G. ROBB.

RIGGING OR SCAFFOLD SUPPORT.

APPLICATION FILED DEC. 7, 1908.

961,018. Patented June 7, 1910.

Fig. 1.

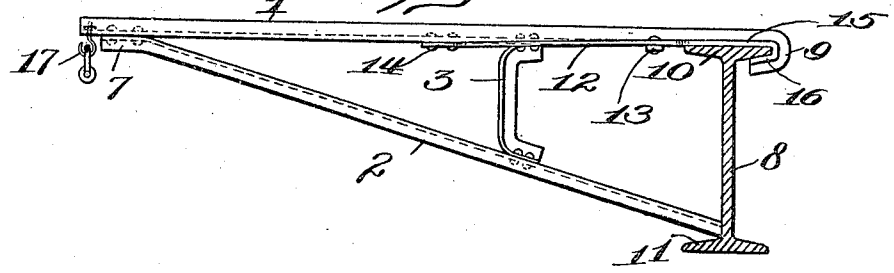


Fig. 2.

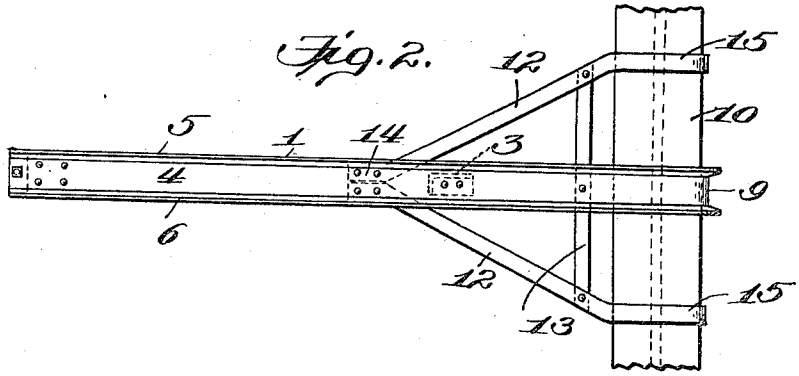
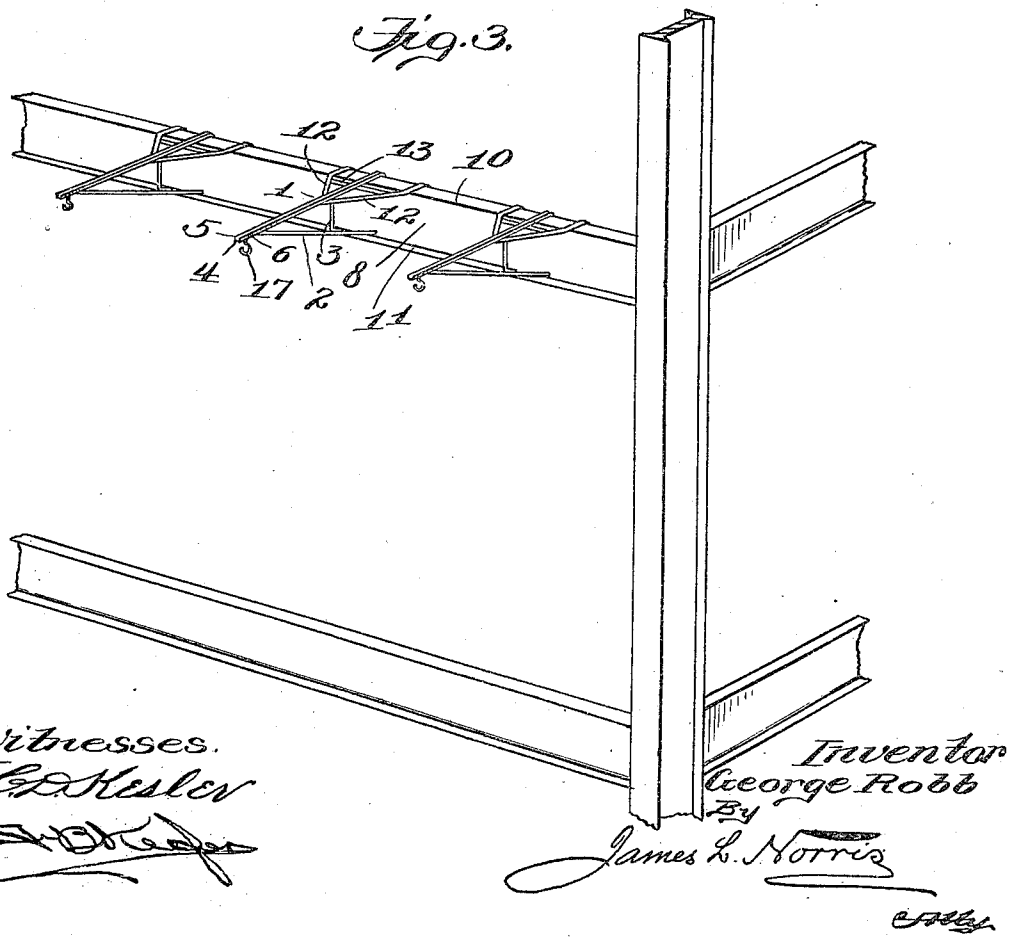


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

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RIGGING OR SCAFFOLD SUPPORT.

961,018. Specification of Letters Patent. Patented June 7, 1910.

Application filed December 7, 1908. Serial No. 466,431.

To all whom it may concern:

Be it known that I, GEORGE ROBB, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented new and useful Improvements in Rigging or Scaffold Supports, of which the following is a specification.

My present invention relates to improvements in rigging or scaffold supports adapted for use upon buildings or other structures, and it has for its object primarily to provide a device of this class that may be quickly and easily mounted upon a structure so as to provide either a support for a scaffold platform or it may be used for the attachment of block and tackle to enable the hoisting of materials, the device being so constructed that it may obtain a firm hold upon the structure without requiring the use of tied ropes, chains, bolts or other devices which require considerable labor and are liable to loosen and thereby cause destruction of life or property, and the device may be removed or replaced with the greatest facility.

More specifically, the invention consists in a bracket that is constructed preferably of appropriate metal that is braced so as to effectually sustain all strains that are exerted thereon and has hooks so disposed as to enable the bracket to be applied to buildings, bridges or other structures of iron frame work wherein are used beams having top and bottom flanges, I-beams for instance being used universally for the horizontal or floor supporting members of the iron frame works of buildings.

To these and other ends, the invention consists in certain improvements, and combinations and arrangements of parts, all as will be hereinafter more fully described, the novel features being pointed out particularly in the claims at the end of the specification.

In the accompanying drawing: Figure 1 is a side elevation of a rigging or scaffold support constructed in accordance with the present invention, the same being shown applied to an ordinary I-beam; Fig. 2 represents a top plan view of the device as shown in Fig. 1; and Fig. 3 is a perspective view of a portion of the iron frame work of a building showing a set of rigging or scaffold supports applied thereto.

Similar parts are designated by the same reference characters in the several views.

It will be understood that the present invention is capable of use in many connections wherein it is desirable or necessary to support platforms or to provide a rigging for supporting hoisting apparatus. In the present instance, I have shown one embodiment of the invention as an example, it being adapted for use generally by brick and stone masons and others in the construction following the frame works of buildings, bridges and other structures. It will be understood, however, that the invention is not limited to the precise construction shown, as certain modifications or changes in the detail construction thereof may be made in order that the invention may be applied to the best advantage in each particular case.

In the present instance, the support is in the form of a bracket consisting of a horizontal tension member 1, a diagonally extending compression member 2, the latter being riveted or otherwise fastened at its outer end to the corresponding end of the member 1, and a vertical brace 3 is interposed between the members 1 and 2 to rigidly maintain them in proper spaced relation. These members of the bracket in order to insure the greatest strength with the given size in weight of material are composed of metal (steel being preferred), and in the present instance I have shown these members 1 and 2 as composed of channel iron, the top member 1 for instance having a flat or horizontal web 4 and a pair of vertical side flanges 5 and 6, the side flanges of the top member extending upwardly while those of the lower member 2 which is also preferably of channel formation are directed downwardly, the outer end of the member 2 being preferably offset as at 7 so that the web portion of this member has a flat and firm seating against the under side of the flat web of the upper member 1, the two members being secured together preferably by means of rivets which pass through the respective webs. The brace 3 is also preferably of angle-iron formation, it being channel-shaped in the present instance and its ends are bent or offset so that the web portions of this brace also have a flat and firm seating against the webs of the members 1 and 2, respectively, the brace being secured rigidly to these two members

by means of rivets which pass through the webs of the several parts so that the members 1 and 2 are rigidly maintained in a given angular relation.

In order to enable the support or bracket to obtain a firm hold upon a beam such as 8, an end of the upper horizontal member 1 is turned under to form a hook 9 which is adapted to embrace the top flange 10 of the beam to which the support or bracket is applied. By so forming the hook 9, a very strong construction is provided as the two flanges of the member 1 of which this hook is formed are bent edgewise and, obviously, the hook will sustain considerable force without becoming bent so as to lose its hold. The inner end of the diagonal member 2 is located at such a point with reference to the hook 9 that said member 2 will bear against the vertical web portion of the beam and thereby sustain the weight imposed upon the support or bracket. It is generally preferable to make the supports or brackets in standard sizes so that the inner end of the diagonal member 2 will engage the web of a given size beam at the point where the web joins the lower flange 11 thereof, any possibility of the member 2 from spreading with reference to the member 1 being thereby obviated as the downward thrust upon the inner end of the member 2 would be sustained by the base flange of the beam.

In order to prevent swinging of the support or bracket about the hook 9, a pair of supplemental hooks are also provided, these hooks being carried by a pair of straps 12 which extend diagonally from the opposite sides of the member 1 and are maintained in proper spaced relation thereto by means of a transverse connecting member 13, the forward ends of the straps 12 being preferably bent into parallelism and then riveted to the under side of the web portion 4 of the member 1 as shown at 14 in Fig. 2 while the opposite ends of these straps are bent preferably in parallelism as at 15 at the points where they rest upon or extend across the top flange 10 of the beam, and the extreme ends of these straps are doubled to form the supplemental hooks 16, these supplemental hooks being of course in alinement with the hook 9 of the upper channel member. As the support or bracket will have an engagement with the top flange of the beam at three points, obviously there will be no tendency of the support or bracket to swing laterally. In order to adapt the support for use as a rigging for block and tackle or for hoisting apparatus, a hook 17 is fitted to the outer end of the member 1 which serves as means whereby the hoisting apparatus may be attached.

A rigging or scaffold support constructed in accordance with my present invention is simple in its construction, comparatively light in weight and is durable so that it may be used indefinitely and, moreover, it may be applied to the beams of iron structures with the greatest facility, it obtaining such a firm hold upon the beam as to enable it to sustain considerable strains without liability of breakage. Moreover, it will be understood that the support may be applied to beams of various forms and, in the specific embodiment shown, it will be obvious that it is not limited to use in connection with an I-beam, but that it can be used in connection with any beam that has a top flange for the engagement of the hooks and a base flange to serve as a rest for the lower diagonal compression member. Obviously, by mounting two or more of these supports upon a beam, planking may be laid over the tops of the horizontal members to form a platform, although perhaps the most advantageous feature of the invention is that it provides relatively light supports that may be easily placed in position upon beams by hand, that is, without requiring the use of a crane or requiring bolts or other objectionable means for preventing their pulling away from the beam, and when so mounted they provide firm supports from which may be suspended a scaffold for the use of brick and stone masons, tile builders and other workmen whose work usually follows that of the structural iron workers.

I claim as my invention:

A rigging or scaffold support comprising a member adapted to rest upon the top flange of the beam and having a hook thereon to engage the top flange thereof, and a pair of supplemental hooks spaced at the opposite sides of said member and having portions to engage the under side of the top flange of the beam at points in alinement with the hook of the said member.

In testimony whereof I affix my signature in the presence of two witnesses.

GEORGE ROBB.

Witnesses:
ALEXANDER ROBB,
SAMUEL ROBB.