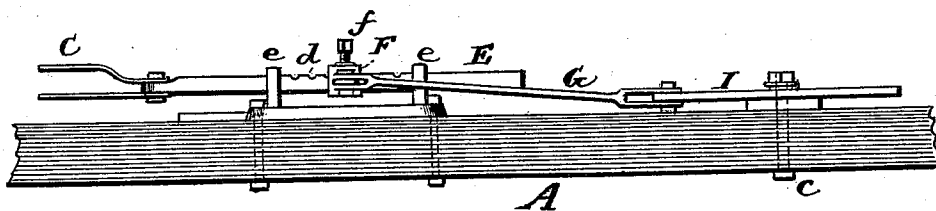
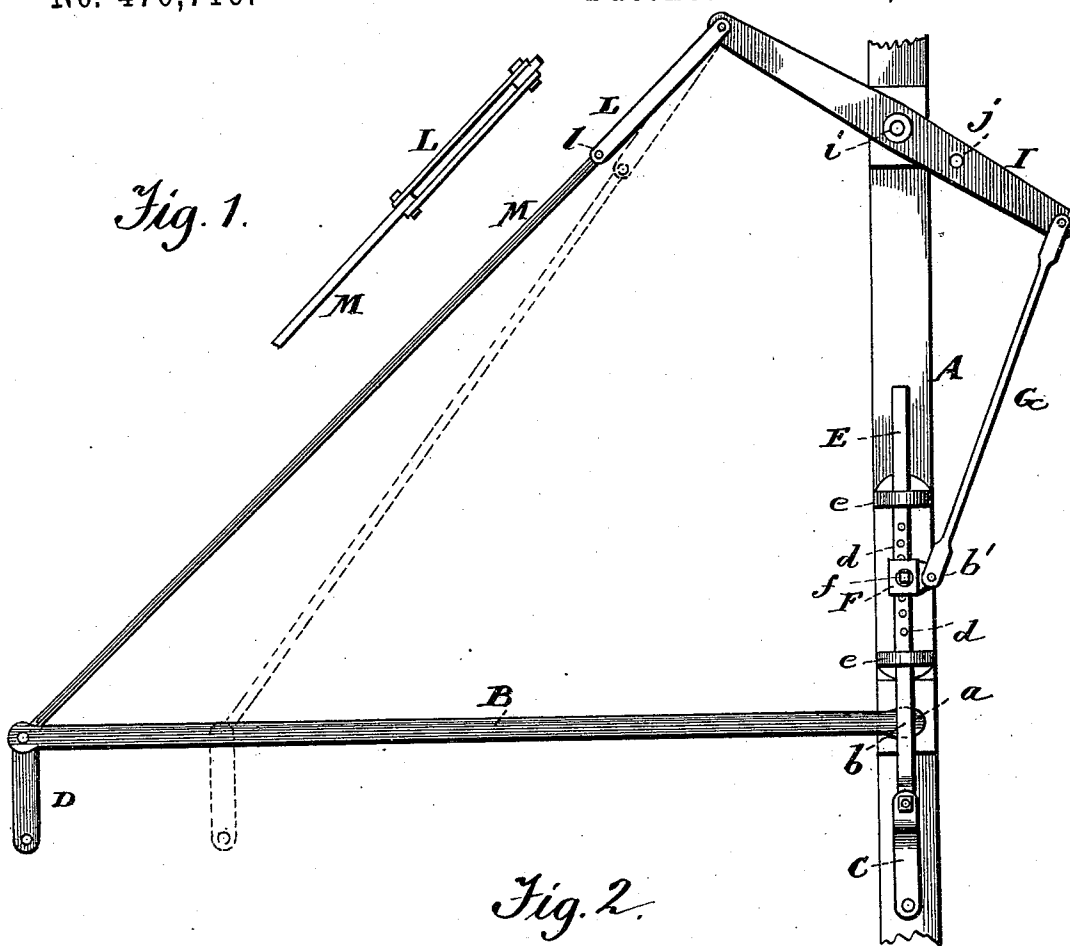


(No Model.)

H. O. SORKNESS.
DRAFT EQUALIZER.

No. 470,716.

Patented Mar. 15, 1892.



Witnesses.

A. Ruppert.

A. L. Hough.

Inventor:

Henry O. Sorkness
by Franklin A. Hough
His Attorney

UNITED STATES PATENT OFFICE.

HENRY OSCAR SORKNESS, OF ASHBY, MINNESOTA.

DRAFT-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 470,716, dated March 15, 1892.

Application filed November 5, 1891. Serial No. 410,907. (No model.)

To all whom it may concern:

Be it known that I, HENRY OSCAR SORKNESS, a citizen of the United States, residing at Ashby, in the county of Grant and State of Minnesota, have invented certain new and useful Improvements in Draft-Equalizers; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in draft-equalizers; and it has for its objects, among others, to provide a simple, cheap, durable, and efficient equalizer which can be used with two, three, or four horses, and which can be readily changed or adjusted according to its manner of use.

Other objects and advantages of the invention will hereinafter be described, and the novel features thereof will be specifically defined by the appended claims.

The novelty in the present instance resides in the peculiar combinations and the construction, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a plan view illustrating my improvements. Fig. 2 is a front elevation thereof. Fig. 3 is a side elevation of the same.

Like letters of reference indicate like parts throughout the several views in which they occur.

Referring now to the details of the drawings by letter, A designates the draft-bar, and B the lateral arm or bar pivoted thereto at one end, as shown at *a*, the pivot being a bolt *b*, having a head at one end and at the other end screw-threads, which engage the nut *c*, which keeps the said bar or arm from displacement and yet permits it to turn thereon as a pivot, the nut also serving as a means of taking up wear.

C is a hasp or appliance for the attachment

of a single or double tree, and upon the outer end of the lateral arm is a like appliance D.

Extending parallel with the draft-rod is the bar E, which is provided with a plurality of notches *d*, as seen best in Fig. 3, the said rod being held in the brackets *e* and at the forward end carrying the draft appliance C, as seen best in Fig. 3.

F is a casting or block adapted to slide upon the bar E and provided with a set-screw or analogous provision *f*, adapted to engage any one of the notches in the bar E to hold the casting or block in its adjusted position. Instead of notches holes may be provided.

G is a link or rod pivotally connected at one end with the lug *h* of the casting or block and at its other end pivotally connected to the end of the evener I, which is pivoted at *i* to the draft-rod by a removable pivot, being provided with an additional pivot-hole *j* for a purpose hereinafter explained. To the other end of this evener is pivotally connected the link or rod L, which is pivotally connected with the arm M, which is pivotally connected with the outer end of the lateral arm by a removable pivot *l*.

When it is desired to use four horses, two horses are hitched in the appliance C and two in the appliance D.

When used for a three-horse equalizer, the evener is moved so that its pivot will be in the hole *j*, when the parts will assume the position in which they are shown by dotted lines in Fig. 1, and two horses are hitched to the appliance C and one to the appliance D.

The lateral arm is in the form of a truss, as seen in Fig. 2, for strength, and O is a washer designed to be used when four horses are employed at the outer end between the two parts of the lateral arm; but when three horses are used it is changed with the rod to the position shown by dotted lines in Fig. 1.

The construction is simple, readily applied, is durable and efficient in use, and is cheap of manufacture.

What I claim as new is—

1. The combination, with the draft-rod, of a lateral arm pivotally connected therewith, the notched arm supported on the draft-rod parallel therewith, a sliding block on said arm, and an evener pivotally connected with

the rod and with said block, and the rod connecting the evener and lateral arm, as set forth.

- 5 2. The combination, with the draft-rod and the lateral arm, of the evener pivoted to the rod by a removable pivot, the adjustable pivotal connection between the evener and the rod, and pivotally-connected rods between the evener and the lateral arm, as set forth.
- 10 3. The combination, with the draft-rod, of the notched bar parallel therewith and supported thereon, the casting adjustable on the

notched bar, the evener, the lateral arm, the pivotal connection between the evener and the casting, the removable pivot, and the adjustable pivotal connections between the evener and the lateral arm, substantially as specified. 15

In testimony whereof I affix my signature in presence of two witnesses.

HENRY OSCAR SORKNESS.

Witnesses:

K. N. O. MELBY,
J. O. D. MADLAM.