J. R. ANDERSON.

COLLAPSIBLE TRESTLE.

APPLICATION FILED SEPT. 5, 1912.

1,147,668. Patented July 20, 1915.

Fig. 1

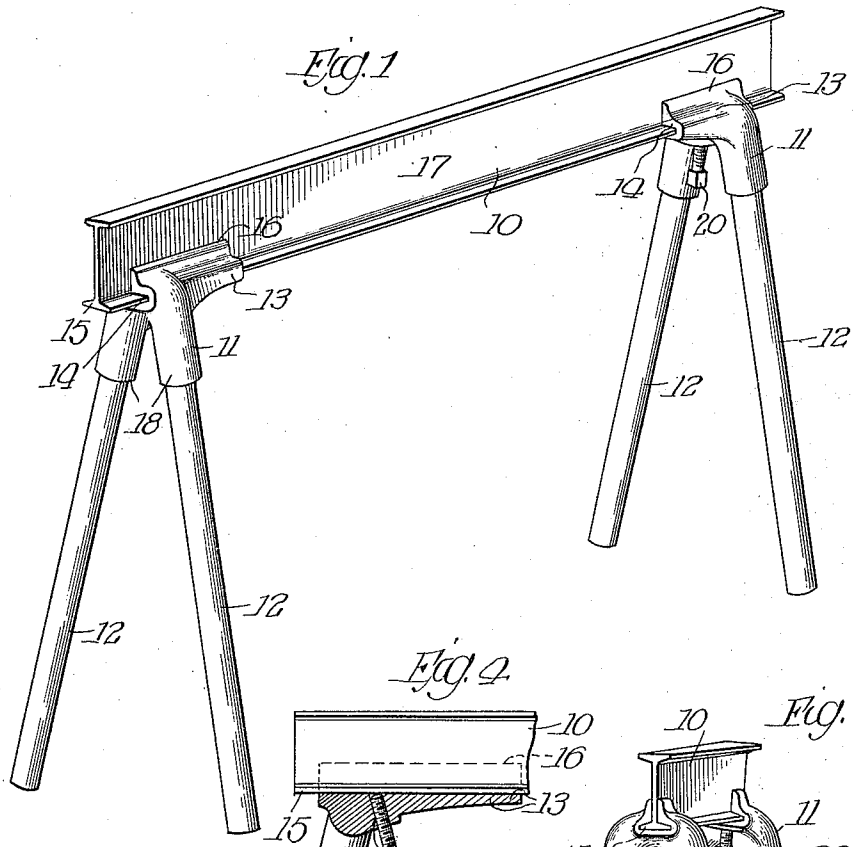


Fig. 4

Fig. 2

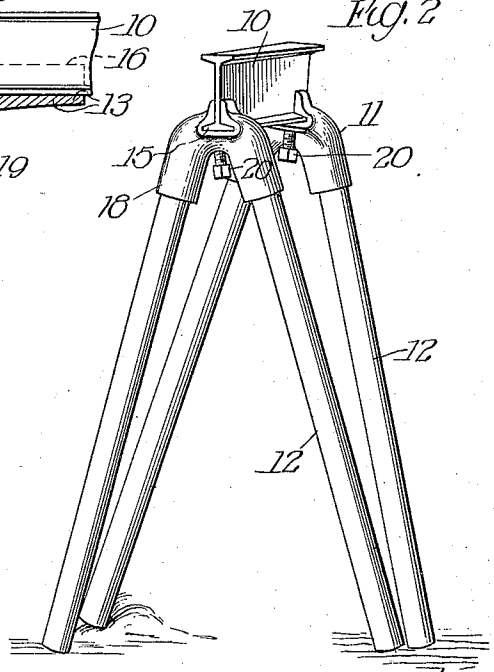
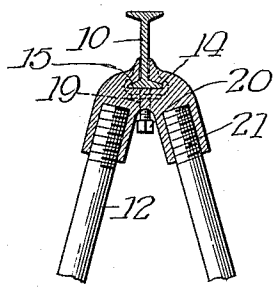


Fig. 3



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UNITED STATES PATENT OFFICE.

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COLLAPSIBLE TRESTLE.

1,147,668. Specification of Letters Patent. Patented July 20, 1915.

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To all whom it may concern:

Be it known that I, JOHN R. ANDERSON, a citizen of the United States, residing at Moline, in the county of Rock Island and State of Illinois, have invented certain new and useful Improvements in Collapsible Trestles, of which the following is a specification.

My invention relates in general to collapsible trestles, and more particularly to trestles adapted to be used in connection with the erection of buildings and various engineering constructions.

One of the principal objects of the invention is to enable the construction of a trestle wherein the principal elements are or may be of commercial materials readily obtainable, the construction requiring necessarily only one specially prepared part and this being of simple form.

A further object of the invention is to provide a trestle of the character described which may be readily adjusted to suit various conditions, so constructing and arranging the parts that little time will be lost in changing them from one adjusted relationship to another.

A still further object of the invention is to provide a collapsible trestle wherein the parts will of their form give a maximum supporting strength to the trestle, permitting thereby the use of longer supports without danger of collapse of the device than is possible where a less efficient arrangement is present.

An additional object of the invention is to provide a device of this sort which will readily accommodate itself to any of the usual inequalities and unevenness of the ground, floor or other surface upon which the trestle rests.

Further objects and advantages of the invention will be apparent as it is better understood from the following description which, taken in connection with the accompanying drawing, illustrates one preferred embodiment thereof.

On the drawing:—Figure 1 is a perspective view showing a collapsible trestle embodying my invention with the parts assembled; Fig. 2 is a perspective view of the same showing the manner in which the trestle adapts itself to irregularities of the ground or uneven surfaces upon which it is positioned; Fig. 3 is a vertical sectional view disclosing the means of fastening the legs or supports of the trestle to the clamping members, and Fig. 4 is a sectional view of one of said clamping members.

For the purpose of illustrating my invention I have shown the same embodied in a trestle composed primarily of an I-beam 10, a pair of clamps 11 and supports 12, a pair of which is secured in each clamp, it being understood, however, that although an I-beam is employed in the present instance to provide the main horizontal member, various other forms of commercial structural metal may be utilized efficiently, it only being necessary that the clamps be adapted to connect the supports 12 with the particular form of horizontal member employed.

Each of the clamps 11 is preferably formed of an elongated slotted body 13 adapted to receive within the slot or groove 14 the lower horizontal flanges 15 of the angle iron 10. Above each side of the groove 14 and spaced inwardly thereof is preferably provided an upwardly extending wall or lip 16 adapted to rest against the web 17 of the I-beam to strengthen and stiffen the structure. At an end of the clamp, preferably the outer end, are formed two downwardly depending and diverging support-receiving sockets 18 into which the supports 12 are adapted to be secured. These sockets may be disposed in a vertical plane, but I prefer to slightly incline them to the vertical, as shown in Fig. 4, so that when the various parts are assembled the supports 12 at both ends will be inclined inwardly of the trestle an equal amount. Disposed through the bottom of each clamp and communicating with the groove 14 I have provided an aperture 19 threaded internally and adapted to receive a set screw 20, said aperture 19 being preferably inclined to the vertical and toward the sockets 18 to permit the end of the set screw engaging the lowermost surface of the end of the I-beam to exert its greatest retaining force toward the end of the trestle in the direction of the inclined plane in which the legs or supports are disposed.

In Fig. 3 one method of fastening the supports 12 within the sockets 18 is illustrated, ordinary gas or other metallic pipes being utilized to provide the supports for the trestle in the present instance, the ends of these pipes being secured in the sockets in threaded engagement therewith as at 21,

it being manifest, however, that other forms of commercial building material may be employed for this purpose and may be fitted within the sockets 18 in any preferred manner without departing from the spirit and scope of the invention, or sacrificing any of its advantages.

It is apparent that a trestle made in pursuance of my invention is possessed of a large degree of flexibility, permitting it readily to adapt itself to various uneven surfaces. The I-beam or other structural metal used to provide the main horizontal member ordinarily possesses a certain degree of elasticity which coöperating with the movement permitted by the sliding fit of the I-beam with the clamps carrying the supports enables the structure to accommodate itself readily to the various irregularities of the surfaces upon which structures of this kind usually rest when in use, or readily obtainable in commercial forms.

It will be apparent that the trestle hereinbefore described may be constructed by merely providing suitable clamps, the other members all usually being present among the waste incidental to large engineering and building operations during their preliminary stages.

It will be manifest also that the parts may be assembled and removed or readily adjusted with little effort on the part of the operator as only a single set screw is employed in each clamp.

It is obvious also that various changes may be made in the form and arrangement of the parts without departing from the spirit or scope of the invention, or sacrificing any of its advantages, the form hereinbefore disclosed being merely one preferred embodiment thereof.

I claim:—

1. In a collapsible trestle, the combination of a structural member, provided with lateral flanges at its bottom edge a pair of metallic legs, and a clamp having a pair of diverging sockets disposed in a plane inclined to the vertical and in which said legs are engaged, said clamp being slidably connected with the flanges of the structural member to move freely longitudinally thereof when the trestle is unloaded and adapted to automatically grip said flanges when a weight is supported by said trestle.

2. In a collapsible trestle, the combination of an imperforate horizontally disposed I-beam, two pairs of legs, and a pair of clamps each having a pair of diverging sockets disposed in a plane inclined to the vertical in which a pair of said legs are engaged, each of said clamps being interlockingly engaged in the lower flanges of said I-beam to slide freely longitudinally thereof when the trestle is unloaded and to automatically grip said flanges when a weight is supported on the trestle.

3. A collapsible trestle comprising an I-beam, a pair of brackets, each bracket having in its top an inverted T-shaped channel receiving the bottom flange and part of the web of the I-beam, said bracket also being provided upon its under side with a pair of depending sockets diverging transversely of the bracket, there being an open-ended threaded opening extending through the bracket adjacent one end of the bracket, a set screw in the opening, and tubular leg standards engaging the respective sockets.

4. A bracket of the character described consisting of a single casting including a body having an inverted substantially T-shaped channel in its top and depending sockets diverging transversely of the body, there being a threaded opening near one end of the body and piercing the body from top to bottom thereof in alinement with the channel, substantially as and for the purpose described.

5. A bracket of the character described consisting of a single casting including a body having an inverted substantially T-shaped channel in its top and depending sockets arranged at one end of the underside of the body and inclined at an obtuse angle to the longitudinal axis of the body, there being a threaded opening piercing the body adjacent the socket provided end of the body and inclined to bring its upper end substantially between said sockets, said opening communicating with the channel.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."