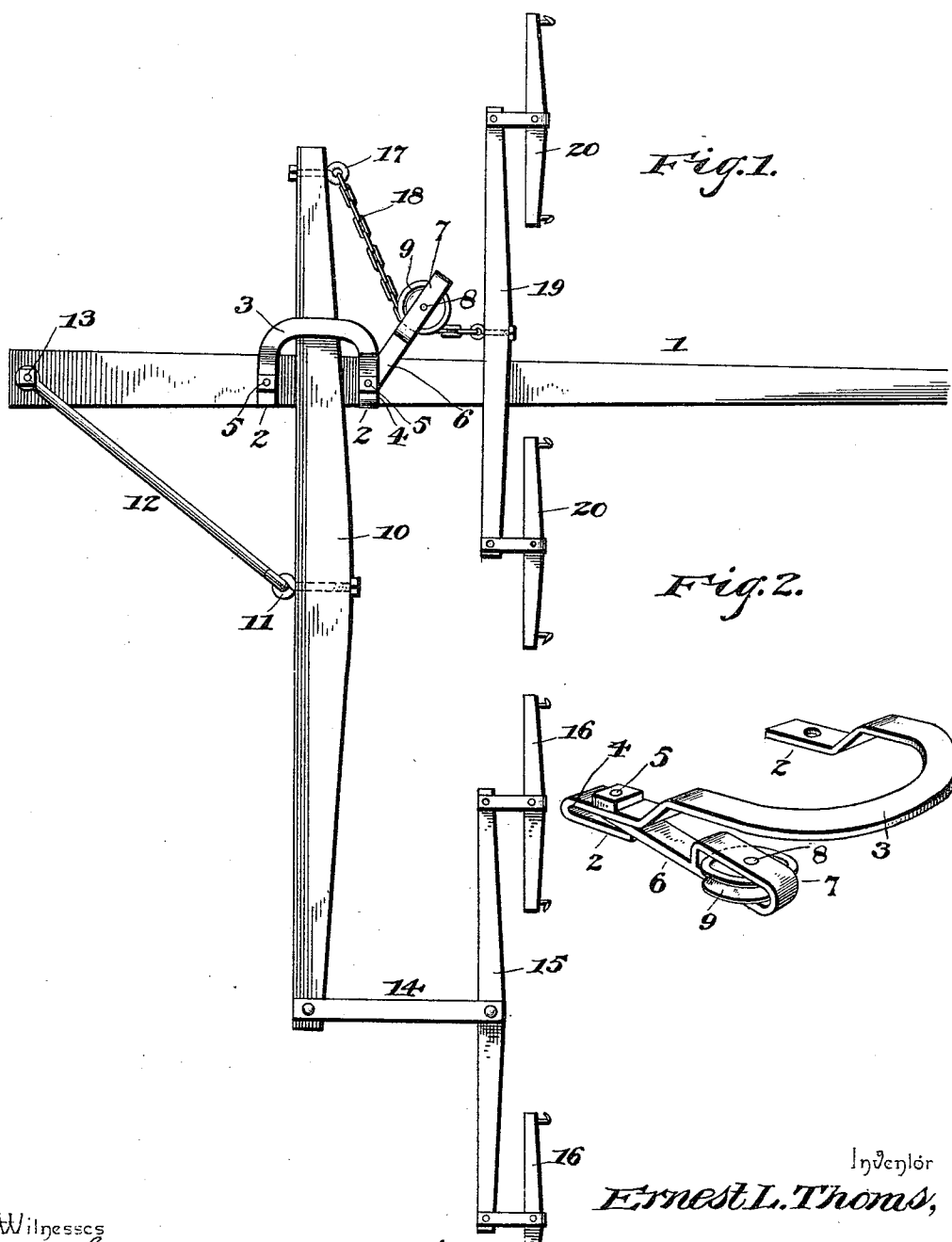


(No Model.)

E. L. THOMS.  
DRAFT EQUALIZER.

No. 525,873.

Patented Sept. 11, 1894.



Witnesses  
B. S. Ober  
W. S. Duval;

By *his* Attorneys.

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# UNITED STATES PATENT OFFICE.

ERNEST L. THOMS, OF ASHBY, MINNESOTA.

## DRAFT-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 525,873, dated September 11, 1894.

Application filed November 7, 1893. Serial No. 490,293. (No model.)

*To all whom it may concern:*

Be it known that I, ERNEST L. THOMS, a citizen of the United States, residing at Ashby, in the county of Grant and State of Minnesota, 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 adapted for three or four horses, and so constructed as to equalize the draft of the object being drawn to the several horses.

With these and other objects in view the invention consists in certain features of construction hereinafter specified and particularly pointed out in the claim.

Referring to the drawings: Figure 1 is a plan view of a draft-equalizer embodying my invention. Fig. 2 is a detail in perspective of the yoke-frame and its pivoted arm.

Like numerals of reference indicate like parts in both figures of the drawings.

The draft-tongue 1 has mounted thereon and bolted thereto the two terminals 2 of a horizontally disposed U-shaped yoke 3, the same being raised between its terminals above the plane of the tongue. The front terminal of the yoke is bent under upon itself as indicated at 4, and through the terminals and the draft-tongue are passed bolts 5. The front bolt 4 or that one passed through the doubled terminal also serves as a pivot for a draft-arm 6 whose outer free end is provided with a loop 7 in which is journaled the axis 8 of a sheave or pulley 9.

Arranged loosely under the yoke or between the same and the upper end of the draft-tongue is the horizontal draft-bar 10, the same being capable of free movement between the yoke and the draft-tongue. An eye-bolt 11 is passed horizontally through the draft-bar 10 at one side of the center of said bar, and the same is loosely coupled to the front end of a rod 12, whose rear end is pivoted by a bolt 13 to the rear end of the draft-tongue, the said bolt passing downwardly through the tongue, as shown.

A shackle 14 is in the present instance located at the longest end of the draft-bar, and to the same is attached a double-tree 15 carrying single-trees 16. An eye 17 is located at

the opposite or shortest end of the draft-bar 10, and to the same is loosely connected a draft-chain 18, the said chain having its free end inwardly disposed around the sheave or pulley and loosely connected with a double-tree 19 carrying single-trees 20. An arrangement like that described thoroughly disposes or equalizes the draft to the animals and lessens the jerking when hauling heavy machinery.

In operation the pivoted arm carrying the sheave moves freely to the movements of the animals, as does also the draft-bar 10, the latter moving between the yoke and draft-tongue.

If desired the shackle 14 may be moved nearer to the center of the draft-bar, and thus the equalizer adapted for three horses, it being understood that a single-tree would in that case be connected to the shackle. The location of the eye 11 would also be changed to a point about one-third the distance from the shortest end of the draft-bar.

Having described my invention, what I claim is—

In a draft-equalizer, the combination with a tongue, of the horizontally disposed U-shaped yoke surmounting the tongue, and having its ends bolted to the same, its front terminal being bent on itself, the arm 6 pivoted at its inner end in the bend of the yoke and provided at its outer end with a longitudinal loop, a pulley journaled in the loop of the arm, an equalizing bar located between the yoke and the tongue, a rigid connecting rod pivoted at its rear end to the tongue and loosely connected at its front end to the equalizing bar, draft-devices arranged at the outer end of the equalizing bar, a draft chain connected at its rear end to the inner end of the equalizing bar, and passing around the pulley, and draft-devices connected to the front end of the chain, substantially as described.

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

ERNEST L. THOMS.

Witnesses:

ALBERT ALEXSON,  
ROLLIN BRONSON.