A. WINSTON.
Draft-Equalizer.

No. 206,696. Patented Aug. 6, 1878.

FIG. 1.

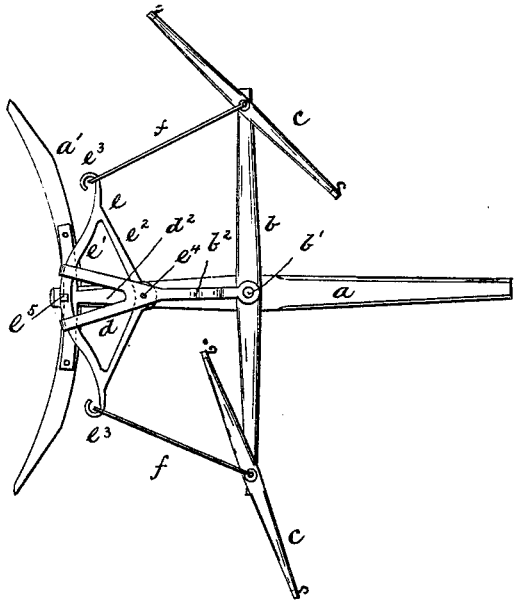


FIG. 2.

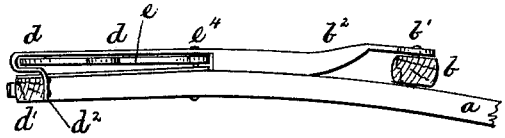


FIG. 3.

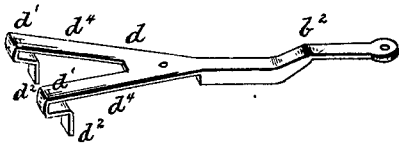
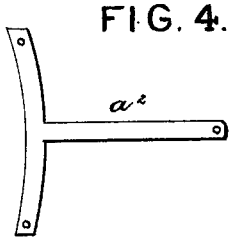


FIG. 4.



WITNESSES
Saml R. Turner
R. H. Lacey

By

INVENTORS
Alexander Winston
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UNITED STATES PATENT OFFICE.

ALEXANDER WINSTON, OF FAYETTE, IOWA, ASSIGNOR OF TWO-THIRDS HIS RIGHT TO OLIVER A. DAUD, OF SAME PLACE.

IMPROVEMENT IN DRAFT-EQUALIZERS.

Specification forming part of Letters Patent No. **206,696**, dated August 6, 1878; application filed July 2, 1878.

To all whom it may concern:

Be it known that I, ALEXANDER WINSTON, of Fayette, in the county of Fayette and State of Iowa, have invented certain new and useful Improvements in Equalizing Attachments for Whiffletrees; 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 pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

This invention consists in an improved sliding bar and draft-equalizing attachments for whiffletrees and double-trees, which will be hereinafter fully set forth.

In the drawings, Figure 1 is a plan of a wagon-tongue and double-tree with my improvements applied thereto. Fig. 2 is a vertical longitudinal section. Fig. 3 shows the retaining-strap, and Fig. 4 is the brace for holding the tongue and cross-head.

a is the tongue, having the cross-head a^1, and a^2 is the brace, which is applied thereto as shown. *b* is the double-tree, held to the tongue by the bolt or hammer b^1 and hammer-strap b^2. *c c* are the whiffletrees.

d is a bifurcated bar, united, by preference, to the rear end of the hammer-strap b^2. It has its ends bent down and under, so as to form the guide-loops d^1 d^1, in which the equalizing-bar slides, and the flanges d^2 bent downward, so as to provide suitable means whereby it is secured to the cross-head a^1, as shown in Fig. 2.

e is the equalizing-bar, composed of the slide-bar e^1 and the supporting-bar e^2, united as shown, and has formed on its ends the hooks or eyes e^3. It is placed between the bar *d* and the tongue *a*, and is pivoted on a pin, e^4, which passes through the bar *d* and the center of the supporting-bar e^2 into the said tongue.

The curved sliding bar e^1 slides back and forth in the loops d^1 d^1. It is provided with a stop, e^5, arranged centrally on its upper side, which stop moves between the arms d^1 of the bar *d*, and thereby limits the play of said equalizing-bar.

f f are the stay-rods which connect the ends of the equalizing-bar *e* with the bolt c^1 of the whiffletrees *c*, as shown.

The bar *e*, having its center of motion on the pin e^4, in front of the line of movement of the sliding bar e^1, serves as a draft-equalizer between the ends of the whiffletree. The stop e^5 checks the rear movement of any given side or end of the whiffletree, and prevents the latter from striking against the wheel.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In combination with the double-tree *b* and tongue *a*, the rocking equalizing-bar *e*, having hooks or eyes e^3, and pivoted to the said tongue in rear of said double-tree, and rods *f*, arranged to operate substantially as and for the purposes set forth.

2. The bifurcated bar *d*, having the loops d^1 and flanges d^2, in combination with the rocking bar *e*, composed of the supporting-arms e^2 and sliding bar e^1, having stop e^5, and hooks or eyes e^3, rods *f*, double-tree *b*, and tongue *a*, substantially as and for the purposes set forth.

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

ALEXANDER WINSTON.

Witnesses:
WM. L. POTTER,
JOHN SANBORN.