

B. J. BRUNKE.  
DRAFT EQUALIZER.  
APPLICATION FILED FEB. 28, 1908.

951,210.

Patented Mar. 8, 1910.

FIG. 1

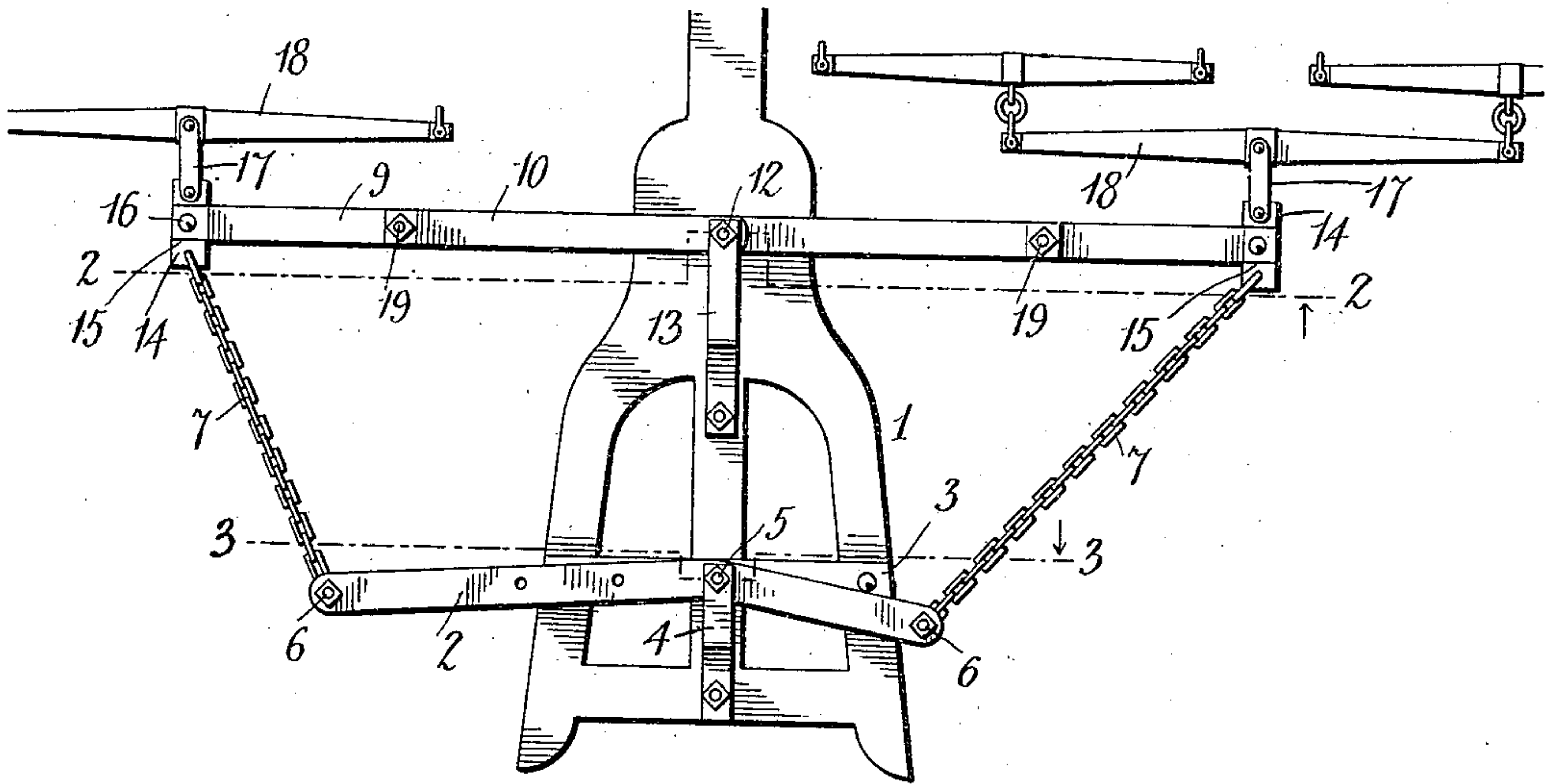


FIG. 2

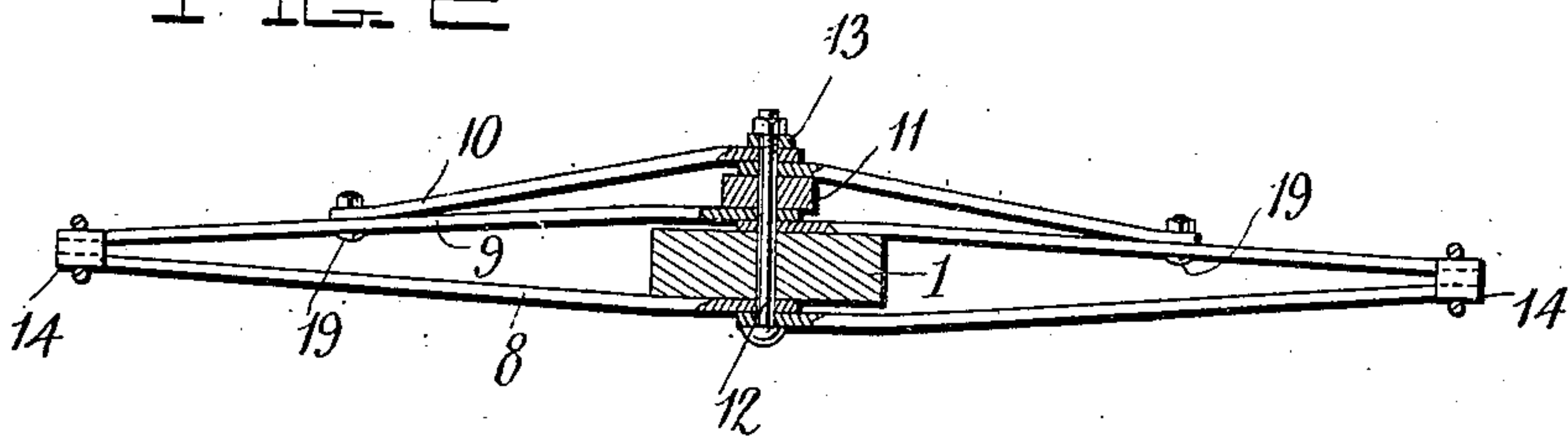


FIG. 3

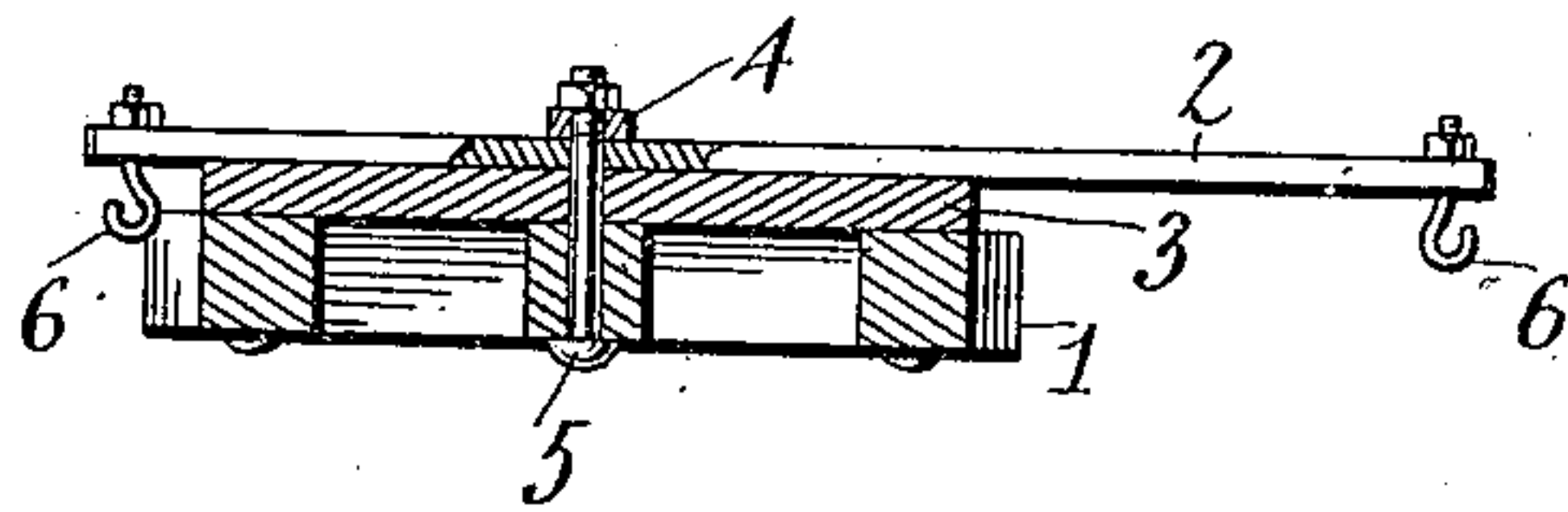
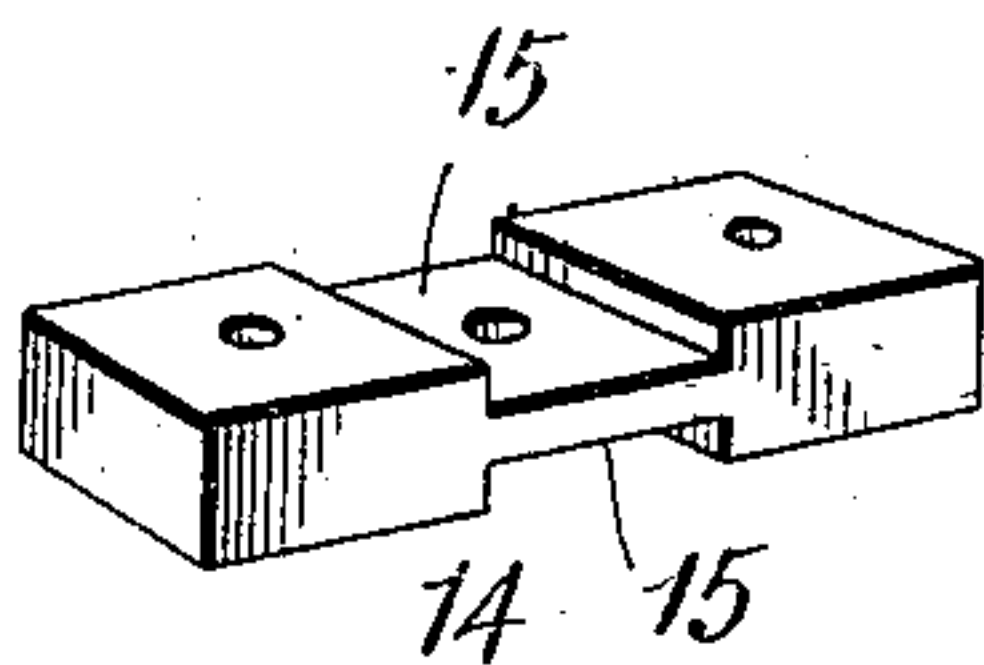


FIG. 4



Witnesses  
J. J. Johnson  
A. C. McCartney

Inventor  
Benjamin J. Brunke

By *Charles Chandler*

Attorneys



# UNITED STATES PATENT OFFICE.

BENJAMIN J. BRUNKE, OF CAMPBELL, NEBRASKA.

## DRAFT-EQUALIZER.

951,210.

Specification of Letters Patent.

Patented Mar. 8, 1910.

Application filed February 28, 1908. Serial No. 418,273.

*To all whom it may concern:*

Be it known that I, BENJAMIN J. BRUNKE, a citizen of the United States, residing at Campbell, in the county of Franklin, State of Nebraska, 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.

The present invention has reference to draft equalizers, and it aims generally to improve the structure shown and described in my prior patent granted May 28, 1907, and numbered 854,924, the particular improvements consisting in certain changes in the construction of the double-tree, in the manner in which the same is mounted upon the tongue of the vehicle, and in the particular devices employed for connecting the equalizer bar with the double-tree.

The improved structure will be readily understood from a consideration of the following detailed description, and its preferred embodiment is illustrated in the accompanying drawings, in which corresponding parts are designated by the same reference numerals in the several views.

Of the said drawings, Figure 1 is a plan view of the invention. Figs. 2 and 3 are transverse sections taken respectively on the lines 2—2 and 3—3 thereof. Fig. 4 is an enlarged detail view of one of the spacing blocks located between the ends of the lower and central members of the double-tree.

Referring more particularly to the drawings, 1 designates the tongue or pole of a vehicle, and 2 an angular equalizer bar which is mounted upon a transversely-disposed block 3, said bar being held in place thereon by a forwardly-projecting strap 4 whose upwardly-bent front end is provided with a perforation which registers with one of the series of perforations formed in said bar, and with the perforations formed in said block and in the tongue, the several perforations receiving the pivot-bolt 5 upon which the bar swings. The arms of the equalizer bar are of unequal length, as shown. The outermost perforations of the series are located at the ends of said bar, and in each of such perforations there is fitted a bolt 6 carrying a hook to which the rear end of a chain 7 is attached, the front ends of the chains being attached to the cor-

responding ends of a double-tree, as hereinafter described.

The double-tree, as shown in Fig. 2, comprises lower and central members 8 and 9, between which the pole 1 extends, and an upper member 10, the last mentioned member being spaced centrally from the member 9 by a block 11. The several members are each formed of a pair of separately constructed sections whose overlapping inner ends are provided with openings which register with each other and with openings formed in the tongue and spacing block 11, through which openings the pivot bolt 12 extends, the upper end of said bolt projecting through an opening in the forward end of an upwardly bent strap 13, which is secured at its rear end to the tongue and is disposed in advance of and in alinement with the strap 4 above referred to.

Between the adjacent ends of the central and lower members are interposed metal spacing blocks 14, each of which as shown in Fig. 4, has its upper and lower faces provided with centrally-located seats 15 in which the ends of said members are fitted, said ends being provided with perforations which register with perforations formed through the seats above referred to, for the reception of the connecting bolts 16. The rear end of each spacing block is connected by a link with the front end of the adjacent chain 7, while the front end of each block has pivoted thereto a clevis 17 which is connected, in turn, to a swingle-tree or double-tree 18, as preferred.

The length of the upper member 10 of the double-tree is such that its ends terminate short of those of the central member 9, to which member they are connected by bolts 19.

It will be apparent from the foregoing that by reason of the above-described construction of the double-tree, the several members of the latter may be completely detached from each other, thus permitting any member to be removed in the event of injury thereto and replaced by a perfect member without appreciable expense. It will also be apparent that such construction permits an independent movement of one-half of the double-tree, considered as a whole, with respect to the other half, such movement being necessary by reason of the angular formation of the equalizer bar. The provision of the upper member tends to materially



strengthen the double-tree, as will likewise be obvious, and thus prolong its life.

What is claimed is:

5 The combination with a tongue and an equalizer bar pivoted thereto intermediate its ends, of a doubletree located forwardly of said bar and comprising lower and central members disposed respectively against the under and upper faces of the tongue,  
10 and an upper member mounted upon the central member, a spacing block interposed between the upper member and said central member, said upper member having its ends terminating short of those of the central  
15 member and secured to the latter, said members each consisting of a pair of separately constructed sections having overlapping ends provided with registering perforations,

a pivot bolt passing through the tongue and through said perforations and spacing 20 block, to effect the pivotal connection of the doubletree with the tongue, transversely arranged spacing blocks interposed between the ends of the central and lower members, bolts fastening said blocks and ends to- 25 gether, a whiffletree connected to the forward end of one of said blocks, a doubletree connected to the other block, and chains connecting the rear ends of said blocks with the ends of the equalizer bar. 30

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

BENJAMIN J. BRUNKE

Witnesses:

ORAL YOUNG,  
TROY L. DAVIS.