April 29, 1958 W. E. GERKE 2,832,647

TRESTLE FOR SCAFFOLDING AND THE LIKE

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Fig. 1

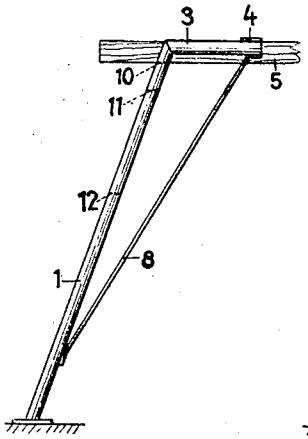


Fig. 2

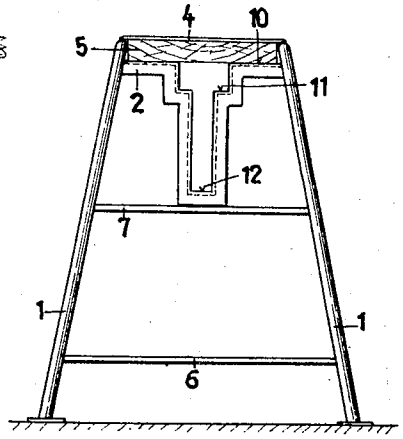


Fig. 3

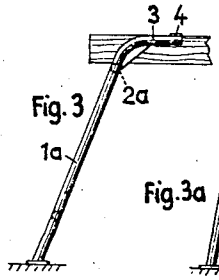


Fig. 3a

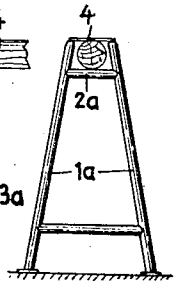


Fig. 4

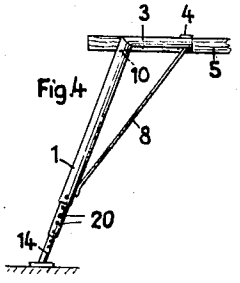


Fig. 5

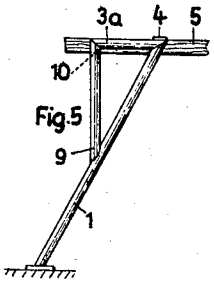
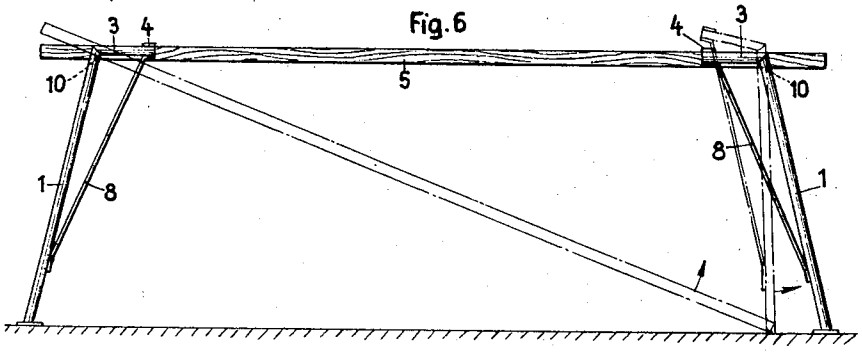


Fig. 6



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Fig. 7

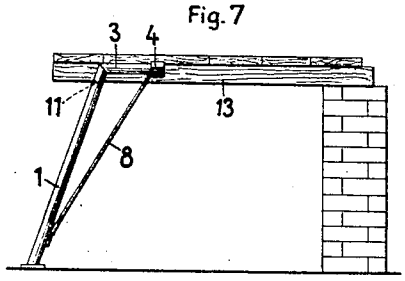


Fig. 8

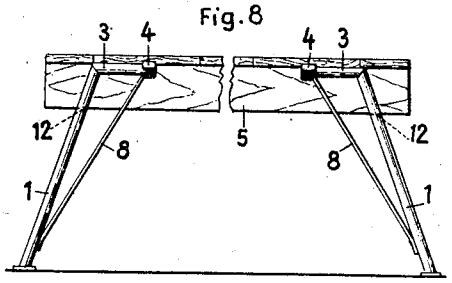


Fig. 9

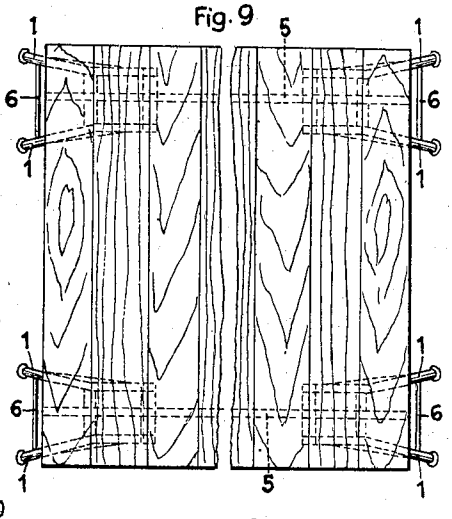


Fig. 11

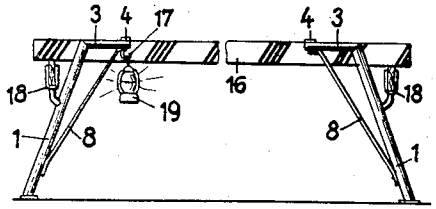
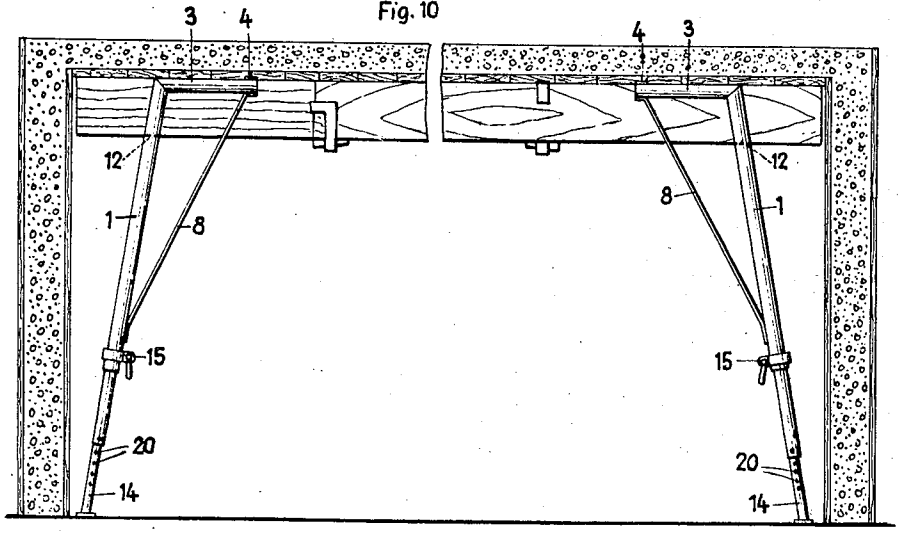


Fig. 10



United States Patent Office 2,832,647
Patented Apr. 29, 1958

2,832,647

TRESTLE FOR SCAFFOLDING AND THE LIKE

Willy Ernst Gerke, Kassel-Brasselberg, Germany

Application December 29, 1953, Serial No. 400,981
Claims priority, application Germany January 23, 1953
1 Claim. (Cl. 304—5)

The present invention relates to a trestle for scaffolding and similar purposes.

The conventional trestles made of wood with four legs are heavy and combersome. In general, they can only be handled by two men. Their transportation to the building site requires considerable effort. Particular difficulties are encountered in their use at the building site, for instance when they have to be transported over ladders to the place of use. Another difficulty is the mounting of such trestles in an uneven or yielding ground; it often requires special devices in order to make the four legs even. Similar difficulties are encountered with the known trestles made of iron having four or three legs. Such trestles are, moreover, quite expensive.

It is an object of the present invention to overcome the above mentioned inconveniences and to provide a two legged trestle which is easy to transport and to mount, and inexpensive to manufacture.

According to the present invention, a trestle is provided having two legs which support an elongate board. The two legs are at an obtuse angle with respect to the board, or similar structural element, when viewed along the longitudinal axis of the same, and extend slanting outwardly in downward direction. At the top ends the legs are connected by a cross-member which serves as a support for the board or the like. Above the cross-member, a second connecting member is provided and one end of the board is accommodated between support and abutment. Two such trestles are placed, one at each end of the board, supporting the same horizontally. It is also possible to support only one end of the board by a trestle, at the other end on the top of a wall or the like. When the board is loaded, it becomes more securely anchored between the support and the abutment and a spreading action in outward direction occurs on the legs of the trestle. As a result thereof, a scaffolding erected by means of the above described trestles has a high stability.

It is possible to store the trestles by nesting them in a comparatively large number, so that they will require a small space when temporarily out of use or when shipped.

Since the trestles according to the invention have only two legs, the mounting of a scaffold on uneven ground presents no practical difficulty. In a preferred embodiment of the invention the legs are provided with telescopable end portions, similar to those of portable tripods for cameras. In this case, the supporting points of the two legs can be at a different level, without impairing the stability.

A further advantage of such telescopable legs consists in the adaptability of the trestle to different requirements of height.

Trestles according to the invention are light-weight and easy to handle, so that they can be readily carried by a single man.

Further advantages are low expense and high durability.

In the accompanying drawings, a number of embodiments of the invention are shown, but it should be understood that these are given by way of illustration and not of limitation and that many changes in the details may be made without departing from the spirit of the invention.

In the drawings,

Fig. 1 is a side view and

Fig. 2 is a front view of one embodiment of the trestle according to the invention;

Figs. 3 and 3*a* show a different embodiment, likewise in side- and front-view;

Figs. 4 and 5 show two further embodiments in side view;

Fig. 6 illustrates the mounting of a board in two trestles;

Fig. 7 shows a board supported on a wall and a trestle, for instance for providing a working scaffold;

Figs. 8 and 9 illustrate a scaffold in which boards are supported by four trestles, in side view and plan view seen from above;

Fig. 10 is a view of a scaffolding for supporting a sheathing in a concrete construction, and

Fig. 11 illustrates the use of the trestles in blocking a road.

Similar reference numerals designate similar parts in the different views.

With reference to Figs. 1, 2 and 6, the trestle is shown to comprise two legs **1** made of metal tubing and having an extension or arm **3** at the upper end of each leg at such an angle with respect thereto that in operation the arms are horizontal and the legs at a slant to the outside. **2** is a cross-member connecting the two legs of a trestle and provided for supporting a structural element. The arms **3** may be welded to the upper ends of arms **1** or they may be integral therewith. The free ends of arms **3** are connected by a cross-member **4** lying at a higher level than cross-member **2** so that a board **5** or the like can be slipped into the space between the two cross-members. Member **2** serves as a support and member **4** as an abutment for the board, limiting the upward movement thereof.

In order to obtain a stable scaffold, the board **5** is placed on two trestles, as shown in Fig. 6. In mounting, the board is first inserted, while at an angle, into the left-hand trestle between members **2** and **4**. The board is then lifted and slipped into the second trestle, with its legs in almost vertical position, as shown in broken lines at the right-hand side of Fig. 6. Finally, the second trestle is pushed outwardly into the position shown in full lines in Fig. 6. The board is then in fixed position between the two trestles, and the legs are at a slant with respect to the longitudinal direction of the board. Any pressure exerted upon the board will act as a securing force at the board ends and as a spreading force for the trestles, which increases the stability of the scaffold.

As a reinforcement of the structure, cross-members **6** and **7** are provided which connect the legs. Further reinforcing struts **8** connect the legs **1** with the arms **3** of each trestle.

As supporting cross members, I may use for instance U-shaped iron. Fig. 2 shows a particular configuration of the cross-member **2** with stepped portions **10**, **11** and **12**, forming three supporting planes. The uppermost plane **10** is for a flat board 5; the central portion **11** for a beam **13** (see Fig. 7), and the bottom support **12** for an up-ended board, as shown in Fig. 8.

In Figs. **3** and 3*a*, a similar trestle is shown, having two legs **1***a* connected by simple cross bars **2***a*.

In order to make the length of legs **1** and thereby the

height of the trestle adaptable, the legs can be provided with telescoping end portions **14** (Figs. 4 and 10). These end portions can be fixed in any desired position by eccentric members **15** or by bolts to be entered in one of a series of holes **20**. It is possible to provide both devices for securing the extensions of the legs, one serving for coarse adjustment (bolts), the other for fine adjustment (eccenters).

In the embodiment shown in Fig. 5, arms **3***a* are shown which are illustrated as pointing in opposite direction from the ones of arms **3** as arranged in the other embodiments according to the present invention. The ends of arms **3***a* are connected to legs **1** by vertical struts **9**. The supporting cross-member **2** lies at the upper end of struts **9**, and the abutment **4** for the board lies at the upper end of legs **1**. The board will be inserted in fixed position between support **2** and abutment **4**.

When the trestles are used for blocking a street, as illustrated in Fig. 11, simple light-weight trestles **1** carry a slat **16**, the ends of which are secured between support and abutment, as described above. On one of the trestles, a hook **17** is provided, which can be used for suspending a lamp **19**. It is sometimes useful to provide a further supporting member **18** for placing up-ended slats thereon, extending in transverse direction from slats **16**, in which case places can be fenced off by means of the trestles according to the invention. Instead of slats, boards, pipes or the like can be placed in those members **18**, in order to provide some further road-blocking equipment.

Many modifications in the parts of the trestles may be made within the scope of the present invention. For instance, it is possible to use profiled iron instead of the tubes, shown as forming the legs in the embodiment illustrated in the drawings. Other building materials can be likewise used instead of the metal mentioned by way of example.

What I claim is:

In a trestle for scaffolding and the like, a pair of leg members extending downwardly and outwardly from each other, substantially horizontally extending members integral with said leg members each extending inwardly at an obtuse angle from each of said leg member, a transverse bar connecting said extending members, said extending members being at the same height; a saddle member connecting said leg member, said saddle member being formed with two stepped portions, a first wide upper portion and a second narrow longitudinal portion extending downwardly from said first portion and having a closed bottom, both of said portions forming board supports, whereby a beam may be supported by said upper portion, and an up-ended board in said second portion; said saddle member being arranged on a level below said transverse bar, whereby a wedging action is obtained between said saddle member and said transverse member, upon insertion of a beam or up-ended board.

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