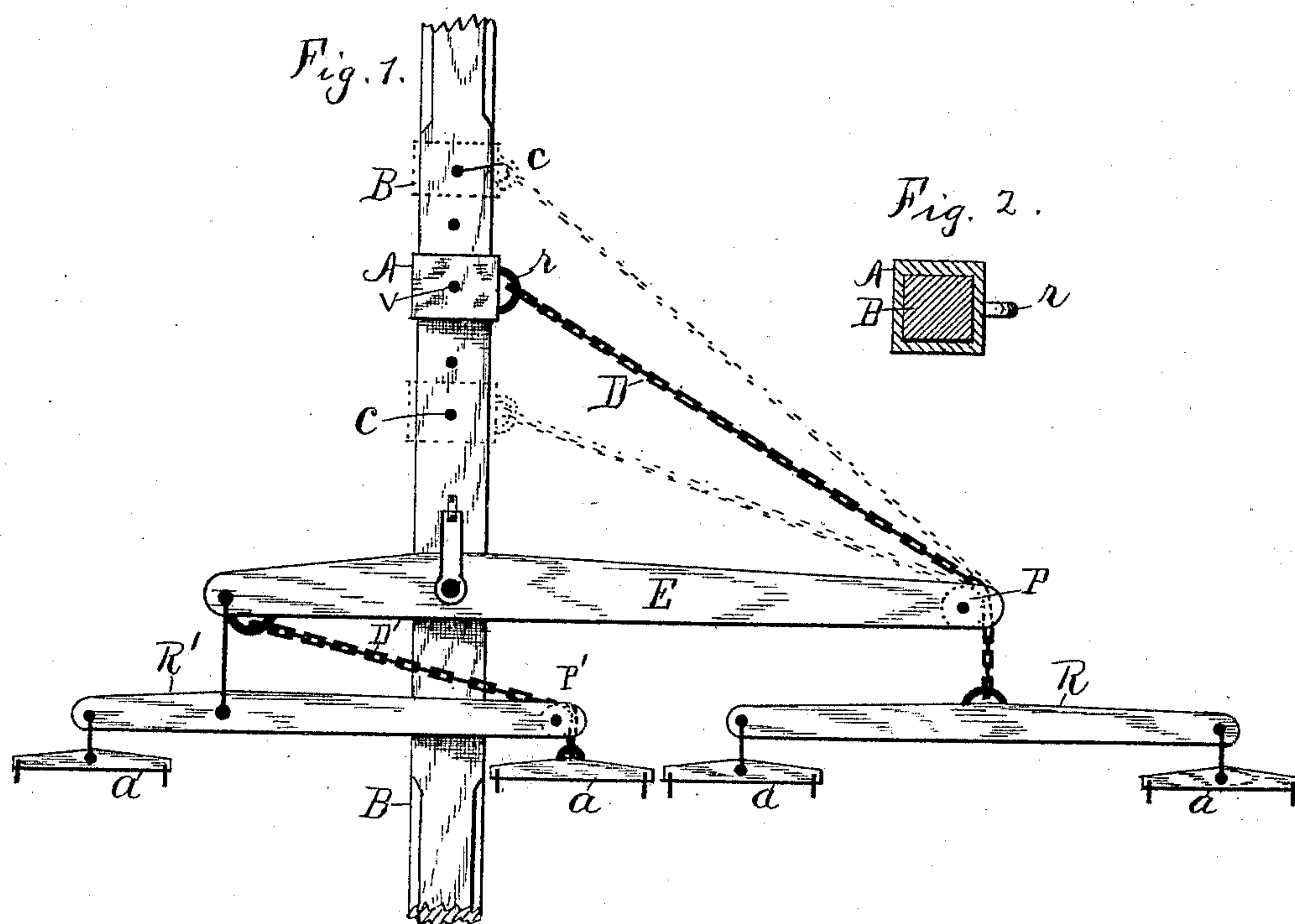


(No Model.)

S. H. TINSMAN.
DRAFT EQUALIZER.

No. 436,443.

Patented Sept. 16, 1890.



Witnesses

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UNITED STATES PATENT OFFICE.

SAMUEL H. TINSMAN, OF MORRIS, ILLINOIS.

DRAFT-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 436,443, dated September 16, 1890.

Application filed June 27, 1890. Serial No. 357,015. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL H. TINSMAN, a citizen of the United States of America, residing at Morris, in the county of Grundy and State of Illinois, have invented certain new and useful Improvements in Draft-Equalizers, of which the following is a specification, reference being had therein to the accompanying drawings and the letters of reference thereon, forming a part of this specification, in which—

Figure 1 is a top plan view of the draft-equalizer complete, and Fig. 2 is a cross-sectional view through the pole and the slide thereon.

This invention relates to certain improvements in draft-equalizers, which improvements are fully set forth and explained in the following specification and claims.

Referring to the drawings, B represents a pole adapted for use on a wagon or on any machine where it is desirable to use such device.

A is a box-slide sleeved on said pole, and is adapted to be adjustable thereon, and may be held adjusted by means of a pin V passing through it and one of the row of pin-holes c in the pole.

E is a doubletree pivoted in the ordinary manner at a point about one-third of its length from one end to the pole B, and is provided at the outer end of its longest section with a friction-wheel P, and at its opposite end with a doubletree R', attached thereto at about one-third its length from one end in the ordinary manner, its longest section extending over the pole and provided with a friction-wheel P', over which chain D' passes, said chain being attached at one end to the outer end of the shortest section of doubletree E and to a whiffletree a at its opposite end.

D is a chain having one end connected to said slide A by means of an integral eye r. The opposite end of said chain D passes over said friction-wheel P in the end of said doubletree E and attaches to a doubletree R, having ordinary whiffletrees a. The device, as shown, is adapted to be used with four horses; but when the slide A and chain D are adjusted at a point nearer the rear side of the doubletree E, as shown in broken lines, less

power can be applied to doubletree R by attaching less whiffletrees and horses thereto to balance the power applied to the doubletree R', as in such case the angle between chain D and doubletree E is more acute and less power is required to balance the strength of horses attached to doubletree R' and prevent friction-wheel P from traversing rearward on said chain, so that by adjusting slide A on pole B with chain D the device may be adapted to use with a greater or less number of horses, and said slide furnishes means for immediate adjustment for the purpose of balancing the strength of the horses at either end of doubletree E, should any become weak and lose their strength. By this construction a variable number of horses may be used simply by moving said slide to change the angle between said doubletree E and chain D. The use of chain D' and friction-wheel P' in doubletree R' permits the longer section of said doubletree to extend over the pole, so that one of the horses attached to said doubletree may be on the opposite side of the pole, the angle of the chain D' being such as to cause the power of a horse at the end of said chain D' to be balanced by the power of the horse attached to the shorter section of said doubletree. The angle of said chain D' and doubletree R' may be changed to suit the power of either horse simply by pivoting said doubletree at either side of the point shown to doubletree E. The whole forms a very neat, simple, and effective draft-equalizer adapted particularly for use on a reaper, plow, mowing-machine, and where a variable number of horses is desired to be used. By the construction shown only one horse need be on the side of the pole next the grain when used on a reaper or mower, or in the furrow when used with a plow, and none need travel on the plowed ground, even if more than four horses are used.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows, to wit:

1. The combination of pole B, having pin-holes c, doubletree E, having the friction-wheel P, box-slide A, chain D, having one end attached to said slide and its opposite end

passing over said friction-wheel and attached to a doubletree, substantially as and for the purpose set forth.

2. The draft-equalizer shown and described,
5 consisting of the combination of the pole B, slide A, chains D and D', doubletree E, having friction-wheel P, doubletree R', having

friction-wheel P', and doubletree R, substantially as and for the purpose set forth.

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Witnesses:

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