

S. E. WINSER.
Draft-Equalizer.

No. 168,699.

Patented Oct. 11, 1875.

Fig. 1.

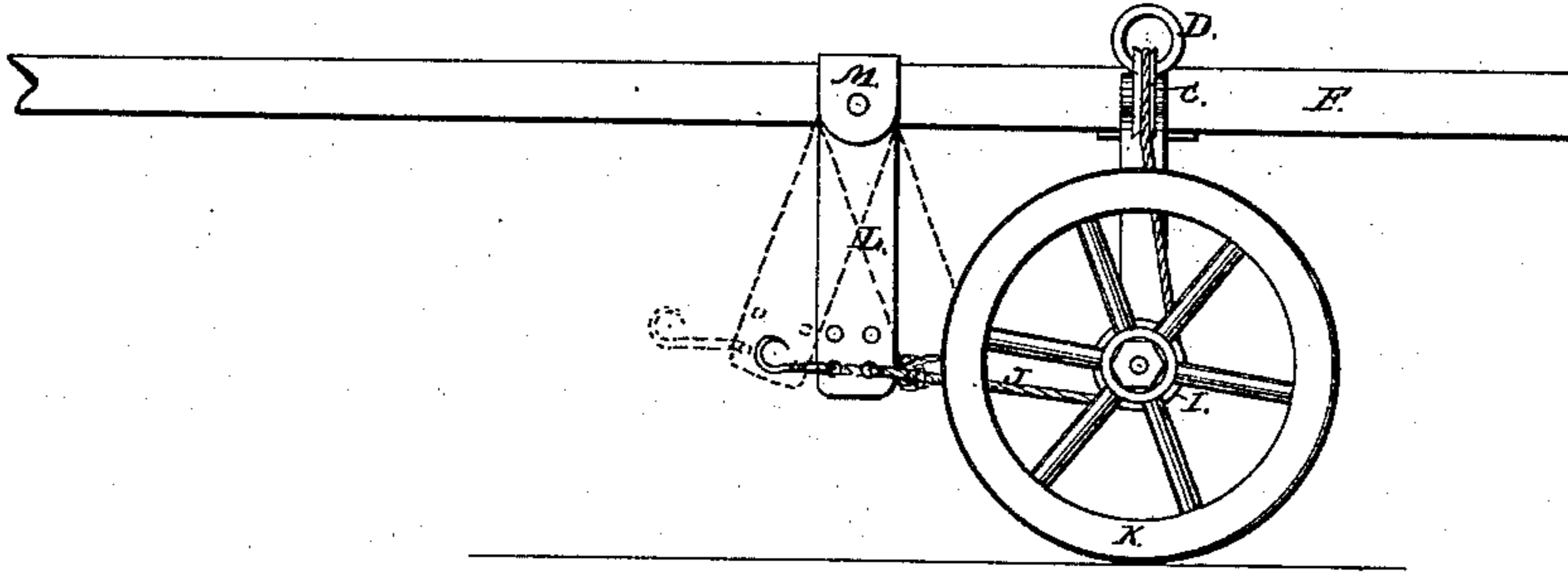


Fig. 2.

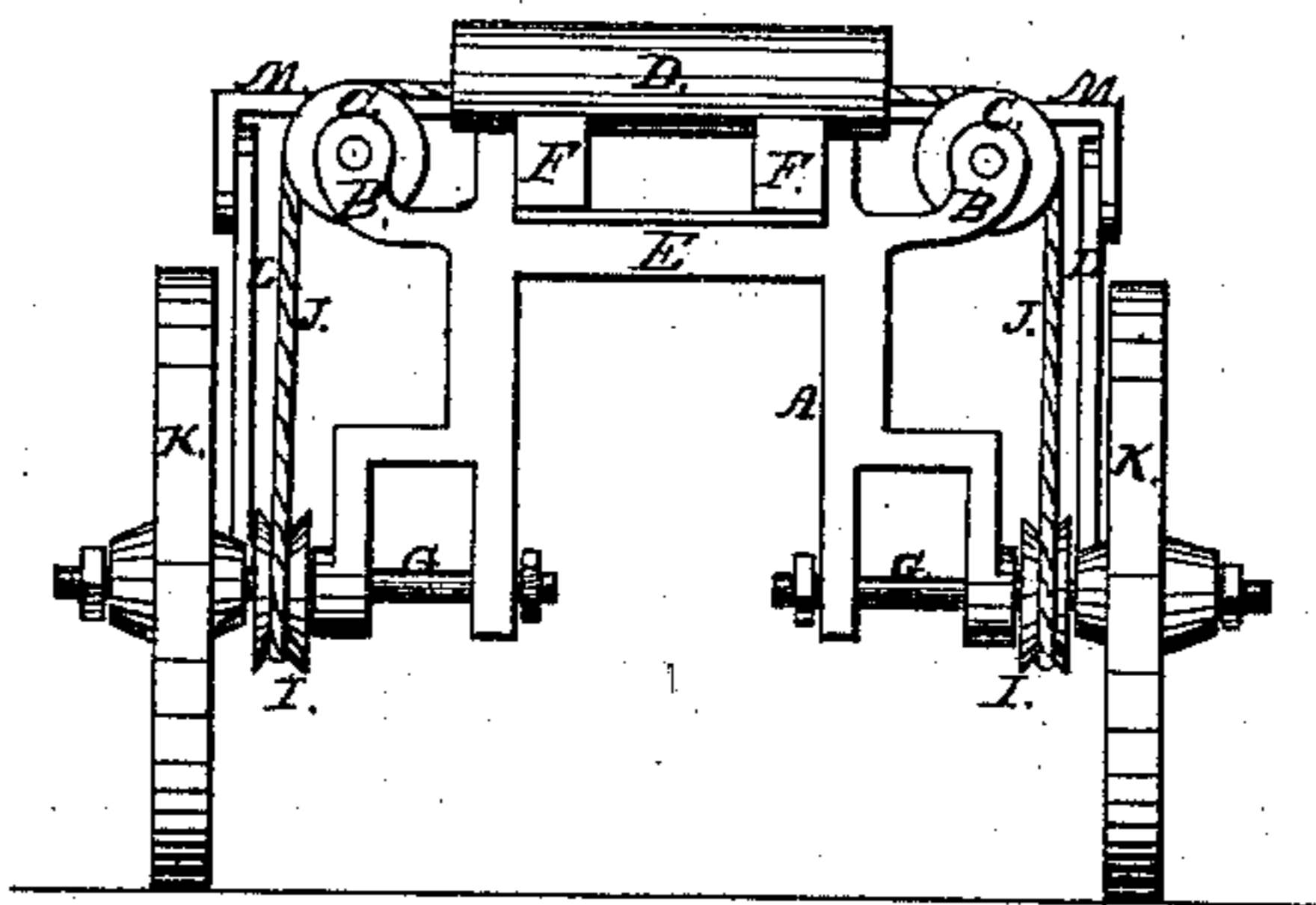
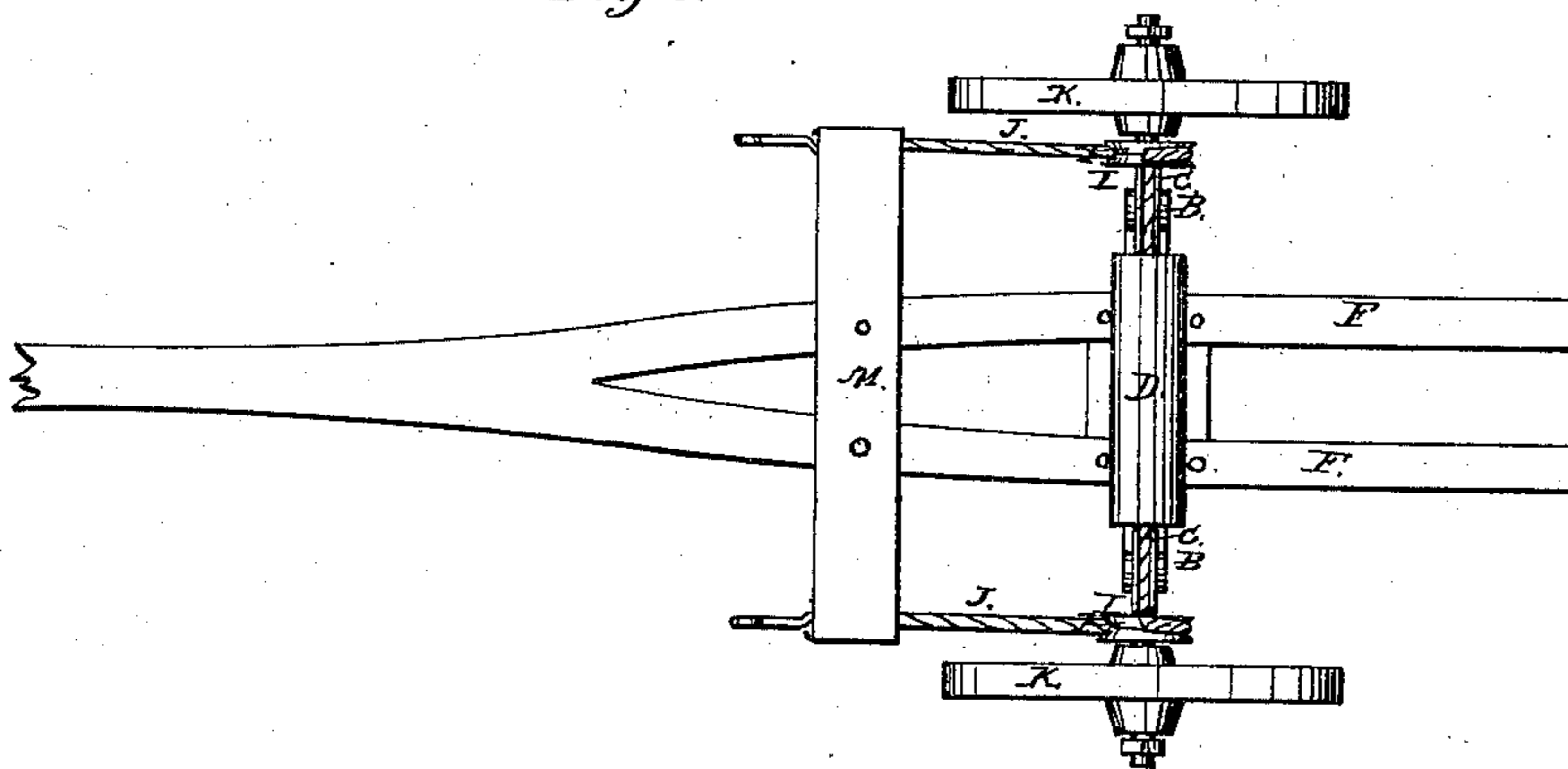


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

SINO E. WINSER, OF PERU, ILLINOIS.

IMPROVEMENT IN DRAFT-EQUALIZERS.

Specification forming part of Letters Patent No. **168,699**, dated October 11, 1875; application filed July 31, 1875.

To all whom it may concern:

Be it known that I, SINO E. WINSER, of Peru, in the county of La Salle and State of Illinois, have invented a new and useful Improvement in Draft-Equalizers for Cultivators, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

The object of my invention is to equalize the draft of two horses hitched to a wheel-cultivator, so that if one horse pulls more than the other he will simply walk ahead of the other horse without pulling the cultivator out of a straight line.

Draft-equalizers have been made in various forms heretofore, but none, to my knowledge, which combines so effectually all the qualities desired in such a device without at the same time increasing the cost of the machine.

The machine is illustrated more in detail in the vertical views, Figure 1 and Fig. 2, and in the plan view, Fig. 3.

The casting A forms an arch, straddling the row of corn in the usual manner; but it has formed on it the arms B B, into which the grooved pulleys C C are inserted. The pipe D may also form a part of the same casting, leaving between it and the top E of the arch just sufficient room to insert the tongue F. The axles G G have, between the casting A and the wheels K K, grooved pulleys I I, under which, and over the pulleys C C, and

through the pipe D, passes the rope or chain J, connecting forward with the hanging levers L L, hinged to the cross-beam M. To these hangers L L are hitched the horses, at any point desired, there being a number of holes through the hangers, so that the operator may choose the right place, according to the strength of each respective horse. The plow-beams (not shown in the drawing) are attached to the axles G G, in the usual manner. The object of the pipe D is to prevent the lines from coming in contact with the rope or chain J, which might interfere with the free working of the machine.

It will thus be seen that by means of the hanging levers L L the draft can be so nearly equalized that the rope or chain J will easily balance whatever difference may arise between the two horses, the sweep of the levers L L being very long, so that the workman will not be annoyed by the machine occasionally jerking sidewise, as other machines sometimes do, damaging or cutting off stalks of corn.

I claim as my invention—

The frame A, made, as herein described, with projecting arms B B, carrying the pulleys C C, and with the pipe D, in combination with the pulleys I I, the levers L L, and the rope or chain J, substantially as described.

SINO E. WINSER.

Witnesses:

EDWARD ROSE,
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