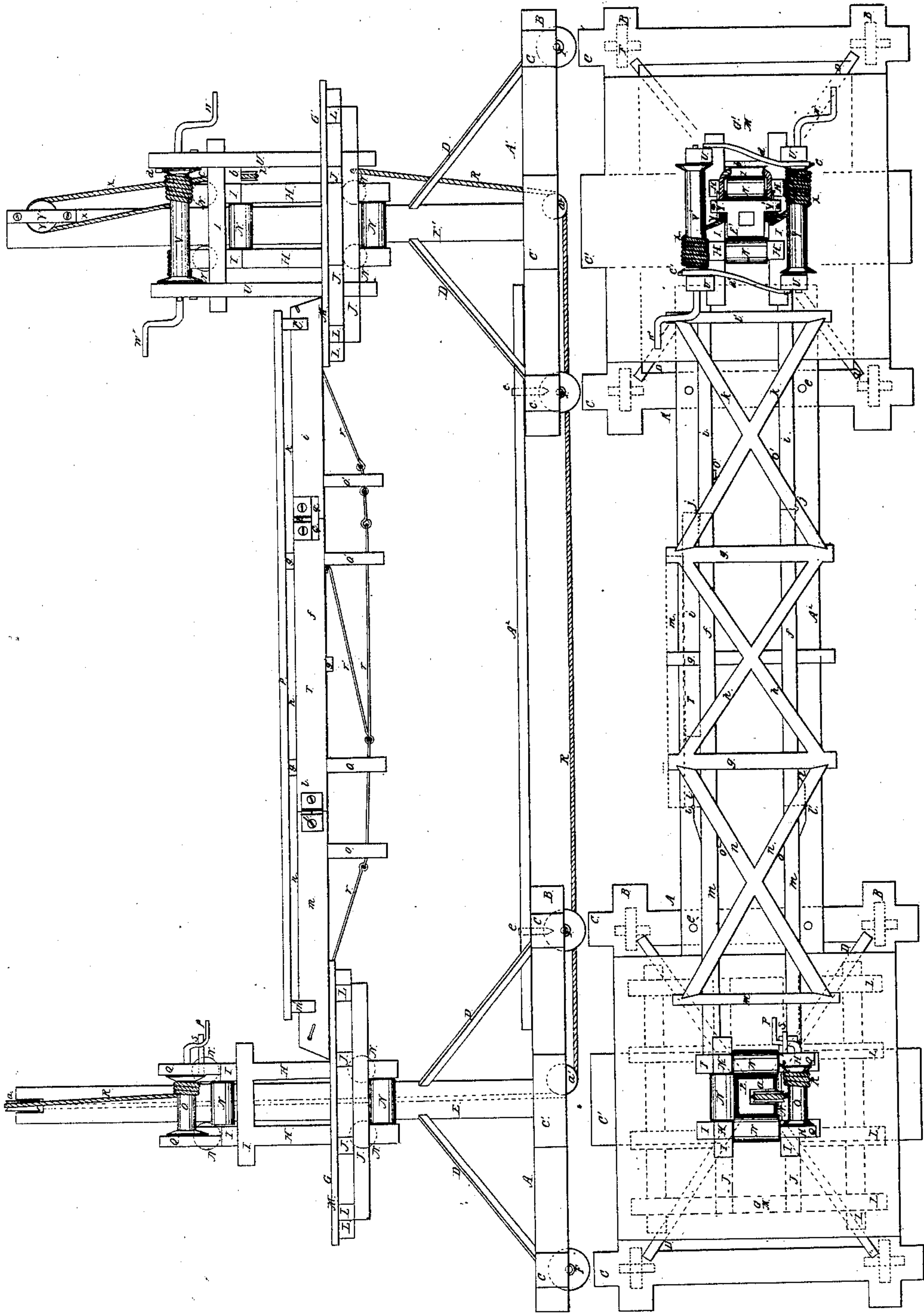


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*N<sup>o</sup> 11,694.*

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# UNITED STATES PATENT OFFICE.

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## PORTABLE STAGING.

Specification of Letters Patent No. 11,694, dated September 19, 1854.

*To all whom it may concern:*

Be it known that we, WM. P. GOOLMAN and SAMUEL MORRIS, both of Springtown, in the county of Hendricks and State of Indiana, have invented a new and useful Portable Staging; and we do hereby declare that the same is described and represented in the following specifications and drawings.

To enable others skilled in the art to make and use our portable staging we will proceed to describe its construction and use referring to the drawings in which the same letters indicate like parts in each of the figures.

Figure 1, is an elevation of the staging ready for use. Fig. 2, is a plan or top view.

The nature of our invention consists in so connecting two platforms on separate standards that the operator on one of them can raise or lower both of the platforms simultaneously. Also in hinging the rails of the connecting platform so that they may be folded to use part of its length or folded so as to occupy less space in transporting from one place to another.

In the above mentioned drawings A A' are two square frames consisting of two side bars B B connected by the cross bars C C C' fastened to them. In the center of each of the middle cross bars C' the hollow standards E E' are fastened and supported by braces D D, &c., as represented extending from the corners of the frames A A to the standards E E'. Each of the frames A A are provided with four rollers upon which the frames may be moved, two of these rollers are represented at F F in each frame in Fig. 1.

The traversing platforms G and G' are fitted to traverse on the standards E and E'. To make the platform G, the four parts H H are connected together by the four bars I I near the top which are fastened to them and by the four bars J J near the bottom, the four last named bars in connection with the bars L L L L form the frame for the floor M of the platform to rest upon which floor is properly fastened to said frame. There are four rollers N N at each end of the frame between the posts H H which rollers are provided with pivots which turn in holes in the posts H H, as the rollers roll against the standard E when the platform is traversed upon it. There is a windlass O, provided with a crank P, which windlass turns in the boxes Q Q

fastened to the posts H H to wind up the rope R fastened to it and raise the platform which may be held at the desired height by the pins inserted in the post H to prevent the crank P from turning. The rope R passes over the sheave  $a$  in the top of the standard E and descends through it and under the sheave  $a'$  at the bottom then across under the sheave  $a^2$  at the bottom of the standard E' and up by the side of the standard to the platform G' on said standard to which it is fastened thereby connecting the two platforms so that if the platform on the standard E' is traversed in either direction it will traverse the platform on the standard E the same distance in the same direction so that the staging or bridge T will be moved the same distance up or down at each end and continue in a horizontal position.

The frame of the platform G' on the standard E' is similar to the frame of the platform upon the standard E except that it has four additional posts U U fastened to the cross bars J J; it is also provided with two windlasses V V' fitted to turn in boxes fastened to the posts U U and provided with cranks W W' by which they may be turned to wind the rope X which is fastened to each of them and passes up over the sheaves Y Y (which turn behind the brackets Y' Y' fastened to the sides of the standard E) and down under the sheave Z which turns behind a bracket fastened to the bar I of the frame. Each of these windlasses is provided with ratchet wheels  $c c'$  which are caught by the pawls  $d d'$  which vibrate on screws in the posts U U so as to catch and hold the windlasses as they are turned to wind up the rope X, which draws up the platform G'. A stiff plank A<sup>2</sup> is laid across from the frame A to the frame A' and some pins put in as represented at  $e e$  to prevent the rope R from drawing the frames together by the weight of the platform G.

The center frame of the bridge T consists of the two side bars  $f f$  connected together by the cross bars  $g g$  at the top and the cross bar  $g'$  at the bottom which cross bars are fastened to the side bars, and the diagonal braces  $h h$  between the bars  $g g$  hold the frame square. The bars  $i i$  are connected to the bars  $f f$  by hinges  $j j$  and have the cross bar  $i'$  locked into them by cutting a score in each piece, and then the



end frame is braced by the diagonal braces  $k k$  as represented. The cleats  $l l$  are fastened to the bars  $f f$  and similar cleats are fastened to the bars  $m m$ ; to these cleats  
 5 the hinges  $l' l'$  are fastened so that when the bars  $m$  are swung around as represented by dotted lines  $m'$  there will be room for the bar  $i$  (which should be swung around first) as represented by dotted lines  $i^2$  between  
 10 the bars  $f$  and  $m$ , when the apparatus is folded up for transportation after removing the end cross bars  $i'$  and  $m'$ ; the frame consisting of the bars  $m m$  and  $m'$  is braced by the braces  $n n$ . There are some posts  
 15  $o o o' o'$  fastened to the bars  $m, f$  and  $i$  which posts are provided with scores near their lower ends for the rods  $r r r$  which are hooked together and extend from the outer end of the bars  $m$  to the outer end of  
 20 the bars  $i$  as represented to sustain and support the middle of the bridge T. To complete this bridge boards or planks  $p$  may be laid upon the bars  $m', g g$  and  $i'$  for the workmen to walk on see Fig. 1. When  
 25 a short staging is required the braces  $k k$  may be removed with the bar  $i'$  and the bars  $i i$  swung around by the sides of the bars  $f f$  and the platforms G G and G' moved toward each other, so that the ends  
 30 of the bars  $f f$  would rest on the platform G' and when so arranged the extra link or rods  $r'$  would support the center in connection with the rods  $r$ ; or the rods  $r r$  may be swung out of the posts  $o' o'$  before  
 35 the bars  $i i$  are swung around; and the rods  $r r$  raised up so as to enter the scores  $q q$  as the bars  $i i$  are swung around so that one of the short links in the rods  $r$  lies across in the scores  $q q$  after the bars  $i i$   
 40 are swung around so as to support the center under the hinge  $l'$  by the rods  $r r$  instead of the rods or extra links  $r'$ .

In using this staging the workmen on the platform G can raise or lower it by turning  
 45 the crank P; and the workmen on the platform G', can raise or lower both platforms

at the same time by turning either or both of the cranks W and W' so as to traverse the platforms and continue the bridge T in a horizontal position.

The advantages of our improvements are, 1st, the workmen on the platform G can raise and lower it as they desire; 2d, the workmen on the platform G' can raise and lower both platforms simultaneously and  
 55 traverse the bridge T or staging perpendicularly while it maintains its position horizontally; 3d, the facility with which it can be moved upon its wheels from place to place; 4th, the facility with which the  
 60 bridge can be folded up and the other parts taken to pieces so as to be readily carried upon a common wagon.

We contemplate that either of the platforms can be used without the other to re-  
 65 move persons or goods from the upper stories of buildings which are on fire.

What we claim as our invention and desire to secure by Letters Patent in the above described portable staging is—  
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1. Conducting the rope which supports the platform G, to the platform G' substantially as described and fastening it thereto, so that the workmen on the platform G' can traverse both platforms simultaneously in  
 75 either direction.

2. Connecting the bars of the connecting bridge with hinges, so that they may be folded to use part of its length, or so as to occupy a shorter space in transporting from  
 80 place to place.

3. The additional links  $r'$  so constructed arranged and connected with the other links so as to sustain and support the bars or rails of the bridge when the bars  $i i$  are swung  
 85 around to shorten said bridge substantially as described.

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Witnesses:

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