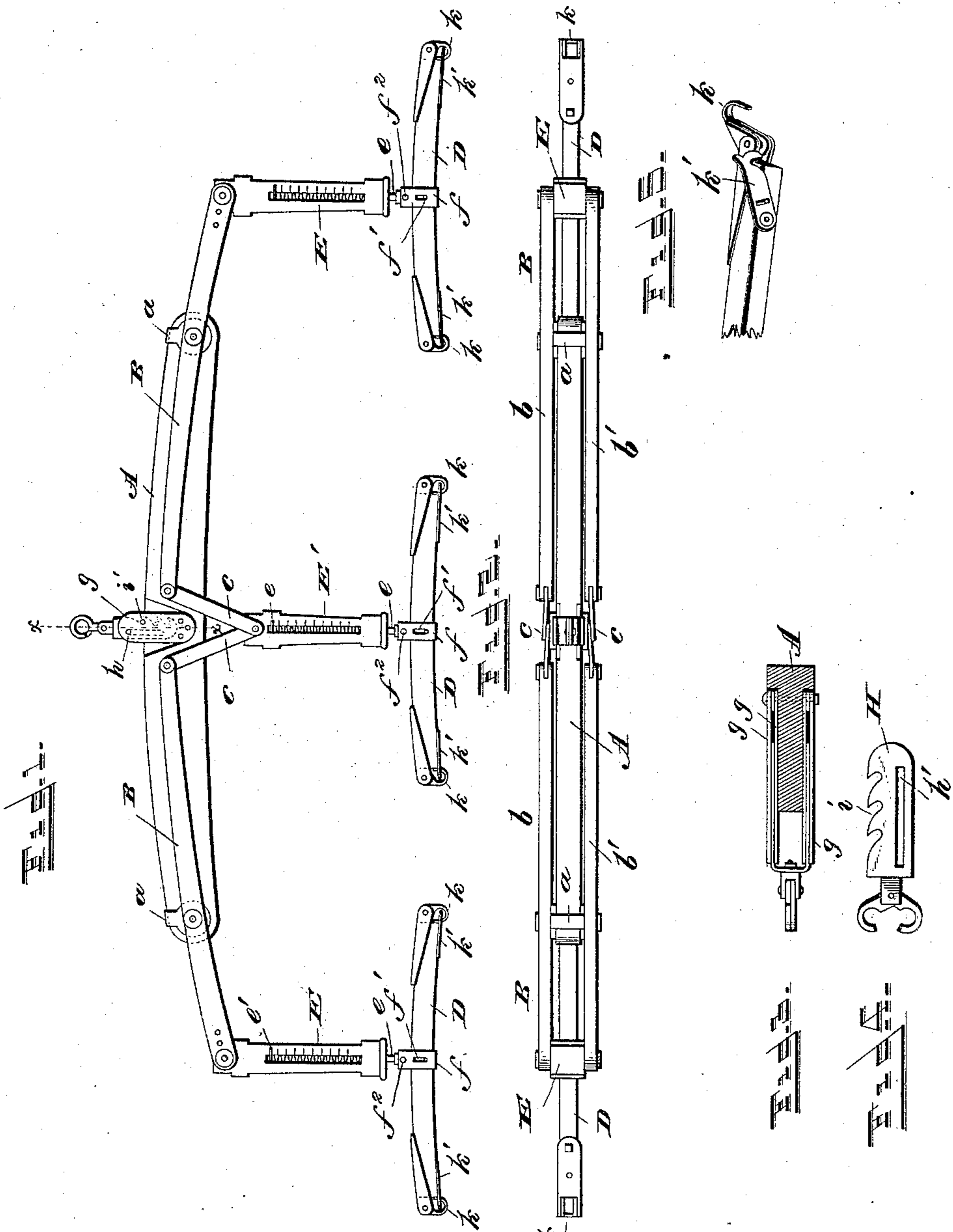


(No Model.)

T. R. WILDS.  
DRAFT EQUALIZER.

No. 415,662.

Patented Nov. 19, 1889.



*Thaddeus R. Wilds.*

Witnesses

G. S. Elliott,  
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Inventor

By his Attorneys

Inven

*[Signature]*

# UNITED STATES PATENT OFFICE.

THADDEUS R. WILDS, OF SCOVILL, (DAKOTA TERRITORY,) NORTH DAKOTA.

## DRAFT-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 415,662, dated November 19, 1889.

Application filed April 11, 1889. Serial No. 306,874. (No model.)

*To all whom it may concern:*

Be it known that I, THADDEUS R. WILDS, a citizen of the United States of America, residing at Scovill, in the county of Ransom and Territory of Dakota, have invented certain new and useful Improvements in Draft-Equalizers; and I 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in attachments for whiffletrees.

The object of my invention is to provide an improved whiffletree or draft-equalizer with a draft-indicating spring and improved coupling means, as will be hereinafter fully set forth and claimed.

I accomplish the above object by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of my improved whiffletree or draft-equalizer. Fig. 2 is a rear elevation. Fig. 3 is a sectional view taken through the line *xx* of Fig. 1. Figs. 4 and 5 are detail views of means employed for connecting the traces to the whiffletree.

A refers to the evener, which is provided at its ends with clips or plates *a a*, through which pass bolts for connecting the members B B thereto, these whiffletrees being made up of upper and lower bars *b* and *b'*. The bars *b* and *b'* are adapted to lie partially above and below the evener A, and their ends being separated permit the equalizing-springs E E to be adjusted as may be desired, the rear ends of said equalizing-springs E E lying between the ends of the members B B. These equalizing-springs can be adjusted upon the members by simply removing the connecting-bolts and placing them in the perforations provided therefor. The inner ends of the members are connected to each other by links *c c*, the rear ends of which are pivoted to the inner ends of the doubletrees *b* and *b'*, while their forward ends are connected by a bolt to the central equalizing-spring E'. The equalizing-springs E' consist of cases suitably con-

structed, within which are placed spiral springs, through which pass rods *e e*, the ends of which are provided with heads which bear upon the rear ends of the springs, and immediately in front of these heads is placed a plate carrying pointers which travel over a graduated scale marked upon the casing. To the ends of the rods *e* are attached bands *f*, which embrace the singletree D, these bands being provided with slots *f'*, through which pass pins for preventing the removal of the singletree, but allow a slight rocking movement thereof. The bands *f* are connected to the draft-rods *e*, so that the singletree can turn upon the pivot *f*<sup>2</sup>. The evener A is cut away centrally, and has attached thereto plates *g g*, which are rigidly connected to the said evener, and the ends of these plates, to one side of the center, are connected to each other by a pin *h*, which passes through a slot *h'* in the connecting-hook H. The side of this connecting-hook opposite the slot is provided with catches *i*, which engage with short pins *i'* between the plates *g g*. By this construction the connecting-hook H can be adjusted to provide the desired distance between the evener and object to which it is attached. The ends of the whiffletrees are provided at their ends with hooks *k*, with which the traces engage, and these hooks are prevented from swinging open by the hooks *k'*, which engage with the inner ends thereof. The movement of the hooks *k'* is limited by a slot and pin, which will be fully understood by reference to Fig. 5 of the accompanying drawings.

The hereinbefore-described device is not only adapted for a draft-equalizer, but also as a draft-indicator, and the indicators co-operate with the singletrees or doubletrees, as they show how much work each horse is performing and afford a means for adjusting the equalizer so that each horse will pull equally or according to his strength, and the special construction of the parts allows a side swing of the singletrees without affecting the operation of the device.

I am aware that prior to my invention it has been proposed to provide a draft-equalizer with indicating means, and I do not claim such construction, broadly; and I am also aware that three-horse equalizers consisting of a central bar to which doubletrees are at-

tached have been proposed, singletrees being connected to said doubletrees.

Therefore, what I claim as new, and desire to secure by Letters Patent, is—

5 1. The combination, with a whiffletree or evener A, of the members made up of bars *b* and *b'*, pivoted to the ends of the evener A and provided at their inner or long ends with links *c c*, and a singletree connected to the ends  
10 of the spring-indicators E E', attached to the ends of the bars *b* and *b'*, substantially as shown, and for the purpose set forth.

2. The combination, in a draft-equalizer, of an evener A, provided centrally with rear-  
15 wardly-extending plates *g g*, said plates being connected to each other on one side of the center by pins *i'*, said plates being also provided with a pin *h*, said plates being pivotally connected to the evener A, a loop having  
20 rearwardly-extending members which lie between the plates *g g*, said members being provided with slots *h'* and hooks *i*, substantially as shown, and for the purpose set forth.

3. In combination with a singletree D,  
25 draft-hooks *k*, pivoted to the ends thereof, and hooks *k'*, pivoted at right angles therewith,

the ends of which are adapted to engage with the bent ends of the hooks *k*, said hooks having slots and pins for limiting the upward movement thereof, substantially as shown, 30 and for the purpose set forth.

4. In a draft-equalizer constructed substantially as shown, an evener A, having members B B, made up of the bars *b* and *b'*, pivoted to the ends thereof so as to lie above and below 35 the bar A, links *c c*, having their rear ends pivoted to the inner ends of the bars *b* and *b'*, their forward ends being secured to a draft-indicator E', the draft-indicators E and E', pivotally secured between the outer ends of the 40 bars *b* and *b'*, and draft-rods *e e*, provided at their outer ends with singletrees and at their rear ends with plates which bear upon springs and pointers *e'*, the parts being combined and organized substantially as shown, and for the 45 purpose set forth.

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

THADDEUS R. WILDS.

Witnesses:

R. N. STEVENS,

ULYSSES HERTIG.