



# UNITED STATES PATENT OFFICE.

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## DRAFT-EQUALIZER.

960,687.

Specification of Letters Patent.

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*To all whom it may concern:*

Be it known that I, ALBERT B. OLSEN, a citizen of the United States, residing at Stearns, in the county of Lewis and Clark and State of Montana, have invented certain new and useful Improvements in Draft-Equalizers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to devices for equalizing the draft of several horses; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a plan view of the draft equalizer. Fig. 2 is a rear view of the same.

A is a main draft beam provided near its ends with hooks *b* or other similar fastening devices for connecting it to the agricultural implement or vehicle to be drawn along.

C is an equalizing lever which is pivoted at one end by a pin *c* to one end portion of the main draft beam A at a little distance from its extreme end.

D is a supporting bracket secured to one end of the main draft beam A, and E is a similar supporting bracket secured to the other end of the draft beam.

F is a long lever the middle portion of which is pivoted by a pin *f* to the bracket D at the left hand end of the draft beam A. One end of the lever F is provided with a link *f'* which engages with a hook *g* or other similar fastening device on the middle part of a whiffletree G.

H is a long link pivoted to the free end portion of the equalizing lever C by a pin *h*, and projecting across the end portion of the long lever F.

I is a whiffletree the middle portion of which is pivotally connected to the front end portion of the long link H by a hook *i* or other similar fastening device.

K is a link the rear end portion of which is pivoted by a pin *k* to the equalizing lever C at a point between its pivots and nearer to its pivot *c* than to its free end. The front end of the link K is pivoted by a pin *k'* to an adjustable extension plate L which is secured to the long lever F and which forms one end portion of the said lever.

M is a short lever the middle part of which

is pivoted by a pin *m* to the front end of the bracket E at the right hand end of the draft beam A.

N is a link which is pivoted at one end to the equalizing lever C by the pin *n*, hereinbefore referred to. The front end of the link N is pivoted to the inner end portion of the short lever M by a pin *n*. The outer end portion of the lever M is provided with a link *o* which engages with a hook *o'* or other similar fastening device on the middle part of a whiffletree O.

The three horses are harnessed to the whiffletrees G, I, and O, in the usual manner, and the links and levers are so proportioned that the three horses can draw the load with the greatest facility.

The draft equalizer can be made the reverse of that shown and described, that is to say with the equalizing lever projecting in the reverse direction instead of the direction shown, and with the remaining portions of the device arranged accordingly.

What I claim is:

1. In a draft equalizer, the combination, with a main draft beam, of an equalizing lever having one end pivoted to the draft beam, brackets secured to the ends of the draft beam, a long lever having its middle part pivoted to one of the said brackets, a short lever having its middle part pivoted to the other bracket, two links pivoted to the equalizing lever at one end and having their other ends pivoted to the adjacent end portions of the said long lever and short lever respectively, a long link pivoted to the free end portion of the said equalizing lever, and three whiffletrees having their middle portions pivoted respectively to the front end of the said long link and to the outer end portions of the long lever and the short lever.

2. In a draft equalizer, the combination, with a main draft beam, of an equalizing lever having one end pivoted to the draft beam, brackets secured to the ends of the draft beam, a long lever having its middle part pivoted to one of the said brackets, an adjustable extension-piece secured to the inner end portion of the said long lever, a short lever having its middle portion pivoted to the other bracket, two links pivoted to the said equalizing lever at one end and having their other ends pivoted to the adjacent end portions of the said extension-

piece and short lever respectively, a long  
link pivoted to the free end portion of the  
said equalizing lever, and three whiffletrees  
having their middle portions pivoted re-  
spectively to the front end of the said long  
link and to the outer end portions of the  
long lever and the short lever.

In testimony whereof I have affixed my  
signature in the presence of two witnesses.

ALBERT B. OLSEN.

Witnesses:

GEO. N. WHITE,  
M. C. COVINGTON.