Feb. 28, 1933. J. BALI ET AL 1,899,450

BUILDING CONSTRUCTION

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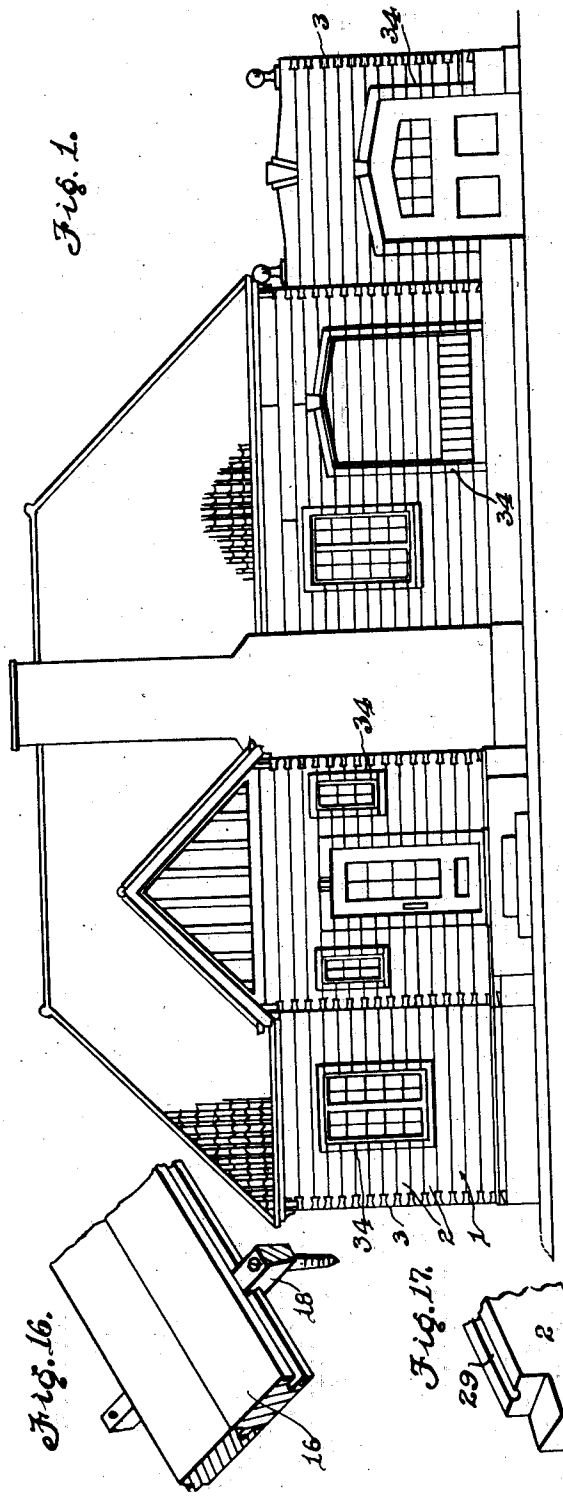


Fig. 1.

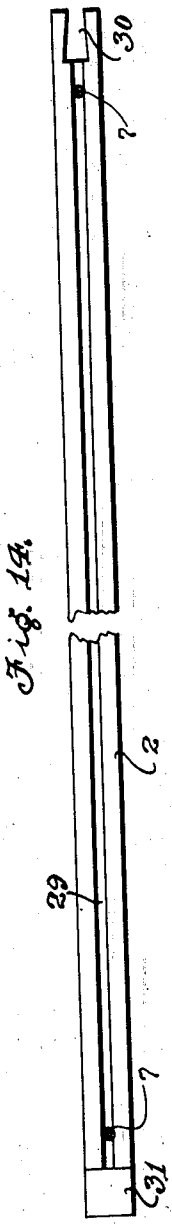


Fig. 14.

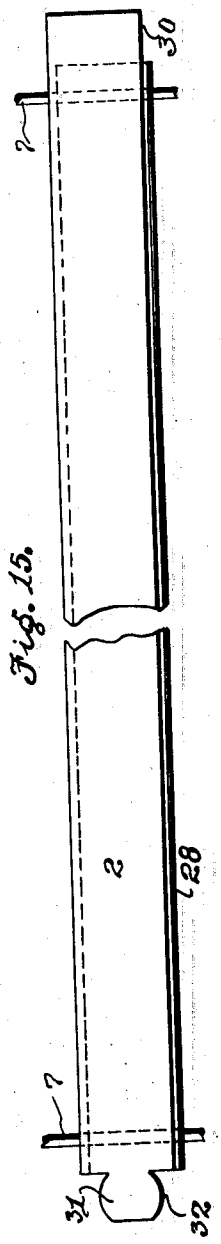


Fig. 15.

Fig. 17.

Fig. 16.

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Fig. 2.

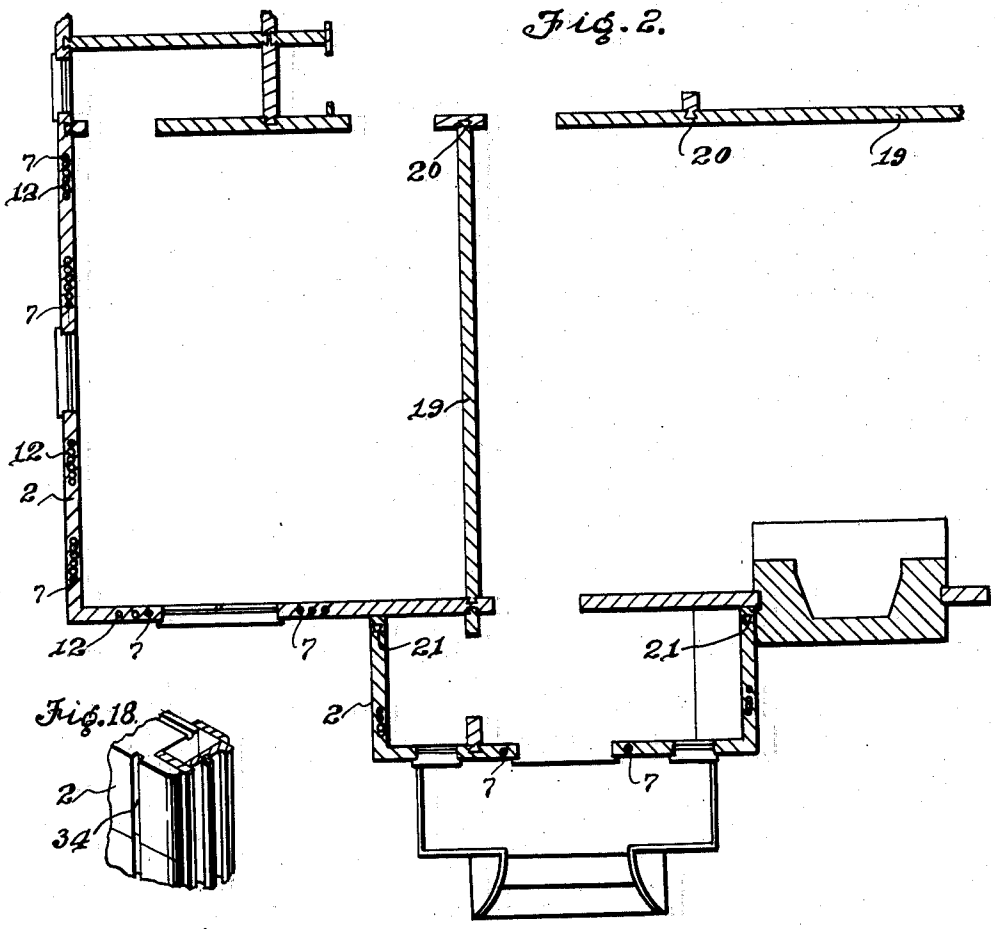


Fig. 18.

Fig. 11.

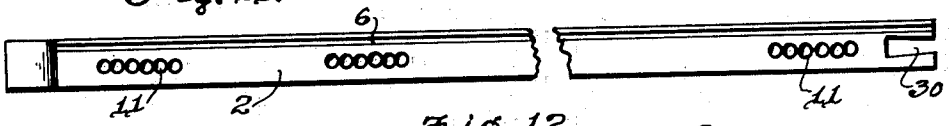


Fig. 12.

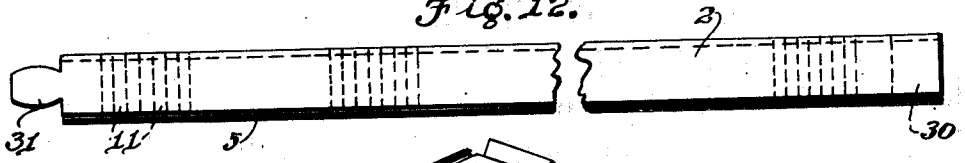
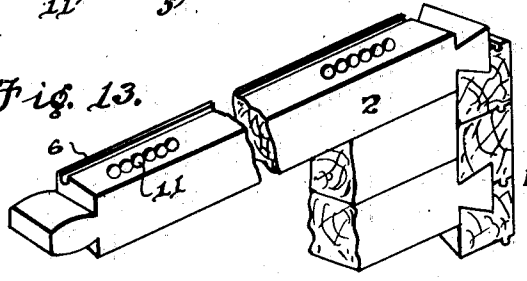


Fig. 13.



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BUILDING CONSTRUCTION

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Fig. 3.

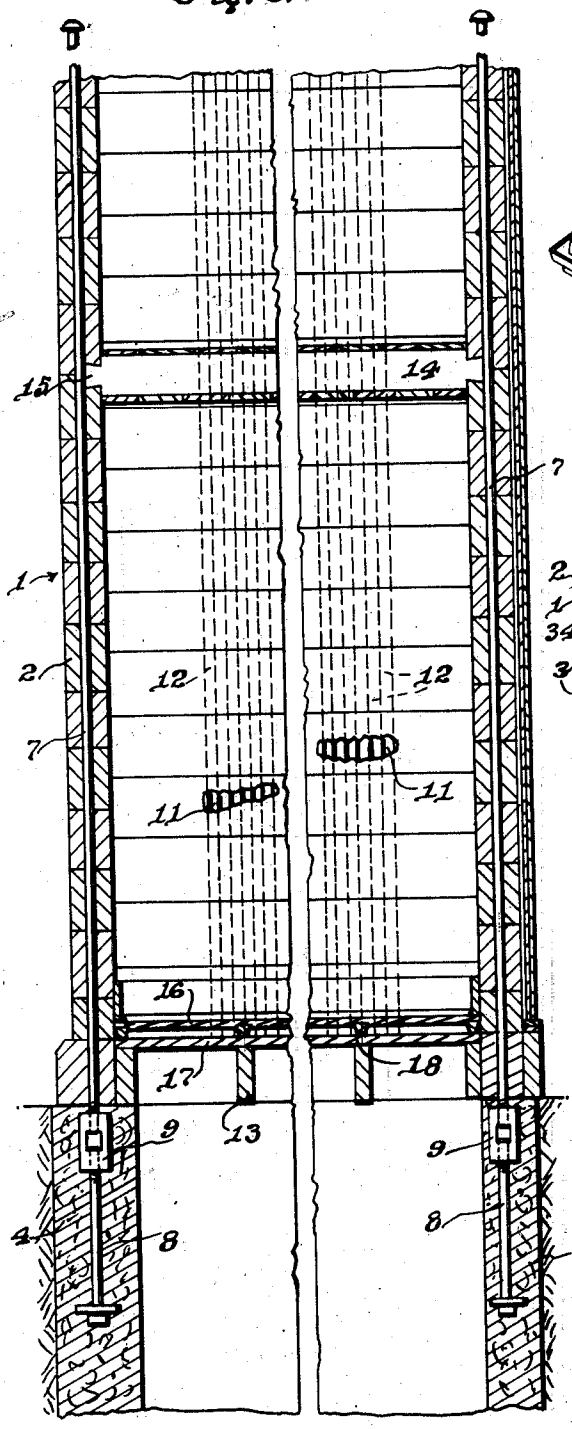
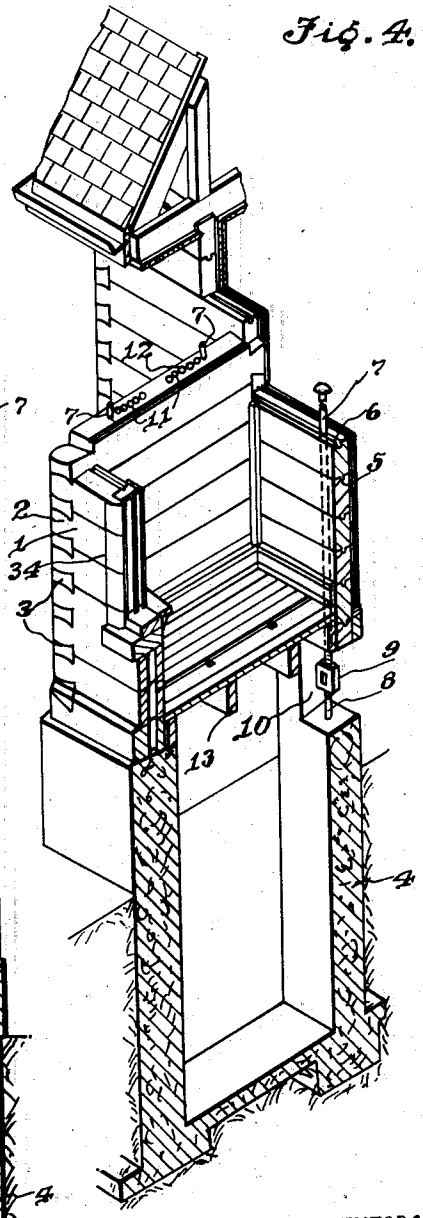


Fig. 4.



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Fig. 5.

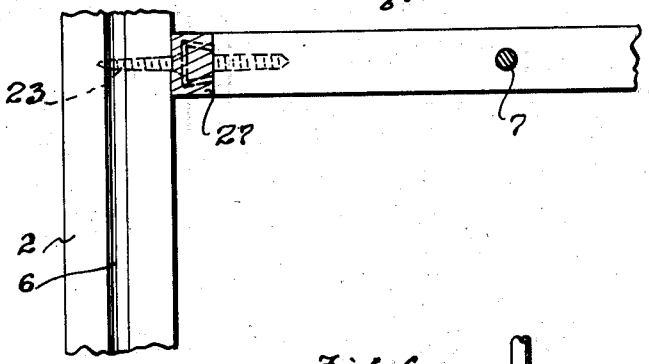


Fig. 7.

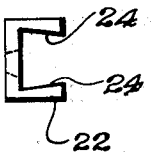


Fig. 6.

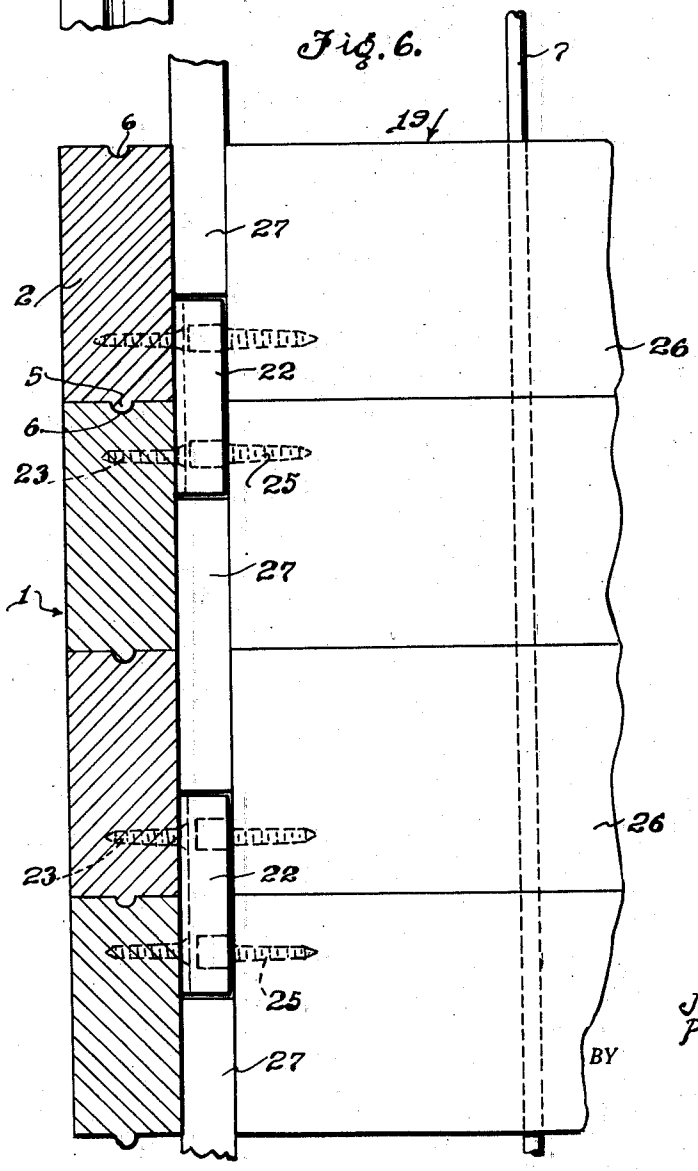


Fig. 8.

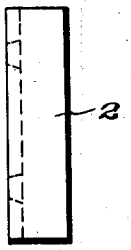


Fig. 9.

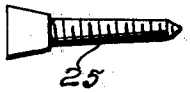
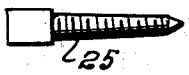


Fig. 10.



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UNITED STATES PATENT OFFICE

JOHN BALI AND PETAR KOTUR, OF GARY, INDIANA

BUILDING CONSTRUCTION

Application filed December 24, 1931. Serial No. 583,109.

This invention relates to buildings.

The main object of the invention is to provide a frame building which can easily and quickly be constructed.

Another object of this invention is to provide a building which can be quickly put together by unskilled labor and which is cyclone and weather proof.

A further object of the invention is to provide novel means to anchor the superstructure of the building to the foundation.

A further object of the invention is to provide locking means to anchor the partitions to the outside walls.

Another object of the invention is to make the building dampproof by providing a series of vertically bored holes in the exterior walls.

A still further object of the invention is to dovetail the timbers at the corners so as to make a strong and rigid structure.

Other objects will appear as the disclosure progresses. The drawings are intended to merely indicate a possible embodiment of the invention. It is obvious that the actual needs of manufacture may necessitate certain mechanical changes. It is therefore not intended to limit the invention to the embodiment illustrated but rather to define such limits in the appended claims. For a more general understanding of the invention attention is called to the drawings. In these drawings like reference characters denote like parts throughout the specification.

In the drawings:

Figure 1 is a front elevation of the building.

Figure 2 is a partial plan view thereof.

Figure 3 a longitudinal section of part of the building.

Figure 4 is an isometric view of a portion of the building.

Figure 5 is a top view partly in section showing the means to tie a cross partition to the main wall of the building.

Figure 6 is a side view thereof, the main outside wall being shown in section.

Figure 7 is a top view of the corner locking shoe.

Figure 8 is a side view thereof.

Figure 9 is a view of the screws used in association with the locking wedge.

Figure 10 is a side view thereof.

Figure 11 is a top view of one form of the timber used in the outer wall.

Figure 12 is a side view thereof.

Figure 13 is an isometric view showing the timbers dovetailed together at the corners.

Figure 14 is a top view of a modified form of the timbers used in the outer walls showing the tie rods passing through.

Figure 15 is a side view thereof.

Figure 16 is a detail showing the floor construction.

Figure 17 is a detail showing one of the dovetailed ends of the timbers.

Figure 18 is a detail showing the groove around the openings for simulating trim work.

Referring now to the drawings in detail, numeral 1 designates the outer walls of the building consisting of timbers 2 dovetailed together at the corners 3 and supported on the foundation 4. The timbers are provided with tongues and grooves 5 and 6 so they can fit together and make an airtight joint. Means are provided to tie the outer walls to the foundation. Such means consists of passing a set of tie rods 7 through the assembly of timbers which make up the outer wall as best seen in Figure 3 and anchoring the structure to the foundation. Number 8 designates the anchoring rod embedded in the foundation and 9 the turnbuckle for adjusting the tension of the tie rods. When the foundation which is preferably made of concrete is formed, a space 10 is left open around the turnbuckles as shown in Figure 4 so they can be adjusted. After adjustment the space is of course filled up.

The outer walls are provided with a series of air spaces to prevent dampness of the rooms which consists of holes 11 drilled through the timbers 2 and registering with each other forming vertical air conduits 12. The conduits 12 may also be used for retaining the tie rods 7 shown in Figure 4. Numerals 13 and 14 designate the first and second floor beams. The first floor beams are supported by the foundation 4 and the sec-

ond floor beams are dovetailed into the outer wall timbers 1 as at 15. On top of the first floor beams is laid a double floor 16 and 17 separated by spacers 18.

The interior partitions 19 are fastened to each other or to the outer walls by dovetailing the ends as shown at 20 in Figure 2. Also the partitions can be fastened to each other or to the outer walls as at 21 by the means best shown in Figure 6. Such means consists of a series of metallic shoes 22 fastened to the outer walls 1 by the screws 23. The shoes are U-shaped in cross section with the interior of the opposite walls 24 tapered to hold the tapered head of the screws 25 which are screwed to the interior partition timbers 26. Between the shoes are filler blocks 27. In assembling the structure, the shoes are first attached to the outer wall by the screws 23. Next the partition timbers 26 with the screws 25 attached are placed edge on edge and at the same time the tapered heads of the screws 25 passed into the interior of the shoes 22. This will firmly lock the outer wall and inner partition together and make a strong, rigid structure. The last step is to insert the filler pieces 27 thus completely filling out the partition.

In Figures 14 and 15 is shown a modified form of the timbers in which the tongue and grooves 28 and 29 are in the center instead of near the edge as shown in Figures 11 and 12. Numeral 30 designates the mortise end of the timbers and 31 the tenon end. The tenon end of the timbers are provided with outward curves as at 32 which fits the curvature of the attaching mortise ends of the co-operating timbers. This type of joint is used at the corners to give a pleasing architectural effect. The mortise 30 is of the usual wedge shaped type and is used to join the ends of the timbers with the co-operating tenon of the adjoining timber when building up straight walls. The plain wedge shaped tenon 33 shown in Figure 17 is used for the corners of the building which is not visible from the street such as the rear.

Around the windows or other openings are nitches 34 cut in the timbers, as best seen in Figure 18, for the purpose of giving said openings an effect of being finished with trim. Thus an expensive item of construction can be eliminated without detracting from the appearance of the structure. With this type of construction the usual studs, nailing and plastering can be eliminated. It has been found in actual practice that the time needed to construct the building is about one half as much as the usual type building of this kind. Also a saving of 40% in heating expenses can be had.

Having described our invention, we claim:

1. A wall joint in a building structure comprising in combination with an outer wall consisting of a series of tiered timbers with abutting edges and a partition wall consisting of a series of tiered timbers with abutting edges, a series of longitudinally alined shoes applied to the inner surfaces of the timbers of the outer wall, said shoes being spaced longitudinally from each other, each shoe bridging the abutting edges of adjacent timbers in the outer wall section, means attaching the shoes to the abutting wall timbers, headed members carried at the ends of the partition wall timbers, said shoes adapted to slidably receive the heads of said members and filler blocks interposed in the spaces between the ends of the adjacent shoes and disposed between the ends of the partition wall timbers and the inner surfaces of the outer wall timbers.

2. A wall joint in a building structure comprising in combination with an outer wall consisting of a series of tiered timbers with abutting edges and a partition wall consisting of a series of tiered timbers with abutting edges, a series of longitudinally alined shoes applied to the inner surfaces of the timbers of the outer wall, said shoes being spaced longitudinally from each other, each shoe bridging the abutting edges of adjacent timbers in the outer wall, means attaching the shoes to the abutting wall timbers, headed members carried at the ends of the partition wall timbers, said shoes adapted to slidably receive the heads of said members, filler blocks interposed in the spaces between the ends of the adjacent shoes and disposed between the ends of the partition wall timbers and the inner surfaces of the outer wall timbers and means for drawing the abutting edges of the partition wall timbers in close contact with each other.

In testimony whereof we affix our signatures.

JOHN BALI.
PETAR KOTUR.