

(No Model.)

J. W. STEINMETZ.
DRAFT EQUALIZER.

No. 508,778.

Patented Nov. 14, 1893.

Fig. 1.

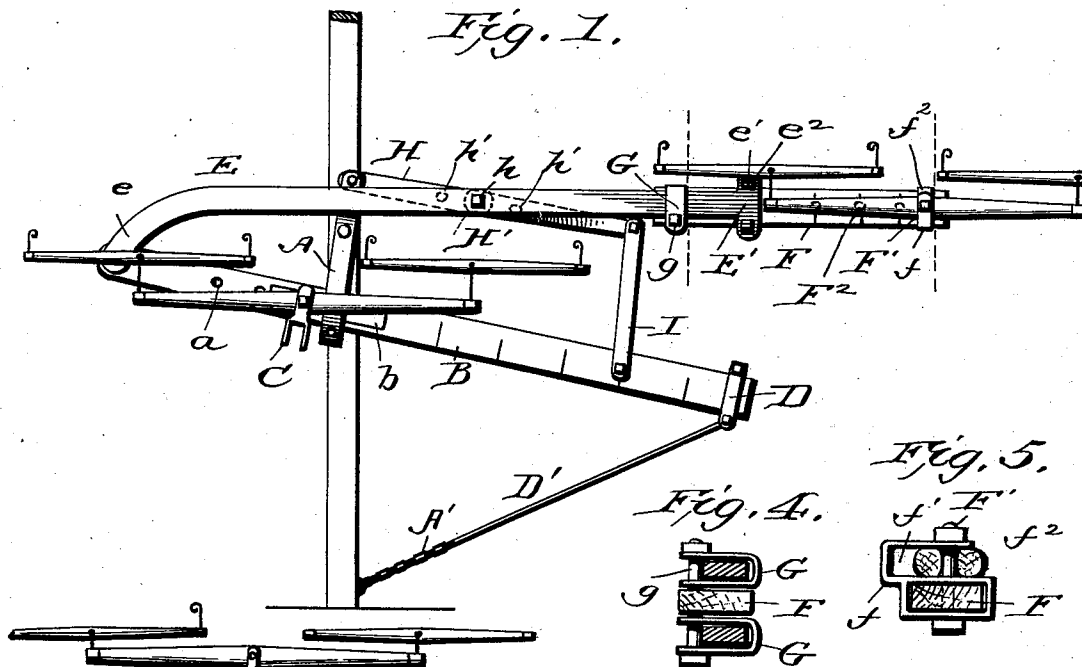


Fig. 4.

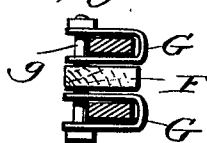


Fig. 5.



Fig. 2.

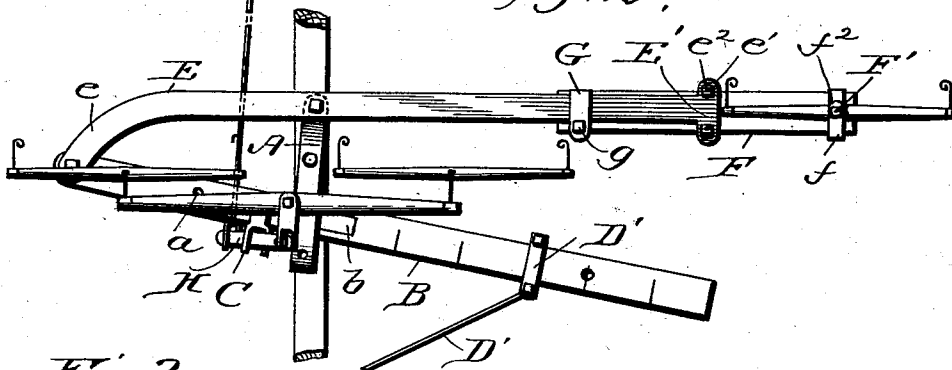
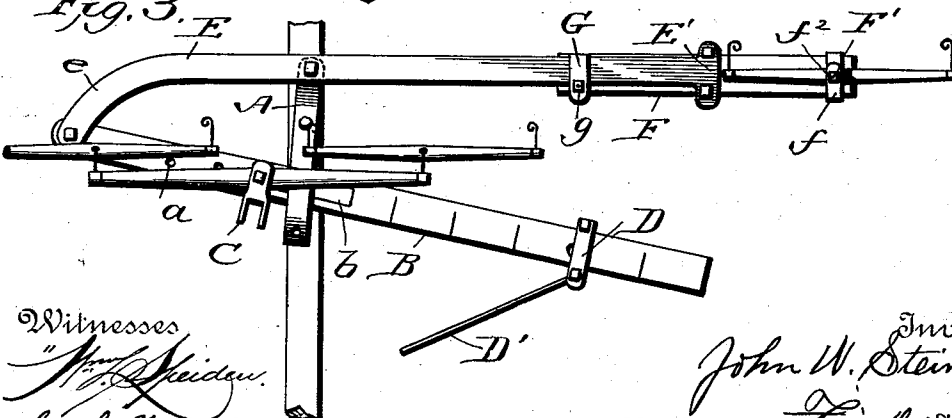


Fig. 3.



Witnesses
"H. S. Prull."
C. S. Prull.

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UNITED STATES PATENT OFFICE.

JOHN W. STEINMETZ, OF MILLBANK, SOUTH DAKOTA.

DRAFT-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 508,778, dated November 14, 1893.

Application filed August 4, 1893. Serial No. 482,392. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. STEINMETZ, a citizen of the United States, residing at Millbank, in the county of Grant and State of South Dakota, 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.

15 This invention relates to certain new and useful improvements in draft-equalizers or horse-eveners, and it has for its objects among others to provide a simple and cheap improved construction which can be readily arranged for three, four or more horses and in which the clevis can be easily attached on top of or underneath the tongue to vary the neck weight.

25 Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be specifically defined by the appended claim.

30 The invention in this 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 claim.

35 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—

40 Figure 1 is a plan view of my improvement arranged for four horses. Fig. 2 is a like view showing the parts arranged for five horses. Fig. 3 is a like view of the same with the parts arranged for three horses. Figs. 4 and 5 are details.

45 Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates the clevis which is designed to be attached to the pole or tongue in any suitable manner, and it may be connected either on top of or underneath the said pole or tongue according to whether it is desired to make the neck weight more or less.

This clevis is loop shaped as shown and loosely embraces the main or long lever B which may be provided with a wear plate *b* if desired to prevent the said clevis from wearing the lever in its movements. This lever is provided with a plurality of holes *a* as shown for the adjustment of the clasp C as occasion may require. This clasp may be of any well known or preferred form of construction adapted for the attachment of a single-tree.

D is a clasp near one end of the lever and pivotally connected to this clasp is a rod D' to the other end of which is attached a chain A'. The manner of use of this chain will soon be explained.

The other end of the lever B is pivotally held between the curved ends *e* of the beam E which is formed of two parallel parts or bars as shown and the pivot of the lever serves also to connect these parts or bars. The opposite ends of these parts or bars are provided with T-shaped extensions or heads E' as shown and these are connected at one end of the cross portions by a bolt *e'* and adjusting nuts *e''*. Preferably the same connection is made between the other ends of the cross portions.

F is a short beam or lever confined between the bars of the beam E as shown and carrying at its outer end a clamp *f* which consists of a loop to embrace the said beam or lever and above the same is an open loop *f'* a bolt or pin F' passing vertically through the two and through the beam and provided with adjusting nuts *f''*; this serves for the attachment of a single-tree. The said beam or lever is provided with a plurality of holes F² to allow of the necessary adjustments of the short beam or lever and its clasp. The other end of this short beam or lever is provided with a pin *g* which passes loosely therethrough so as to allow the lever to work thereon as on a pivot. On this pin are the two substantially U-shaped guides G which loosely embrace the two parts or bars of the long beam or lever. Pivotally held between its ends between the bars of the long beam or lever is the lever H on a pivot *h*, the said lever being provided with a plurality of holes *h'* to permit of the required adjustment. Washers H' are provided on the pivot upon opposite sides of the said lever. To one end of this lever is pivotally connected the clevis and the other end is pivotally con-

nected with the lever B by means of the plates or bars I near one end of the said lever as shown.

5 The manner of use will be readily understood from the foregoing description when taken in connection with the annexed drawings, and a further detailed description thereof is not deemed necessary. In Fig. 1 the parts are arranged for four horses. The chain
10 is extended back of the clevis and attached at the side opposite the majority of horses. When adjusted for three horses as shown in Fig. 3 the short lever H and its connection with the lever B are removed and the short
15 beam adjusted inward as shown in said Fig. 3. The parts are readily adjusted to obtain the proper equalization.

What I claim as new is—

The draft-equalizer described, consisting of the long beam with one end curved, the long 20 lever pivotally connected with said curved end, the short lever pivoted to the long lever, the clevis connected therewith, the adjustable short beam on the end of the long beam, the clasps on the various parts, and the means for 25 adjusting of the levers and beams, and the chain connected with the long lever, substantially as specified.

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

JOHN W. STEINMETZ.

Witnesses:

FRANK KIBBS,
HENRY JACOBS.