

(No Model.)

W. Z. RUNKLE.
DRAFT EQUALIZER.

No. 454,069.

Patented June 16, 1891.

Fig. 1

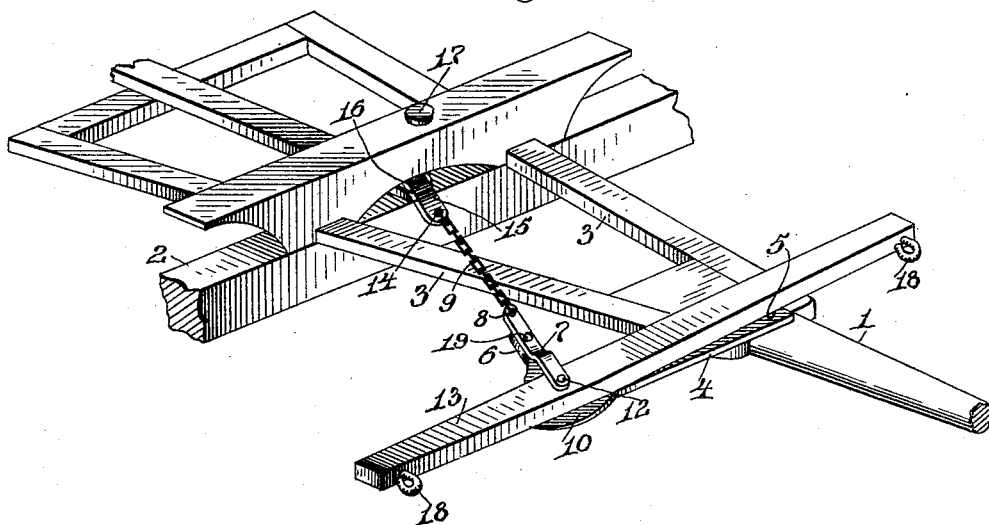


Fig. 2

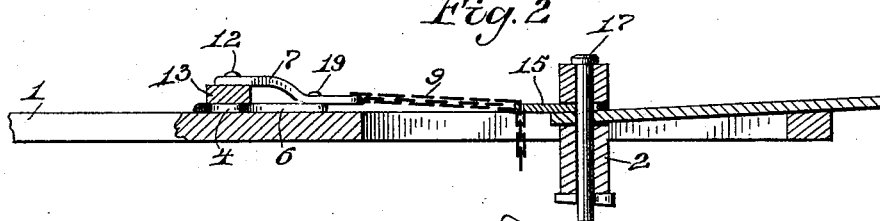
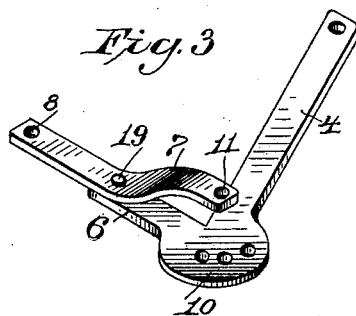


Fig. 3



Witnesses

E. M. Hallahan

H. J. Riley

Inventor

Wm. Z. Runkle

By his Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

WILLIAM Z. RUNKLE, OF DELPHI, INDIANA.

DRAFT-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 454,069, dated June 16, 1891.

Application filed January 20, 1891. Serial No. 378,441. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM Z. RUNKLE, a citizen of the United States, residing at Delphi, in the county of Carroll and State of Indiana, have invented a new and useful Draft-Evener, of which the following is a specification.

The invention relates to improvements in draft-eveners.

10 The object of the present invention is to simplify and improve the construction of draft-eveners and enable the same to be readily reversed to bring the odd horse at either side of the vehicle.

15 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

20 In the drawings, Figure 1 is a perspective view of a draft-evener constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a detail perspective view of the arm and strap.

25 Referring to the accompanying drawings, 1 designates a vehicle-tongue connected with the front axle 2 by the front hounds 3, and having pivotally connected to it a swinging arm 4, which is constructed of metal and has its inner end provided with an opening, 30 through which passes a bolt 5, that pivots the arm to the tongue. The outer end of the arm is enlarged, and is provided with a rearward extension 6, arranged at an angle to the arm 4, and formed integral therewith and having bolted to it a metal strap 7, which has its rear end provided with a perforation 8 and connected to a chain 9, having one of its links 35 engaging the perforation 8. The metal strap 7 has its front end curved upward and arranged over the enlarged outer end 10 of the arm 4, and is provided with a perforation 11, through which passes a bolt 12, that pivots the main whiffletree 13 to the outer end of the arm 4, and the said outer end 10 is provided with a series of perforations, which permit an adjustment of the bolt 12 to enable the position of the main whiffletree to be changed to suit different-sized horses. The rear end of 40 the chain engages a perforation 14 of a plate 15, which is provided with an opening 16,

adapted to receive the king-bolt 17, and the said opening 16 is sufficiently large to receive the different sizes of king-bolt.

The doubletree and the singletree employed are connected to the draft-loops 18 at the end of the main whiffletree, and the draft-evener may be readily reversed to arrange a pair of horses at either side of the tongue by removing the bolt 19, which secures the strap 60 to the rearward extension of the arm, and the bolt 5, which pivots the arm to the tongue.

It will readily be seen that the draft-evener is simple and inexpensive in construction and adapted to be readily reversed, and is capable of being adjusted to suit large and small animals.

From the foregoing description and the accompanying drawings the construction, operation, and advantages of the invention will be readily understood, and it will be seen that the draft-evener is equally applicable to a vehicle, sleigh, or the like, where such devices are usually employed, and that the chain flexibly connects the strap and the king-bolt and does not interfere with the vertical movement of the tongue.

Having described my invention, what I claim is—

In a draft-evener, the combination, with a running-gear, of the arm 4, having its inner end pivoted to the tongue and having at its outer end a circular enlargement provided with perforations, and having a rearward extension arranged at an angle to the arm and formed integral therewith, the metal strap 7, detachably secured to the rearward extension and having its front end arranged over the outer end of the arm, the plate 15, secured to the king-bolt, the chain connecting the plate and the rear end of the strap, and the main whiffletree pivoted to the outer end of the arm 4 between the same and the front end of the strap, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM Z. RUNKLE.

Witnesses:

MICHAEL CLIFFORD,
WILLIAM P. HOWETTS.