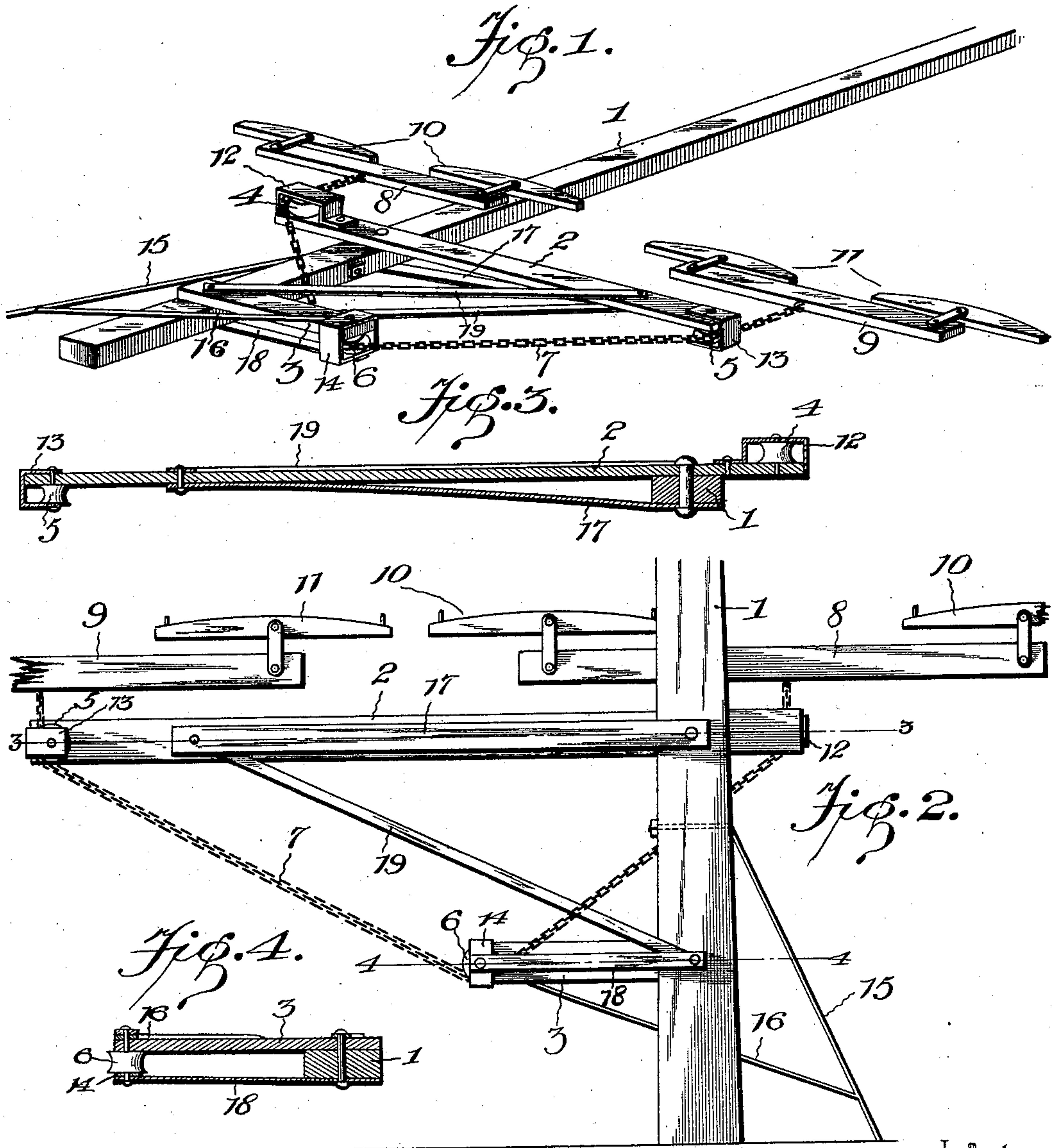


(No Model.)

B. F. RUSSELL.
DRAFT EQUALIZER.

No. 603,433.

Patented May 3, 1898.



Inventor

Witnesses

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By his Attorneys,

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UNITED STATES PATENT OFFICE.

BENJAMIN F. RUSSELL, OF FANDON, NEBRASKA.

DRAFT-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 603,433, dated May 3, 1898.

Application filed November 6, 1897. Serial No. 657,684. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. RUSSELL, a citizen of the United States, residing at Fandon, in the county of Frontier and State of Nebraska, 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 a simple and comparatively inexpensive one designed especially for use on binders and capable of permitting three horses to be employed at one side of a draft-beam and one on the other side without producing any side draft.

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

In the drawings, Figure 1 is a perspective view of a draft-equalizer constructed in accordance with this invention. Fig. 2 is a reverse plan view of the same. Figs. 3 and 4 are sectional views on lines 3 3 and 4 4 of Fig. 2.

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

1 designates the draft-beam of a binder, and secured to the same are front and rear transverse bars 2 and 3, which are rigid with the draft-beam and which carry pulleys 4, 5, and 6. The pulleys 4, 5, and 6 receive a draft-chain 7, to the ends of which are connected doubletrees 8 and 9, having singletrees 10 and 11 of the ordinary construction. The bar 2, which is secured near one end to the draft-beam, extends from opposite sides thereof. The pulley 4, which is located at the left-hand end of the transverse bar 2, is arranged adjacent to the draft-beam, and the double-tree 8, which is disposed in advance of the pulley 4, extends across the draft-beam, as clearly illustrated in Figs. 1 and 2 of the accompanying drawings, so that one of the singletrees 10 is located at the right-hand side of the draft-beam and the other singletree 10 at the left-hand side.

The pulley 4, which is located on the up-

per face of the front transverse bar 2, is arranged in a suitable bracket or support 12, and the opposite pulley 5 is located on the lower face of the bar 2 and is suitably supported by a bracket 13. The doubletree 9, which is located in advance of the pulley 5, has both of the singletrees 11 at the right-hand side of the draft-beam, and it will be apparent that of the four horses employed for drawing the binder three will be arranged on the right-hand side and one on the left. The chain moves freely around the pulleys, and the draft on its ends is equal. The pulley 6, which is arranged at the outer end of the rear transverse bar 3, is located directly in rear of the center of the bar 2, and it is mounted in a suitable bracket or loop 14 at the lower face of the bar 3, which is secured at its inner end to the draft-beam and which projects from the right-hand side thereof.

In order to prevent any side draft, the draft-beam 1 is supported by a brace 15, arranged at an angle to it and located at its left-hand side. The brace 15, which consists of a rod, extends from the draft-beam at a point slightly in rear of the front transverse bar 2, and it is secured at its rear end to the frame of the binder. The rear transverse bar 3 is supported by a similar brace 16, extending from its outer end across the tongue and connected with the brace 15 at a point in advance of the rear end thereof. The brace 16 consists of a rod suitably secured at its front end to the bar 3 and preferably welded at its rear end to the brace 15.

The front transverse bar 2 is supported by a transverse brace, arranged on its lower face, extending along its right-hand portion, and secured to it and to the draft-beam, as clearly illustrated in Fig. 3 of the accompanying drawings. The rear transverse bar 3 is similarly supported by a short bar 18, and in order to prevent the front transverse bar from swinging forward or rearward and straining the fastening devices for securing it to the draft-beam braces 19 are employed and extend from the inner end of the bar 3 to within a short distance of the outer end of the bar 2. These braces consist of bars or rods secured to the upper and lower faces of the bar 2 and to the lower face of the draft-beam and the upper face of the bar 3.

The invention has the following advantages:

The draft-equalizer is simple, strong, and durable. It enables three horses to be arranged at one side of a draft-beam and one at the other side, and it prevents any side draft. The left-hand horses, or those connected with the singletrees 10, support the weight of the tongue, and the right-hand horses, which are relieved of the weight of the tongue, are employed for turning the binder. The horses are arranged conveniently for driving, and the rear pulley 6, where the draft is applied, is located close to the binder.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

In a draft-equalizer, the combination of a draft-beam, the front transverse bar secured to the draft-beam near one end and extending from both sides of the same, the rear trans-

verse bar extending from one side of the draft-beam and terminating at its outer end in rear of the center of the front transverse bar, pulleys mounted on the ends of the front transverse bar and on the outer end of the rear transverse bar, a draft-chain arranged on the pulleys, doubletrees connected with the ends of the chain, the brace 15 arranged at an angle to the draft-beam and extending rearward from one side of the same and designed to be connected with the frame of a binder, and the brace 16 crossing the draft-beam and extending from the outer end of the rear transverse bar to the brace 15, 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.

BENJAMIN F. RUSSELL.

Witnesses:

J. E. BOAS,

D. R. CALLAHAN.