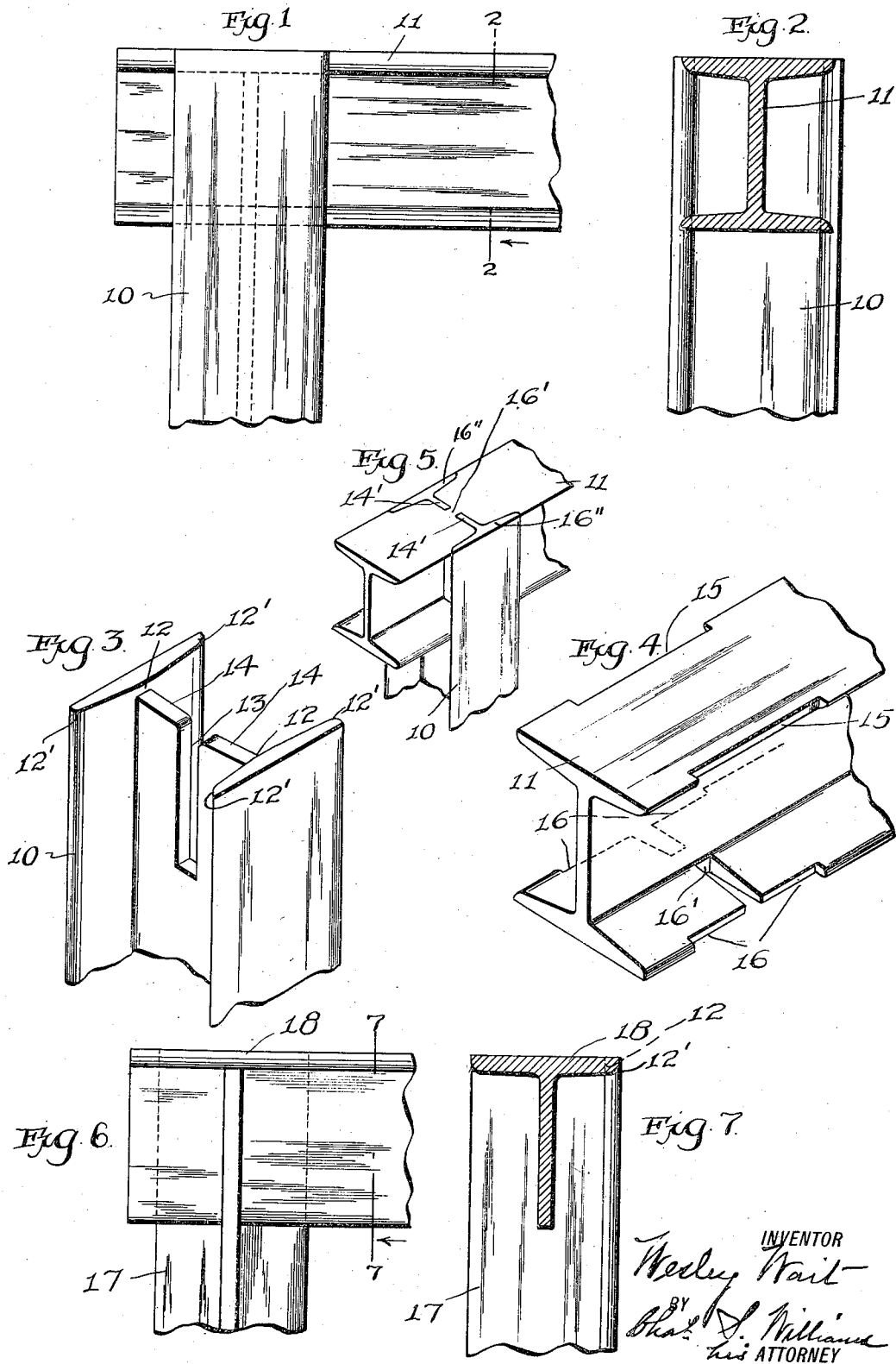


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BUILDING CONSTRUCTION.
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To all whom it may concern:

Be it known that I, WESLEY WAIT, a citizen of the United States, residing at Newburgh, in the county of Orange and State of New York, have invented a new and useful Building Construction, of which the following is a specification.

My invention relates to improvements in building construction for interlocking a column or upright provided with parallel flanges and a connecting web and having a longitudinal recess in the web, with a recessed girder or beam constructed to engage the inner sides and adjacent edges of the parallel flanges and the web and recess of the column or upright, and the objects of my invention are (1) to provide a construction for interlocking a column or upright and a girder or beam to form a support for mines, subways, culverts, trestles or bridges, (2) to provide a construction for interlocking a column or upright and a girder or beam for use in buildings or structures, or for the reinforcement of buildings or structures of concrete, stone or brick, (3) to provide a construction for interlocking a column or upright and a girder or beam to form a supporting means for traveling conveyers, (4) to provide a construction for interlocking a column or upright and a girder or beam to form a supporting means for benches, tables or similar articles to which my construction can be applied, and (5) to provide a construction for interlocking a column or upright and a girder or beam which may be readily detached from their interlocking relationship.

To the accomplishment of the above recited objects and others of a similar nature my invention consists in the construction, combination and arrangement of parts set forth in and falling within the scope of the appended claims. And it should be understood that I do not confine myself to all the precise details of construction, as there may be modification and variation in certain respects without departing from the spirit of my invention, or exceeding the scope of the claims.

I attain these objects by the construction illustrated in the accompanying drawings in which—

Figure 1, is a front view of my building construction.

Fig. 2, is a sectional view on the line 2—2

of Fig. 1, looking in the direction of the arrow.

Fig. 3, is a perspective view of the upper end of a column or upright.

Fig. 4, is a perspective view of the end of a girder or beam.

Fig. 5, is a perspective view of a modified form of my building construction.

Fig. 6, is front view of my building construction, the girder or beam being of T shape.

Fig. 7, is a sectional view on the line 7—7 of Fig. 6 looking in the direction of the arrow.

Similar numerals refer to similar parts throughout the several views.

My building construction comprises a column or upright, 10, of H form and a girder or beam, 11, of I form.

The web of the column or upright, 10, is cut away, at a point slightly below the upper end of the column or upright, 10, horizontally and cut away in the central longitudinal line of the web to expose the inner sides, 12, and adjacent edges 12', of the flanges of the column or upright, 10, and to form a recess, 13, in the web and exposed ends, 14, of the web of the column or upright, 10, Fig. 3.

The upper flange of the girder or beam, 11, is cut away longitudinally at opposite sides at the edge at the end of the girder or beam, 11, to form a longitudinal recess, 15, and the under flange is cut away longitudinally and transversely at opposite sides at the edge at the end of the girder or beam to form a longitudinal-transverse recess, 16, and provide an exposed portion, 16', of the web, Fig. 4. By exposed portion, 16', of the web is meant that portion of the web of the beam, 11, extending upward in a vertical line from the bottom or base of the transversely recessed portion of the recess, 16, and adapted to fall on or engage the recess, 13, of the upright, 10.

The modified form of my building construction, Fig. 5, differs from the above described construction, Figs. 3 and 4, in that the web of the column or upright, 10, is not cut away horizontally slightly below the upper end of the column or upright, the ends, 14', of the web formed by the recess, 13, being flush with the upper ends of the flanges of the column or upright, 10, and that while the under flange of the beam, 11, is cut away

longitudinally and transversely at opposite sides at the edge at the end of the beam to form a longitudinal-transverse recess, 16, the upper flange is also cut away longitudinally and transversely at opposite sides at the edge at the end of the girder or beam to form a longitudinal-transverse recess, 16''.

The modified form of my building construction, Figs. 6 and 7, differs from the above described forms, Figs. 3, 4 and 5, in that both the column or upright, 17, and the girder or beam, 18, are of T form, the single flange of the column or upright, 17, having an exposed inner side, 12, and adjacent edges, 12' of the flange, the leg being cut away horizontally at a point slightly below the upper end of the column or upright, 17, and the recess, 13, is in the leg of the girder or beam, 18, that is, the construction is as if the inner flange of the column or upright, 10, Fig. 3, were eliminated, while the girder or beam, 18, is provided with only one longitudinal recess, 15, in the edge of the single flange, that is, as if one longitudinal recess, 15, in the upper flange and the whole under flange of the girder or beam, 11, Fig. 4, were eliminated.

The assembling and operation of my building construction is as follows: The column or upright, 10, Figs. 1, 2 and 3, being maintained in a vertical position by suitable means the girder or beam, 11, is placed thereon so that the longitudinal-transverse recess, 16, in the under flanges engage the inner sides, 12, and adjacent edges, 12', of the flanges and the web of the column or upright, 10, substantially on a line with the bottom of the recess, 13, and the exposed portion, 16', of the web of the girder or beam, 11, engages the recess, 13, of the column or upright, 10, and the longitudinal recesses, 15, in the upper flange of the girder or beam, 11, engage the inner sides, 12, and the adjacent edges, 12', of the flanges at the upper end of the column or upright, 10, while the under surface of the upper flange of the girder or beam, 11, engages the tops of the ends, 14, of the web of the column or upright, 10, the girder or beam, 11, thus being interlocked with the column or upright, 10, and prevented from moving laterally or longitudinally. The cutting away horizontally of the web of the column or upright, 10, slightly below the upper end of the column or upright permits the upper ends of the column or upright and the upper surface of the upper flange of the girder or beam, 11, to lie in the same horizontal plane.

The assembling and operation of the modified form of my building construction, Fig. 5, is similar to the above described except that the girder or beam, 11, is provided with longitudinal-transverse recesses, 16, in the under flange and with longitudinal-transverse recesses, 16'', in the upper flange as well,

and that the web of the column or upright, 10, is not cut away horizontally slightly below the upper end of the column or upright, the effect being that when the girder or beam, 11, is interlocked with the column or upright, 10, the upper flange surface of the girder or beam, 11, and the ends, 14', of the web of the column or upright are in the same horizontal plane.

The assembling and operation of the modified form of my building construction, Figs. 6 and 7, is the same as in the case of the first described construction, except that the column or upright, 17, and girder or beam, 18, being of T form, the girder or beam is placed on the column or upright, 17, so that the single longitudinal recess of the girder or beam, 18, engages the inner side, 12, and adjacent edges, 12', of the single flange of the column or upright, 17, and the leg of the girder or beam, 18, engages the recess in the leg of the column or upright, 17, and the under surface of the flange of the girder or beam, 18, engages the tops of the ends of the leg of the column or upright, 17, the leg of the column or upright, 17, being cut away slightly below the upper end of the column or upright to permit the upper end of the flange of the column or upright, 17, and the upper flange surface of the girder or beam, 18, to lie in the same horizontal plane.

While my building construction as shown and described relates to a single column or upright and to one end of a girder or beam, it should be understood that it applies as well to an oppositely disposed column or upright and to the opposite end of a connecting girder or beam, and that in my building construction I use iron or steel or other suitable material.

I claim:

1. A construction comprising an upright provided with a vertical and a transverse flange and having the transverse flange at the upper end of the upright cut away in the longitudinal line of the transverse flange to form a recess, and a flange recessed beam constructed to engage the inner side and adjacent edges of the vertical flange of the upright and to engage the transverse flange of the upright and to engage the recess in the transverse flange of the upright whereby the beam is prevented from moving laterally or longitudinally.

2. A construction comprising an upright provided with vertical flanges and a connecting web and having the web at the upper end of the upright cut away in the longitudinal line thereof to form a recess, and a recessed beam provided with horizontal flanges and a connecting web and constructed to engage the inner sides and adjacent edges of the vertical flanges of the upright and to engage the web of the upright and having an exposed portion of the web to engage the re-

cess of the upright whereby the beam is prevented from moving laterally or longitudinally.

3. A construction comprising an upright 5 provided with vertical flanges and a connecting web and having the web cut away in the longitudinal line of the web to form a recess, and a beam provided with horizontal flanges and a connecting web and having a 10 longitudinal recess in the upper flange at opposite sides at the edge at the end of the beam to engage the inner sides and adjacent edges of the flanges of the upright at the upper end thereof, and having a longitudinal-transverse recess in the under flange at 15 opposite sides of the edge at the end of the beam to engage the inner sides and adjacent edges of the flanges and the web of the upright and having an exposed portion of the 20 web to engage the recess of the upright.

4. A construction comprising an upright of H-form having the web cut away horizontally slightly below the upper end of the upright and cut away in the longitudinal line 25 of the web to form a recess, and a beam of I-form having a longitudinal recess in the upper flange at opposite sides at the edge at the end of the beam to engage the inner sides

and adjacent edges of the flanges of the upright at the upper end thereof and providing engagement of the under surface of the upper flange of the beam with the tops of the web of the upright, and having a longitudinal-transverse recess in the under flange at opposite sides at the edge at the end of the beam to engage the inner sides and adjacent edges of the flanges and the web of the upright and having an exposed portion of the web to engage the recess of the upright. 30 35

5. A construction comprising an upright 40 of H-form having the web cut away in the longitudinal line of the web to form a recess, and a beam of I-form, having a longitudinal-transverse recess in the upper flange at opposite sides at the edge at the end of the beam to engage the inner sides and adjacent edges of the flanges of the upright and the upper ends of the web of the upright, and having a longitudinal-transverse recess in the under flange at opposite sides at the edge 45 50 at the end of the beam to engage the inner sides and adjacent edges of the flanges and the web of the upright and having an exposed portion of the web to engage the recess of the upright.

WESLEY WAIT.