

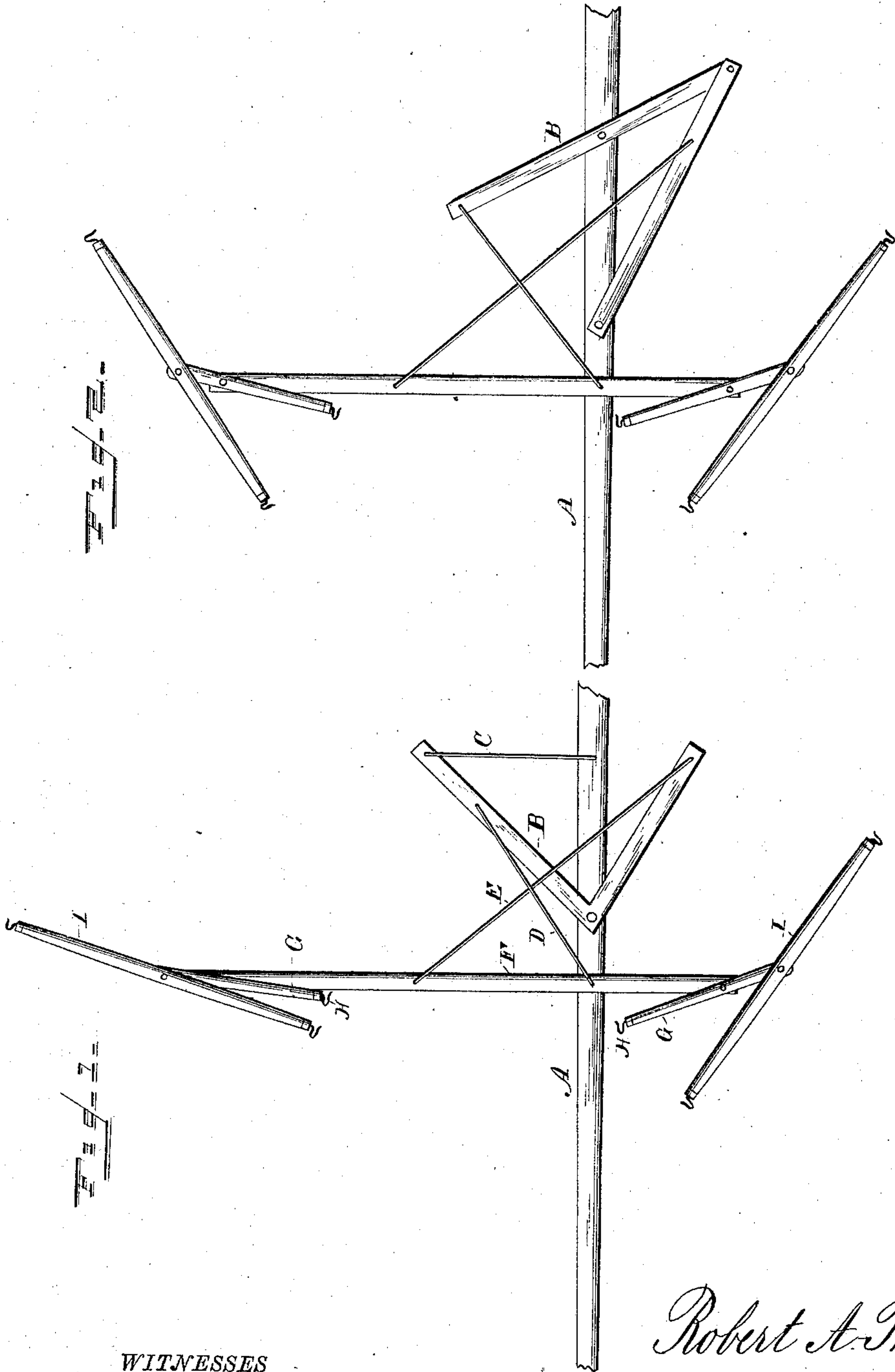
(No Model.)

R. A. THOMPSON.

DRAFT EQUALIZER.

No. 335,975.

Patented Feb. 9, 1886.



WITNESSES

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# UNITED STATES PATENT OFFICE.

ROBERT A. THOMPSON, OF WEAUBLEAU, MISSOURI, ASSIGNOR OF ONE-  
THIRD TO GEORGE W. MAIZE, OF SAME PLACE.

## DRAFT-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 335,975, dated February 9, 1886.

Application filed November 12, 1885. Serial No. 182,618. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT A. THOMPSON, of Weaubleau, in the county of Hickory and State of Missouri, have invented certain new and useful Improvements in Draft-Equalizer Attachments; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a plan view of my improved three-horse-draft equalizer, and Fig. 2 is a similar view of a slight modification of the same.

Similar letters of reference indicate corresponding parts in both the figures.

My invention has relation to three-horse-draft equalizers; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the tongue of a vehicle, and B is a V-shaped frame secured at its apex to the tongue, and having a brace, C, secured to the end of one arm and to the tongue to the rear of the apex of the frame. A short arm, D, or rod is pivotally secured near the end of one arm of the frame, and a longer arm or rod, E, is pivotally secured near the end of the other arm, and the forward ends of these rods, which cross each other, are pivoted to a double-tree, F, having its middle in a straight line from the inner pivotal point of the short rod. Two short double-trees, G G, are pivoted to the ends of this double-tree, and the inner ends of these double-trees are formed into hooks H, while the outer ends of the double-trees have the single-trees I pivoted to them. By this arrangement of the single-trees the horse in the middle will have the traces secured to the hooked inner ends of the short double-trees, and will be at the same side of the tongue as the inner end of the short pivoted rod, the said rod drawing the center of the double-tree to the side of the tongue at which its inner end is pivoted, and the double-tree will swing with the pivoted rods in an arc described by

the center of the double tree around the inner pivotal point of the short rod. In this manner the line of draft will be at one side of the tongue, while the draft will at the same time be exerted on the tongue, the line of draft being imaginary, and in turning the said line will swing with the double-tree so as to cause a less strain upon the tongue in turning than the lateral strain upon the same where the double-tree is simply pivoted upon the tongue, the strain being divided upon the pivoted rods and upon the triangular frame.

In Fig. 2 the triangular or V-shaped frame is shown secured to the tongue at the outer end of one leg and at or near the middle of the other leg, the apex pointing to one side; but the pivotal points of the inner ends of the rods remain in the same relative position, the modification being simply in the manner of securing the V-shaped frame upon the tongue.

By having the ends of the pivoted rods pivoted to the triangular frame all strain from the frame upon the tongue will come at oblique angles, thus saving the tongue from any direct lateral strain, which might break or injure the tongue.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a draft-equalizer, the combination of the tongue, a frame secured upon the inner end of the tongue and projecting to both sides of the same, a double-tree, a short and a long rod pivoted at their rear ends to the frame at both sides of the tongue and crossing each other and having their forward ends pivoted to the double-tree in such a manner as to bring the center of the double-tree in a line with the inner pivotal point of the short rod, short double-trees pivoted upon the ends of the double-tree and having their inner ends formed into hooks, and single-trees pivoted upon the ends of the short double-trees, as and for the purpose shown and set forth.

2. In a three-horse-draft equalizer, the combination of the tongue, a V-shaped frame secured at its apex upon the tongue and having one of its rearwardly-projecting legs connected to the tongue by means of a brace, a double-tree, a short and a long rod pivoted at their



rear ends to the legs of the frame and at their  
forward ends to the double-tree, crossing each  
other and bringing the center of the double-  
tree in a line with the rear pivotal point of  
5 the short rod, short double-trees pivoted at  
the ends of the double-trees and having their  
inner ends formed into hooks, and single-trees  
pivoted to the outer ends of the short double-  
trees, as and for the purpose shown and set  
10 forth.

In testimony that I claim the foregoing as  
my own I have hereunto affixed my signature  
in presence of two witnesses.

ROBERT A. THOMPSON.

Witnesses:

GEO. W. MAIZE,  
S. M. WOODFORD.