June 18, 1946. P. SATTERLEE 2,402,211

BUILDING CONSTRUCTION

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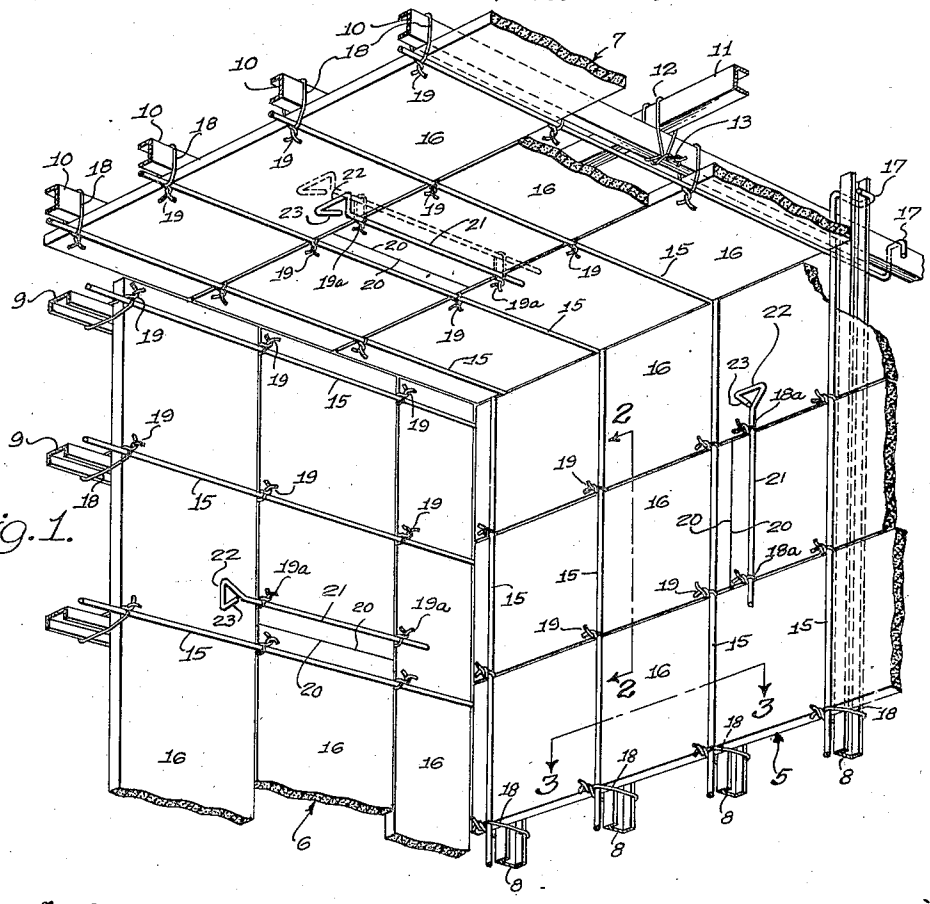


Fig. 1.

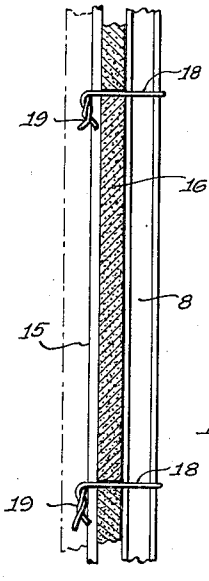


Fig. 2.

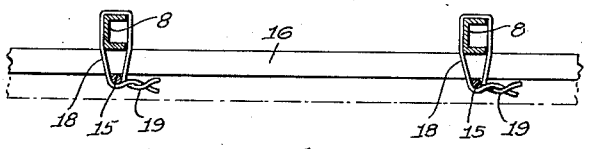


Fig. 3.

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BUILDING CONSTRUCTION

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4 Claims. (Cl. 72—118)

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The present invention relates to improvements in building construction, and more particularly to supporting means for cementitious slabs and the like used as lathing in interior building walls.

The primary object of the invention is to provide a unique lathing construction as a backing for plaster and the like which may be easily and quickly constructed by unskilled labor without sacrificing the rigidity of the completed wall structure after the plaster has been applied thereto, whereby cracking of the plaster will be prevented to a large extent and a wall structure will be constructed possessing great strength and durability.

Another object of the invention is to provide a novel lath construction as a backing for plaster walls in which a plurality of cementitious lath boards are secured in position on the walls and ceiling of the building construction by longitudinally extending retaining rods disposed transversely of the length of said boards on both sides thereof so as to hold said cementitious lath slabs in edge to edge and end to end alignment.

Another object of the invention is to provide a lathing construction for building walls in which a series of cementitious lath slabs are held in position by a plurality of transversely extending retaining rods disposed on one side of said slabs so that they may be tied to supporting frame members of the building construction and thereby securely retain the slabs in edge to edge and end to end alignment as well as to the building framework or other structural supporting members.

Another object of the invention resides in providing a lathing construction for building walls and ceilings which is composed of longitudinal cementitious lath slabs which may be assembled progressively by a single unskilled laborer from one side of the wall structure thereby reducing the construction costs and increasing building production.

Another object of the invention is to provide a retaining rod for holding cementitious lath boards and slabs in position with hooked end portions to facilitate the initial positioning of said rods to partially retain certain of said cementitious lath slabs in position before the tying elements are passed around the building framework structure and tied to said rods from the outer side of the wall structure.

Another object of the invention is to provide a series of relatively short retaining rods or bars

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for securing the ends of the cementitious lath boards or slabs in various locations adjacent the retaining rod and to provide said short retaining rods with enlarged head portions to prevent the same from being displaced longitudinally when arranged in the vertical position.

Other objects and advantages of the invention will become apparent during the course of the following description of the accompanying drawing, wherein:

Figure 1 is a perspective view of the corner of an interior building wall structure illustrating an embodiment of the invention and showing the walls and structural members broken away to illustrate the manner in which the cementitious lath slabs are anchored in position by the retaining rods and tying elements;

Figure 2 is a vertical cross-sectional view taken on line 2—2 of Figure 1 looking in the direction of the arrows and showing the manner in which the cementitious lath boards or slabs are held in position between the structural building elements and the retaining rods with the tying elements extending about said structural cementitious lath slabs or boards; and

Figure 3 is a cross-sectional view similar to Figure 2 at right angles thereto taken on the line 3—3 of Figure 1 and looking in the direction of the arrows to further illustrate the manner in which the retaining rods are tied to the structural building elements so as to securely clamp and retain the cementitious lath boards or slabs in position.

In the drawing, attention is first directed to Figure 1 in which the reference character 5 will generally be employed to represent a vertical wall constructed in accordance with the present invention connected to a right angular wall 6 at the vertical edges thereof and a ceiling wall structure extends above the edges of the walls 5 and 6 and is generally indicated by the reference character 7.

In the construction of wall surfaces for supporting plaster a series of so-called plasterer's channels are provided to which the lath board is affixed so that all of the surfaces thereof will be flush and present a smooth base for receiving the plaster. In the present invention, the plasterer's channels or structural elements 8 are arranged vertically for a wall structure 5 and the channels or structural elements 9 are arranged horizontally for the wall structure 6. The ceiling is also provided with a series of spaced structural channel members 10 which are supported by structural channel members 11 extending trans-

versely thereof with the ends supported on horizontal channel beams similar to the channel beams 9 and in order to tie the plasterer's channel members 10 to the structural channel members 11, wire tying elements 12 are passed thereabout so that the ends may be twisted together as at 13. The vertical and horizontal plasterer's channel bars 8 and 9 may be supported from the framework structure of the building in the usual manner.

The invention comprises the positioning of a series of anchoring rods 15 as shown in Figure 1 so as to extend transversely of strips of cementitious lath board or slabs 16 so that the rods extend transversely thereof to securely clamp the cementitious lath boards and slabs 16 to the plasterer's channel beams 8, 9 and 10. The ends of the anchoring rods 15 are provided with laterally extending hooked portions 17 which are adapted to be hooked over the plasterer's channel beams 8, 9 and 10 so as to retain said anchoring rods 15 in place.

In constructing a wall for the reception of plaster or the like, a few of the rods 15 are placed in position so that the courses of cementitious lath boards or slabs 16 may be slid endwise under said rods as the building progresses. After one of the cementitious lath boards or slabs has been placed in position against the plasterer's channel members 8, 9 and 10, wire tying elements 18 are passed around the plasterer's channel members and brought forwardly so as to tie in the rods 15 by twisting the ends of said tying elements thereabout as at 19.

In order to retain the meeting edges of said cementitious lath boards or slabs in position, where the edges as at 20 fall in various locations so as not to be fully retained by the longitudinal retaining rod 15, a series of relatively short retaining rods 21 may be provided so that they may extend transversely of the cementitious lath boards or slabs and be held in position by tying elements 18a which are fastened in place in substantially the same manner as the tying elements 18 and extend about the plasterer's channel beams 9 so that the free ends may be tied by twisting as at 19a about the relatively short rods 21. In order to prevent the relatively short rods 21 from sliding longitudinally and being displaced when arranged in a vertical position as shown in Figure 1 on the wall surface 5, one end thereof is bent as at 22 so as to be return bent as at 23 and form a triangular-shaped head portion or obstruction larger in size than the loop of the tying elements 18a. As shown in Figure 1, the relatively short anchoring rods 21 may be used in the vertical wall portions 5 and 6 where the longitudinal slabs are laid in horizontal and vertical courses, or if desired, they may be used in the ceiling structure 7 at certain locations where the meeting edges of the slabs 20 do not fall or locate at a point directly intermediate the spaces between the anchoring rods 15.

The tying elements 18 extend between the longitudinal edges of the cementitious lath boards or slabs and securely anchor the lath boards or slabs in position against the plasterer's channel members 8, 9 and 10.

It will readily be seen that the workman may construct a wall from one side thereof with facility and ease by simply positioning certain anchoring rods 15 to provide a starting point for supporting the initial lath boards or slabs so that after one lath board or slab has been placed in position and tied or affixed to the plasterer's

channel beams by the tying elements 18, the next board may be slid in place longitudinally between the plasterer's channel members 8, 9 and 10 and likewise secured or locked in place by passing the tying elements 18 around the plasterer's channel members and twisting the ends thereof over the anchoring rods 15. It has been found that ceiling structure may be conveniently built up by first placing various anchoring rods 15 in position by hooking the ends 17 over the plasterer's channel beams 10 so that the lath board or slab 16 may be inserted between the plasterer's channel beams and anchoring bars and partially supported prior to the tying in of the tying elements 18. Hence, it is only necessary for the workmen to slide the boards into position and then, while partially supported by the anchoring bars 15, to insert the tying elements 18 so that another lath board or slab 16 may be positioned adjacent thereto and likewise tied in by the tying elements 18.

After the lath boards or slabs have thus been positioned, the meeting edges 20 may be tied down by the relatively short anchoring rods 21 at various locations in which the length of the lath board or slab is insufficient to bridge half of the distance between the longitudinal anchoring rods 15. After the structure is completed, a coating of plaster is applied thereto in the usual manner, which is securely anchored in place by reason of the high degree of adhesion between the cementitious lath boards or slabs and the constituents of the plaster. The anchoring rods 15 and 21 form reinforcing elements to additionally anchor the plaster and eliminate to a large extent cracking thereof through settling of the wall structure and vibration.

It will thus be seen that a wall structure is provided which is both fireproof and sound proof as well as being non-heat conducting so as to exclude heat and cold from the interior of a building room.

It will be understood that the form of the invention herewith shown and described is to be taken as a preferred embodiment of the same and that various changes may be made in the shape, size and arrangement of parts without departing from the spirit of the invention or the scope of the subjoined claims.

What I claim is:

1. A building construction, comprising a series of structural members arranged to form a skeleton framework for a room of a building, a plurality of cementitious lath slabs arranged transversely of said structural members adapted to be held against said structural members to provide a plaster receiving surface for said room, said structural members being arranged in spaced parallel relation, a series of anchoring rods extending transversely of said lath slabs and parallel with said structural members and having length exceeding the widths of a plurality of such slabs, and tying elements comprising flexible members looped around said structural members and between the longitudinal meeting edges of said lath slabs and tied around said anchoring rods.

2. A building construction, comprising a series of structural members arranged to form a skeleton framework for a room of a building, a plurality of cementitious lath slabs arranged transversely of said structural members adapted to be held against said structural members to provide a plaster receiving surface for said room, said structural members being arranged in spaced parallel relation, a series of anchoring rods extending

transversely of said lath slabs and parallel with said structural members and having lengths exceeding the widths of a plurality of such slabs, and tying elements comprising flexible members looped around said structural members and between the longitudinal meeting edges of said lath slabs and tied around said anchoring rods, said anchoring rods being provided at one end thereof with hooked end portions adapted to be fastened over the structural members to initially support the lath slabs during the building of said wall surface.

3. A building construction, comprising a series of structural members arranged to form a skeleton framework for a room of a building, a plurality of cementitious lath slabs adapted to be held against said structural elements to provide a plaster receiving surface for said room, said structural elements being arranged in spaced parallel relation, a series of anchoring rods extending transversely of said lath slabs and parallel with said structural members, tying elements extending about said structural members and between the longitudinal meeting edges of said lath slabs for being tied to said anchoring rods, a series of relatively short anchoring rods adapted to extend transversely of the lath slabs on both sides thereof at locations where the ends of said slabs break a considerable distance from said first-mentioned

anchoring rods, and tying elements extending between the longitudinal edges of said slabs for tying adjacent pairs of said short rods on the back and front of said slabs together.

4. A building construction, comprising a series of structural members arranged to form a skeleton framework for a room of a building, a plurality of cementitious lath slabs adapted to be held against said structural elements to provide a plaster receiving surface for said room, said structural elements being arranged in spaced parallel relation, a series of anchoring rods extending transversely of said lath slabs and parallel with said structural members, tying elements extending about said structural members and between the longitudinal meeting edges of said lath slabs for being tied to said anchoring rods, said anchoring rods being provided with hooked end portions to be affixed to said structural members outside of the confines of said room, a series of relatively short anchoring rods adapted to extend transversely of the lath slabs on both sides thereof at locations where the ends of said slabs break a considerable distance from said first-mentioned anchoring rods, and tying elements extending between the longitudinal edges of said slabs for tying adjacent pairs of said short rods on the back and front of said slabs together.

PERCY SATTERLEE.