March 21, 1967 D. L. ZINN ETAL 3,309,825

RESILIENTLY MOUNTED PLASTER PARTITION SYSTEM FOR BUILDINGS

Filed Jan. 24, 1964

FIG.1

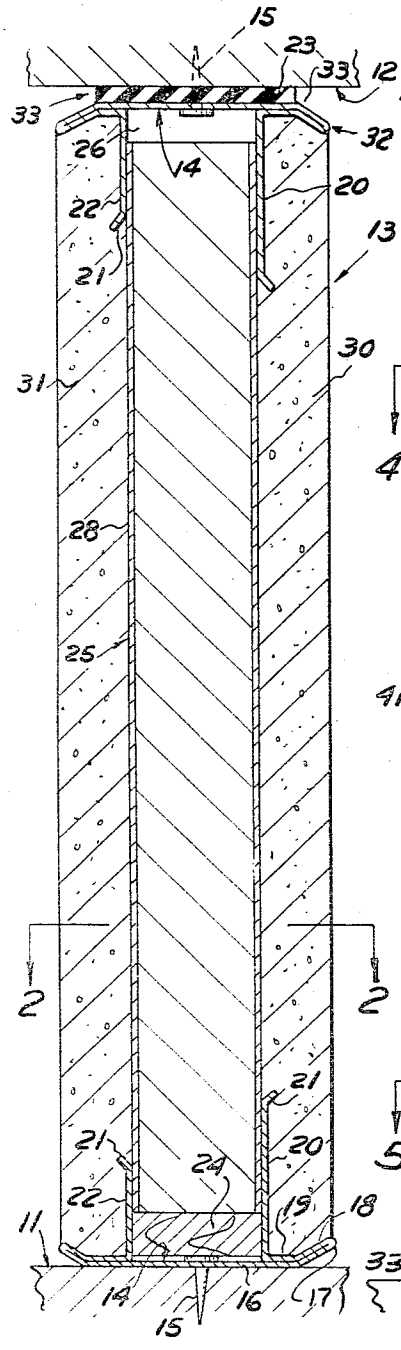


FIG.3

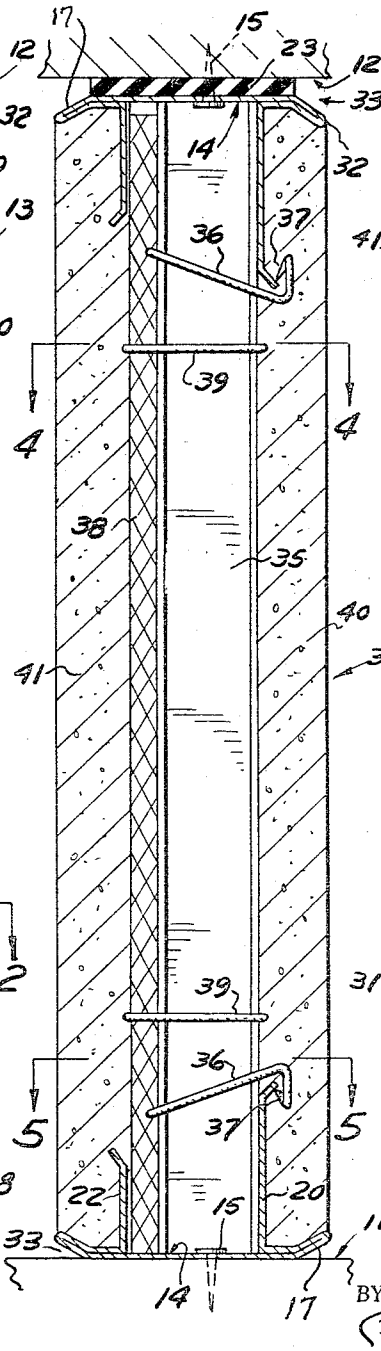


FIG.6

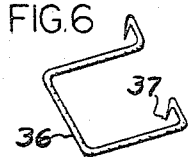


FIG 4

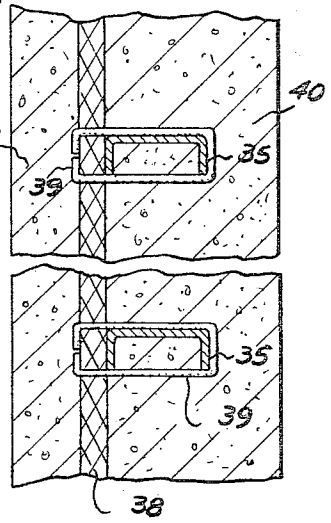


FIG.5

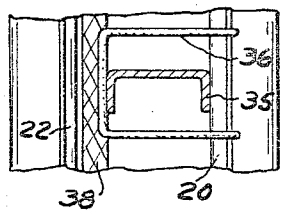
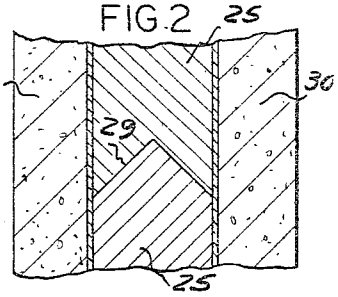


FIG.2



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RESILIENTLY MOUNTED PLASTER PARTITION SYSTEM FOR BUILDINGS

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1 Claim. (Cl. 52—241)

The present invention relates to partitions and more particularly non-load bearing partitions employed between the concrete floors and ceilings of buildings.

Heretofore, in constructions of this type the plastered partitions have been snugly interposed between the floor and ceiling with the result that with bending movements of the building due to atmospheric conditions or the winds considerable cracking occurs.

It is an object of the present invention to provide a novel form of core board track arranged in opposed relationship respectively upon and along the floor and ceiling and secured thereto for supportably mounting and receiving non-load bearing partitions and primarily for the prevention of cracking in the plastered wall partitions.

It is another object to provide a wall partition or plastered core board assembly wherein there is a resilient relationship between the partition and the concrete floor and ceiling to accommodate for relative slight shifting movement of the building and for the prevention of cracking in the plastered core wall boards or other partition construction.

These and other objects will be seen from the following specification and claim in conjunction with the appended drawing in which:

FIG. 1 is a fragmentary vertical section of the present plastered partition interposed between a concrete floor and ceiling.

FIG. 2 is a fragmentary plan section taken on line 2—2 of FIG. 1.

FIG. 3 is similar to FIG. 1 illustrating a slightly different form of plastered partition.

FIG. 4 is a fragmentary plan section taken on line 4—4 of FIG. 3.

FIG. 5 is a fragmentary plan section taken on line 5—5 of FIG. 3.

FIG. 6 is a perspective view of the channel securing clips shown in FIG. 3.

It will be understood that the above drawing illustrates merely a preferred embodiment of the invention, and that other embodiments are contemplated within the scope of the claim hereafter set forth.

Referring to FIGS. 1 and 2, the present non-load bearing wall partition is interposed between a concrete floor and ceiling of a building, the floor line being designated at **11**, the finished ceiling line at **12** and the partition generally shown at **13**.

An elongated floor track **14** is positioned upon and extends along the floor and is secured thereto by a series of fasteners **15** and includes the pair of upright spaced flanges **20** and **22** which terminate in out-turned ends **21**.

The elongated ceiling track **14** being of the same construction as the floor track, is arranged upon and extends along the ceiling and is secured thereto by fasteners **15**. The ceiling track is arranged directly above the floor track and also includes depending flanges **20** and **22** terminating in out-turned ends **21**. Flanges **22** are shorter than the flanges **20** to provide an entrant opening to facilitate assembly of core boards **25** between the ceiling and floor tracks.

Core board track

The ceiling and floor tracks **14**, FIG. 1, each include the base flange **16** which at its opposite sides terminates

in the upwardly and inwardly extending screed line flanges **17**, the metal being reverse folded as at **18**, and terminating in the horizontally disposed portions **19** which terminate in the upturned spaced flanges **20** and **22**.

An elongated flexible and resilient gasket **23**, preferably of rubber, plastic, neoprene or other resilient material is interposed between the ceiling **12** and ceiling track **14** and secured by track fasteners **15**.

Partition

Referring to FIG. 1, a suitable filler of wood, for illustration, in the form of a strip **24** is nested within the floor track between flanges **20** and **22** and serves as a support for the longitudinally disposed upright coplanar core boards **25**. These are interposed and supported between tracks **14** with their respective top and bottom edges nested between the respective pairs of flanges **20–22**. In assembly, the upper edges of core boards **25** are projected between the upper track flanges **20–22**, FIG. 1, until the bottom edges clear lower flange **22**. The assembly is completed with the core boards resting upon filler **24**, between floor track flanges **20, 22**. This provides a dead air space **26** within the top track and above the core board so that at no time regardless of relative slight movements of the floor and ceiling is the core board under any form of compression or tension.

The individual core boards **25** are generally available on the market and are usually of a construction known as gypsum board, being solid gypsum or a composition having outer paper coverings **28**.

As shown in FIG. 2, normally one edge of an upright core board **25** has an elongated groove of V-shape for illustration and the corresponding edge of the adjacent core board has a flange **29** of V-shape which interlocks or fits within the groove in a cooperative relation as shown in FIG. 2. The core boards may be placed side by side in flat edge to edge relationship if desired.

As a final step in the construction of the partition, thick plaster wall layers **30** and **31** are applied to and bear upon opposite sides of core board **25** and extend between and fill the space between the screed line flanges **17–18** of the floor and ceiling tracks. Each plaster wall layer has an exterior flat surface which is coplanar with the outer edge portions **32** of the screed line flanges **17–18**, FIG. 1.

Whereas, FIGS. 1 and 2 are directed to a non-cracking plaster core board partition, a slight variation is shown in FIG. 3 wherein there is a non-cracking solid plaster partition.

Solid plaster partition

Referrings to FIGS. 3, 4, and 5, the solid plaster partition **34** employs the basic tracks **14** and **15** arranged in vertical registry respectively secured at **15** to the concrete or cement floor and ceilings **11** and **12** with the flexible yielding gasket **23** interposed.

Instead of core boards **25**, FIG. 1, interposed between the respective vertically aligned opposed tracks **14**, there are a series of upright longitudinally spaced coplanar metallic channels **35**. These are interposed and supported between said tracks with their respective top and bottom edges nested and retained between the pairs of flanges **20, 22**. The channels, in the illustrative embodiment, are arranged at center distances of 16 or 24 inches and extend across the partition area.

The channels are secured in the upright position shown by a series of spring clips **36** which extend around the channels, FIGS. 3 and 5 and whose revers curved retaining end portions **37** interlock with portions of track flanges **20**, to maintain their upright positioning and for securing the channels **35** relative to the floor and ceiling tracks.

Upright longitudinally disposed metal lath **38** is interposed and supported between tracks **14** with corresponding top and bottom edge portions of the lath nested between flanges **20, 22** and adjacent flange **22.** The lath is secured to the respective channels as by a series of wire fasteners **39**, FIG. 4.

As a final step a solid and thick plaster wall layer is applied to the metal lath extending therethrough and upon opposite sides of the lathing as at **40** and **41** and thus fills the space between the screed line flanges **17–18.** Wall element **40–41** has exterior upright outer flat surfaces which are coplanar with the outer edge portions of the screed line flanges, as at **32.**

In both constructions, FIGS. 1 and 3, the plaster wall portions **30–31, 40–41** do not extend snugly between the floor and ceiling lines, but only extend to and between the screed line flanges **17–18** of the respective tracks **14.** Thus, the open areas **33** are provided between the upper edge portions of the plater walls and ceiling. Also, there are corresponding spaces **33** at the lower portions of the walls.

By this construction all cracking of the plastered walls is precluded in the event that there is some shifting or bending movement of the respective floors and ceilings particularly characteristic of the larger buildings employing poured and solid concrete or cement walls and ceilings.

Having described our invention, reference should now be had to the following claim.

We claim:

An improved partition wall construction for use between the floor and ceilings of a building, comprising:

an elongated floor track extending along and attached to the floor, said floor track being generally channel shaped with a pair of upwardly extending spaced flanges, and a pair of screed line flanges extending outwardly beyond said spaced flanges along the floor on opposite sides of said track and terminating in upwardly inclined edges;

an elongated ceiling track extending along and resiliently attached to the ceiling through an interposed elongated resilient gasket, said ceiling track being generally channel shaped with a pair of downwardly extending spaced flanges and a pair of screed line flanges extending outwardly beyond said space flanges along the ceiling on opposite sides of said track and terminating in downwardly inclined edges;

vertical rigid wall supporting means having its upper and lower edges nested between and retained by said spaced flanges of said ceiling and floor tracks, respectively; and

a plaster wall coating applied to the opposite faces of said wall supporting means and extending upwardly and downwardly to said screed line flanges of said ceiling and floor tracks, respectively;

whereby the plaster portion of said wall is firmly but resiliently connected between the floor and ceiling and is spaced away from both the floor and ceiling surfaces by said screed line flanges.

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