

Dec. 26, 1944.

W. G. HITCHINS

2,366,109

WALL AND PARTITION FOR BUILDINGS

Filed Oct. 29, 1942

2 Sheets-Sheet 1

FIG. 1.

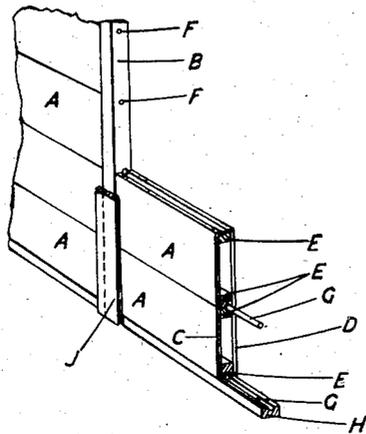


FIG. 2.

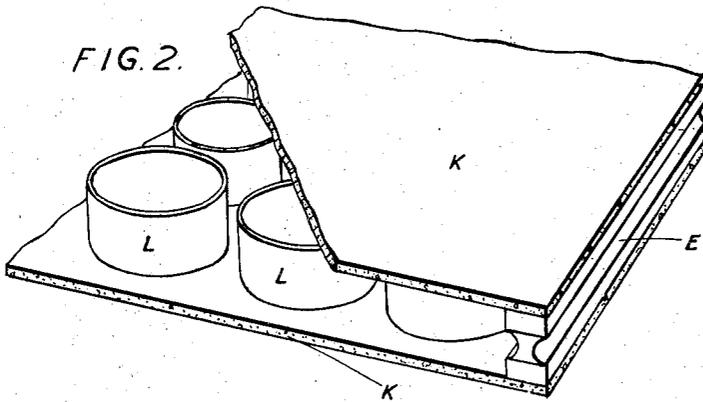


FIG. 3.

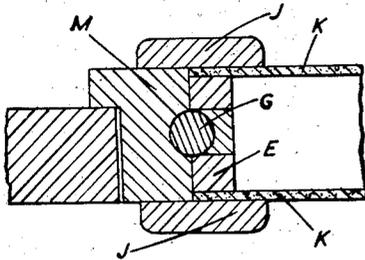
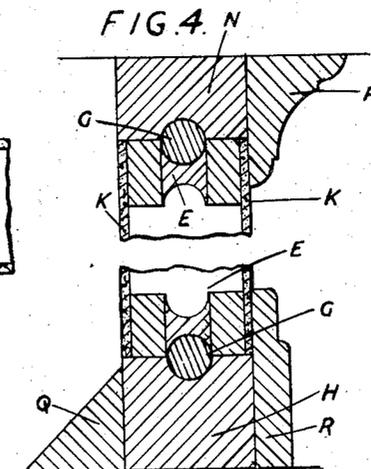


FIG. 4.



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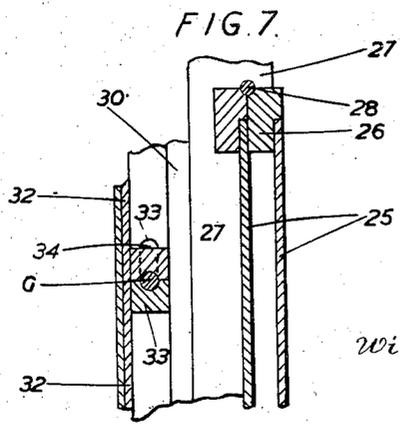
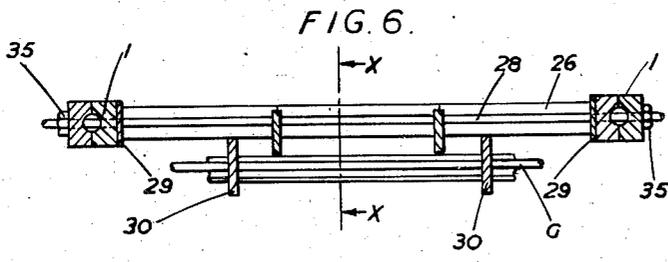
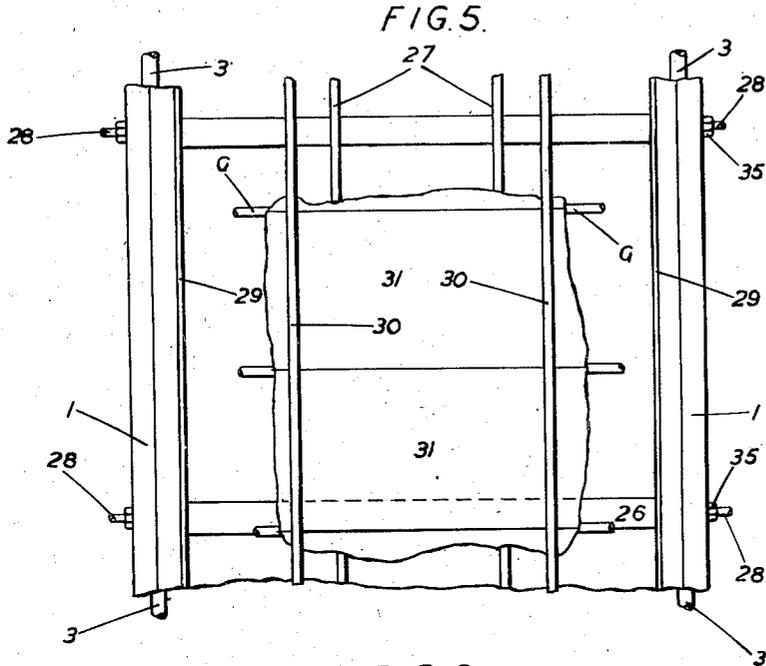
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WALL AND PARTITION FOR BUILDINGS

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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WALL AND PARTITION FOR BUILDINGS

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Application October 29, 1942, Serial No. 463,789
In Great Britain October 22, 1941

2 Claims. (Cl. 20-4)

This invention relates to walls and partitions for buildings and is directed towards the construction of walls and partitions for buildings at low cost and greater speed than is possible in building by traditional methods.

The primary object of this invention is to provide walls and partitions between posts or other frame members having holes in the faces therein at intervals by the use of slabs having grooves at both sides, dowel bars being arranged in the grooves between adjacent slabs and projecting into the holes in the frame members.

Another object is to provide such dowel bars aforesaid slightly longer than the distances between the faces of frame members so that they be inserted in position by deflecting them and snapping the ends into the holes in the frame members.

The partitions may be in the form of vertical partitions to form rooms or horizontal partitions such as floors or ceilings.

With the above and other objects in view the invention consists in the novel combination and processes set out in the claims which follow.

In the accompanying drawings which illustrate the invention in a diagrammatic manner, Fig. 1 shows in perspective a portion of an external wall of a building constructed in one manner according to the invention.

Fig. 2 shows in perspective a portion of an internal partition.

Fig. 3 shows in vertical section the connection of a partition to a door frame.

Fig. 4 shows a broken vertical section through an internal partition.

Fig. 5 shows an elevation, viewed from inside the building, of an external slab wall with separate internal and external slabs.

Fig. 6 is a sectional plan view of the structure shown in Fig. 5.

Fig. 7 is part of a vertical section, to enlarged scale taken upon the line XX of Fig. 6.

Referring first to Fig. 1 of the drawings the wall consists of hollow slabs A arranged between vertical frame members or posts B. The slabs consist of inner and outer sheets C, D respectively of suitable material such as asbestos cement for the sheets C and plaster board for the sheets D connected to timber frame members E grooved at top and bottom.

The posts B have shallow blind holes F in the sides thereof at spaced intervals. Dowel rods G are housed in the grooves in the members E of the slabs A. These dowel rods G are slightly longer than the distance between the posts B and are

of timber or like material which can be bent sufficiently to enable them to be snapped into the blind holes F in the posts B or to be inserted in any other manner.

5 The bottom slabs rest upon a timber plate H resting upon the floor or concrete surface.

The vertical joints between the slabs and posts and intermediate slabs are made weatherproof by cover fillets J.

10 Referring next to Figs. 2-4 the internal partitions consist of plaster board sheets K secured to timber grooved frame members E and stiffened by rings L made from waste wood veneer. The rings L are arranged between the sheets K and are secured thereto.

15 The frame members E of the slabs A present grooves on all four sides respectively of the slabs so that dowel rods G can be used for vertical connection to door frames M Fig. 3 and also to vertical post members as previously described for the external wall.

Fig. 3 shows cover slips J for the joints between the slabs and door frames.

Fig. 4 shows a bottom plate H, a corresponding top plate N, a cornice P and skirtings Q, R.

25 Referring now to Figs. 5 to 7, inclusive, it will be apparent the outer wall slabs each consist of inner and outer sheets 25 of asbestos cement secured to horizontal timber frame members 26. The outer wall slabs are clamped between intermediate vertical members 27 of asbestos cement and vertical posts I by rods 28. These rods 28 extend through the members 27 and the timber and tubular steel cores 3 of posts I. The rods 28 are also disposed in grooves in contiguous slabs. Clamping nuts 35 on the ends of the rods 28 bear on the posts I to hold the rods and slabs in place. Asbestos cement strips 29 are interposed between posts I and the members 26 of adjacent slabs.

30 The inner wall is constructed of slabs 31 having panels or sheets 32 of plaster board covered with finishing material, such as wood veneer for the inner surface. The sheets 32 are secured to grooved frames 33 of wood. Dowel rods G of wood or other material pass through vertical timber battens 30 secured at intervals to the frame members 26 of the outer slabs. The rods G extend through slot shaped holes 34 in the battens 30. These holes enable the slabs to be joggled in place since the holes provide a certain amount of play. Thus the assembling of the slabs is facilitated.

I claim:

1. A panel wall for a building comprising posts having holes in the sides thereof, external slabs

each having grooves in its upper and lower end surfaces respectively, each slab including inner and outer sheets in spaced relation to each other dowel bars extending through said holes in the posts and each disposed in the grooves in contiguous slabs, vertical battens, internal slabs each having grooves in its upper and lower end surfaces respectively, and additional dowel bars disposed in the grooves in the contiguous internal slabs and also extending through said battens.

2. A building structure including vertical and horizontal frame members arranged in rectangular relation, outer and inner wall slabs each having grooves in its upper and lower end surfaces

respectively, outer battens arranged in spaced relation with respect to each other and with respect to the vertical frame members between the latter, said outer wall slabs being arranged in the spaces respectively defined by said frame and battens in contact therewith, rods extending through said vertical frame and battens and each rod also disposed in the grooves in contiguous slabs, inner vertical battens laid against said horizontal frame members and disposed between adjacent inner wall slabs, and additional rods disposed in the grooves in contiguous inner wall slabs and also extending through said inner slabs.

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