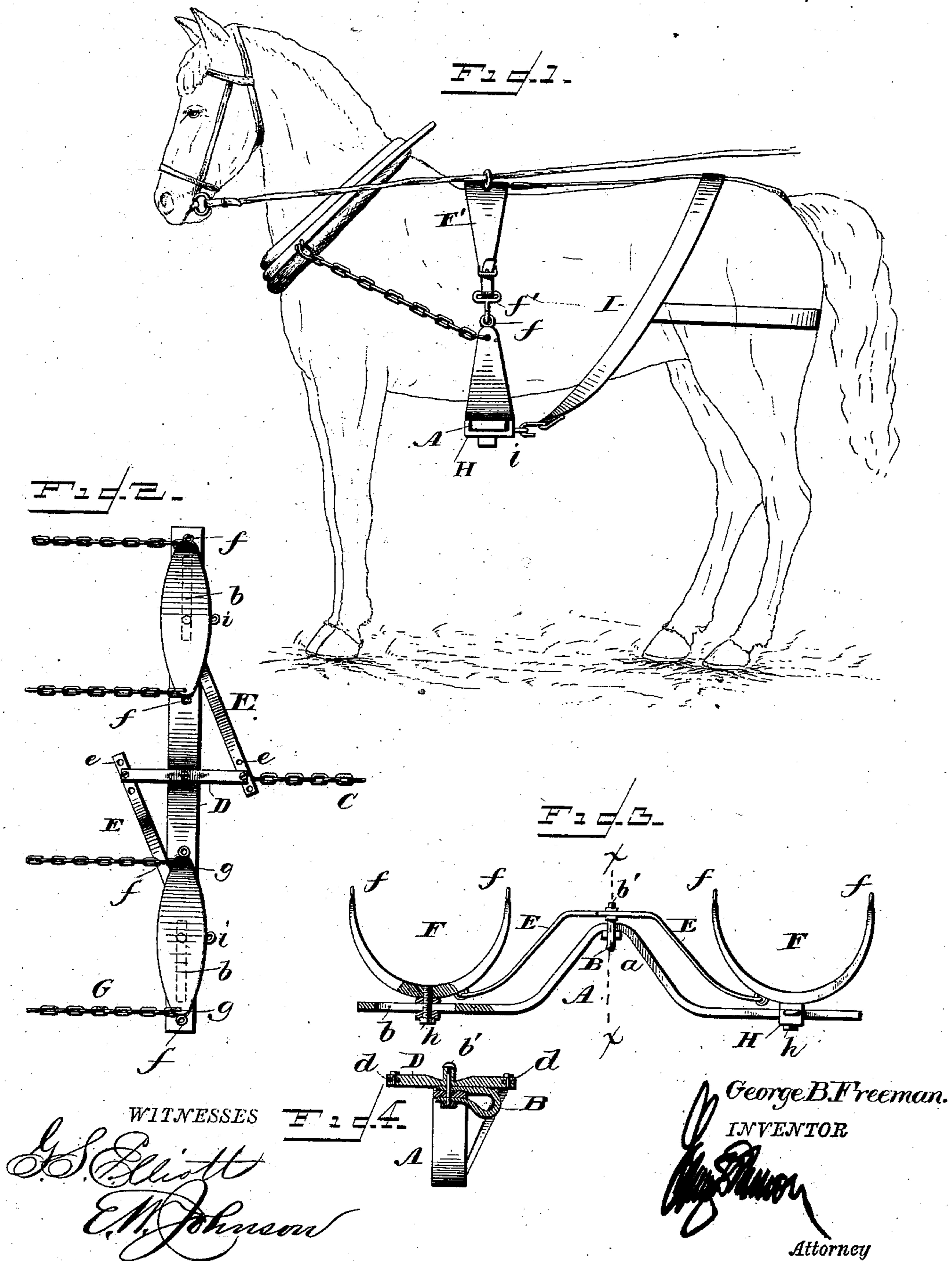


(No Model.)

G. B. FREEMAN.
DRAFT EQUALIZING HARNESS.

No. 347,290.

Patented Aug. 10, 1886.



UNITED STATES PATENT OFFICE.

GEORGE B. FREEMAN, OF MIDDLEVILLE, MICHIGAN.

DRAFT-EQUALIZING HARNESS.

SPECIFICATION forming part of Letters Patent No. 347,290, dated August 10, 1886.

Application filed June 10, 1886. Serial No. 204,751. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. FREEMAN, a citizen of the United States of America, residing at Middleville, in the county of Barry and State of Michigan, have invented certain new and useful Improvements in Draft-Equalizing Harness; 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 draft-equalizing harness, the object of my invention being to provide a cheap and effective means for equalizing the strain upon the horses, so that each will do his share of work, and at the same time said horses will be permitted to work close together or far apart, as they may desire, without affecting the equalizing means; and to this end my invention consists in a harness attachment, the construction of which will be hereinafter fully set forth, and specifically pointed out in the claims.

In the accompanying drawings, which illustrate my invention, Figure 1 is a side view of my attachment, showing the same attached to one of the horses of the team. Fig. 2 is a plan view showing the equalizing attachment detached. Fig. 3 is an end view, partly in section; and Fig. 4 is a detail sectional view taken through the line *xx* of Fig. 3.

For the purpose of illustrating my invention I have shown it applied in the simplest manner, and instead of employing the same in connection with whiffletrees and tongue I have shown a chain attached to the draft-equalizer, thus illustrating the device without the use of a tongue or whiffletrees.

In the accompanying drawings, A refers to the evener-bar, which is bent upwardly at its center, as shown at *a*, the horizontally-projecting ends of said bar having slots *b b* formed in each end. To the most elevated point of this bar, which is its center, a clevis, B, is attached, the ends of said clevis extending above and below the center portion of said bar, where it is secured by means of a bolt, *b'*. Through the

loop of the clevis B the logging chain or other draft attachment is secured. Immediately above the clevis B an equalizing-bar, D, is pivotally attached to the evener A by means of the bolt *b'*, hereinbefore referred to, and upon said bolt this evener-bar has a pivotal movement. The ends of the bar D are bifurcated or slotted, as shown at *d*, for the reception of the ends of the equalizing-bars E E, said equalizing-bars being provided with a series of perforations, *e e*, whereby they may be lengthened or shortened, according to the strength of the horses. The equalizing-bars E E have their main portion bent downwardly where they are pivotally attached to the curved bars F, which serve as whiffletrees. These curved or segmental bars F are provided at their upper ends with loops *f f*, with which the snap-hooks *f'*, attached to the bands F', will engage, so as to hold the equalizing attachment in position. The upper ends of the segmental bars F are also provided with perforations *g g*, by means of which the trace-chains G are attached thereto, said chains being connected at their opposite ends to the collars, as shown. To the under side of the segmental bars or whiffletrees F a yoke, H, is secured, through which yoke the horizontal portion of the evener-bar A passes, and through this yoke bolts *h* pass, said bolts extending through the yokes and through the slots *b*, the ends thereof being attached to the center portions of the curved bars or whiffletrees F, thus pivotally connecting the same to the evener-bar, so as to permit them to have a slight pivotal movement upon the bars, as well as a lateral movement to and from the center of said bars.

I refers to the breeching-straps, which are attached to each of the horses in the usual manner, said breeching-straps being attached to eyes or loops *i* at the rear end of the yokes H.

By means of the device hereinbefore described the horses may walk either close together or apart, and no matter what position they occupy relative to each other the operation of the equalizing-bars will not be affected. When one of the horses draws or walks faster than the other, the evener-bars D and E will act upon the adjacent whiffletree so as to compel each horse to do his share of work.

The device hereinbefore described may be readily attached and detached from harness of ordinary construction.

I claim—

5 1. In a draft-equalizing device for harness for teams, the bar A, provided at its ends with slots, curved bars F, pivotally attached thereto so as to lie under the bodies of the horses, trace-chains attached to said curved bars, and
10 equalizing-bars D E F, attached to the bar A and to the curved bars F, substantially as shown, and for the purpose set forth.

2. In a draft-equalizing attachment for harness, the bar A, having a center portion
15 curved upwardly, and provided with slotted ends *b*, a clevis attached to the upper portion thereof, curved bars F, pivotally attached to the bar A, and provided with bars E E, and a center bar, D, substantially as shown, and for
20 the purpose set forth.

3. In a draft-equalizing attachment for har-

ness, the bar A, having an upwardly-projecting bent portion, *a*, and slotted end portions, curved bars F, pivotally attached thereto, and adapted to slide laterally within said slots, 25 bars E E, having perforated ends pivotally attached to said curved bars F, and to a straight pivoted bar, D, which is connected above the center of the bar A, trace-chains G, and a draft-chain, C, attached to the clevis, which is 30 secured to the center portion of the bar A, and eyes *g* and *i*, for connecting the equalizing attachment to the back-strap and breeching of harness, the parts being organized substantially as shown, and for the purpose set forth. 35

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

GEORGE B. FREEMAN.

Witnesses:

M. F. JORDAN,

M. C. GUSWOLD.