No. 711,538. Patented Oct. 21, 1902.

W. H. SHELL.

DRAFT EQUALIZER.

(Application filed Aug. 22, 1902.)

(No Model.)

Fig. 1.

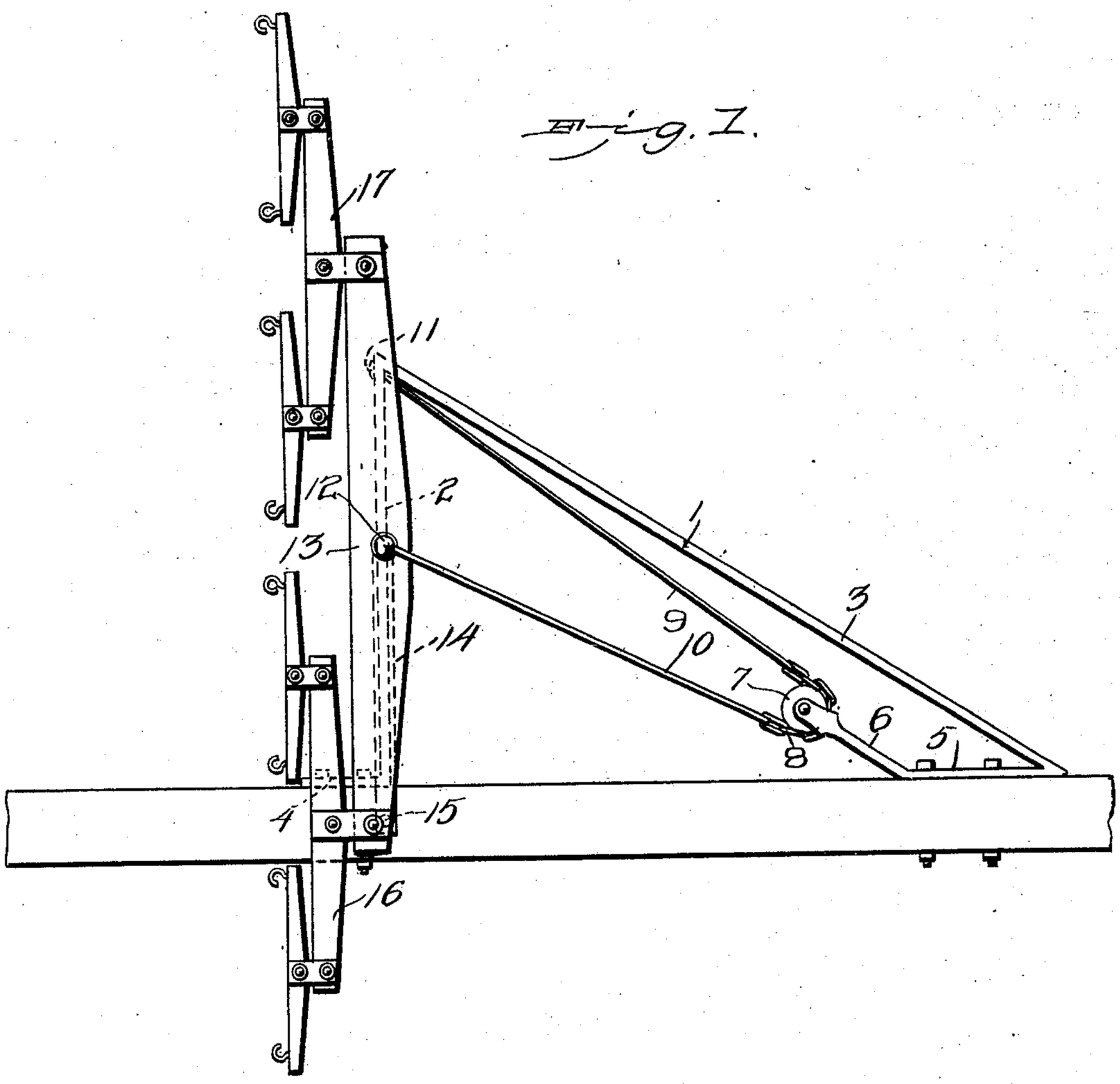
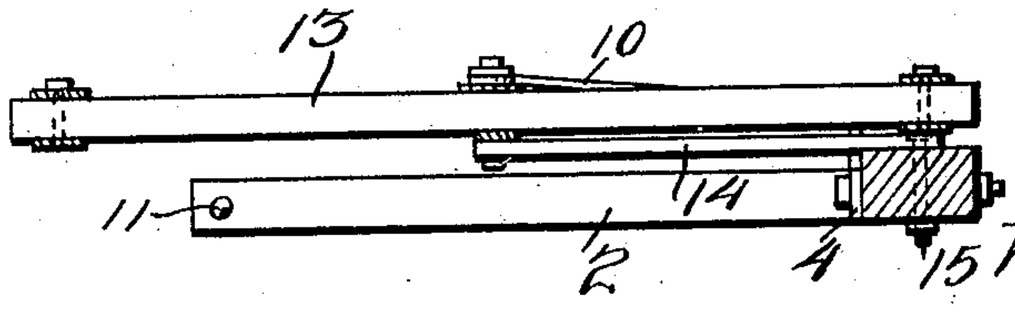


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM H. SHELL, OF GLENCOE, OKLAHOMA TERRITORY.

DRAFT-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 711,538, dated October 21, 1902.

Application filed August 22, 1902. Serial No. 120,667. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. SHELL, a citizen of the United States, residing at Glencoe, in the county of Payne, Territory of Oklahoma, have 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 improve the construction of draft-equalizers and to provide an exceedingly simple and inexpensive one designed for use on binders and other heavy agricultural machinery and other machines and adapted to equalize the draft between one horse at the left-hand side of the draft beam or pole and the plurality of horses at the opposite side of the same.

A further object of the invention is to provide a device of this character of great strength and durability adapted to be readily applied to a draft beam or pole without necessitating any change in the construction or location of the parts of the binder and capable of effectually eliminating side draft.

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

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

Like numerals of reference designate corresponding parts in both figures of the drawings.

1 designates an approximately V-shaped frame constructed of rod metal or other suitable material and composed of a front transverse portion 2 and an angularly-disposed side or rear portion 3, extending rearward from the outer end of the transverse portion and forming a brace for supporting the same. The front portion, which is arranged at right angles to the tongue or draft-beam, extends outward from the right-hand side of the same, and it is provided at its inner end with an angularly-bent portion or arm 4, which is secured by bolts or other suitable fastening devices to the side face of the draft beam or pole. The angularly-disposed side portion 3 of the bracket or frame has its rear end extended forward and bent at an angle to form an attaching portion 5, and the latter is extended forward to form an arm 6. The arm 6 extends outward at an angle to the pole or draft-beam and is arranged approximately parallel with the side portion of the bracket or frame, its front end being bifurcated for the reception of a guide pulley or wheel 7.

The guide pulley or wheel receives a chain 8 or other suitable flexible connection, which passes around the said pulley or wheel and which connects a pair of rods 9 and 10. The rod 9 extends forward and is secured at its front end 11 to the transverse portion of the bracket or frame at the outer end thereof. The inner rod 10 extends forward and outward to the pivot 12 of a main whiffletree 13, which is connected by the said pivot 12 with an arm or bar 14, located beneath the main whiffletree and at a point above the transverse portion of the bracket or frame and pivotally connected at its inner end by a bolt 15 with the draft beam or pole. The front end of the inner rod 10 is preferably provided with an eye to receive the pivot of the main whiffletree.

The main whiffletree is connected at its ends with a pair of doubletrees 16 and 17, having singletrees at their ends, and the singletrees of the doubletree 16 are located at opposite sides of the draft-beam; but the draft-equalizer may be constructed for equalizing the draft between five horses or more instead of four, as illustrated in Fig. 1 of the drawings. The main whiffletree is connected with the draft beam or pole at one side thereof, which counteracts the effect of the arrangement of a plurality of horses at the right-hand side of the draft-beam, and by varying the position of the main whiffletree and its connections with the draft beam or pole the device may be constructed for equalizing the draft between four or more draft-animals.

It will be seen that the draft-equalizer is exceedingly simple and inexpensive in construction, that it is adapted to be readily applied to a binder without necessitating any change in the construction or location of the frame or other parts thereof, and that it is capable of eliminating side draft and of equalizing the draft between one or more animals.

What I claim is—

1. A device of the class described comprising a bracket or frame designed to be located at one side of a draft beam or pole and provided at the back with a forwardly-extending arm located within the frame or bracket and having a guide, a transverse bar or arm designed to be pivoted to the draft beam or pole and arranged adjacent to the front of the bracket, a whiffletree connected with the bar or arm at the outer end thereof, and a flexible connection extending from the main whiffletree to the said guide and from the guide to the bracket or frame and connected with the latter at a point beyond the pivotal point of the main whiffletree, substantially as described.

2. A device of the class described comprising a beam or pole, an approximately V-shaped bracket or frame extending from one side of the draft beam or pole and consisting of a transverse portion, and an angularly-disposed side portion secured at its rear end and having an extension located within the frame or bracket and forming an arm, said arm being provided with a guide, a bar located at the front of the frame and pivoted at its inner end to the beam or pole, a main whiffletree connected with the bar at the outer end thereof, and a flexible connection extending from the whiffletree to the guide and from the latter to the bracket or frame and connected with the same at a point beyond the bar, substantially as described.

3. In a device of the class described, the combination with a draft-beam, of an approximately triangular frame arranged at one side of the draft-beam and consisting of a transverse portion secured at its inner end to the beam and extending outward therefrom at right angles thereto, and a side portion or brace extending rearward from the outer end of the transverse portion to the draft-beam and provided at its rear end with a forward extension forming an attachment portion and secured to the beam, said attachment portion being also provided with an extension forming an arm and projecting forward and outward from the beam, a guide-pulley mounted on the said arm, a bar located at the front of the frame and pivoted at its inner end to the beam, a whiffletree mounted on the bar, and flexible connections having divergent portions and extending from the guide-pulley to the whiffletree and to the front of the frame at a point beyond the pivot of the whiffletree, 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.

WILLIAM H. SHELL.

Witnesses:
G. F. NEWLAND,
R. E. TRAMMELL.