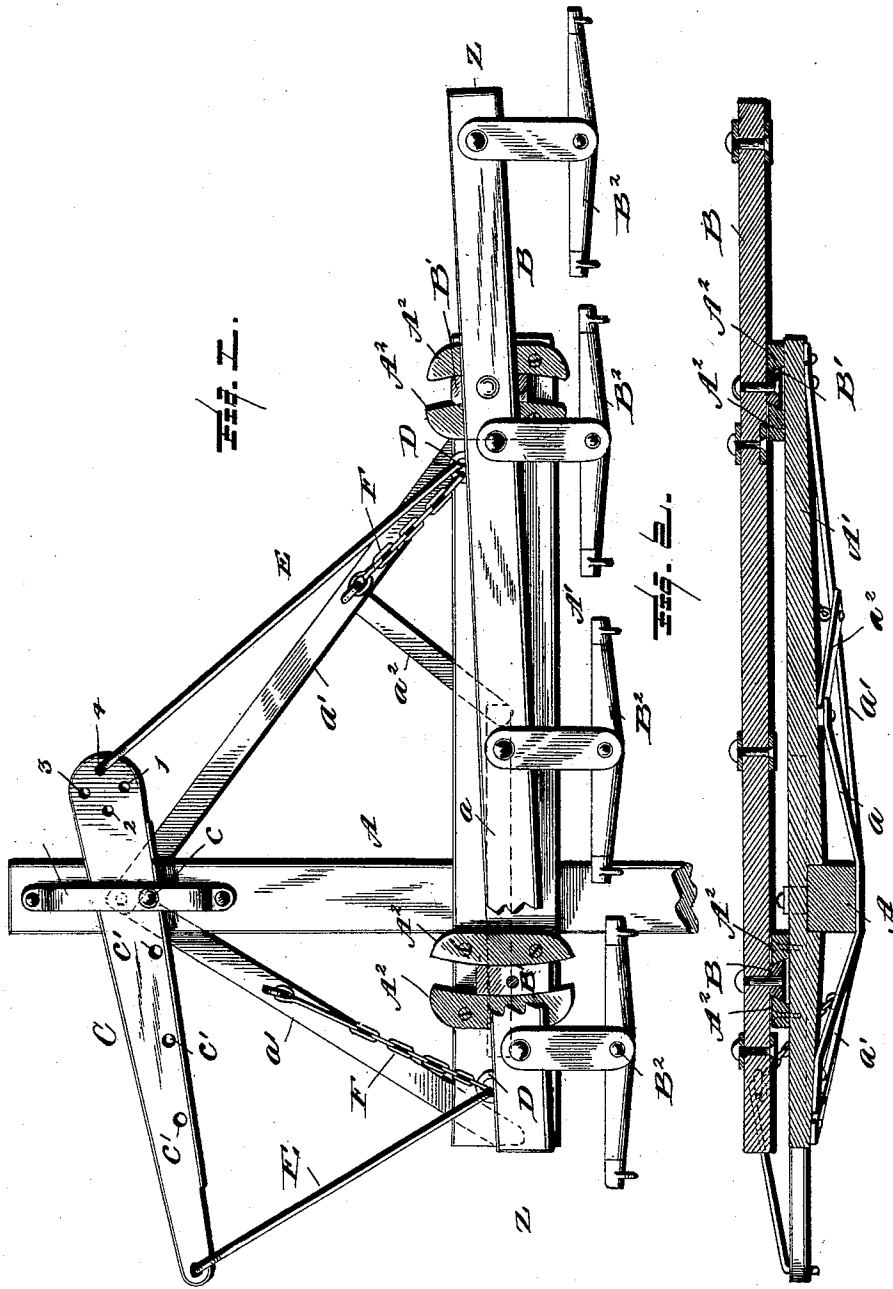


(No Model.)

J. L. HOOVER.
DRAFT EQUALIZER.

No. 480,262.

Patented Aug. 9, 1892.



Witnesses:
L. C. Hills
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UNITED STATES PATENT OFFICE.

JEREMIAH L. HOOVER, OF FISHERTOWN, PENNSYLVANIA.

DRAFT-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 480,262, dated August 9, 1892.

Application filed April 11, 1892. Serial No. 428,670. (No model.)

To all whom it may concern:

Be it known that I, JEREMIAH L. HOOVER, a citizen of the United States, residing at Fishertown, in the county of Bedford and State of Pennsylvania, have invented certain new and useful Improvements in Draft-Equalizers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

This invention relates to certain new and useful improvements in draft-equalizers; and it has for its object, among others, to provide an improved equalizer adapted for two, three, or more animals, which shall be simple and cheap in its construction, yet durable and most satisfactory in its results.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters and figures of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a top plan of my improvement with a portion broken away. Fig. 2 is a vertical section on the line $z-z$ of Fig. 1.

Like letters and figures of reference indicate like parts in both views where they appear.

Referring now to the details of the drawings by letters and figures, A designates the pole or tongue, to which is secured in any suitable manner the cross bar or plate A', which is suitably braced, as by the brace-bars a , extending lengthwise of the plate underneath the same, and, further, by the brace-arms a' , extending from near opposite ends of the plate rearward, where they are connected to the rear end of the pole or tongue, an additional brace-arm a^2 being employed, which connects the plate with one of the arms a' , as seen in both views.

Upon the upper side of the plate A', near opposite ends, are secured the curved dovetail guides A², in which are designed to slide loosely the curved correspondingly-shaped shoes B' upon the under side of the double-tree B, which is otherwise disconnected from

the plate or pole, and this doubletree carries a plurality of singletrees B², four being shown.

C is a lever pivoted upon the rear end of the pole or tongue, as at c , the pivot being removable and passed through a plate or bar C', as seen in Fig. 1. This lever is provided with a plurality of holes c' , for the reception of the pivot, and near its inner end it is provided with four holes 1, 2, 3, and 4, arranged in a circle, as seen in Fig. 1.

The rear face of the doubletree has the hooks or clevises D, to which are connected the rods or links E, one of which connects with the outer end of the lever and the other with the inner end of the same removably.

F are stay-chains connecting the double-tree with the brace-rods a' to limit the movement of the doubletree and prevent the shoes from moving out of their guides.

The operation will be readily understood. For four draft-animals the rod or link is placed in the hole marked 4 in the inner end of the lever C and the pivot c placed in the inner hole in the lever, as seen in Fig. 1. When the animal at the farthest end of the doubletree is to be discarded for three animals, place the rod or link in the hole marked 3 in the lever C and the pivot-pin c in the next hole in the lever. For two animals, one upon each side of the pole or tongue, place the pivot in the farthest hole in the lever, and so on, according to the number and positions of the animals.

What I claim as new is—

1. The combination, with the pole and the cross-plate thereon, provided with curved dovetail guides, of the doubletree having curved dovetail shoes to slide in said guides, the singletrees on the doubletree, the pivoted lever with adjustable pivot, and the adjustable rod connecting the doubletree and lever, as and for the purpose specified.

2. The combination, with the pole and the transverse plate thereon, provided with guides, of the doubletree disconnected from the pole or plate and provided upon its under face with curved shoes fitted to the guides, the adjustable pivoted lever, the adjustable connection between one end of the lever and the doubletree, and the rod connecting the

other end of the lever with the other end of the doubletree, as set forth.

3. The draft-equalizer described, consisting of the pole, the transverse plate thereon with
5 curved guides, the doubletree having shoes to slide in said guides, the lever pivoted to the rear end of the pole on an adjustable pivot and provided with a plurality of holes at its inner end, the rods connecting the lever with
10 the doubletree, one adjustably, the braces

for the plate, and the stay-chains connecting said braces with the doubletree, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence 15 of two witnesses.

JEREMIAH L. HOOVER.

Witnesses:

H. T. WRIGHT,

THOS. K. BLACKBURN.