This invention relates in general to houses and, more particularly, to certain new and useful improvements in the construction of pre-fabricated houses.

The primary object of this invention is to provide a pre-fabricated house which is adapted to be installed with equal facility upon ground-level foundations or over basement-forming foundation-walls.

It is a further object of the present invention to provide a pre-fabricated house comprised of a plurality of independently constructed sections which may be joined together in a unitary manner without requiring the services of skilled, high cost labor.

It is an additional object of the present invention to provide a pre-fabricated house which is economical in fabrication and installation, and which may be readily adapted to provide a variety of interior arrangements.

With the above and other objects in view, my invention resides in the novel features of form, construction, arrangement, and combination of parts presently described and pointed out in the claims.

In the accompanying drawings (three sheets)—Figure 1 is a perspective view of a pre-fabricated house constructed in accordance with and embodying the present invention; Figure 2 is a transverse sectional view taken along line 3—4 of Figure 1; Figure 3 is a plan view showing interior arrangement; Figure 4 is a fragmentary, enlarged sectional view illustrating connecting means between the upper portions of the sections; Figures 5 and 6 are transverse sectional views taken along lines 5—6 and 6—6 of Figure 4, respectively; Figure 7 is a transverse sectional view taken along line 7—7 of Figure 3; Figure 8 is a fragmentary sectional view showing means of installation upon an excavated foundation; Figure 9 is a transverse sectional view taken along line 9—9 of Figure 2; Figures 10 and 11 are transverse sectional views taken along lines 10—10 and 11—11, respectively, of Figure 9; Figure 12 is a fragmentary top plan view of the sill corner brace; Figure 13 is a fragmentary sectional view showing mounting of the lower portions of sections when installed upon an excavated foundation; and Figure 14 is a transverse sectional view taken along line 14—14 of Figure 12.

The invention will be more clearly understood from the following detailed description and by reference to the drawings, in which—

The drawings illustrate a particular embodiment of the present invention. A designation of the house of the pre-fabricated type comprises two substantially equalized sections 1, 2, which may be respectively considered normally front and normally rear sections. As will be shown more fully hereinafter, doors 19, 21 are independently constructed whereby the user has the option of utilizing either singly, as a dwelling, or both in combination to provide maximum living space. In this connection, it is particularly important to note that by virtue of the present invention it is possible to subdivide pre-fabricated houses into a plurality of readily combinable units, any one of which is a self-sufficient structure, and thus keeps the size of such units within permissible dimensional limit so that the units may be shipped by highway, truck-trailer, or by any similar transportation means.

Since the sections 1, 2, are substantially identical in basic construction, the construction of section 2 will be described for purposes of illustration. In its bottom portion, the section 2 is provided with a rectangular frame plate 3 having transverse or end members 4 and longitudinally extending members 5, 5′, which are beveled at their ends to form miter joints, as at 6. In parallel relation to the members 5, 5′, is a plurality of longitudinal supports 7 suitably affixed at their ends to the end members 4.

It is further noted that by virtue of the present invention it is possible to subdivide pre-fabricated houses into a plurality of readily combinable units, any one of which is a self-sufficient structure, and thus keeps the size of such units within permissible dimensional limit so that the units may be shipped by highway, truck-trailer, or by any similar transportation means.

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presented faces of the scantlings 25 and the upper horizontal stud 26 secured is an inner wall 31 of suitable wall board stock, the lower margin of which terminates a spaced upward from the flooring 22 to provide an opening 32 through which access is provided to the area between the walls 31 and the sub-walling 24 for purposes of repair or removal. Said opening 32 for facile removal is a sectioned base board 33 having an undercut 34 extending downwardly from the floor 22 in an upper lip 35 which obtains the line of abutment between said wall 31 and base board 33.

Mounted on the upper face of the projecting portion 11 of the section 10 is a frame stud 36 comprised of a plurality of spaced, parallel scantlings or uprights 37 secured at their lower ends, as by toe-nailing, upon the section 10 and having secured to their inwardly presented faces in downwardly spaced relation to their upper ends, a longitudinally extending stud 38. The scantlings 37 are of substantially greater height than the scantlings 25 of the stud 24 and hence project upwardly beyond the upper ends thereof. Nailed one of their ends to one side face of each of said scantlings 37 are transversely extending beams 39, the upper face of which abuts against the underface of the stud 24 (see Figures 2 and 9). At their opposite ends, the beams 39 are recessed, as for snug interfitting engagement with the stud 26 of the opposed stud 24 (see Figure 2). Supported by said recess on the face of the beams 39 is a ceiling 40, in lieu of any conventional ceiling material. Secured to the inwardly presented faces of the scantlings 37 between the ceiling 41 and the floor 22, in the same manner as to the upper ends of the beams 39, is a ceiling 42, or similar, provided a ceiling 43 is present. Thus, said section 1 is not in itself a complete dwelling unit, but is designed solely for annexation in a manner hereinafter shown, to the section 2 to provide enlarged and commodious living space. In this combined form the room 60 of section 1, herein utilized as a drawing or living room, thereby permitting the room 54 of section 2 to serve as a dining room, with the room 61 to be used as a bedroom.

The section 1 is of such dimensions that they may be easily transported by a truck trailer to the selected site of installation. It should furthermore be noted that the unique construction is adapted to enable the sections 1, 2, to be hauled, placed, and installed with little or no rough handling without coming apart or shifting out of true shape, and in addition to this, the sections 1, 2, are built up from a minimum number of different components so as to be readily adaptable to assembly-line construction methods.

At the site of installation, the owner or purchaser must provide a concrete or masonry foundation 63, provided adjacent its periphery with a plurality of spaced anchor bolts 64, the upper threaded ends of which project beyond the upper face of said foundation 63. Said anchor bolts 64 are preferably bent at their lower ends to provide transverse sections 64' normal to the vertical axis of the bolts 64, which augments the embedment of the bolts 64 within the foundation 63 (see Figure 7). The bolts 64, adjacent the peripheral portions of the foundation 63, are related to the end wall 51, 51', and side wall 52 of the sections 1, 2, extend through aligned apertures 65, 66, 67, 68, 69, 70, 71, 72, and thereby secure the studs 23, and sub-flooring 21, respectively, having their upper threaded ends projecting beyond the upper face of the studs 23. Engaged therein is a washer 68 and nut 69 (see Figures 6 and 8) for securing the section 1 to the foundation 63. As shown above, the removable character of the baseboards 33 permits ready access for engaging the washer 68 and nut 69 upon the bolt 64, upon the completion of which the bolt 64 is driven into the foundation 63. Thus, said section 1 is provided from the sub-flooring 21, as by nail or bolting to the upper ends of the bolts 64 and nut 69 upon the bolt 64, upon the completion of which the bolt 64 is driven into the foundation 63. As shown above, the removable character of the baseboards 33 permits ready access for engaging the washer 68 and nut 69 upon the bolt 64, upon the completion of which the bolt 64 is driven into the foundation 63. As shown above, the removable character of the baseboards 33 permits ready access for engaging the washer 68 and nut 69 upon the bolt 64, upon the completion of which the bolt 64 is driven into the foundation 63. As shown above, the removable character of the baseboards 33 permits ready access for engaging the washer 68 and nut 69 upon the bolt 64, upon the completion of which the bolt 64 is driven into the foundation 63. As shown above, the removable character of the baseboards 33 permits ready access for engaging the washer 68 and nut 69 upon the bolt 64, upon the completion of which the bolt 64 is driven into the foundation 63. As shown above, the removable character of the baseboards 33 permits ready access for engaging the washer 68 and nut 69 upon the bolt 64, upon the completion of which the bolt 64 is driven into the foundation 63. As shown above, the removable character of the baseboards 33 permits ready access for engaging the washer 68 and nut 69 upon the bolt 64, upon the completion of which the bolt 64 is driven into the foundation 63. As shown above, the removable character of the baseboards 33 permits ready access for engaging the washer 68 and nut 69 upon the bolt 64, upon the completion of which the bolt 64 is driven into the foundation 63. As shown above, the removable character of the baseboards 33 permits ready access for engaging the washer 68 and nut 69 upon the bolt 64, upon the completion of which the bolt 64 is driven into the foundation 63. As shown above, the removable character of the baseboards 33 permits ready access for engaging the washer 68 and nut 69 upon the bolt 64, upon the completion of which the bolt 64 is driven into the foundation 63.
in, the adjacent abutting scantling 37, whereby the axis of the bores 78 of each pair of abutting scantlings 37 will be disposed in angular relation to each other, as shown in Figures 4, 5 and 6, that the bores 78 are in lateral alignment to avoid interference between bolts 79 engaged therein. The heads of said bolts 79 are disposed with countersinks 80 counterbored in the upper end of the bores 78. Thus, the bolts 79 provide equal opposed forces which serve to hold each pair of scantlings 37 securely together.

With the described structure of the sections 1, 2 together, recesses 47 of the abutting pairs of scantlings 37 combine to present a series of aligned, generally triangular shaped apertures 81 into and through which is fitted the lower central portion of a longitudinally extending flanging 82, fabricated of suitable sheet stock, and being bent to conform to the peripheral contour of the apertures 81. The upper portion of the flashing 82 is spaced upwardly from the upper end faces of the scantlings 37 and suitably secured to the underface of a metallic ridge member 83 having laterally extending portions 84 which are overlappingly disposed on the adjacent section of the weatherproofing 85. The flashing 82 and ridge members 84 thereby form a weathertight joint adjacent the upper ends of the abutting scantlings 37 throughout the length of the house and plan of the exterior ends of the scantlings 37, there is suitably secured a metallic strip member 85 for weatherproofing, as well as decorative purposes.

The ridge members 83 are rigidly fastened together, the studdings 36 of each section 1, 2, form a central, common wall 85, into which may be conventionally provided openings 86 for receiving door frames 87, as may be seen in Figures 9 and 11. The interior floor plan of the house A, illustrated in Figure 3, shows four such door openings 86 provided in the common wall 85 to allow convenient access between the various rooms. To provide a safety space, there may be suitably recessed in the room 61, a closet 88, communicating with the room 54 through one of the door openings 86 (see Figure 3).

Finally, a hearth unit 89 may be installed in the kitchen 56 and may form a stack 90 which is led outwardly through a suitable opening in the roof of the section 2 (see Figures 2 and 3). The house A thus comprised of the sections 1 and 2 is most spacious and comfortable, as well as being easily assembled and economically made.

If desired, the sections 1, 2, may be assembled upon an excavated foundation 91, in the form of a slab of cement. Embedded in said walls 92 are straight-shank bolts 93 the threaded ends of which project upwardly beyond the upper surfaces of said walls 92 for extension through apertures 94 drilled in the members 4, 5, 8, 9, of the plate 3. Engaged upon the threaded ends of said bolts 94 are washers 95 and nuts 96 (see Figure 8). It will thus be seen that the sections 1, 2, are as simply and easily installed upon excavated foundations as upon non-excavated foundations.

When the sections 1, 2, are to be assembled at the same time, as distinguished from subsequent annexation of one of said sections 1, 2, to the other, the excavated foundation 91 may be provided in a conventional manner with beams 97, such as T-beams for giving under support to the sections 1, 2. In order to maintain said sections 1, 2, securely together along their bottom portion, a series of aligned apertures 98, 99, may be drilled in the abutting sections 10, 10', of the frame 8, beneath the blocks 84 for receiving bolts 99 each having a washer 100 and nut 101 engaged on its threaded end (see Figure 13).

It should be understood that changes and modifications in the form, construction, arrangement, and combination of the several parts of the described invention may be made and substituted for those herein shown and described without departing from the nature and principle of my invention.

Having thus described my invention what I claim and desire to secure by Letters Patent is:

1. A pre-fabricated house comprising first and second independently constructed sections, each of said sections having a frame, said frames having vertical members and being disposed in abutting relationship with the vertical members of one in surface engagement with the vertical members of the other, said vertical members being each provided adjacent their upper end with aligned matching recesses having inwardly and downwardly inclined side walls whereby to form a horizontal slot which is open at the top and is wider at the bottom than it is at the top, the slots formed by the several pairs of vertical members being horizontally aligned with each other, and an elongated member extending longitudinally through the aligned slots and being cross-sectionally contoured to fit snugly and retainably against the slots which are open at the top and having further having a top element extending across the top of the slot and forming a weathertight joint, and means for maintaining said frames rigidly together.

2. A prefabricated house comprising first and second independently constructed sections, each of said sections having a frame, said frames including vertical members having outwardly presented vertical faces and being disposed with the outer faces of the vertical members of one section in surface abutting engagement with the outer faces of the vertical members of the other section, each of said vertical members being provided in its upper end with an angularly downwardly directed recess opening into a bore-hole which extends angularly downwardly and outwardly toward the outer face of said vertical member, a pilot-bore in each vertical member, said pilot-bore being aligned with and serving as a longitudinal continuation of the bore-hole in the companion vertical member, bolts extending angularly through the recesses and bore-holes of each pair of abutting vertical members and being retentively secured in the associated pilot-bores, thereby securing said frames rigidly together, each of said vertical members being furthermore provided adjacent its upper end with an inwardly and downwardly inclined notch adapted, when said vertical members are in abutting relation, to form a horizontal slot which is open at the top and is wider at the bottom than it is at the top, the slots formed by the several pairs of vertical members being horizontally aligned with each other, and an elongated member extending longitudinally through the aligned slots and having downwardly and outwardly flaring resilient flanges for snap-wise retentive disposition within said slots, said elongated member being provided at its upper end above the open end of said slots with outwardly and downwardly flaring plate-like elements adapted to extend over the upper portions of the roof in the manner of flashing, thereby forming a weather-tight joint thereover.

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