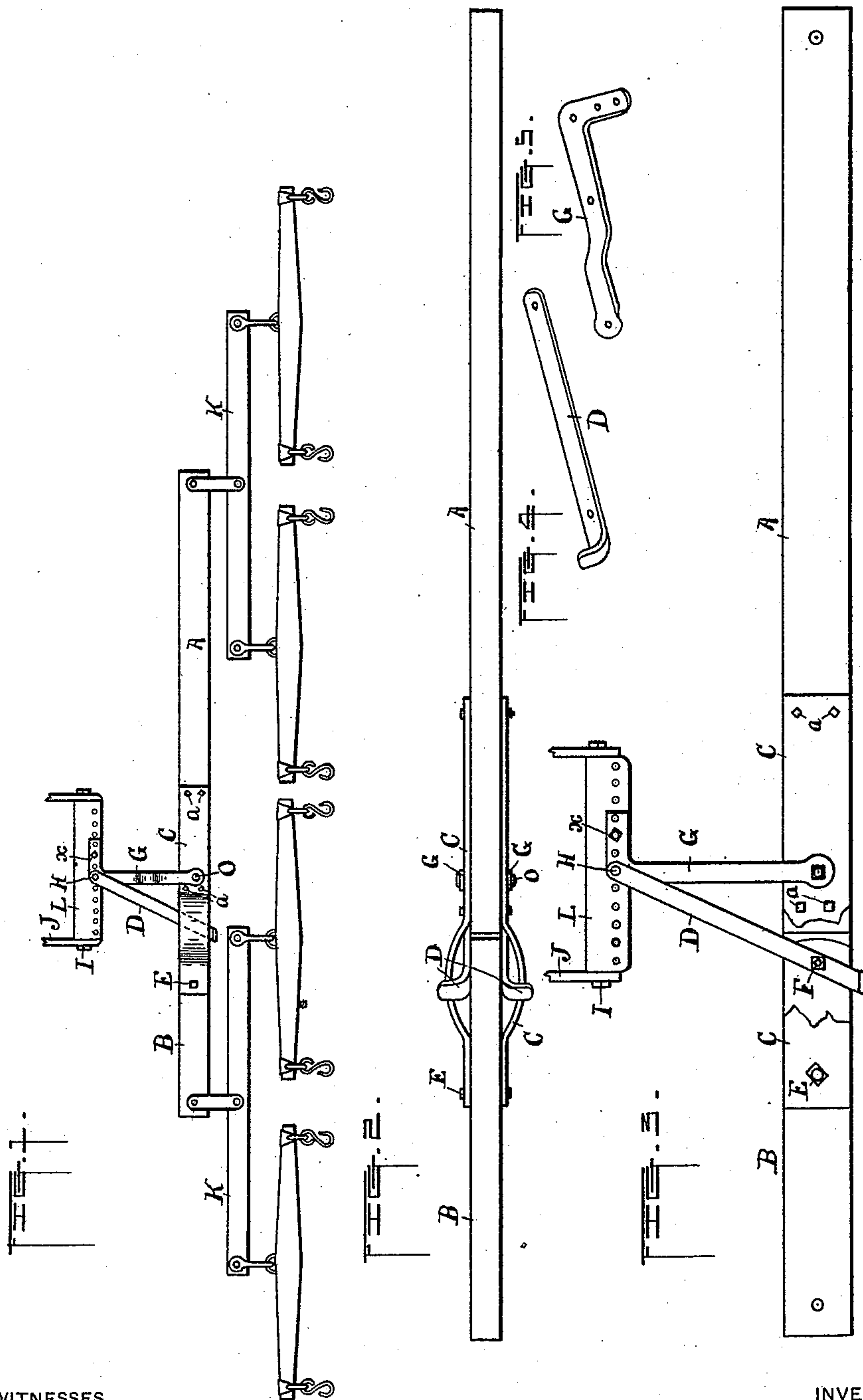


(No Model.)

E. WAGES & S. H. ARMSTRONG.
DRAFT EQUALIZER.

No. 471,297.

Patented Mar. 22, 1892.



WITNESSES

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UNITED STATES PATENT OFFICE.

EDGAR WAGES AND SAMUEL H. ARMSTRONG, OF CANTON, ILLINOIS.

DRAFT-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 471,297, dated March 22, 1892.

Application filed November 4, 1891. Serial No. 410,899. (No model.)

To all whom it may concern:

Be it known that we, EDGAR WAGES and SAMUEL H. ARMSTRONG, residents of Canton, in the county of Fulton and State of Illinois, have invented certain new and useful Improvements in Draft-Equalizers; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

The invention relates to eveners such as are used in plowing and suitable for three or more horses or mules; and its object is to provide that while one horse walks in the furrow two or more others can walk on the land and evenness of draft be maintained, so that the plow shall be drawn neither to nor from the land, but in a direct line; and the invention consists in the matters hereinafter described and particularly pointed out.

In the accompanying drawings, Figure 1 is a plan. Fig. 2 is a front elevation, the whiffletrees and smaller eveners or doubletrees being omitted. Fig. 3 is a plan, partly broken, of the evener on an enlarged scale, the whiffletrees and their doubletrees being omitted. Figs. 4 and 5 are perspective views of details.

The evener is composed of two sections A and B, to which are attached the doubletrees K K, carrying each a pair of whiffletrees. These are secured together by means of the plates C, bolted at *a a* to the main section A and at E to the smaller section B, which can swing about the bolt E as a pivot. Bolt E is also a pivot for the plates C.

G G indicate straps, and O is a bolt by which they are secured to the plates C and to section A. These are attached by a bolt *x* to a draft plate or sleeve L, secured on a bolt I, passing through the ends J of a yoke or other part adapted to connect with the clevis of a plow.

D D indicate two braces, which are secured by a bolt F to the inner end of section B. The opposite ends of these braces are secured by a bolt H, which may pass through a suitable hole in the bent end of the straps G and also through the plate L.

At or near the adjacent ends of the evener-sections the plates C are arched, as shown, so that the braces D may pass under the raised or arched parts of the plates C and bear di-

rectly on the section B. The free ends of the braces are bent as represented, so that they are adapted to engage the plates C and serve as stops when the outer ends of one or both sections are swung sufficiently far forward about the bolt E.

It is obvious that the draft-straps G can be adjusted laterally by means of the bolt and the series of holes in the draft-plate L, and that the braces can also be suitably disposed. By these means the draft can be so adjusted with respect to the plow that one horse can walk in the furrow and the others on the land without either drawing the plow-point to the land or throwing it out. The bent arms of the straps G have several holes, one of which is utilized to receive the bolt H, which secures the brace.

In the adjustment represented the sections are shown as arranged in line. If the point of attachment of the draft-straps be moved either to the right or left and the braces be similarly moved, they will still be in line. If, however, the rear end of the braces be independently moved and fastened to plate L at another point relatively to the straps G, the sections will move about the bolt E in such manner as to throw them slightly out of line. By these adjustments the draft can be so regulated that the plow will run evenly and so that the different members of the team can pull without interfering with their mates.

Having described our invention, what we desire to secure by Letters Patent is—

1. In combination, the evener having two sections A and B, connected by plates C, rigidly secured to section A and pivotally secured to the other section by a bolt E, the straps G, the draft-plate, and the braces, substantially as set forth.

2. In combination, the evener having two sections A and B, connected by plates C, rigidly secured to section A and pivotally secured to the other section by a bolt E, the straps G, the draft-plate, and the braces, the braces being provided with stops, substantially as set forth.

3. In combination, the evener having two sections A and B, connected by plates C, rigidly secured to section A and pivotally secured to the other section by a bolt E, the straps G, the draft-plate, and the braces, the

connecting-plates being arched and the braces passed under the arches and provided at their free ends with stops.

4. In combination, the draft-plate, the
5 evener having sections A and B, the plates C, rigidly bolted to section A and pivotally bolted to section B, the draft-straps connecting section A and the draft-plate, and the
10 B, substantially as set forth.

5. In combination, the evener having the sections A and B, the draft-plate, the draft-straps G, secured to section A and having the bent portion provided with several holes and

adjustably bolted to the draft-plate, the braces 15 adjustably bolted to the plate and to section B and having stops at their free ends, and the arched connecting-plates, substantially as set forth.

In testimony whereof we have signed this 20 specification in the presence of two subscribing witnesses.

EDGAR WAGES.

SAMUEL H. ARMSTRONG.

Witnesses:

LEWIS THOMPSON,

H. B. HEALD.