

J. KAHN.
STRUCTURAL MEMBER.
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1,033,414.

Patented July 23, 1912.

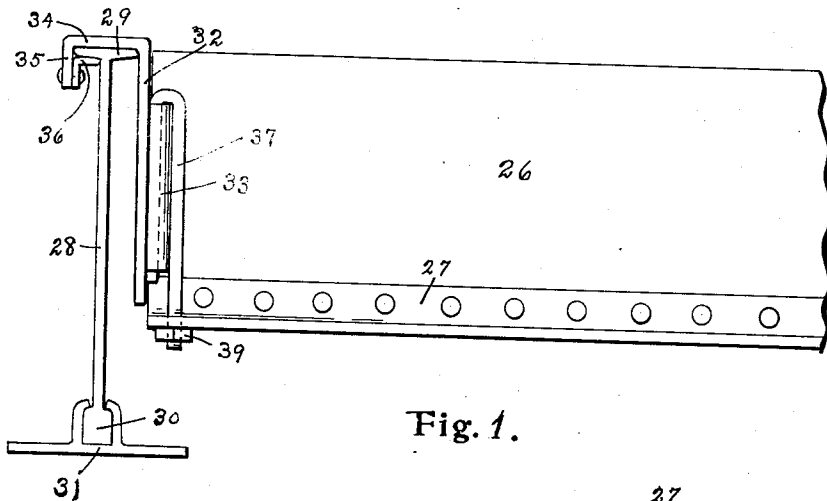


Fig. 1.

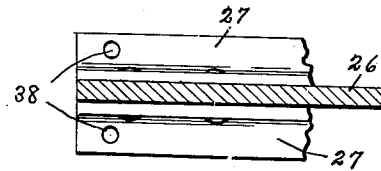


Fig. 5.

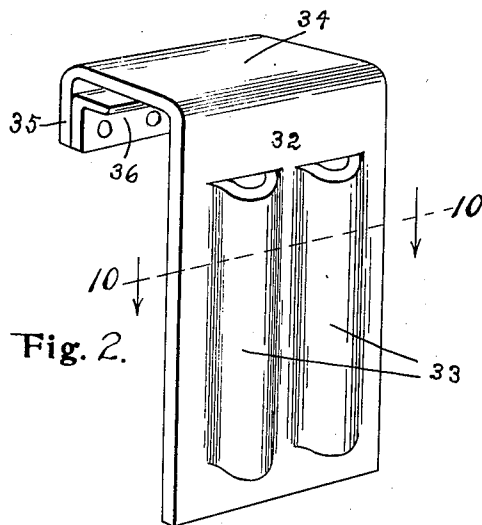


Fig. 2.

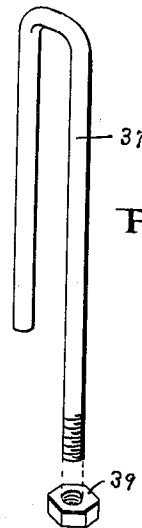


Fig. 3.

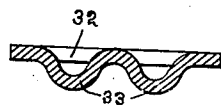


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

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STRUCTURAL MEMBER.

1,033,414.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JULIUS KAHN, a citizen of the United States, and a resident of Detroit, in the county of Wayne and State of Michigan, have invented a new and Improved Structural Member, of which the following is a specification.

This invention relates to structural material of metal, especially to beams adapted to support concrete floors, and its object is to provide structural members formed of a plurality of parts which are united without the necessity of drilling and riveting, which structural members may be proportioned to the load to be carried.

Figure 1 is an end elevation of a built-up beam and a side elevation of a joist supported thereby, together with a joist hanger. Fig. 2 is a perspective view of a joist hanger. Fig. 3 is a view of a supporting stirrup. Fig. 4 is a section on the line 10—10 of Fig. 2. Fig. 5 is a horizontal section of one end of the joist.

Similar reference characters refer to like parts throughout the several views.

The drawing illustrates a beam 28 of any desired design, but preferably formed with an upper flange 29. The beam may have a foot 30 connected to which is a tension member 31. The joist carried by the beam 28 is shown to consist of a plate 26 having flanges 27 along its lower edge, which flanges are preferably formed by securing angle bars to the plate by means of rivets. The hanger to connect the end of the joist to the beam comprises a plate 32 having the substantially semi-cylindrical receptacles or half-sleeves 33 pressed out of the same. The upper end of the stirrup is bent laterally to form the bearing plate 34, and then downward to form the hook 35. To this hook may be secured the angle bar 36 to engage a flange 29 so as to prevent the plate 34 bending up. Stirrups 37 extend down into the half-sleeves 33 and through the holes 38 in the flanges 27. Nuts 39 support the

joists. When the structure shown in this drawing is used in connection with reinforced concrete floors, the upper edges of the joists will be embedded in the concrete which will resist the compression stresses. Flanges are therefore unnecessary along the upper edges of the joists.

Many of the details and proportions of this construction may be changed by engineers without departing from the spirit of my invention.

Having now explained my construction, what I claim as my invention and desire to secure by Letters Patent is:—

1. The combination with a beam and a joist having flanges at its lower edge, a joist hanger comprising a plate bent to form a horizontal portion, a vertical lip at one edge of the same and a vertical plate having half-sleeves pressed out of the same, at the other edge, means secured to the lip to engage the flanges of the beam, and stirrups comprising U shaped rods, one arm of each extending down into a half-sleeve and the other arm extending down along the end of the joist, the lower end thereof extending through a hole in a flange of the joist.

2. The combination of a beam, a joist having flanges at its lower edge, a joist hanger comprising a vertical plate having semi-cylindrical portions pressed outward and having its upper end bent around the upper portion of the beam, and a plurality of bent rods, one portion of each extending into the semi-cylindrical portions of the hanger, and the other portion extending down along the joist.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JULIUS KAHN.

Witnesses:

MINNIE K. KENNEDY,
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