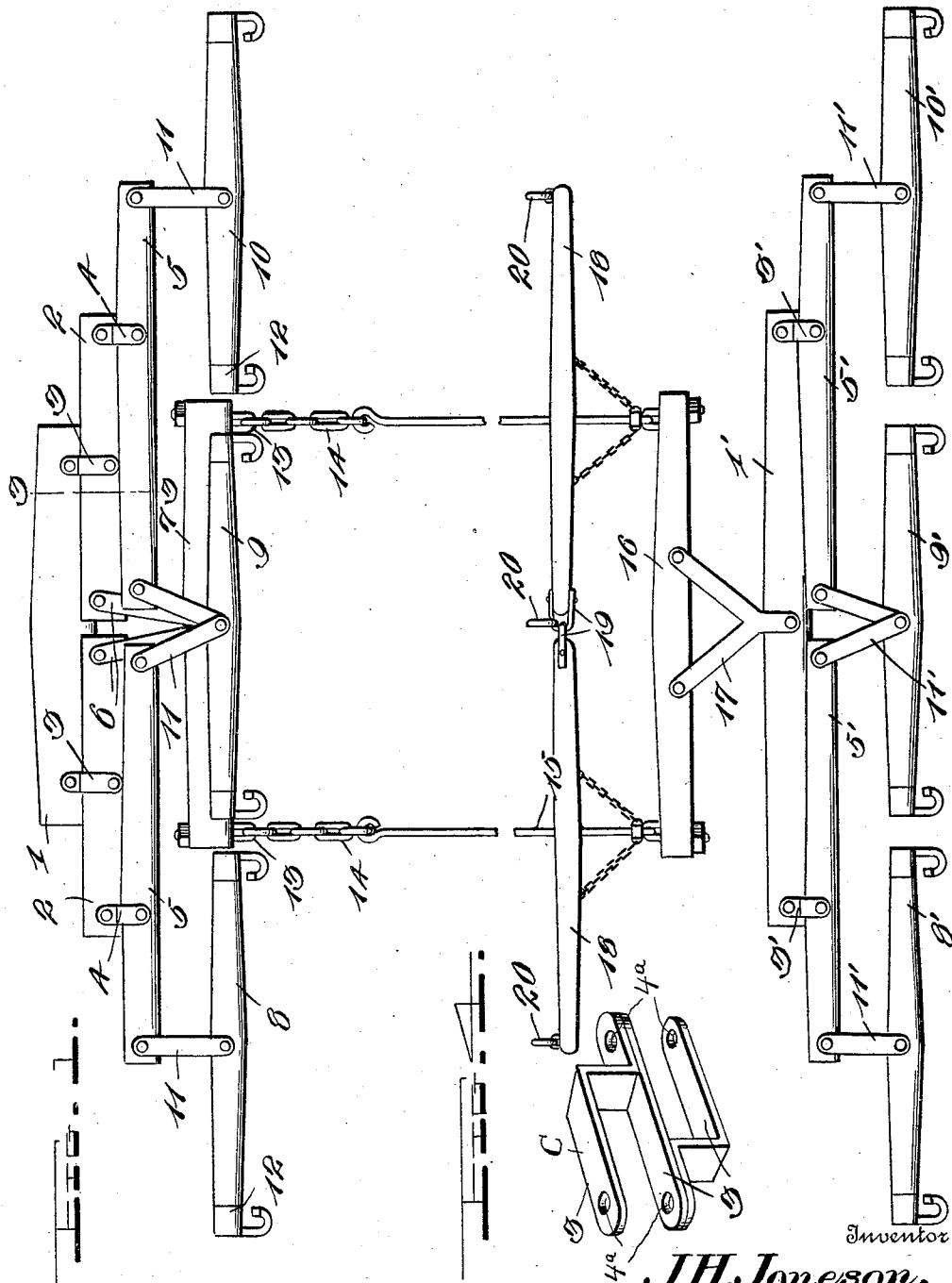


Patented Mar. 18, 1913.

1,056,743.

2 SHEETS-SHEET 1.



Witnesses

Chas. L. Griesbauer. By
L. G. Ellis.

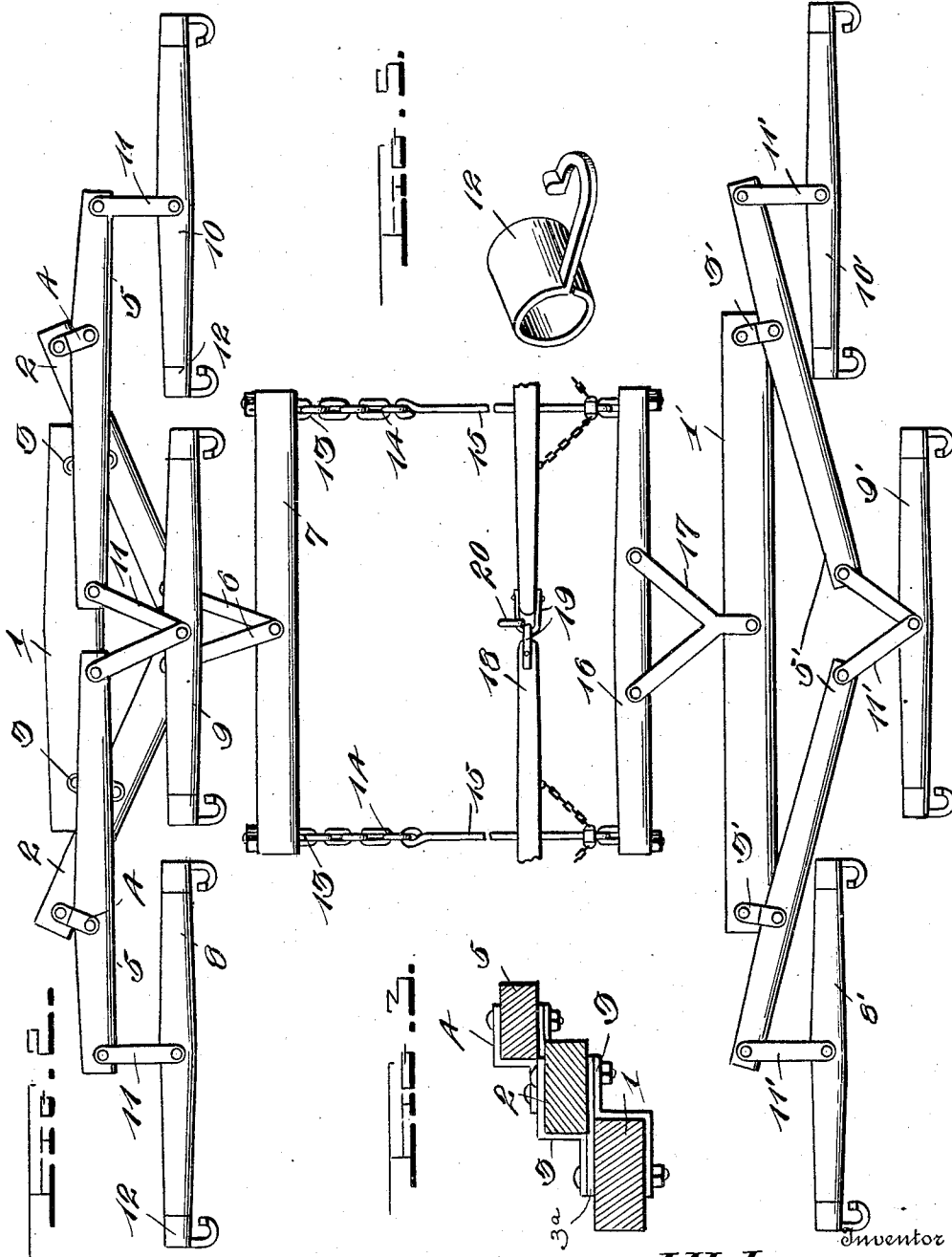
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2 SHEETS-SHEET 2.

1,056,743.



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UNITED STATES PATENT OFFICE.

JOHN HERMAN JONESON, OF BRANDON, SOUTH DAKOTA.

DRAFT-EQUALIZER.

1,056,743.

Specification of Letters Patent.

Patented Mar. 18, 1913.

Application filed November 8, 1911. Serial No. 659,120.

To all whom it may concern:

Be it known that I, JOHN HERMAN JONESON, a citizen of the United States, residing at Brandon, in the county of Minnehaha and State of South Dakota, have invented certain new and useful Improvements in Draft-Equalizers, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to draft apparatus and more particularly to draft equalizers and has for its object to provide a system of whiffle trees which will automatically adjust themselves to the pulling powers of various horses drawing on the same.

A particular object of this invention is to arrange it so that it will be especially suitable for six-horse teams.

Another object of this invention is to arrange it so that it can be readily attached to a plow or the like and so that its cost to manufacture will be comparatively low.

Other objects of this invention will become apparent as it is more fully set forth.

In the drawings which illustrate by way of example an embodiment of this invention, Figure 1 represents a plan view of an equalizer in normal position. Fig. 2 represents a plan view of an equalizer in open or distorted position. Fig. 3 is a section on line 3-3 of Fig. 1, and Figs. 4 and 5 are details of various parts of the equalizer.

Similar reference characters refer to similar parts throughout the drawings.

In the construction shown in the drawings, 1 represents the main beam, which is attached in any suitable manner to the vehicle or device to be drawn by the teams in question. A pair of primary beams 2 are secured to the first mentioned beam 1 by means of connecting members generally designated C, each of which comprises a pair of essentially Z-shaped members 3 having a long and a short arm, and a flat metal bar 3^a. The short arms of the members 3 are welded to the bar 3^a on opposite sides at opposite ends, so that the end arms are spaced from said bar and extend in opposite directions. The ends of the member C are formed with aligned openings 4^a for the reception of suitable fastening means for connecting the member to the draft beam and to the primary beam. By referring to the drawings, it will be noticed that the primary beams are connected at their central portions by the members C, and which in turn are

secured to the end portions of the draft beam 1. This arrangement is provided in order to permit the primary beams to move freely when connected up in the manner to be described in a later part of the specifications. Secured to the outer end portion of each of the primary beams 2 is a connecting member 4 which is similar in all respects to the member C and which in turn pivotally holds a secondary beam 5 at a point one-third the distance from its outer end. Fastened to the inner end portions of the primary beams 2 are pairs of connecting straps 6, which pivotally hold an intermediate draft beam 7 thereto.

Secured to the end portions of the secondary beams 5 are the whiffle trees 8, 9 and 10, by means of straps 11, as is clearly shown in the drawings. It will be noticed that the central whiffle tree 9 is pivotally secured to both of the beams, this is in order to bring about the desired action with respect to the equalizing of the appliances in a manner to be referred to. The hook members 12 are provided on the ends of the whiffle trees for the purpose of securing the traces that hold the animals thereto. These hook members are preferably of the shape shown in the drawings, in order that the traces may be easily slipped on or off the same, yet under normal conditions will be held securely thereon.

The intermediate beam 7 with a pair of U-shaped bolts 13, hold a pair of small chains 14 thereto, which in turn have rods 15 secured by one of the ends thereof. The other ends of the rods 15 are secured to an intermediate beam 16, which serves as a connecting member for a series of whiffle trees that are arranged to hold another set of horses thereto. A Y-shaped member 17 is rigidly secured to the beam 16 and has its end portion suitably fastened to a second draft beam 1', and which in turn is secured in a similar manner to a pair of secondary beams 5' as is clearly shown in the drawings. These latter are in turn pivotally acted upon by the whiffle trees 8', 9' and 10' and the links or straps 11', and the Z-shaped members 3' serve for the purpose of holding the other members in a similar manner to that described for the draft appliance in the back portion of this device, the primes being added to the figures in order to make action more readily understood.

The general action of the device is as fol-

lows:—Should one horse pull more strongly on its whiffle tree, for instance on 8, he will cause the secondary beam 5 to move outwardly with it, which in turn will rotate on its connecting member, and pull the strap at the other end backwardly and incidentally cause the whiffle tree 9 to move with it. This action will cause the horse attached to the second or middle whiffle tree 9 to pull more strongly thereon. A similar action will take place if the horse attached to whiffle tree 10 should pull harder on his tree, so that the horse on the central tree will pull according to the strain required of him. Should the central horse pull his whiffle tree outwardly, as he would in case he got ahead of his normal position within the traces, he will pull backwardly on the inner end portions of the secondary beams 5 and thereby place more strain on the outer horses, who will then relieve him. The same action takes place on the draft appliance in the front portion of the device in question, so that a further description of this action is not deemed necessary.

The provision of the central or intermediate beams 7 and 16, enables the various sets of whiffle trees to take the strain put upon them equally, and as follows: Should the first team or set of horses within the front series of whiffle trees pull more strongly than those in the back beam, they will cause the beam 7 to move outwardly with them, which acting upon the primary set of beams 2 will pull their outer ends backwardly and in turn pull all the whiffle trees in this portion of the appliance, backwardly and thereby make the horses within them pull more strongly on their traces. This action will bring the strain equally on all the beams, and the arrangement of the whiffle trees within each portion of the appliance will cause each horse to put a proportionate strain on his whiffle tree.

It is of course understood that the manner of attaching the horses to the whiffle traces and the draft beams to the vehicle or device to be drawn, can be done in any well known manner as that portion of the device is not considered to be a part of this invention.

Obviously while there is shown but one form of this invention in the drawings, it is not desired to limit this application for patent to that particular form, or in any other way otherwise than necessitated by the prior art, as many modifications in the construction thereof, may be made without departing from the principles thereof, or coming within the scope of the appended claim.

The parts 18 are neck yokes and are provided with joining links 19 and rings 20. The last mentioned rings are arranged so that they can be connected to the collars of the team of horses following, and connected to the whiffletrees 8, 9 and 10.

Having thus described this invention, what is claimed is:—

A draft equalizer comprising a draft bar, a pair of primary beams pivotally secured at their intermediate portions to said draft bar, a pair of secondary beams pivotally secured near their intermediate portions to the outer ends of the primary beams, a pair of whiffletrees secured at their intermediate portions to the outer ends of the secondary beams, another whiffletree secured at its intermediate portion to the opposing ends of the secondary beams, an intermediate draft beam connected at its intermediate portion to the opposed ends of the primary beams, forwardly extending rods removably connected to the opposite ends of the intermediate draft beam, another draft beam secured at its ends to said forwardly extending rods, forwardly extending whiffletrees connected to the last mentioned draft beam, and rearwardly extending yokes pivotally connected at their intermediate portions to the ends of the last mentioned draft beam, said yokes being connected to each other at their opposed ends, and rings connected to said yokes, as and for the purpose set forth.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

JOHN HERMAN JONESON.

Witnesses:

JOHN T. MEDIN,
Z. O. ALLEN.