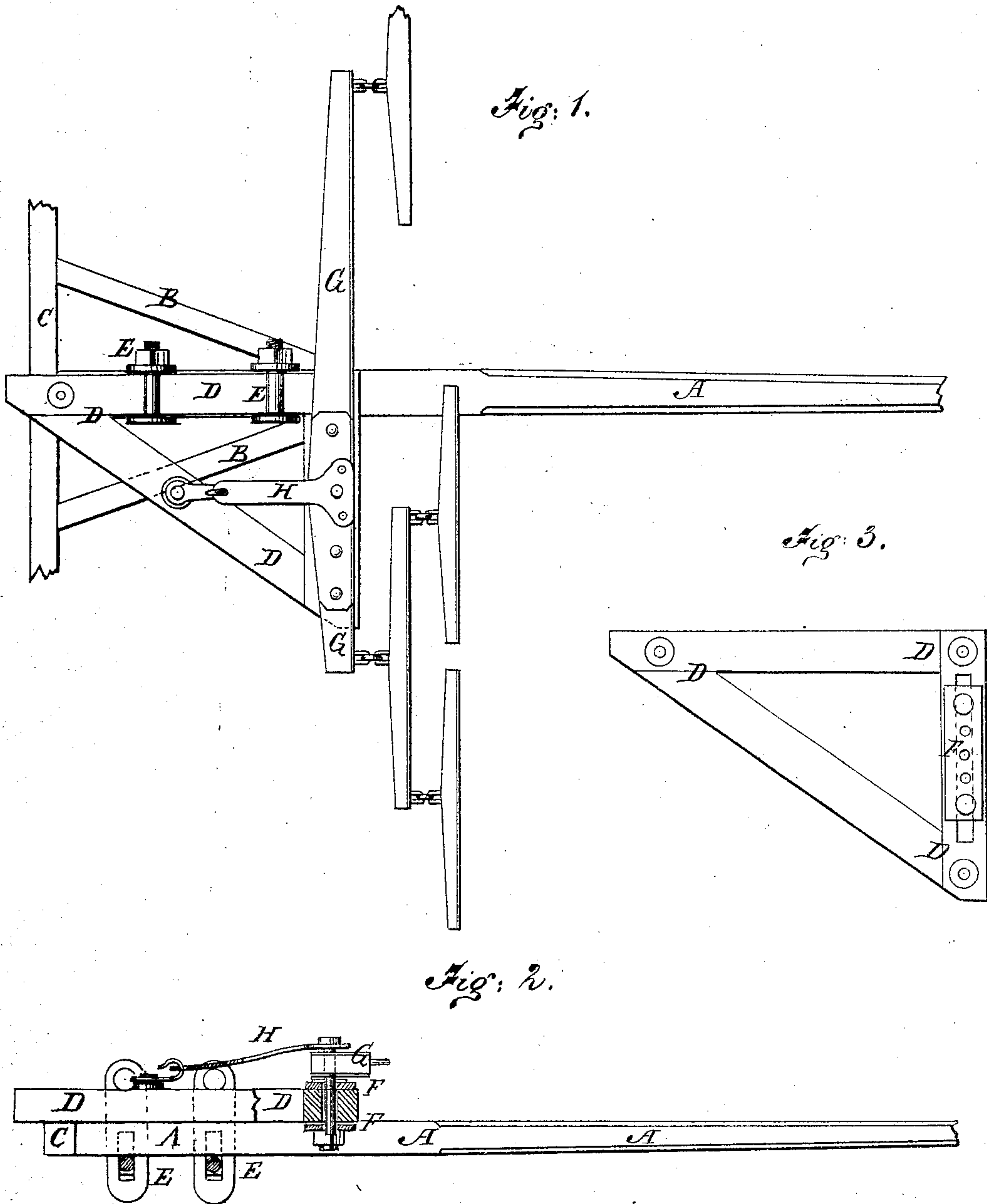


E. H. BLAKE.  
Draft Equalizers,

No. 145,983.

Patented Dec. 30, 1873.



Witnesses:

*Chas. Nida*  
*Alex. F. Roberts*

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Per

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# UNITED STATES PATENT OFFICE.

ELIAS H. BLAKE, OF COATSBURG, ILLINOIS.

## IMPROVEMENT IN DRAFT-EQUALIZERS.

Specification forming part of Letters Patent No. **145,983**, dated December 30, 1873; application filed October 25, 1873.

*To all whom it may concern:*

Be it known that I, ELIAS H. BLAKE, of Coatsburg, in the county of Adams and State of Illinois, have invented a new and useful Improvement in Three-Horse Equalizer, of which the following is a specification:

Figure 1 is a top view of my improved equalizer, shown as applied to a tongue. Fig. 2 is a side view of the same, part being broken away to show the construction. Fig. 3 is a detail top view of the equalizer detached.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved equalizer, which shall be simple in construction and convenient in use, being readily attached to a tongue or plow-beam without weakening it, and may be readily adjusted to allow the single horse to walk upon either side of the tongue, and to give an advantage to the single horse or to the pair, as may be desired. The invention consists in the triangular equalizer provided with clamps for securing it to the tongue or beam, and having its forward arm slotted and provided with adjustable perforated plates to receive the hammer or pin by which the triple-tree is connected with it, as hereinafter fully described.

A represents the tongue. B are the hounds, and C is the axle or the roller. D is the equalizer, which is made in the form of a right-angled triangle, the longer arm of which is about twenty-two inches long, and is laid upon the tongue or beam, with the other or forward arm, which is about eighteen inches long, projecting at right angles upon the side of the tongue upon which the pair of horses are designed to be. The longer arm of the equalizer D is secured to the tongue A by two clamps, E, each of which consists of two straps or plates, which are placed upon the opposite sides of the

tongue and arm of the equalizer, and are secured in place by two bolts passing through them, the one above the arm of the equalizer, and the other below the tongue, one of said bolts passing through slots in said straps, so that they can be conveniently applied to tongues of different thicknesses. The forward arm of the equalizer D is slotted longitudinally, to receive the two bolts by which the plates F are secured to the upper and lower sides of said arm, so that the said plates F may be slid out or in, as may be desired, by simply loosening the nuts of the said bolts. The plates F have two or more holes formed through them, to receive the hammer or pin by which the triple-tree G is pivoted to the equalizer, said hammer or pin passing through the slot in the said forward arm. The hammer-strap H is pivoted to the inclined arm or hypotenuse of the equalizer, and its forward end has two or more holes formed in it to receive the hammer or pin to correspond with the holes in the plates F. The part of the triple-tree G through which the hammer or pin passes is plated with iron plates to prevent wear, and has two or more holes formed through it to receive the hammer or pin, so that the triple-tree may be adjusted to give the single horse or the pair the advantage, as may be required.

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

The combination, with the tongue A and triple-tree G, of the detachable triangular frame D, having its forward side slotted, the plate F, and the clamps E E, all as shown and described.

ELIAS H. BLAKE.

Witnesses:

RICHARD GRAY,  
DANIEL E. CASE.