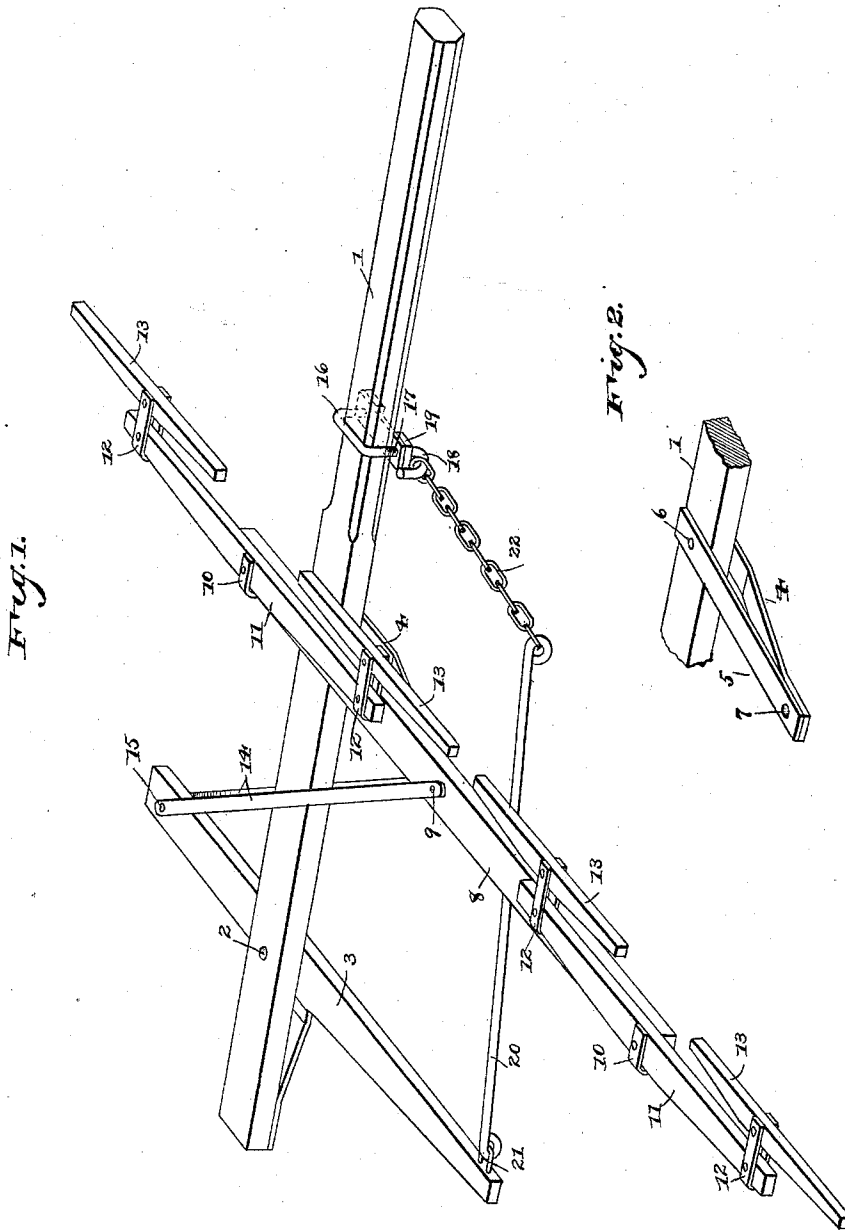


(No Model.)

F. L. ANDERSON.  
DRAFT EQUALIZER.

No. 473,895.

Patented May 3, 1892.



Witnesses

*B. S. Ober*

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# UNITED STATES PATENT OFFICE.

FURN L. ANDERSON, OF AUDUBON, IOWA.

## DRAFT-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 473,895, dated May 3, 1892.

Application filed December 12, 1891. Serial No. 414,875. (No model.)

*To all whom it may concern:*

Be it known that I, FURN L. ANDERSON, a citizen of the United States, residing at Audubon, in the county of Audubon and State of Iowa, have invented a new and useful Draft-Equalizer, of which the following is a specification.

My invention relates to improvements in draft-equalizers; and the objects in view are to provide an equalizer of cheap and simple construction adapted to be used in connection with mowers, reapers, plows, thrashers, and other heavy farm machinery designed to be drawn by four horses and to so construct the said equalizer as to accurately divide the draft between the four animals, so that each will draw one-fourth of the load. A further object of the invention is to provide means for adjusting the side draft.

With the above objects in view the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective view of a draft-equalizer embodying my invention. Fig. 2 is a similar view of the fulcrum-arm in detail.

1 designates the draft pole or tongue of the machine, and to the same, near its rear end, there is pivoted by a bolt 2 a lever or equalizing-bar 3, the bolt passing through the bar and tongue and through a metal clip 4, secured to the under side of the tongue. A bifurcated metal arm 5, designed to serve as a fulcrum, is pivoted by a bolt 6 a short distance in advance of the equalizing-lever 3, and pivoted to the outer end of the same by means of a bolt 7 is a doubletree 8, the inner end of the doubletree terminating opposite the tongue or draft-pole and the remaining end extending out and slightly beyond the longest terminal of the lever 3.

To the opposite ends of the main doubletree 8 there are secured by clevises or clips 10 secondary doubletrees 11, to the ends of which, by clips 12, singletrees 13 are loosely connected, thus bringing three singletrees at one side of the draft-tongue and one singletree at the opposite side thereof.

14 designates a pair of connecting-straps of metal, said straps embracing the upper and lower sides of the draft tongue or pole and

having their front ends pivotally connected to the bolt 9 of the main doubletree and their rear ends pivoted by a bolt 15 to the short end of the equalizing bar or lever 3.

A U-shaped clip 16 embraces the tongue or draft-pole 1 in advance of the main doubletree 8, and its terminals are passed through a clip-plate 17, located at the under side of the draft-pole, and beyond said plate one of the terminals is bent to form a hook 18. It will be observed that the clip-plate may be adjusted at any point along the draft-pole simply by loosening the nuts 19, located upon the two terminals of the clip under the clip-plate.

In an eye 21, connected to the longer end of the equalizing lever or bar 3, there is loosely connected the rear end of a metal rod 20, the front end of which terminates in an eye and loosely connects with a chain 22, any one of the links of which may be introduced over the hook of the clip, whereby the chain as a whole, or the connection between the clip and the equalizing bar or lever, may be increased or diminished.

From the foregoing description, in connection with the accompanying drawings, it will be obvious that I adjust to a nicety the draft, proportioning the same equally among the horses and provide means—namely, the adjustable chain connection—whereby I avoid the undesirable side draft.

Having described my invention, what I claim is—

1. The combination, with the draft-tongue and the equalizing bar or lever pivoted at one side of its center to the same, of the bifurcated fulcrum-arm pivoted at its inner end to the tongue, the main doubletree fulcrumed at its center to the outer end of the arm, the pair of diagonal straps embracing the tongue pivoted at their rear ends to the short end of the equalizing bar or lever and at their front ends to the fulcrum-bolt of the main doubletree, the secondary doubletrees pivoted to the opposite ends of the main doubletree, the singletrees pivoted to the ends of the secondary doubletrees, the inverted-U-shaped clip embracing the tongue and adapted to slide thereon and having one of its terminals bent to form a hook, the perforated clip for receiving the terminals, the nuts on the ends of the clip, the rod

loosely connected with the long end of the equalizing-lever, and the chain connected to the ends of the rod and adapted to connect with the hook, substantially as specified.

5 2. The combination, with the draft-tongue and the equalizing bar or lever pivoted at one side of its center to the same, of the fulcrum-arm pivoted to the tongue, the main doubletree pivoted at its center to the fulcrum-  
10 arm, the diagonal straps between the main doubletree and short end of the equalizing bar or lever, the doubletrees pivoted to the

opposite ends of the main doubletree, the singletrees at the ends of the secondary doubletrees, and the adjustable connection between  
15 the longer end of the equalizing bar or lever and the tongue, substantially as specified.

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

FURN L. ANDERSON.

Witnesses:

THEO. F. MORROW,  
CHARLES BAGLEY.