(No Model.)

T. T. MOULTON.

TRESTLE.

No. 552,964. Patented Jan. 14, 1896.

Fig. 1.

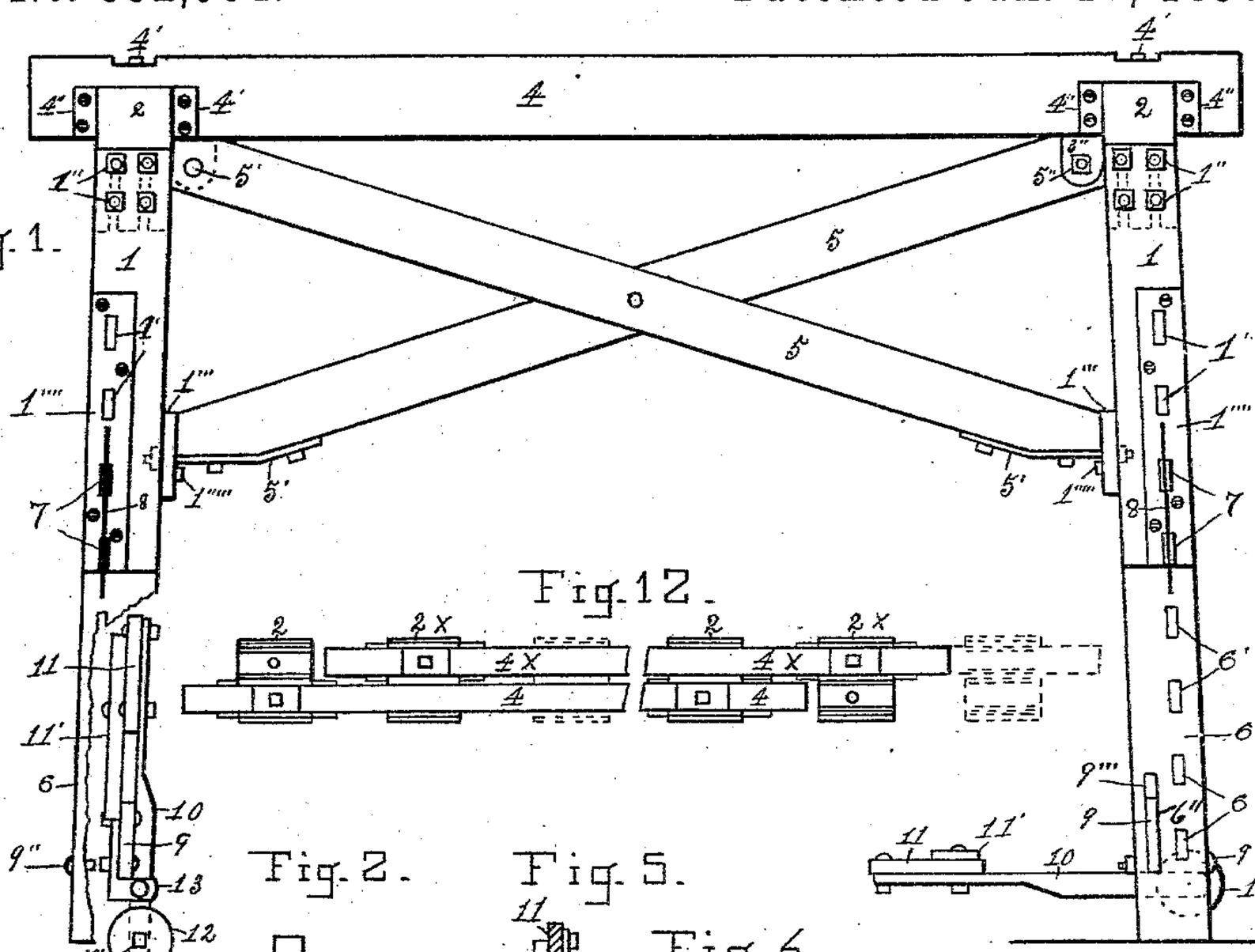


Fig. 12.

Fig. 2.

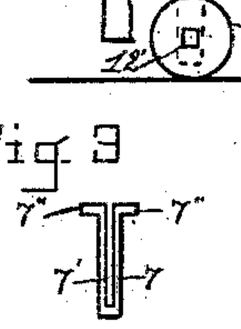


Fig. 5.

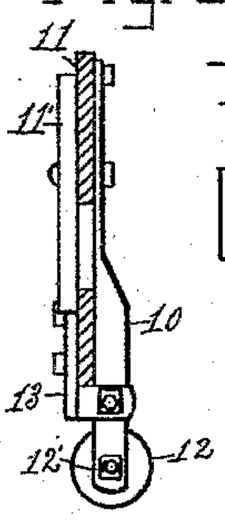


Fig. 6.

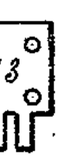


Fig. 7. Fig. 8.

Fig. 3

Fig. 4.

Fig. 9

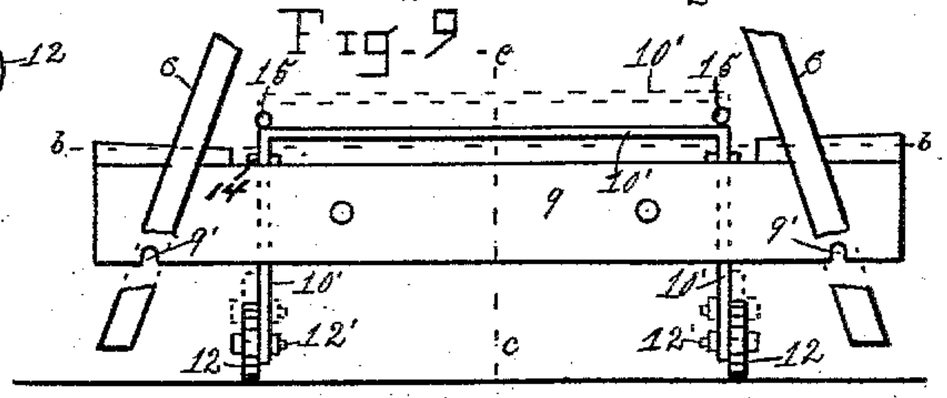


Fig. 10.

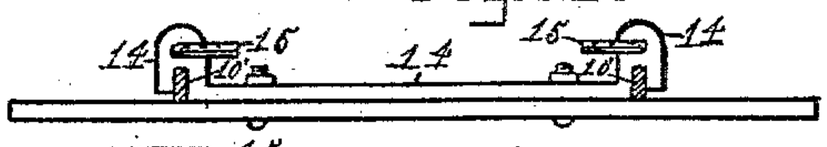
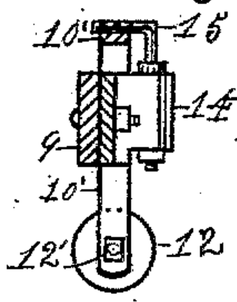


Fig. 11.



Witnesses=

Kenyan Miller.

C. M. Albee.

Inventor:

Truman T. Moulton.

By G. H. Albee.

his Atty.

UNITED STATES PATENT OFFICE.

TRUMAN T. MOULTON, OF NEENAH, WISCONSIN.

TRESTLE.

SPECIFICATION forming part of Letters Patent No. 552,964, dated January 14, 1896.

Application filed February 23, 1893. Serial No. 463,424. (No model.)

To all whom it may concern:

Be it known that I, TRUMAN T. MOULTON, a citizen of the United States, residing at Neenah, in the county of Winnebago and State of Wisconsin, have invented a new and useful Improvement in Trestles, of which the following is a specification.

My invention relates to trestles for the use of mechanics in the various branches connected with the erection and finishing of buildings, and particularly for the use of lathers and plasterers; and the object of my improvement is to provide a trestle that can be adjusted to various heights and lengths; one in which the weight thereof can be transferred from its feet to truck-wheels and upon which wheels the trestle can be moved from place to place; that is so constructed as to make said adjustments easily and quickly, and that can also be easily and quickly taken apart and be packed away into a small space for the purpose of storage or for its transportation. I attain these objects by means of the construction illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a trestle embodying my invention. Fig. 2 is an end view of the same. The following figures are details, Fig. 3 being a plan of a clamp which I use for connecting leg extension-pieces to the principal trestle-legs. Fig. 4 is a plan of a key for use with said clamp. Fig. 5 is a vertical section upon the line *a a* of Fig. 2, looking toward the left, of a truck-frame and girt of the trestle, upon the wheels of which the trestle can be rolled from place to place. Fig. 6 is a plan of the outer side of a fulcrum-plate upon which the truck-frame is pivoted. Figs. 7 and 8 are top views of the two socket-pieces for receiving the top bar and legs of the trestle. Fig. 9 is an elevation of the lower end of the leg extension-pieces and the lower trestle-girt with a modification of a truck-frame. Fig. 10 is a top view of said modification, the iron of the truck-wheel-carrying bars being cut upon the line *b b* of Fig. 9, and are shown in section. Fig. 11 is a vertical section, upon the line *c c* of Fig. 9, of said truck-frame and trestle-girt, and Fig. 12 a plan, upon a reduced scale as regards the length of the top bars of the trestle, of two trestles coupled together for the purpose of obtaining greater length of trestle-supports.

Similar figures of reference indicate like parts in the several views.

The heavy lines under the trestle-legs and wheels represent a floor.

1 indicates the trestle-legs; 1′, mortises therein; 1″, trestle-leg bolts; 1‴, girts upon the trestle-legs; 2, trestle-leg socket-pieces; 2′, ears thereon for connection to the trestle-legs; 2″, slots in said ears; 3, slots in the leg socket-pieces for receiving the trestle-cap or top bar; 3′, bolt-holes in said slots; 3″, an arm upon the leg socket-pieces for the connection thereto of a brace; 4, cap-pieces or top bars of the trestle; 4′, bolts in the cap-pieces for their connection to the socket-pieces 2; 4″, shoulder-pieces upon the cap-pieces; 5, braces; 5′ and 5″, bolts for connecting the brace to the girt 1‴ and arm 3″; 6, leg extension-pieces; 6′, leg-connecting mortises; 6″, girt-mortises; 7, a clamp; 7′, a slot therein; 7″, the head of the clamp; 8, a key; 9, a girt connecting the leg extension-pieces; 9′, notches in said girt; 9″, bolts in the leg extension-pieces for engaging the notches 9′; 9‴, a girt-key; 10, truck-wheel bars; 10′, truck-wheel bars in a modification thereof; 11, truck-wheel-bar-connecting piece; 11′, a button upon said connecting-piece; 12, truck-wheels; 12′, bolts connecting truck-wheels and bars; 13, fulcrum-plates; 14, guides for the bars 10′; 15, buttons connected to the guide-piece 14.

The trestle illustrated in the drawings consists of an upper and lower part, the upper one being a complete trestle and the lower part consisting of leg extension-pieces connected together by a girt.

I will first describe the upper part. It consists of two pairs of legs 1, the legs of each pair being surmounted by and connected to a socket-piece 2. Each pair of legs are provided with a girt 1‴, and each socket-piece is provided upon its upper side with two parallel slots 3, the slots upon one side thereof having a cap-piece or top bar 4, bolted to the socket-piece with the bolts 4′ through the holes 3′, and the slots upon the other side being adapted to receive the cap-piece or top bar of a similar trestle when greater length is required than the length of a single trestle.

Fig. 12 shows a plan of the top of the leg socket-pieces 2 and the cap-pieces of two trestles coupled together, said parts in one trestle being designated as 2 and 4, and in the other as $2^{\times}$ and $4^{\times}$ respectively. The two trestles being coupled together, as shown, and the trestles marked 2 and 4 being stationary, the trestles marked $2^{\times}$ and $4^{\times}$ may be moved longitudinally, as indicated by the dotted lines at its right. The amount of this movement may be nearly the entire distance between the socket-pieces of the shortest one of the two trestles.

For convenience in manufacturing the trestles it is desirable that the two slots 3 are of a corresponding form and size, but it is not, however, essential. If they are so made the cap-pieces of any number of trestles may be made of a uniform size between the socket-pieces and be adapted to fit the sockets at any point in their length between said socket-pieces. The bars are provided at each end of the slots 3 with a shoulder 4″, which shoulders may be integral with said cap-piece, or consist of a piece secured to the cap-piece with screws or rivets, as shown in Fig. 1. These shoulders, while they serve as a guide in connecting the parts, also serve to stiffen and brace the trestle against longitudinal swaying.

The socket-pieces 2 are provided with depending ears 2′, and each of said ears with slots 2″, for receiving the bolts 1″ of the trestle-legs. The purpose of these slots is for the easy and quick connection and disconnection of the trestle-legs from said ears. By turning the nuts upon the bolts 1″, said bolts can be loosened and the legs removed from said ears without removing the bolts from said legs or incurring a liability of losing the bolts when the trestle is taken apart, and during the transportation of the several pieces from place to place. The socket-pieces are each provided with an arm 3″, upon which one end of a brace 5 is bolted, the other end of the brace being connected to the girt 1‴ upon the companion pair of legs by means of a bolt 5′, said girts being secured to each leg of a pair upon their inner edge with bolts 1⁗, the girts being thereby out of the way of the leg extension-pieces 6.

The legs of this trestle are each provided with mortises 1′, for the purpose of receiving connecting devices and being connected to the leg extension-pieces 6. The connecting device for each leg consists of two clamps and a key. The clamp 7 is provided with a slot 7′ and ears 7″. The outer end of each clamp is of a wedging form internally, corresponding with the wedging form of the key, as indicated by the dotted lines near the ends of the clamps in Fig. 2, one clamp being also longer than the other.

The leg extension-pieces 6 are each provided with mortises 6′, corresponding in their size and position with the mortises 1′ of the legs 1. The clamps are adapted to have their closed ends pass through the mortises of the legs and extension-pieces 6 and to receive the key 8 in the slot 7′. The extension-pieces are applied to the legs 1 by placing them alongside thereof, inserting the two clamps and driving the key through said clamps, when the trestle-leg and extension-piece will be clamped tightly together between the key and head 7″ of the clamp.

The legs 1 should be faced with a metallic plate 1⁗ upon their outer side, around the mortises 1′, for providing a non-elastic surface against which to drive the key. A similar plate may also be placed upon the inside of the leg extension-pieces for receiving the pressure of the clamp-head 7″.

Each pair of leg extension-pieces is provided with mortises 6″ for receiving a connecting-girt 9, which is connected to each leg extension-piece and held rigidly in position by means of the notches 9′ in the lower edge of the girt, which notches engage with bolts 9″ and are firmly held thereon by means of keys 9‴, which are driven into the girt-mortises above the girt. The bolts 9″ pass through the leg extension-pieces in the direction of their width a little above the bottom of the girt-mortises and permit the notches to engage said bolts.

For the purpose of moving the trestles from place to place in a building truck-wheels are provided and are connected with the lower girt of the trestle in such a manner that they can be brought into an operative position—that is, they can be lowered to the floor and the trestles raised from it, so as to have the weight of the trestle carried by the wheels of said trucks. A device for this purpose is shown upon the trestle in Figs. 1 and 2, Fig. 1 showing at the right hand of the trestle said device as it will appear when not in use, and at the left-hand end, and also in Fig. 2, it is shown in position for use, with the wheels of the truck below the lower end of the trestle-legs. This device I construct of two bars 10, which are provided upon one end of each bar with a wheel 12, which wheels are connected to the bar with a bolt 12′ and are revoluble upon said bolts. Two fulcrum-plates 13 are bolted to the girt 9, each plate having one of said bars pivoted to it at a desirable distance from their wheel for giving the required leverage to the bars for the easy raising of the trestle from the floor. These bars may be separate from each other and each bar be provided with a fastening device for holding the wheels in an operative position, but for convenience in operating both bars and the wheels thereon and raising one end of the trestle with one motion of the hand the bars may be connected together at their upper ends. In the drawings, Figs. 1, 2 and 5, this is done by means of a connecting-piece 11; but the iron or other material of said bars may, if desired, be continuous from one truck-wheel to the other. Upon the piece 11 a button 11′ is pivoted so as to be turned down and catch upon the girt 9 when the bars and connecting-piece 11 are elevated, as shown

at the left-hand legs in Fig. 1, the leg extension-piece 6 at its lower end in said figure being broken away, and showing the device thus elevated and secured in position.

Figs. 9, 10, and 11 show a modification in the arrangement of the truck-wheel device. Fig. 9 is an elevation showing the girt 9 with a portion of the lower end of the leg extension-pieces 6 and the truck device connected to the girt. This device consists of a single bar 10′, having wheels connected to it in a like manner as are the wheels to the bars 10. The bar is bent so as to have portions of each end thereof parallel one with the other. A guide-piece 14 is provided and is bolted to the girt 9, it having grooves therein which are adapted to receive the parallel ends of the bar 10′ (see Fig. 10) and to permit said ends to move easily up and down in said grooves. Each end of the guide is provided with a button 15, said buttons being arranged to turn upon said guide-piece, and are for the purpose of being turned over the bar 10′, for holding it, and the wheels thereon, down upon the floor when the weight of the trestle is thrown upon the wheels. In Fig. 9 the bar 10′ is shown in heavy lines, with the buttons turned over it for holding it down. Fig. 11 also shows the buttons turned over the bar and the wheels at their lowest position, but Fig. 10 shows the buttons turned away from said bar, in which case the bar and wheels will assume the position indicated by the dotted lines 10′ in Fig. 9, and the trestle-legs be lowered to the floor. Either device may be applied to the trestle, whether the trestle is provided with the leg extension-pieces or not, and being applied and thrown into operative position the trestle can be moved upon them to the desired point, the truck-wheels then thrown out of said position, and the legs of the trestle allowed to fall to the floor, where they will rest more firmly than when the trestle is supported upon wheels.

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

1. The combination in a trestle, of a socket piece having two ears depending therefrom, each ear being provided with slots extending from the lower end of said ear upward, and two trestle legs provided with bolts in their upper ends, which bolts are arranged for entering said slots, and for securing the legs to said ears, substantially as described.

2. The combination in a trestle, of a pair of socket pieces, each socket piece having ears depending therefrom, each ear having a trestle leg secured thereto and a girt connecting the legs of each socket piece, two parallel slots upon the upper side of each socket piece, and a trestle cap piece, or bar, secured near each end thereof to a corresponding slot of each socket piece, and a brace connecting each socket piece with the girt upon the legs of the opposite socket piece, substantially as described.

3. The combination with the legs of a trestle, having mortises therein, of leg extension pieces having mortises corresponding with the aforesaid mortises of the trestle legs, a clamp having a head upon one end thereof, a slot in its opposite end and a key for said slot, said clamp being adapted to enter the mortises aforesaid and the key adapted to be driven into the slot of the clamp and to clamp said trestle leg and extension piece together, and between the head of said clamp and the key, substantially as described.

4. As a device upon which to elevate a trestle and move the same from place to place within a building, the truck wheels 12, arranged for revolution upon the bar 10′, the guide piece 14 secured to the girt of the trestle legs, said bar being adapted for a vertical movement within the guide piece aforesaid, and the buttons, 15, arranged to be turned over said bar and to retain said truck wheels at the lowest limit, relative to the trestle, of said vertical movement, substantially as described.

TRUMAN T. MOULTON.

Witnesses:
M. W. KRUEGER,
H. F. KRUEGER.