

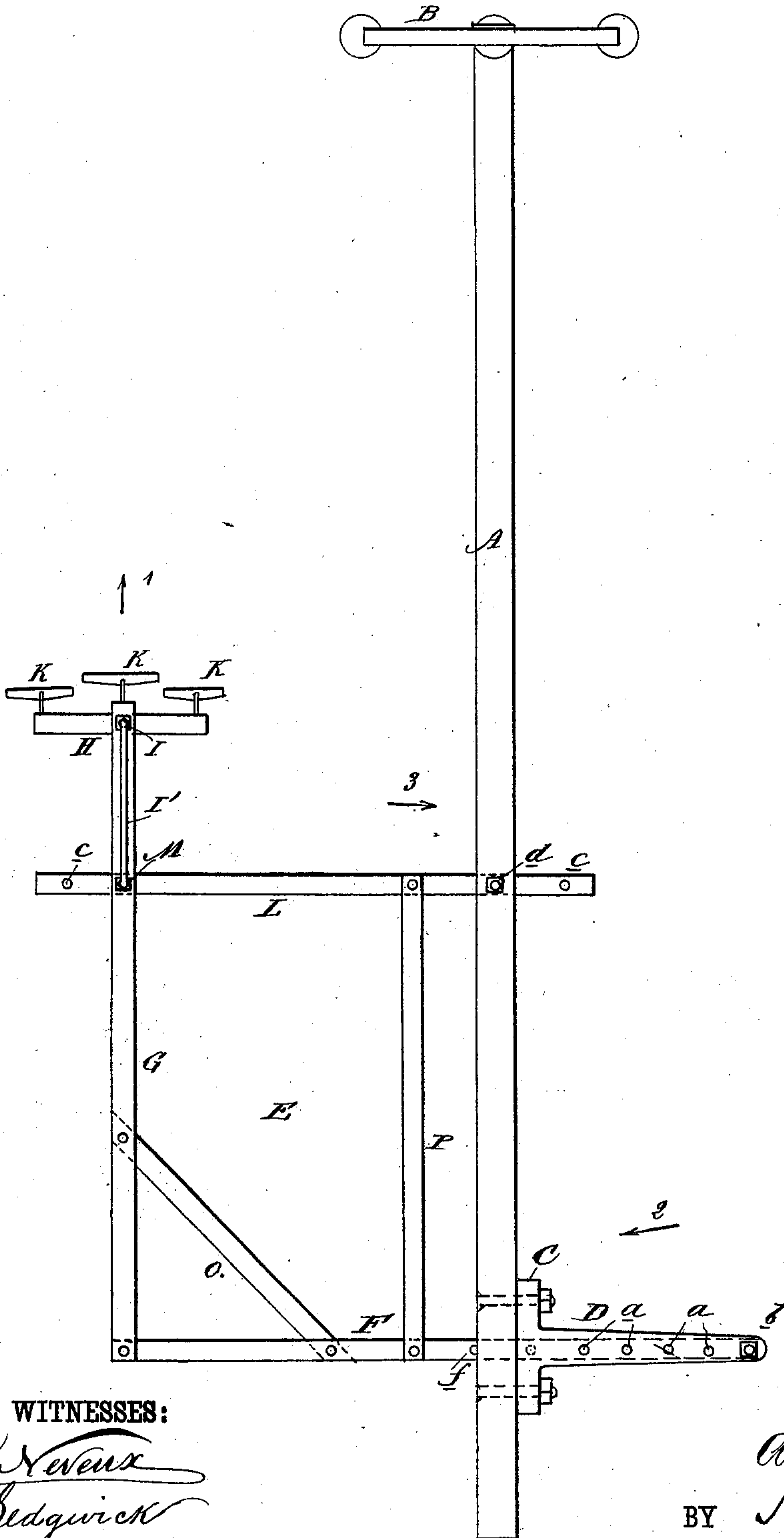
(No Model.)

A. W. KLAMER.

Draft Equalizer for Side Reaping Machine.

No. 236,042.

Patented Dec. 28, 1880.



WITNESSES:

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AUGUST W. KLAMER, OF CAHOKA, MISSOURI.

DRAFT-EQUALIZER FOR SIDE REAPING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 236,042, dated December 28, 1880.

Application filed November 15, 1880. (No model.)

To all whom it may concern:

Be it known that I, AUGUST W. KLAMER, of Cahoka, in the county of Clarke and State of Missouri, have invented a new and useful Improvement in Draft-Equalizers for Side Reaping-Machines, of which the following is a specification.

The object of this invention is to provide a simple device for balancing or equalizing the side pull in a side reaping or other machine, so that the power of the horses may be exerted to better advantage.

The invention consists of a rectangular frame-work adjustably secured to the tongue or pole of the vehicle, so as to project on one side thereof and carry the whiffletrees, thereby affording the horses that draw the vehicle a powerful leverage against the side pull of the reaping-machine.

The drawing represents a plan of the device.

A represents the tongue or pole of a side reaper provided with a neck-yoke, B. Near the rear end of the tongue or pole A, and on the reaper side thereof, is bolted a plate, C, in which is tenoned or otherwise secured a bar, D, projecting at right angles therefrom, and provided with a series of vertical bolt-holes, *a a*.

The adjustable equalizer E consists of a straight bar, F, about two feet long, more or less, and provided with bolt-holes *f* crossing the upper face of the tongue or pole A, preferably on a slight forward inclination, and having its free extremity secured on the bar D by a pivot-bolt, *b*, that passes through the said bar F and one of the holes, *a*, in the bar D, while the other end of said bar F is rigidly connected with the bar G, which is about eighteen inches long, or thereabout, and is parallel with the tongue A, and carries on its forward end the swinging bar H, which is held by the hammer-bolt and spring I I', and to which swinging bar H the single-trees K K are attached in the usual fashion. A bar, L, provided with adjusting-holes *c*, crosses the bar G and tongue A at right angles forward

of, and nearly parallel with, the bar F, and is held to the bar G by the bolt M, that holds the hammer-spring I', and to the tongue A by a pivot-bolt, *d*, that passes through one of the holes, *c*, and into the tongue A. A diagonal corner-brace, O, strengthens the angle formed by the bars F and G, and a straight brace, P, extends parallel with the tongue A from the bar F to the bar L, for the purpose of further strengthening and stiffening the said equalizer E.

When the device is in operation and the horses attached to the single-trees K K are moving in the direction of the arrow 1, (shown in the drawings,) the power exerted will in part be transmitted along the bars G F to the bolt *b*, with the effect of causing a lateral pressure through the bar D upon the reaping side of the tongue A, while the rest of the power will be applied to the bolt *d* through the bars G and L, with the effect of causing a lateral pressure thereon in the reverse direction, the two forces thus combining to incline the rear end of the tongue A in the direction of arrow 2, and the front end thereof in the direction of arrow 3, thus equalizing or balancing the side pull or draft of the reaper-bar and knives when they are in operation.

The relative angle of the equalizer E to the tongue A, and thereby the direction and division of the applied draft-force, may be adjusted or regulated by changing the pivoting-points of the bars F L, or either of them, on the bar D and tongue A, respectively.

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

A draft-equalizer constructed substantially as herein shown and described, consisting of connected bars F G L, provided with braces O P, in combination with tongue A, plate and bar C D, and pivoting-bolts *b d*, as set forth.

AUGUST W. KLAMER.

Witnesses:

JOHN W. KLAMER,
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