Nov. 4, 1930. F. H. HALSEY 1,780,707

BUILDING CONSTRUCTION

Original Filed Feb. 26, 1929 2 Sheets-Sheet 1

Fig. 1.

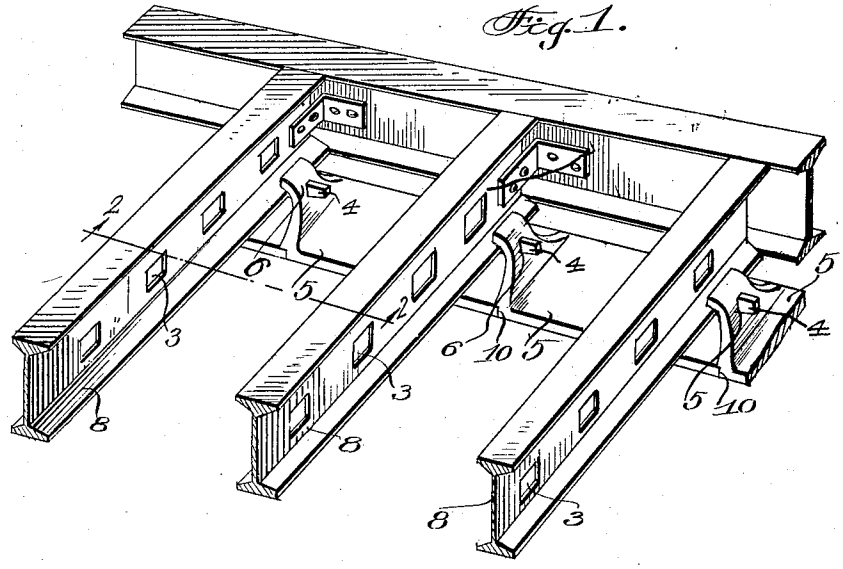
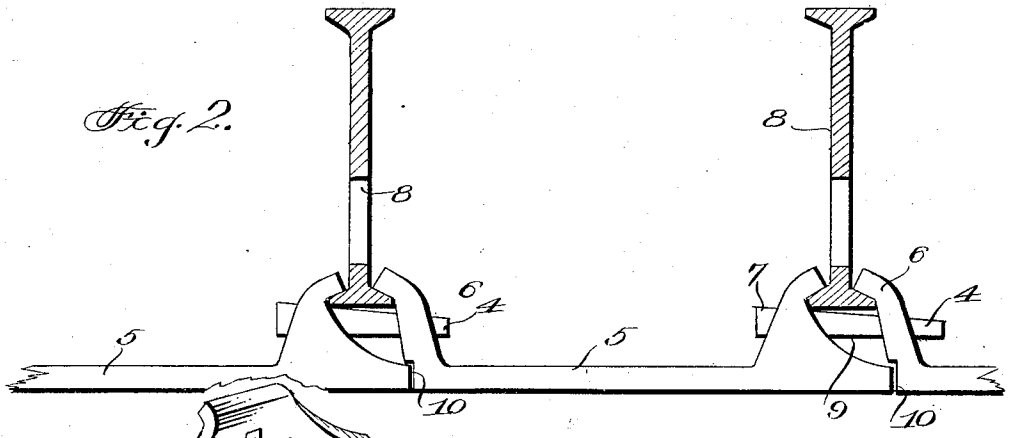


Fig. 2.



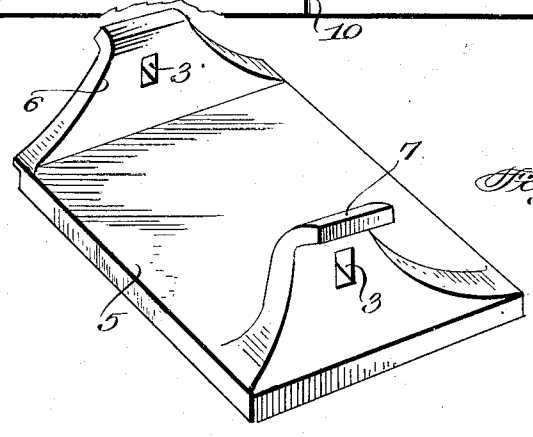


Fig. 3.

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Fig. 4.

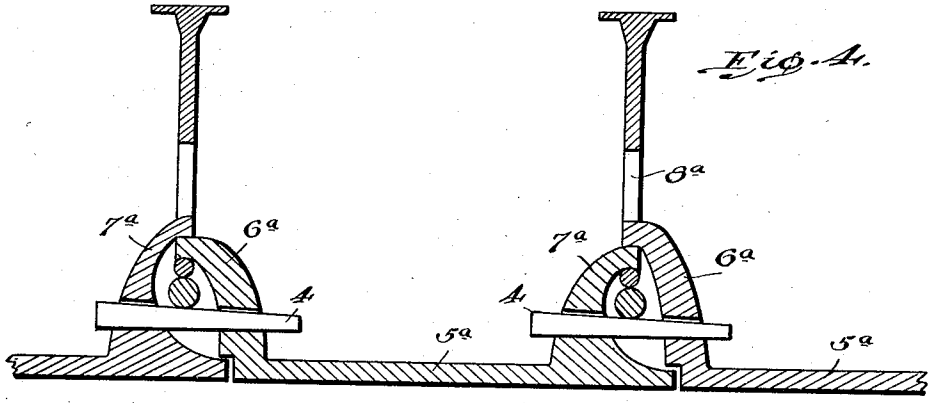
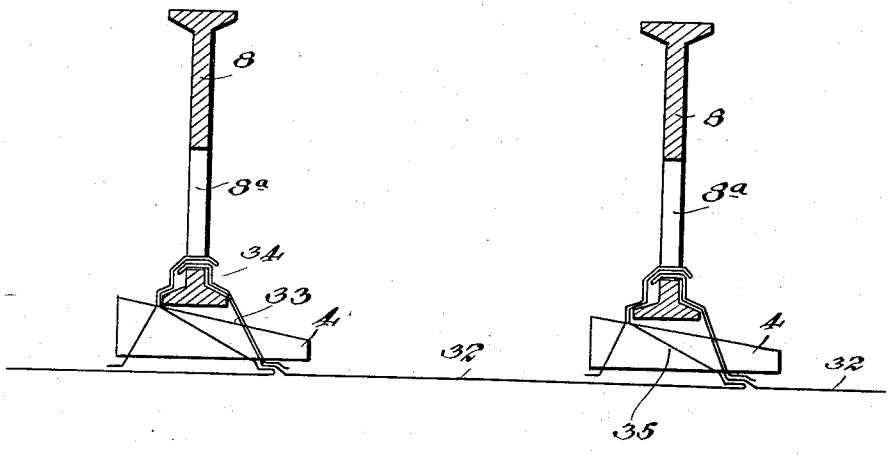


Fig. 5.



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BUILDING CONSTRUCTION

Application filed February 26, 1929, Serial No. 342,760. Renewed September 18, 1930.

My invention relates to building constructions, and more particularly to the construction of horizontal or vertical structures, such as floors, ceilings, roofs and walls.

An object of the invention is to provide a building unit or panel which can be placed in operative position to form a building structure without the use of scaffolding, or other temporary supports.

Further the invention provides a building construction embodying a plurality of units to be supported from adjacent beams, so that a workman may be supported upon a portion of the structure thus far completed while he is arranging other units in place to complete the structure.

The invention also contemplates a plurality of building units, which are designed to permit a floor and ceiling to be built at the same time, or either a floor or ceiling to be built, as desired.

Another object of the invention is to provide a building unit having suspension means for engagement with the usual building construction beams, so as to produce a continuous surface, such as a floor, ceiling, or wall.

With the preceding and other objects and advantages in mind, the invention consists in the novel combination of elements, constructions and arrangement of parts and operations to be hereinafter more fully described, claimed and illustrated in the accompanying drawings, wherein:

Figure 1 is a fragmentary perspective of a plurality of building construction beams, and having a number of my improved units suspended therefrom,

Fig. 2 is a view taken substantially on the line 2—2 of Fig. 1,

Fig. 3 is a perspective of the unit,

Fig. 4 is a longitudinal sectional view of a modification of the invention,

Fig. 5 illustrates a unit like that disclosed in Fig. 1, but fashioned from any thin material such as for example sheet metal.

Referring to the embodiments of the invention disclosed in Figs. 1 to 3 inclusive, I have disclosed a unit comprising a panel 5 formed with upstanding hook elements or wings 6 and 7, which are adapted to rest upon the base flanges of conventional I-beams 8. The upper face of the hook element is dished or concaved, as at 9, so that one end of the panel will project beyond the I-beam with which the hook element 7 is engaged, and abut a shoulder or recess 10 formed in the opposite end of the panel below the hook element 6. Thus, with a series of units assembled as disclosed in Figs. 1 and 2, a smooth continuous structure will be produced which may serve as the ceiling of a room, or a roof structure. If desired, the usual composite filler may be sustained on the panels.

The forms of the invention disclosed in Figs. 4 and 5, are adapted for use with bar joists. In connection with the form of the invention disclosed in Fig. 4, it will be observed that the unit consists of a panel 5^a, having upstanding hook elements 6^a and 7^a, which have inter-locking engagement with the slots 8^a in the webs of the bar joists just above the balls of the latter. It will be observed that the hook elements or wings of alternate units must be of slightly increased length, so as to overlap and rest upon the hook elements of adjacent units.

In Fig. 5, the unit is equivalent to the unit disclosed in Fig. 1, and consists of a sheet metal panel 32 having divergent wings 33, which terminate in substantially Z-shaped hooks 34 embracing the base and web of the I-beams, and having inter-locking engagement through slots in the webs of the latter. One of these wings 33 is formed with an extension 35, which extends beneath one of the I-beams to the adjacent edge of an adjacent unit.

With the forms of the invention disclosed in Figs. 1 to 4 inclusive and Fig. 5 wedges 4 are provided for holding the units in place. For this purpose the adjacent wings of adjacent units are provided with coinciding transverse openings 3 through which the wedges pass, so that the latter will bind against the under faces of the building beams.

In actual practice suitable building filling

may be placed upon the units to fill the space between the parallel beams.

While in the present disclosure I have illustrated the units associated with parallel beams it is pointed out that the invention may be used with divergent beams. Also the units can be used in conjunction with any type of beams now in use.

What is claimed is:

1. In a building construction, a plurality of panels adapted to be arranged in end to end relation, supporting elements carried by each of the panels and engageable with building beams to hold the panels in position, and a wedge engaging the adjacent supporting elements and building beam.

2. In a structure for forming building structures, a plurality of panels having means for engagement with the beams of a building, and wedge elements engageable with the adjacent ends of adjacent panels to hold the same in place.

3. In a unit for forming building structures, a panel, oppositely curved upstanding wings formed on the panel and engageable with two adjacent building beams, and wedges engageable with the wings and beams to hold the panels in place.

4. In a structure for forming building structures, a plurality of panels having means for engagement with the parallel beams of a building, wedge elements engageable with the adjacent ends of adjacent panels to hold the same in place, and a filler carried by each panel.

5. In a building construction, a pair of panels to be arranged in end to end relation, upstanding wings carried by the ends of the panels and engageable with opposite sides of building beams, the adjacent wings having coinciding transverse openings, and a wedge element passing through the coinciding openings and engaging the beams to hold the panels rigid.

6. In a building unit a panel, upstanding wings carried by the ends of the panel and engageable with two adjacent building beams, each of the wings having a transverse opening, and a wedge insertible through each of the openings and adapted to engage the building beams to lock the panel in place.

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