

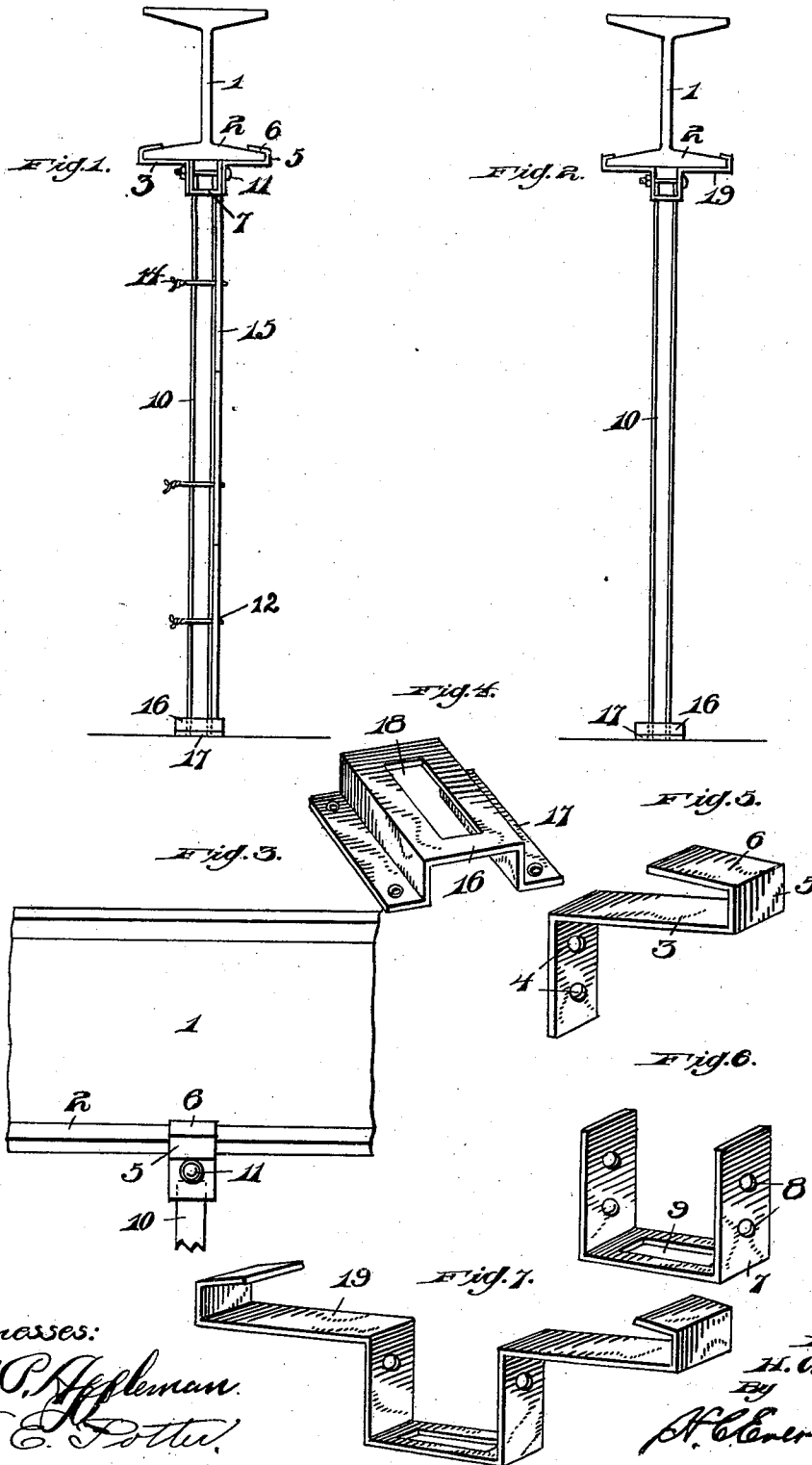
No. 691,599.

Patented Jan. 21, 1902.

H. C. CLARK.
STEEL CONSTRUCTION.

(Application filed June 8, 1901.)

(No Model.)



Witnesses:

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UNITED STATES PATENT OFFICE.

HARRY C. CLARK, OF BELLEVUE, PENNSYLVANIA.

STEEL CONSTRUCTION.

SPECIFICATION forming part of Letters Patent No. 691,599, dated January 21, 1902.

Application filed June 8, 1901. Serial No. 63,696. (No model.)

To all whom it may concern:

Be it known that I, HARRY C. CLARK, a citizen of the United States of America, residing at Bellevue, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Steel Constructions, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in steel constructions, and has for its object the provision of novel means whereby a partition may be easily applied to the center of I-beams or the like.

15 The present invention aims to construct fastening means that are clamped to the base of I-beams or to the headed T-beams.

Furthermore, the invention aims to securely fasten channel-bars or angle-irons to I-beams or the like.

20 The invention further contemplates to provide fastening means at the base of the channel-bars or angle-irons that may be fastened to terra-cotta, wood, or other material.

25 Another object of the invention is to construct a steel structure that will have many advantages in points of strength, durability, and cheapness in manufacture.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, wherein like numerals of reference indicate corresponding parts throughout the several views, and in which—

35 Figure 1 is an end view of an I-beam having my improved attachments secured thereto and showing the manner of securing the laths to the channel-bar or angle-iron. Fig. 2 is a similar view with the laths and securing means removed. Fig. 3 is an enlarged side elevation of an I-beam, showing a pair of hangers attached thereto. Fig. 4 is a perspective view of the yoke arranged at the bottom of the channel-bars, forming the base for the same. Fig. 5 is a perspective view of a portion of the hanger. Fig. 6 is a similar view of another portion of the hanger. Fig. 7 is a modified form of the hanger, showing the same constructed of a single piece of metal.

In the drawings the reference-numeral 1 indicates the I-beams, and 2 the base thereof.

The reference-numeral 3 represents an angle-iron having openings 4 formed therein and carries at its other end an upwardly-extending portion 5 and an inwardly-extending bent-over portion 6, the latter being adapted to engage the upper face of the base of the I-beam 2 and the upwardly-extending portion 5 adapted to engage the side of the base of the I-beam, as shown in the drawings.

The reference-numeral 7 indicates an angular connecting-piece having openings 8 formed therein on each side. The said connecting-piece is also formed with an enlarged opening 9 on its lower side for the reception of the channel-bar 10, which is adapted to pass through said opening. The openings 4 and 8 are adapted to register with one another when properly placed in position and are adapted to receive the bolt 11, which serves to fasten the hanger together. The lath is provided with openings 12 to receive wires 14 or other fastening means for the purpose of securing the laths 15 in their proper position.

The reference-numeral 16 represents a metallic yoke having outwardly-extending apertured flanges 17. This yoke is also formed with an enlarged opening 18, corresponding with the opening 9 in the hanger, to receive the lower end of the channel-bar. The apertured flanges 17 receive suitable fastening means to secure the same to the floor or ceiling of the building, as the case may be.

The reference-numeral 19 represents a hanger formed of a single piece of metal, which is properly shown and applied in position in Fig. 2 of the drawings and is more clearly illustrated in detail in Fig. 7 of the drawings. It will be noted that when the hanger is formed in three pieces it may be adjusted by means of the openings 4 and 8 receiving fastening means that will securely lock these parts firmly together. It will also be understood that in certain steel constructions of buildings it will become necessary to apply the hanger such as herein described to both the top and bottom of the channel-bar, angle-iron, or other beams that may be used;

but when it is desired to connect the base to terra-cotta or other fireproof material the yoke is applied to such fireproof material and the channel-bar, angle-iron, or the like retained in its proper position.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with I-beams, T-beams or the like, an apertured hanger, channel-bars or angle-irons extending through said apertured hanger, said hanger being clamped to the said I-beams, T-beams or the like, a bolt extending through both sides of said hanger above said channel-bars or angle-irons and parallel with said I-beams, T-beams or the like, an apertured yoke engaging the other end of said channel-bars or angle-irons, outwardly-extending flanges made integral with said yoke and adapted to engage the floor, ceiling or the like, and means for securing said flanges to the floor, ceiling or the like, substantially as described.

2. In steel, iron or wood construction, the combination with I-beams, T-beams or the like, a hanger formed of three pieces adapted to clamp said I or T beams, a channel-bar extending into said hanger directly below said I or T beams, and a yoke to receive the lower end of said channel-bar or angle-iron, substantially as described.

3. In combination with I-beams, T-beams or the like, an apertured hanger clamped thereto, angle-irons or channel-bars secured in said apertured hanger, a bolt passing through said hanger between the under face of said I-beams, T-beams or the like and the upper end of said angle-irons or channel-bars, and a yoke carrying flanges engaging the other end of said channel-bars or angle-irons, the said flanges secured to the floor or ceiling, substantially as described.

4. In steel, iron or wood construction, the

combination of a hanger formed in three parts, and means to secure said parts together, of an I-beam attached to said hanger, a channel-bar or angle-iron secured in said hanger, and a yoke to receive the other end of said channel-bar or angle-iron, all parts being arranged and operating substantially as shown and described.

5. In steel, iron or wood construction, the combination with I or T beams or the like, and channel-bars, angle-irons or the like, of a hanger comprising three parts, one of said parts being apertured and adapted to receive the channel-bars and angle-irons, the other of said parts adapted to be secured to each side of said first-named part and adapted to engage said I or T beams, and means secured to the lower end of said channel-bars or angle-irons, for holding the same in position, substantially as described.

6. In steel, iron or wood construction, the combination with channel-bars, angle-irons or the like, of I or T beams or the like, a hanger formed in three parts, said parts adapted to secure said beams to the channel-bars, angle-irons or the like, means secured above said channel-bars, or angle-irons for securing said hanger together, and an apertured yoke secured to the lower end of said channel-bars, angle-irons or the like, substantially as described.

7. In steel, iron or wood construction, the combination with I-beams, T-beams or the like, of a hanger formed of pieces adapted to clamp said I or T beams, a channel-bar extending into said hanger, means for clamping said hanger to said I or T beams and said channel-bar, and an apertured yoke engaging the other end of said channel-bar and suitably secured to the floor or ceiling, substantially as described.

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

HARRY C. CLARK.

Witnesses:

JOHN NOLAND,
E. E. POTTER.