2 Sheets—Sheet 1.

# T. MIKEAL.

## Combined Ladder and Trestle.

No. 215,234. Patented May 13, 1879.

*Fig 1.*

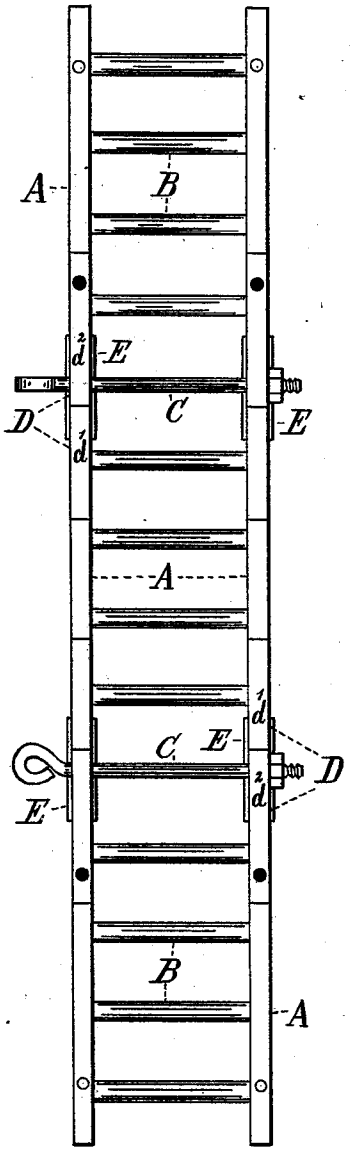
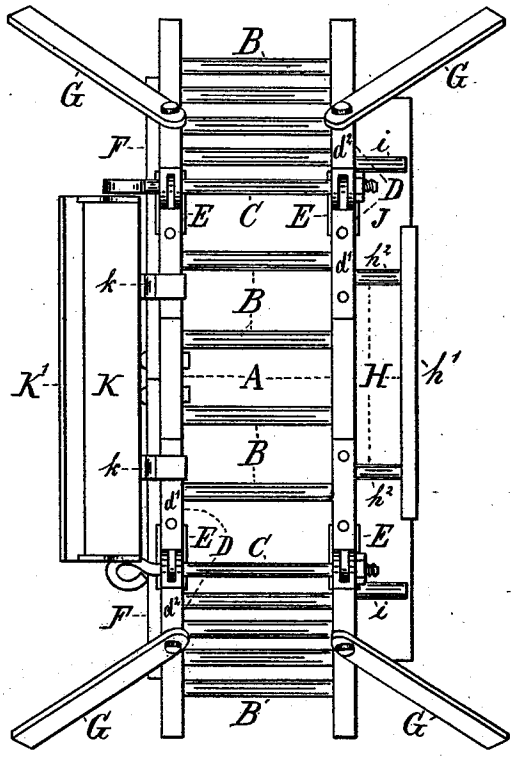



*Fig. 2.*




*WITNESSES.*

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2 Sheets—Sheet 2.

# T. MIKEAL.

## Combined Ladder and Trestle.

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Fig. 3.

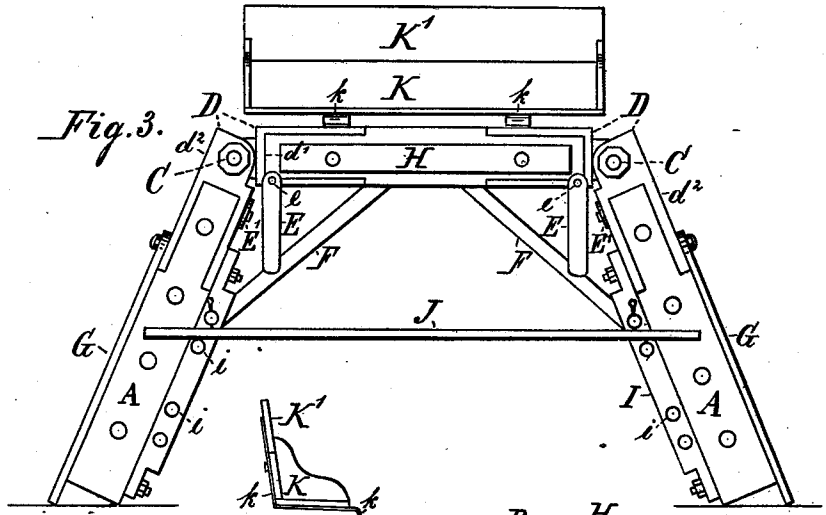



Fig. 4.

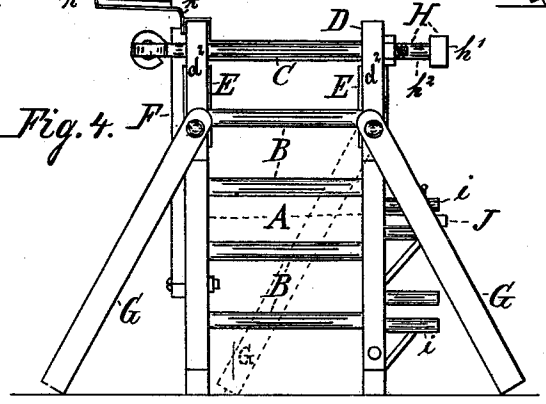



Fig. 5.

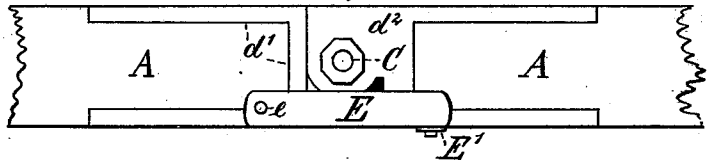
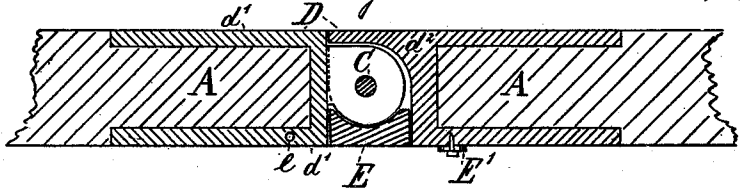



Fig 6.




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# UNITED STATES PATENT OFFICE.

THOMAS MIKEAL, OF PLAINFIELD, INDIANA.

## IMPROVEMENT IN COMBINED LADDER AND TRESTLE.

Specification forming part of Letters Patent No. **215,234**, dated May 13, 1879; application filed March 24, 1879.

*To all whom it may concern:*

Be it known that I, THOMAS MIKEAL, of the town of Plainfield, county of Hendricks, and State of Indiana, have invented certain new and useful Improvements in Combined Ladder and Trestle, of which the following is a specification, reference being had to the accompanying drawings, which are made part hereof, and on which similar letters of reference indicate similar parts.

Figure 1 is a plan or front elevation of my device when in the form of a ladder, all the parts not necessary in this use being removed. Fig. 2 is a top or plan view thereof when in the form of a trestle or scaffolding. Fig. 3 is a side elevation, and Fig. 4 is an end elevation, of the device in the same form as shown in Fig. 2. Fig. 5 is a side elevation of one of the joints when the device is in the form of a ladder. Fig. 6 is a similar view to Fig. 5, except that it is shown in section.

In said drawings those portions marked A are the rails or beams of the ladder or trestle, which are each made of at least three pieces, with two joints, which allow the end pieces to swing into position as the legs of the trestle, when the device is used in this form, while the central part forms the top of such trestle. If it is desired to increase the length or height of the device, other pieces may be added, which should be connected to the ends of the rails A with rigid or stiffened joints.

B B are the ladder-rungs, which are made and inserted in the ordinary or any approved manner. C C are rods or bolts which form the hinge-pivots for the joints in the device, and may also serve as two of the ladder-rungs if the ordinary rungs are in the proper relative position thereto. D D are the joints, composed of the metal pieces $d^1$ $d^2$, which, when connected by the pivot-rods C or their equivalents, form the hinges. They are so formed that at one side they will come squarely together when the rails A A are straight, while the formation of the other side permits the rails to come to the position best shown in Fig. 3.

In order to make the joints D rigid when the device is used as a ladder, blocks E, made to fit into the open space on the under side of said joint, are pivoted to the rails by pivots *e*, in the proper position to accomplish this object. When in use, as shown in Figs. 5 and 6, they are secured by the button E′. These blocks make the joints practically rigid, and the ladder is made as steady and secure as though the rails were continuous instead of in pieces. When not in use (as when the device is used as a trestle) the blocks E hang loosely upon their pivots, as shown in Fig. 3.

F F are braces, which, when the device is in the form of a trestle, hold it firmly in that position, as best shown in Fig. 3. G G are props or stays, which serve to prevent the device from tipping or jostling when used as a trestle. H is a removable device, formed of a beam, $h^1$, and two or more bars, $h^2$ $h^2$, and which rests against the wall when the trestle is used in painting or other work upon the inside or outside of a building. Presenting a continuous front, it is not so liable to bruise or mar the wall as the bars would be if used without the beam. When this device H is used the stays G G are usually all turned in one direction, as indicated by dotted lines in Fig. 4.

There may be bolted to the rails A A bars I I, from which project pins *i i*, upon which a plank, J, shall rest, thus forming a staging. Several sets of these pins may be employed, at suitable distances from each other, and the plank can be changed from one to another, thus bringing within the convenient reach of the user a largely-increased area of wall-surface.

For the convenience of the user, as a handy place to deposit tools, paints, &c., I have constructed the settee-like device K in such a form that it may conveniently be attached to one of the top rails of the trestle. The standards thereto, *k k*, are preferably formed of flat bars of metal, and are simply bent into the required form. The back K′ is made wide, and a large part thereof is so constructed that it may be removed and used as a flooring for the trestle.

To facilitate the moving of the trestle from one place to another when used inside of a building, I place trucks or casters under the legs, but preferably remove them before again putting it in use. No casters, however, are shown in the drawings.

When the device is to be used as a ladder, the parts F, G, H, I, J, and K are removed.

When it is used as a trestle they are employed in whole or in part, as may be necessary or convenient, and are attached as shown, and fulfill the uses specified.

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

1. The combination, with the hinge-joint D, of the part E, constructed to fit into the space between the two parts of said joint on the under side, when the rails are straight, and hold said joint rigid, substantially as shown and specified.

2. In combination with the trestle, the settee-like device K, having standards *k k*, constructed to clasp and rest upon one of the rails A, substantially as herein shown and specified.

3. The combination, with the legs of a combined ladder and trestle, of the removable parts I I, having sets of pins *i i*, to support a transferable staging, substantially as shown and specified.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 20th day of March, A. D. 1879.

THOMAS MIKEAL. [L. S.]

In presence of—

C. BRADFORD,

CHARLES W. WARREN.