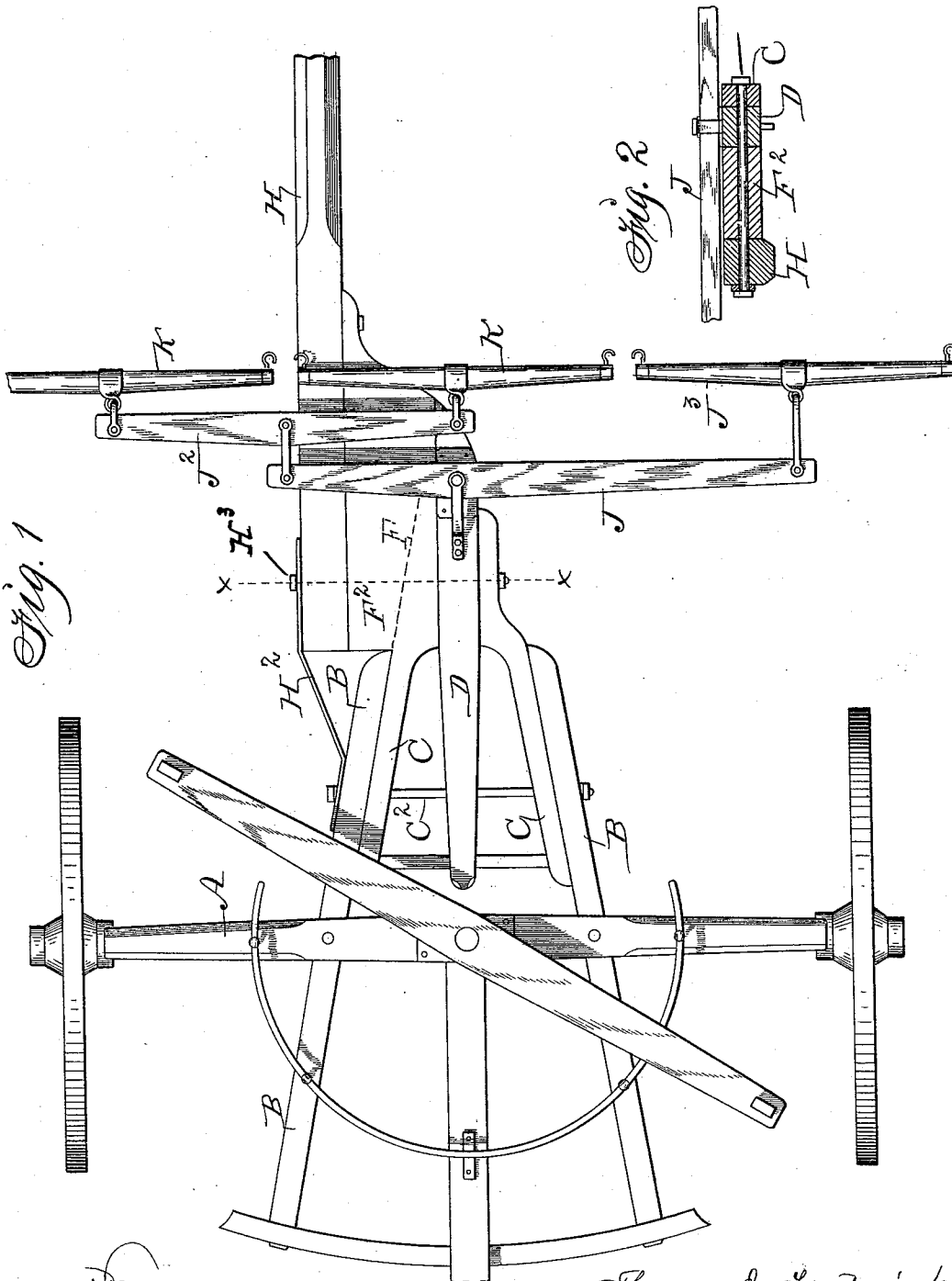


(No Model.)

T. J. FREDERICKS.
DRAFT EQUALIZER.

No. 479,088.

Patented July 19, 1892.



Witnesses: *H. J. Sankey.*
R. W. Orwig } Inventor: *Thomas J. Fredericks.*
By Thomas G. Orwig, Atty.

UNITED STATES PATENT OFFICE.

THOMAS J. FREDERICKS, OF AUDUBON, IOWA.

DRAFT-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 479,088, dated July 19, 1892.

Application filed January 9, 1892. Serial No. 417,587. (No model.)

To all whom it may concern:

Be it known that I, THOMAS J. FREDERICKS, a citizen of the United States of America, residing at Audubon, in the county of Audubon and State of Iowa, have invented a new and useful Three-Horse Draft-Equalizer and Wagon-Tongue, of which the following is a specification.

My object is to produce a device adapted to be quickly and conveniently connected with the hounds of a wagon to replace an ordinary wagon-tongue, the said device being complete in itself and provided with means whereby one draft-animal may be attached on one side of the tongue and two on the other side without producing any side draft when advancing the wagon.

My invention consists in the construction of the complete device in adapting it to replace an ordinary wagon-tongue and in the disposition of various parts relative to each other, as hereinafter set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a top view of a sufficient portion of the forward part of the running-gear of a wagon to show the relative position of the various parts and my improved equalizer and tongue connected therewith as required in practical use. Fig. 2 is a transverse sectional view through the line *xx* of Fig. 1.

The reference-letter A, used throughout the drawings, designates the front axle of the running-gear of a wagon, and B B are hounds fixed thereto.

C C are tongue-hounds pivotally connected between the hounds B B by means of the bolt C². As ordinarily constructed the wagon-tongue is inserted between these tongue-hounds C C and extended straight forward therefrom; but in my construction the portion D, corresponding to the rear end of the tongue, is cut off immediately forward of the tongue-hounds, and the forward end of one of the said tongue-hounds is enlarged longitudinally, as required, to extend some considerable distance to one side. This I prefer to accomplish by forming the said tongue-hound from a wide piece of timber, as required, to be made complete in one piece; but where this is found to be unpractical it may be

formed of two parts, divided along the dotted line F, thereby forming the separate part F².

H represents a wagon-tongue secured to the outer side of the part F². It is strengthened in this position by means of the brace H², which is secured to the tongue and one of the hounds of the wagon by means of bolts, one of which H³ extends, also, through the tongue, the part F², the tongue-hounds C C, and the part D serving to retain them in their relative positions, as clearly shown in Fig. 2, and the other bolt C², hereinbefore described, secures the rear end of the said brace to the hounds. This part D, it will be seen, is centrally located relative to the wheels of the running-gear, and as the equalizer J is pivoted directly to the forward end thereof all side draft will thereby be prevented. This equalizer or trebletree J has its arms of unequal length, a doubletree J² being pivoted to the shorter end and a singletree J³ to its longer end.

K K are singletrees connected with the doubletree J², the one on one side of the tongue H and the other on the opposite side thereof. This arrangement provides for one draft-animal on one side of the tongue and two on the other side.

Any ordinary three-horse equalizer or trebletree may be substituted for the one shown and described, that forming no part of my present invention.

The function of the tongue H is substantially the same as of other tongues, and further description thereof is deemed unnecessary to an understanding of the invention when addressed to those familiarized with this class of devices.

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

1. A three-horse draft-equalizer and wagon-tongue comprising tongue-hounds pivoted between the hounds of a wagon, a short tongue-section secured between the said tongue-hounds, a block secured to one side of the said tongue-hounds and tongue-section, a wagon-tongue secured to the side of the said block, a trebletree secured to the forward end of the said tongue-section, having arms of unequal length, a doubletree pivoted to the

shorter arm, having its ends on opposite sides of the wagon-tongue, and a singletree pivoted to the longer arm, substantially as set forth.

2. A three-horse draft-equalizer and wagon-
5 tongue comprising tongue-hounds pivoted between the hounds of the running-gear of a wagon, a section fixed between the said tongue-hounds, a laterally-extending portion
10 fixed to one side of the tongue-hounds, a tongue fixed to one side of the laterally-extending portion, a brace fixed to the tongue and to the hounds of the running-gear, a bolt extended through the tongue, the tongue-hounds, and

the said section, a trebletree pivoted to the forward end of the said section, comprising a 15 bar having arms of unequal lengths, a double-tree pivoted to the shorter arm and a singletree pivoted to the longer end, the singletree of the said doubletree being on opposite sides of the tongue, substantially as shown and de- 20 scribed, to operate in the manner set forth.

THOMAS J. FREDERICKS.

Witnesses:

T. J. STAFFORD,
G. H. JONES.