates to improvements in metal partitions for building structures.

An object is to provide a metal partition of simple, inexpensive construction which includes an expanded metal lath sheet, a footing strip, and base members cooperating with the footing strip. The lath sheet is provided with upright ribs formed as a part thereof which ribs cooperate with the base members to assist in spacing them apart and which stiffen the lath sheet in the structural assembly shown so that upright studding is unnecessary to complete the assembly. The assembled structure comprises in addition to the lath sheet having the upright ribs and the footing strip and the base members cooperating with the footing strip and spaced apart thereby suitable spacers cooperating with the lath sheet and base to complete the structure.

A ceiling track or cap strip of conventional construction is also provided and extends along the upper margin of the lath sheet and is secured to the ceiling of the room within which the partition is used. The entire structure is finished off with plaster as is conventional practice so that the lath sheet forms a supporting core for the plaster wall.

This improved construction is adapted to serve as a suitable supporting column for a plaster wall without the embodiment of upright studding or the like as separate elements. It forms a rigid stable support for the wall structure. It is capable of being readily, easily and quickly assembled. It constitutes an inexpensive construction.

Other objects, advantages and meritorious features will more fully appear from the following description, appended claims and accompanying drawing, wherein:

Fig. 1 is an elevation partly broken away showing a wall embodying this invention,

Fig. 2 is a vertical sectional view taken on line 2—2 of Fig. 1,

Fig. 3 is a horizontal sectional view taken on line 3—3 of Fig. 1,

Fig. 4 is a sectional view taken on the same line as Fig. 3 but showing a slight modification of construction,

Fig. 5 is a sectional view taken on the same line as Fig. 2 of a fragment of wall but showing a slightly modified construction as compared with Fig. 2, and

Fig. 6 is a horizontal sectional view taken on line 6—6 of Fig. 5.

In the drawing the floor of the room within which the partition is shown is indicated as 10 and the ceiling as 12. The partition is an upright one extending between the floor and the ceiling and is finished off upon opposite sides with plaster indicated as 14. This improved structure embodies a sheet of expanded metal lath which is indicated generally as 16. The metal lath sheet is deformed at intervals providing upright rib elements or portions 18. The expanded mesh of the lath sheet extends between these ribs 18. The sheet is seated upon a footing strip. In Fig. 2 this footing strip is indicated as 20 and is secured by nails to the floor. In this view it is a flat metal strip. The upper margin of the lath sheet is secured to the ceiling by a nailing strip or cap piece 22. This cap piece is provided with a plurality of apertures 24 and the metal lath may be wired or otherwise fastened to the cap piece through these apertures as is conventional practice. This cap piece is conventional structure.

A pair of complementary base members are provided. In Fig. 2 these base members are indicated as 26. Each base member comprises an upright or vertical plate provided with top and bottom side walls or flanges which impart a channel shape cross section to the member. The bottom flange 28 of each member rests upon the floor and projects toward the metal lath. The upper flange 30 of said member similarly projects inwardly toward the metal lath. Means hereinafter described is provided which engages and holds the flange of the members to retain the latter in the desired position with respect to the lath sheet.

The lower side walls or flanges 28 of the base members abut the footing strip. The upper side wall or flange 30 of one of the base members bears against the rib 18 to space the base member from the top of the lath sheet. The side wall or flange 30 of the other member bears against a spacer 32 to space such base member from the lath sheet. The spacers 32 at seated upon the footing strip 20. The base members are spaced apart at the bottom by the footing strip 20. The spacer element 32 shown in Fig. 1 is channel shaped in cross section. It is shown as a short length of channel seated upon the footing strip and spacing the base member from the metal lath opposite the rib 18.

The upper side walls 30 of the base members are provided with apertures to receive the ends of a U-shaped clip 34 as shown in Figs. 2, 3 and 4 which clip extends through the metal lath and holds the base member together along their upper margins. A clip 36 is provided which also

extends through the metal lath and engages turned up margins 38 of the side walls 28 of the base members to hold the base members together against the footing strip 20 along their lower margins all as shown in Fig. 2.

In the structure of Fig. 4 the spacer 32 is shown as on the same side of the metal lath sheet as the rib 18 and bears thereagainst. In this construction the metal lath sheet bears along one side against the flange 30 of the base members and is spaced from the cooperating base member not only by the spacer 32 but also by the rib 18.

In the construction of Fig. 5 the metal lath sheet is the same as that shown in the construction of Figs. 1 to 4 inclusive and the spacers and clips may also be similar but the base members and footing differ in details.

In the construction of Fig. 5 the footing is indicated as 40. It is a channel footing having side walls 42. The base members 44 are also channel shaped but the side walls are bent toward each other as shown. The upper side walls are indicated as 46. The lower side walls as 48. Each lower side wall has a marginal portion 50 turned downwardly to overhang the side wall 42 of the footing as shown. One base member is spaced from the lath sheet by spacer 52. The other base member is spaced from the lath sheet by a rib 18.

Clips 54 are provided which engage through apertures in the side walls 46 of the base members as heretofore set forth. These spacers are here shown as formed of flat sheet metal (note Fig. 6). It is obvious that wire spacers such as shown in Fig. 4 (34) might be used. The spacers here shown are V-shaped in cross section and are provided with serrations or other like projections 56 adapted to engage through the openings in the mesh of the metal lath (note Fig. 5). A cap piece similar to that shown in Figs. 1 and 2 would be provided.

What I claim:

1. In a partition structure, in combination, a footing strip, a sheet of metal lath seated thereupon, said sheet of lath deformed laterally along spaced apart vertical lines providing upright laterally projecting ribs, a pair of base members positioned on opposite sides of the lath sheet and each contacting the footing strip and spaced apart at the bottom thereby, each base member provided with an upper marginal flange projecting toward the lath sheet, the upper marginal flange of one base member contacting the lath ribs, spacers disposed between the lath and the upper marginal flange of the other base member, means connecting the upper margins of the two base members together, and means connecting the base members together at the bottom.

2. A partition structure comprising, in combination, a footing strip, a sheet of expanded mesh metal lath deformed laterally at spaced intervals along vertical lines providing upright ribs, said sheet seated upon the footing strip, a pair of base members arranged upon opposite sides of said lath sheet, each base member having a flange extending along its bottom margin abutting the footing strip and a flange extending along its upper margin projecting toward the lath sheet, the upper marginal flange of one base member contacting the upright ribs of the lath sheet, spacers seated upon the footing strip and interposed between the lath sheet at points opposite the ribs and the upper flange of the other base member, clips extending through the lath sheet connecting the base members together, and a ceiling strip secured along the top margin of the lath sheet.

3. A partition structure comprising, in combination, a footing strip, a sheet of expanded metal lath seated at its bottom margin upon the said footing strip and extending upwardly therefrom, said lath sheet deformed laterally along spaced apart vertical lines providing laterally projecting upright ribs in the sheet, a pair of base members positioned upon opposite sides of the sheet extending along its bottom margin abutting said footing strip and spaced apart along their margin by the footing strip, means connecting said members together holding the same against said footing strip, each base member having a flange extending along its upper margin and projecting toward the lath sheet, the upper flange of one base member abutting said ribs, spacers interposed between the upper flange of the other base member and the lath sheet, means connecting the upper flanges of the base members together through the lath sheet, said ribs being formed of non-expanded metal which extends as continuous bands vertically across the sheet.

4. A partition structure supported upon a floor comprising, in combination, a metal sheet integrally formed of relatively large sections of metal lath separated from one another by narrow vertical sections, said narrow vertical sections being deformed laterally of the sheet to serve as rigidifying supports therefor, a pair of members extending along the bottom margin of the sheet, each member comprising a vertical base plate, said plates being located on opposite sides of the sheet, and top and bottom flanges on each plate projecting toward the sheet, spacers disposed between the upper flange of one of said plates and abutting the adjacent side of said sheet at said ribs, the upper flange of the second base plate abutting the other side of said sheet, and means extending from one side of the sheet to the other and connecting the flanges of said members together to retain the base plate portions thereof in fixed relation on opposite sides of the sheet.

5. A partition structure supported upon a floor comprising, in combination, a metal sheet integrally formed of relatively large sections of expanded metal lath separated from one another by unbroken narrow vertical sections, said narrow vertical sections being deformed laterally of the sheet to serve as rigidifying supports therefor, a pair of members extending along the bottom margin of the sheet, each member comprising a vertical base plate, said plates being located on opposite sides of the sheet, and top and bottom flanges on each plate projecting toward the sheet, the upper flange of one of said members abutting said narrow sections of the sheet whereby said narrow sections operate to space said lath sections from said abutting flange, means extending through the sheet from one side thereof to the other and connecting the top flanges of said members together to hold the base plates in fixed relation to one another on opposite sides of the sheet, and means connecting the bottom flanges together cooperating with said last described connecting means for holding the base plates in position.

6. A partition structure comprising, in combination, a vertical metal sheet integrally formed of relatively large sections of metal lath separated from one another by narrow vertical sec-

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tions extending generally parallel to one another, said narrow sections being deformed laterally of the sheet to serve as rigidifying supports therefor, a pair of members extending along the bottom margin of the sheet, each member comprising a vertical base plate, said plates being located on opposite sides of the sheet, and top and bottom flanges on each plate projecting toward the sheet, the upper flange of one of said members abutting said narrow sections whereby said narrow sections operate to space the lath sections from said abutting flange, and means engaging and holding the flanges of said members to retain the base plates in fixed relation on opposite sides of the sheet.

7. A partition structure comprising, in combination, a channel footing having laterally extending side walls, an expanded metal sheet of lath deformed laterally along spaced vertical lines providing integral upright ribs V-shaped in cross-section, said sheet seated within said footing, a pair of base members seated within said footing upon opposite sides of the lath, each base member having a flange along its upper and lower margins projecting toward the lath sheet, the lower flanges having interlocking means engaging the side walls of the channel footing and held in spaced relationship thereby, the upper flange of one of said base members bearing against the lath ribs seated within the channel footing, spacers on the opposite side of the lath bearing against the lath opposite the ribs and bearing against the flange along the upper margin of the base member on said side of the lath, metal clips extending through the lath and connecting the base members together holding said members against the spacers and the lath ribs, and a ceiling strip secured to the lath sheet.

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