Feb. 18, 1941. C. W. BUCKHAM 2,232,510

BUILDING STRUCTURE

Filed May 6, 1939

Fig. 1.

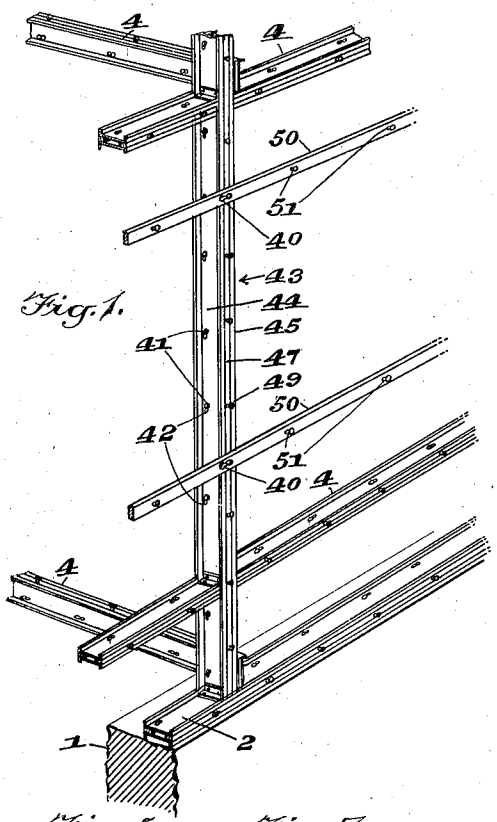


Fig. 2.

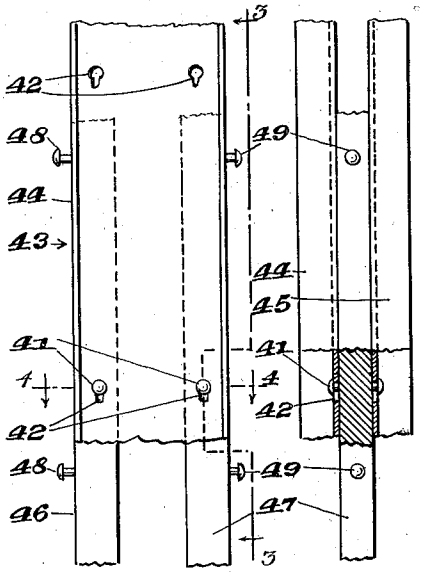


Fig. 3.

Fig. 4.

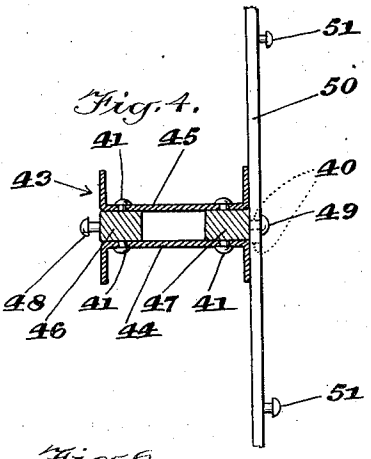


Fig. 5.

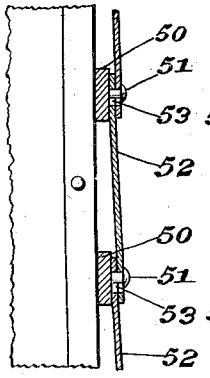


Fig. 7.

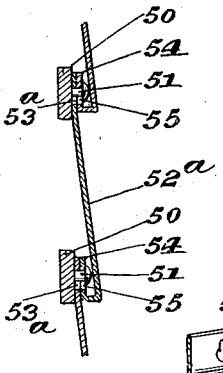
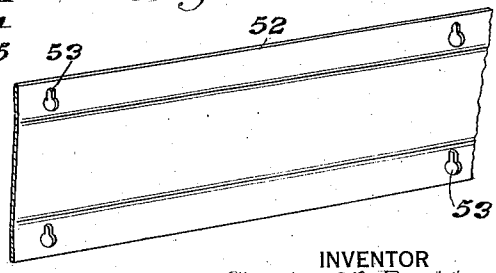


Fig. 6.



WITNESSES

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Patented Feb. 18, 1941

2,232,510

UNITED STATES PATENT OFFICE

2,232,510

BUILDING STRUCTURE

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Application May 6, 1939, Serial No. 272,104

2 Claims. (Cl. 189—88)

This invention relates to building structures and has for an object to provide an improved formation of building units which may be readily assembled and if desired disassembled.

Another object of the invention is to provide a building structure including beams formed of either one piece or a plurality of pieces and provided with interlocking stems and heads for holding side plates in functioning position.

A further object of the invention is to provide a building structure in which there are provided supporting means and uprights and other framework formed with headed members coacting with slotted panel members, clapboard, and the like.

A still further object is to provide beams and covering for not only the side walls but also the floor and roof.

In the accompanying drawing—

Fig. 1 is a perspective view showing part of the framework of a building embodying certain features of the invention;

Figure 2 is a fragmentary elevation of one of the upright beams.

Figure 3 is a partially elevational and sectional view of said beam as seen on the line 3—3 of Fig. 2.

Figure 4 is a horizontal section taken on the line 4—4 of Fig. 2.

Figure 5 is a partially sectional and elevational view of a wall construction showing clapboards connected with the fastening strips.

Figure 6 is a perspective view of one of the clapboards shown in Fig. 5.

Figure 7 is a sectional view showing a modified form of clapboard attached to the fastening strips.

Referring to the accompanying drawing by numerals, 1 indicates a foundation of any desired kind on which a beam 2 is mounted. This beam is typical of the major beams of the ultimate framework, the latter including a system of horizontal beams or floor joists 4. Said horizontal beams or joists depend for their immediate support upon upright beams 43 of which only one is shown. All of the beams or joists are identical in construction and are connected together to compose the foregoing framework and for receiving the floor, roof, and side panels of the respective walls inside or outside or both.

It will be understood that any desired kind of building may be erected by use of the framework and side paneling, as the shape and use of the building are not of importance as far as the present invention is concerned. The construction of the various beams and panels and the way they interlock constitutes the invention.

The upright beam 43 to which specific reference is made, is constructed identically with the horizontal beams or joists and consists of channel irons 44 and 45 and retaining bars 46 and 47. The connection of the retaining bars and channel irons is made by means of headed members 41 on the former (Fig. 2) and keyhole slots 42 in the latter.

To the retaining bars are attached fastening strips 50 which may be used on each edge of the beam 43 although in the drawing only one edge is utilized for the attachment of the fastening strips. These fastening strips are provided with keyhole slots 49 so as to interlock with headed members 48, 49, projecting from the retaining bars 46, 47, the headed members 49 of the outermost retaining bar 47 being chosen in the instant illustration.

These fastening strips are provided with headed members 51 arranged at spaced intervals so as to receive plates which may be the clapboards 52 with overlapping edges (Fig. 6) as shown in Fig. 5. Said edges are equipped with keyhole slots 53 to fit upon the headed members 51. The fastening strips 50 and the plates may be arranged vertically when required, in which event the fastening strips are attached to selected ones of the joists 4, remembering that these are the equivalents of the beams 43.

Any desired width of clapboards may be employed, the respective headed members 51 being sufficiently long to receive two boards in overlapping relationship at one time. The headed members 48, 49 and 51 may be connected to the respective retaining bars 46, 47 and strips 50 in any desired way, but preferably by welding.

Fig. 7 illustrates a modification of clapboard 52*a* wherein the keyhole slots 53*a* along the upper margins agree in position with the keyhole slots 53 along the upper margins of the clapboards 52. But in the modification the bottom margins of the clapboards are made with return bends 54 in which matching keyhole slots 55 are formed. These clapboards are emplaced upon the headed members 51 in marginally overlapped relationship but the return bends 54 afford a sequestration of the slots and headed members so that inseepage of water is prevented.

In forming the framework as shown in Fig. 1, preferably the large end of the keyhole slots is arranged upwardly so that the weight of the respective parts will assist in retaining the headed members in the small part of the slots. Where

the beams are arranged horizontally the headed members may be upset with a hammer to make sure that there is a tight fit. Also this same method may be used when the beams are vertical though it is not normally necessary.

After the parts have been assembled into a building or part of a building, the workmen could, if desired, readily disassemble the structure by reason of the shape of the key-hole slots and the headed members. This disassembling can be carried out without any appreciable injury to the various parts and then the parts could be reassembled into a new building if desired.

While the construction is primarily intended for a one-story building, it is readily evident that it could be used for a two-story or even taller building without departing from the spirit of the invention.

The slot called a key-hole slot may be of the conventional shape or may be any desired shape provided one end is larger than the other.

While I have illustrated and described the preferred form, construction, and arrangement of the several elements employed, it will be understood that the device is, nevertheless, susceptible of some modification thereof and I, therefore, reserve the right and privilege of resorting to all changes as may be fairly embodied within the spirit and scope of the invention as claimed.

I claim:

1. A building structure including an I-beam formed with a pair of retaining bars, a channel iron connected to each face of the respective retaining bars, the respective retaining bars having rows of oppositely extending headed members, a fastening strip having a tapering slot therein adapted to accommodate one of said headed members, said fastening strip having headed members on one face thereof, and clapboards having tapering slots for accommodating the last-mentioned headed members.

2. In a building structure, a beam formed from a pair of retaining bars, each bar having a row of headed members on opposite edges and a row of headed members on one side, a pair of beam strips having keyhole openings therein through which the first-mentioned rows of headed members extend, a fastening strip having a tapering slot therein adapted to accommodate one of said headed members, said fastening strip being at right angles to the aforesaid beam strips and formed with a plurality of headed members, and siding plates provided with tapering slots for receiving the headed members on said fastening strip, said siding plates coacting with the headed members on said strip for forming interlocking means for interlocking the plates vertically and horizontally with the beam.

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