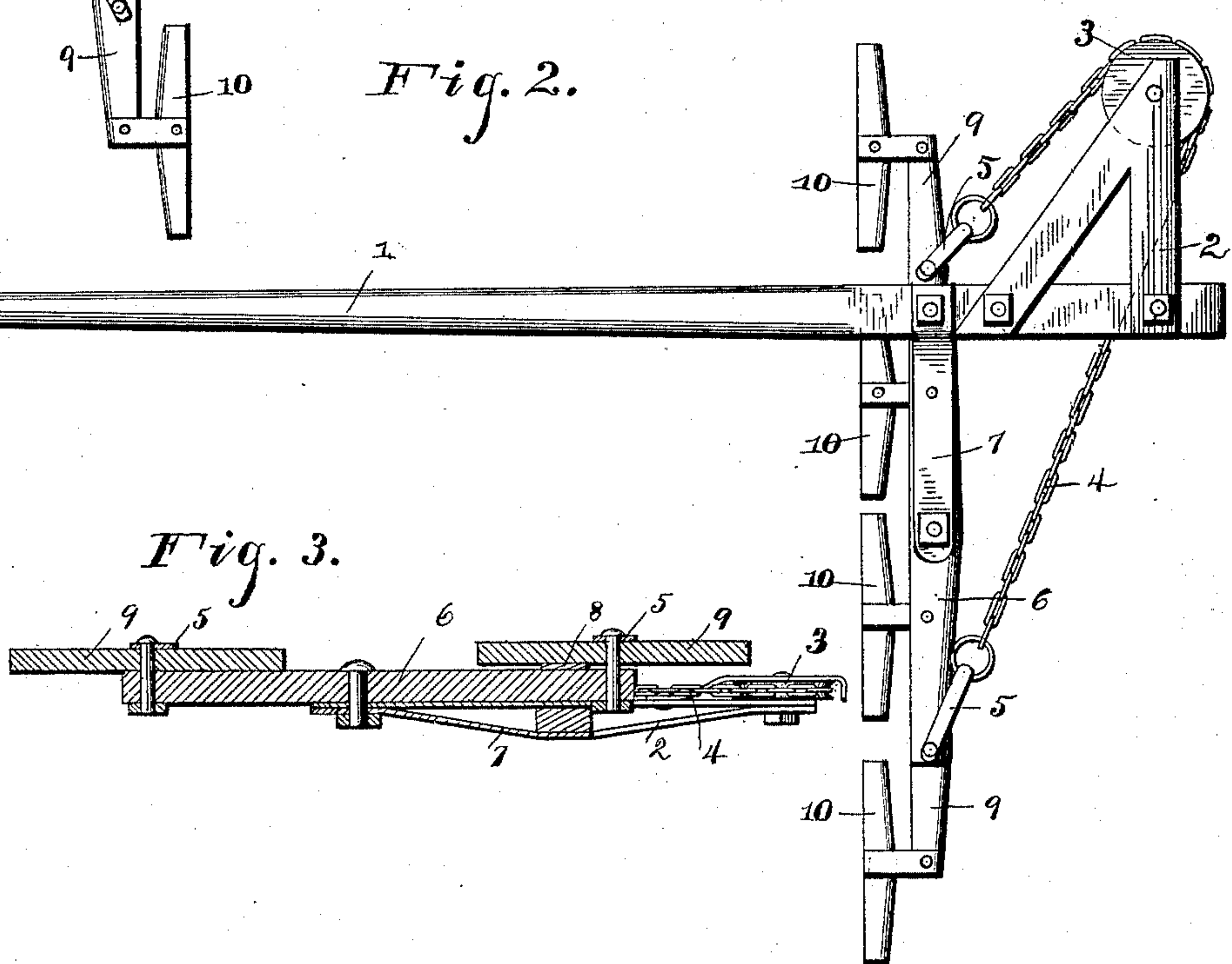
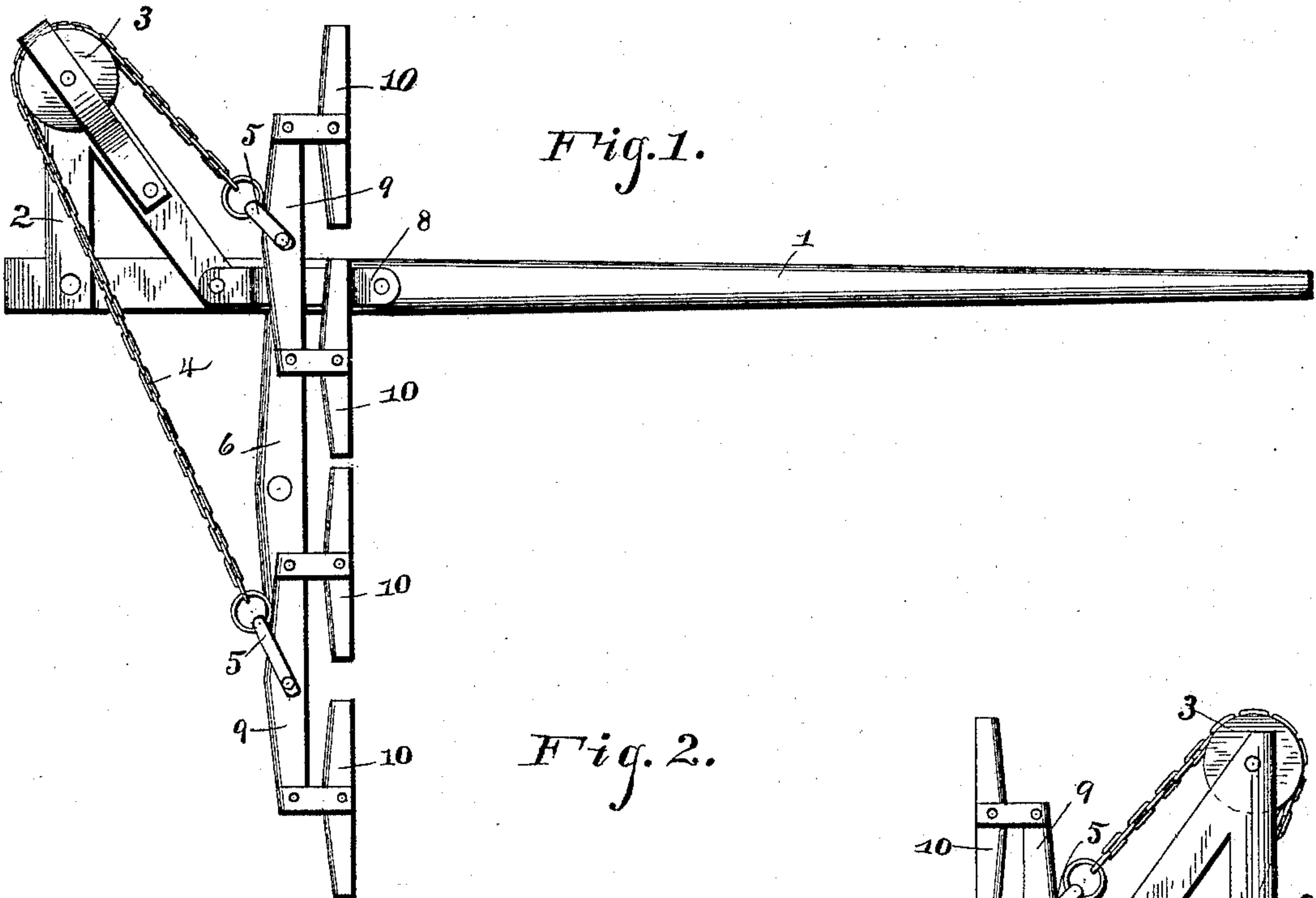


(No Model.)

S. W. WOODS.  
DRAFT EQUALIZER.

No. 474,493.

Patented May 10, 1892.



Witnesses

Chas. A. Ford  
H. P. Riley

Inventor

S.W. Woods.

By his Attorneys,

C. A. Snow & Co.

# UNITED STATES PATENT OFFICE.

SAMUEL W. WOODS, OF ANITA, IOWA.

## DRAFT-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 474,493, dated May 10, 1892.

Application filed August 31, 1891. Serial No. 404,300. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL W. WOODS, a citizen of the United States, residing at Anita, in the county of Cass and State of Iowa, have  
5 invented a new and useful Draft-Equalizer, of which the following is a specification.

The invention relates to improvements in draft-equalizers.

The object of the present invention is to  
10 simplify and improve the construction of draft-equalizers and to provide one in which the side draft so common in this class of devices will be eliminated.

The invention consists in the construction  
15 and novel combination and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a plan view of  
20 a draft-equalizer constructed in accordance with this invention. Fig. 2 is a reverse plan view. Fig. 3 is a transverse sectional view.

Referring to the accompanying drawings,  
25 1 designates a tongue having secured to its inner end a triangular bracket 2, extending to the left, and having journaled in its outer end a roller 3, around which passes a chain 4, which has its ends connected by clips 5 with the ends of a main whiffletree 6. The main  
30 whiffletree is pivoted at the end of a bracket 7, secured to the tongue in advance of the bracket 2 and extending laterally to the right a distance equal the length of the bracket 2 or the distance between the roller 3 and the  
35 tongue. This construction or arrangement of parts does away with the side draft so common with this class of devices. The main whiffletree has its inner end or the one adjacent the tongue arranged in a keeper 8, and  
40 pivoted to its ends are doubletrees 9, to which are connected singletrees 10.

I am aware that it is common to pass a chain around a pulley mounted on a suitable bracket and to attach the ends of the chain to a main whiffletree, and I do not claim this combina- 45 tion, broadly, and I have found out by experience that with this combination alone side draft is present. Both the triangular bracket and the bracket 7 are composed of upper and lower plates having their inner ends secured 50 to the upper and lower faces of the tongue, and the outer ends of the plates are secured together by the pivot-bolts. The keeper 8, which is secured to the upper face of the tongue and extends over the inner end of the 55 main whiffletree, has its rear end secured by the same bolt which attaches the triangular bracket at that point.

What I claim is—

The combination of a tongue, a triangular 60 bracket extending from one side thereof and provided with a roller, a bracket 7, extending from the other side of the tongue in a direction opposite that of the triangular bracket and underneath the main whiffletree, said 65 brackets being of the same length to prevent side draft, a main whiffletree pivotally mounted on the bracket 7, a chain having its ends attached to the ends of the main whiffletree and passing around the roller, and the double- 70 trees pivoted to the ends of the main whiffletree and carrying singletrees, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 75 the presence of two witnesses.

SAMUEL W. WOODS.

Witnesses:

THOMAS INGRAM,  
JAMES L. ALEXANDER.