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BUILDING STRUCTURE AND PARTS THEREFOR
Original Filed Dec. 20, 1934

2,169,253

Fig. 2.

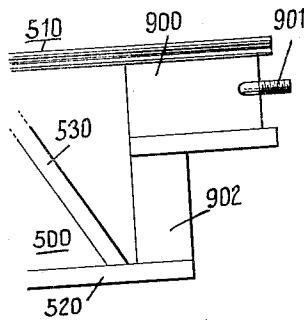


Fig. 3.

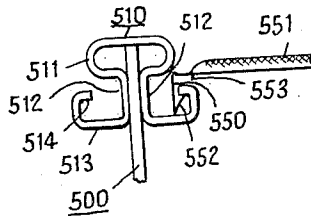
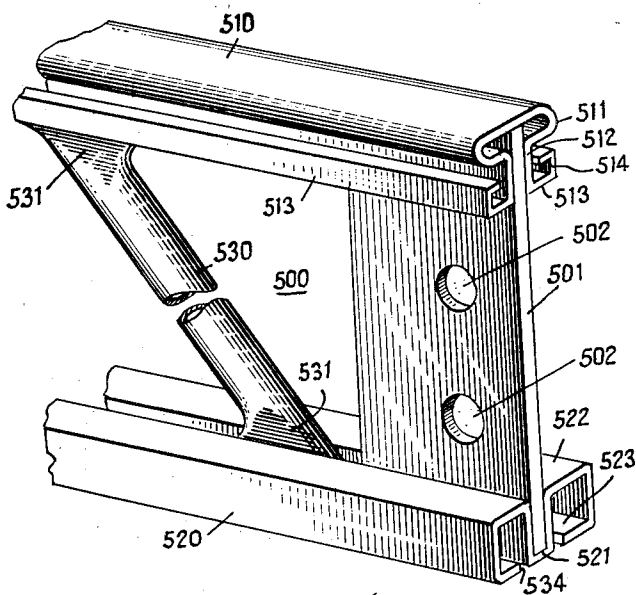


Fig. 1.



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2,169,253

BUILDING STRUCTURE AND PARTS
THEREFORGuy F. Kotrbaty, New York, N. Y., assignor to
Ferrocon Corporation, Bryn Mawr, Pa., a cor-
poration of DelawareOriginal application December 20, 1934, Serial No.
758,345. Divided and this application October
1, 1935, Serial No. 43,018

7 Claims. (Cl. 189—37)

This invention relates to improvements in building construction systems and elements therefor.

This application is a division of my application Ser. No. 758,345, filed December 20, 1934.

5 The improvements of the present invention relate more in detail to modified structural supporting and keying members and self-supporting structural wall members of the type generally described in my Patent No. 1,968,045 of July 31, 1934, and Patent No. 1,965,601 of July 10, 1934, and cognate applications and patents, applica-
10 tion Serial No. 698,433; Patent No. 1,987,115 of January 8, 1935; Patent No. 1,995,477 of March 26, 1935; Patent No. 1,993,791 of March 12, 1935, and application Serial No. 29,820.

15 The invention also includes floor and wall joint constructions including novel floor truss members and coacting parts therefor.

20 Another feature of novelty in the present invention is the provision of floor systems including truss members adapted to be secured to wall constructions of a variety of building systems.

25 It is also a feature of novelty of the present invention to provide improved truss-form floor-supporting members and associated flooring parts together with joint connections associated with keying members of composite stud constructions.

30 These and other desirable features will be described in the accompanying specification and illustrated in the drawing, certain preferred forms being shown by way of illustration only, for, since the underlying features may be incorporated in other specific structural assemblies, it is not intended to be limited to the ones here
35 shown except as such limitations are clearly imposed by the appended claims.

In the drawing like numerals refer to similar parts throughout the several views, of which

40 Fig. 1 is an end elevation, partly in section, of an improved floor truss member;

Fig. 2 is an end elevation of a modified form of truss with connecting and bearing member, and

45 Fig. 3 is a cross-section of a chord member of the truss shown in Fig. 1 showing the method of attaching flooring members.

50 In Figs. 1 and 3 there are shown details of a floor truss member 500 comprising an end plate 501 apertured at 502 to permit abutment and securing to structural building members. The truss includes top chord members 510 and bottom members 520 and novel truss members 530. The chord members 510 comprise a generally rolled section having a flat body portion with
55 continuous beaded side sections or rolled edges

511 continued inwardly to form spaced web members 512 substantially parallel to each other. These web members are continued at 513 to form outwardly extending shoulders, which in turn are bent upwardly and inwardly to form edge flanges 514. These members 514 may not only serve as stiffening flanges or fins, but also form channel sections 514a with sections 512 and 513 of the rail and are adapted to receive clips 550 of panel members 551. The clips 550 are of appreciable length and include a generally fish-hook-shaped section 552, having an upper edge-stiffened flange 553 adapted to be secured to a panel member 551 in any desired manner. When a panel member 551 is abutted against the truss rails 510, the clip or fish-hook sections 552 are adapted to pass into the channels 514a and be gripped by the edge flanges 514, holding the panel members 551 permanently in place. This permits the formation of wall or floor grid members from substantially flat stock pieces and on the job, instead of requiring preformation of self-supporting grid members. The bottom members 520 of the improved trusses comprise a central channel 521 with lateral portions 522, forming a substantially tubular section 523 of generally rectangular cross-section. The final edges 534 of these members are spaced from the central channel section 521, and while providing a stiffening flange bottom for the generally tubular sections, also provide a certain spring or resilience to the members without adversely affecting the load-carrying strength thereof. In addition, they serve to receive ceiling panels or members corresponding generally to the floor panels 551, above described. The truss bars or chords 530 may comprise tubular members of pipe having flattened end portions 531 adapted to conform to the channel sections of the members 510 and 520. These chord members are fitted in place and may be permanently secured as by means of spot welding or in any other suitable manner.

Where the truss members are used in conjunction with exterior wall members, a special end plate, shown in Fig. 2, may be used comprising a generally rectangular L-shaped section 902 fitted between top and bottom chord-supporting members 510 and 520 with the usual chord members 530. These L-shaped members may be provided with a terminal threaded stud 901, which functions as previously described. Truss members of this type provided with threaded studs 901, instead of apertured plates 500 will be described generally by the numeral 900 for the

purpose of ready identification of the various forms.

The terms and expressions which have been employed are used as terms of description and not of limitation, and there is no intention, in the use of such terms and expressions, of excluding any equivalents of the features shown and described, or portions thereof, but it is recognized that various modifications are possible within the scope of the invention claimed.

What is claimed is:

1. An improved floor truss member comprising a channeled bottom chord member having stiffened side sections of generally tubular cross-section, a top chord member having a flat body portion with lateral intumed gripping portions terminating in rolled flange sections having intumed stiffening edges, tubular pin members having flattened ends respectively disposed in the channels of the top and bottom chord members and secured thereto, and apertured end connection plates disposed in the said several channeled chords and at the ends of the said truss members.

2. An improved truss member for building constructions of the type described in claim 1, said trusses being provided with end members fitted between the top and bottom channeled chord members, the bottom channel member being shorter at both ends than the top channel member of the truss, the said end members being severally provided with integral threaded studs.

3. A floor truss construction comprising one piece top and bottom chord members together with end-plate members and pin members disposed between and held by the chord members, the said chord members being severally provided with locking means for securing flooring and ceiling panels, the said locking means comprising

upturned continuous slots on the bottom sides of the top chord members and downturned continuous slots on the bottom sides of the bottom chord members.

4. A one piece floor truss chord member of sheet metal comprising a generally rail-shaped member having a head section with rolled edges, spaced web sections adapted to receive truss pins and end truss plates, and bottom edge sections having rolled and slotted stiffening edges of generally tubular cross-section extending outwardly from the web sections and forming floor-panel receiving means, the slots of the bottom edge sections facing upwardly and being accessible from the outside of the member.

5. A one piece bottom chord member for floor trusses comprising a central channel section adapted to receive truss pins and truss end-plates, and slotted tubular stiffening sections formed along and comprising the slotted sides of the chord member, the slots in the stiffening sections being on the bottom thereof, facing downwardly, the said side stiffening sections being adapted to serve as locking and retaining means for ceiling panels, the whole comprising a rolled member of sheet metal.

6. A sheet metal floor truss, comprising one piece rolled top and bottom chord members, truss pins and end-plates held by and between the chord members, the said chord members being severally provided with tubular edge portions having a continuous slot and adapted to serve as panel-receiving and retaining means.

7. In a truss construction of the type set forth in claim 6, the improvements comprising end plate members with integral connecting studs and having overhanging sections adapted to be abutted on suitable supports.

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