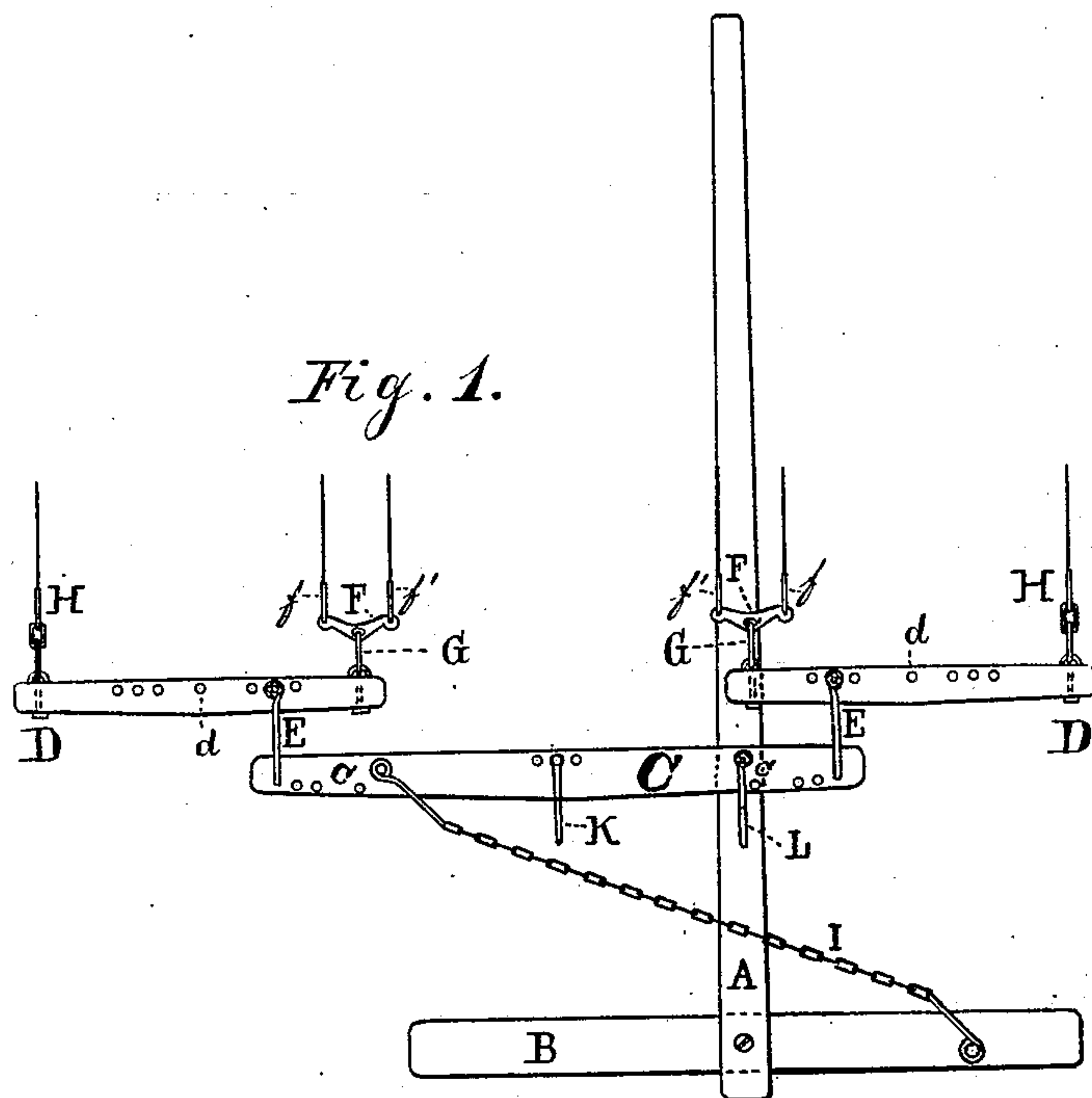


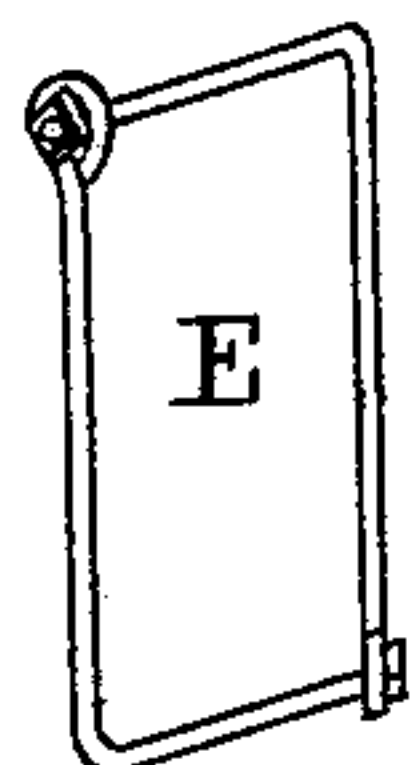
L. W. FREDERICK.  
Draft-Equalizer.

No. 202,432.

Patented April 16, 1878.



*Fig. 2.*



*Fig. 3.*



WITNESSES  
James B. Liggins  
Jos. A. Sawyer.

INVENTOR  
Levi W. Frederick  
per C. Bradford  
Attorney

# UNITED STATES PATENT OFFICE.

LEVI W. FREDERICK, OF MOORESVILLE, INDIANA.

## IMPROVEMENT IN DRAFT-EQUALIZERS.

Specification forming part of Letters Patent No. **202,432**, dated April 16, 1878; application filed July 3, 1877.

*To all whom it may concern:*

Be it known that I, LEVI W. FREDERICK, of the town of Mooresville, county of Morgan, and State of Indiana, have invented certain new and useful Improvements in Two and Three Horse Draft-Equalizers, of which the following is a specification:

Reference is had to the accompanying drawing, which is made a part hereof, and on which similar letters of reference indicate similar parts:

Figure 1 is a plan view of my invention. Fig. 2 is a detail drawing of the link E. Fig. 3 is a detail drawing of the hook G.

In said drawing, that portion marked A represents an ordinary pole; B, the cross-bar thereon; C, a double-tree attached thereto; D D, single-tree attached to the double-tree; E E, links or clevises to connect the single-trees to the double-tree, which are constructed in a peculiar manner, more fully shown in the detail drawing, Fig. 2; F F, short levers attached to the inner end of the single-trees to operate as trace attachments; G G, hooks by which said levers are attached to the single-trees. These hooks form an important part of my invention, and are more fully shown by detail drawing, Fig. 3. By their use the levers F F are readily detached from the single-tree when it is desired to change from three to two horses. Similar hooks are used at the outer ends of the single-trees, where hooked links H H are used to make the ends even with the levers F F.

I is a chain or rod connecting the inner end of the bar B with the outer end of the double-tree C. This device is specially designed for mowers and reapers, as it throws the greater portion of the power on the labor side, which is a great advantage in this class of work.

A number of holes are formed in the double-tree, and also in the single-trees, some of which are very essential to the proper working of my invention. Those marked *c c* in the double-tree and those marked *d d* in the single-trees are those in which the links E E are placed when the equalizer is changed from three to two horses. The others show the different places of attachment by which the draft is distributed according to the strength of the animals.

K is a clevis by which this device can be attached to a plow, harrow, or other tongueless implement.

The link E is formed of two right-angled bolts, having an eye at one end and a thread and nut at the other. A link for the purpose specified should be simple, durable, and easily attached and detached. This invention answers the purpose perfectly.

L is the ordinary device for attaching the double-tree to the tongue, and is used with either two or three horses by simply moving the double-tree to the proper position.

The advantages of my invention are that it can be used in any position in which the ordinary double-tree can be used, and is readily changed so as to be used with either two or three horses, at pleasure. These changes are accomplished without difficulty or loss of time, and I thus save the expense of one implement, as my invention, being interchangeable, answers every purpose of two.

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

1. In a two and three horse draft-equalizer, the combination of the hook G with the single-tree D and lever F, said hook being for the purpose of allowing said lever to be readily detached from said single-tree, all substantially as herein shown and described.

2. The combination, with the pole A and double-tree C, said double-tree being attached to the pole in the ordinary manner, of the chain I, to operate as a stay or guide, substantially as herein shown and described.

3. The combination of the two bolts, constructed as described, forming the link or clevis E, as herein shown and described.

4. The combination of the double-tree C, having holes *c c*, and the single-trees D D, having holes *d d*, with the link or clevis E, said arrangement of holes being for the purpose that the device may be so changed that it shall be suitable for two instead of three horses, or vice versa, and as herein shown and described.

In witness whereof I have hereunto set my hand and seal at Indianapolis, Indiana, this 30th day of June, A. D. 1877.

LEVI W. FREDERICK. [L. S.]

In presence of—  
C. BRADFORD,  
J. S. LONG.