

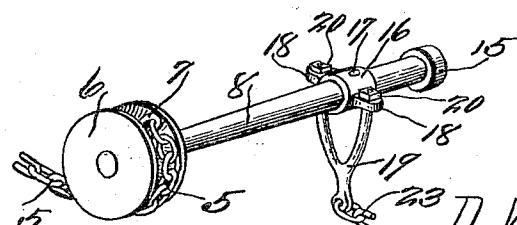
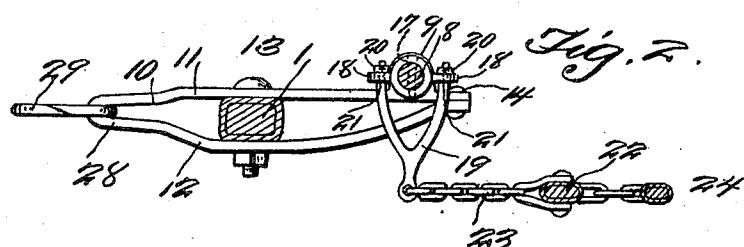
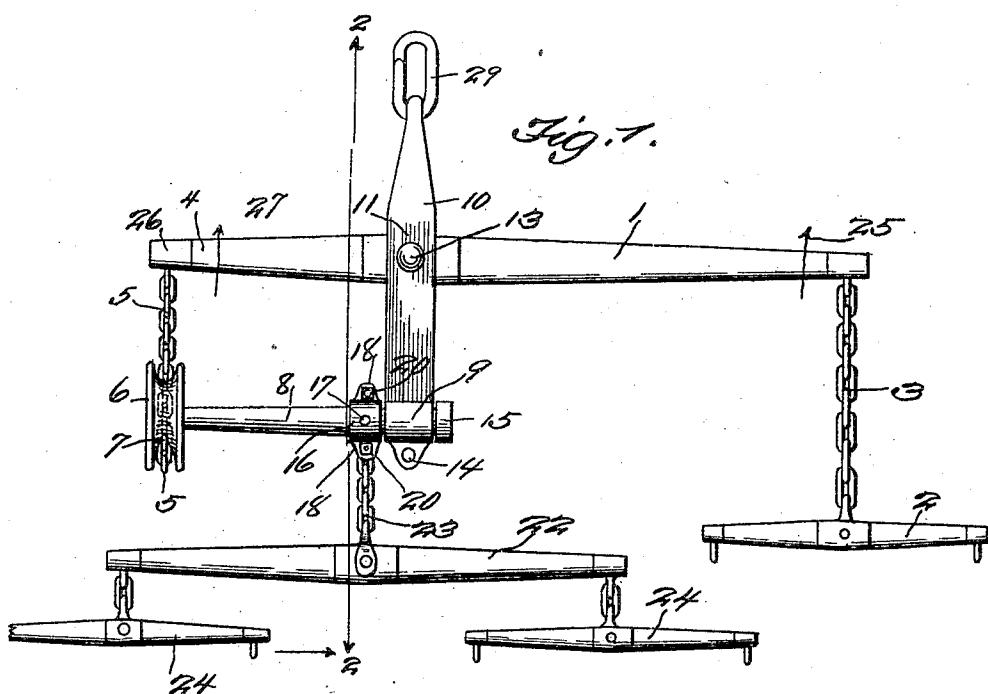
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## DRAFT EQUALIZER.

APPLICATION FILED JUNE 30, 1910

972,012.

Patented Oct. 4, 1910.



### Witnesses

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# UNITED STATES PATENT OFFICE.

DANIEL W. McNATT, OF RIDGE, TEXAS.

## DRAFT-EQUALIZER.

972,012.

Specification of Letters Patent.

Patented Oct. 4, 1910.

Application filed June 30, 1910. Serial No. 569,793.

*To all whom it may concern:*

Be it known that I, DANIEL W. McNATT, a citizen of the United States, residing at Ridge, in the county of Mills and State of 5 Texas, have invented a new and useful Draft-Equalizer; 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 10 appertains to make and use the same.

This invention belongs to the art of draft equalizers, and it particularly pertains to such a device whereby the draft may be 15 equally distributed.

15 The essential feature of the invention is the production of a main equalizer beam having a clevis member, and a draft equalizing rotating shaft mounted in said clevis member, and provided with connections to 20 one end of the main equalizer beam, there being a doubletree having a chain connection with an arm of said shaft, whereby, as a pulling action is exerted upon the swingletrees of said doubletree, coöperation 25 between the shaft and the main equalizer beam will be attained through the medium of said connection. By this method, the draft upon the swingletree (which is connected to the main equalizer beam opposite 30 said connection) will be equalized.

In the exposition of this specification, a 35 particular design of machine is adhered to, but the invention is not to be confined to this special design. Its reduction to practice may require certain changes and alterations, which the right is claimed to make, provided such changes and alterations are comprehended by the appended claims.

40 In the drawings:—Figure 1 is a plan view of a draft equalizer embodying the various features of the invention. Fig. 2 is a sectional view on line 2—2 of Fig. 1. Fig. 3 is a detail perspective view of the equalizing rotating shaft, clearly disclosing the 45 downwardly projecting arm thereof, and the pulley and chain connection.

As to the annexed illustrations, 1 represents the main draft equalizing beam having 50 a swingletree 2 connected at one end thereof by means of a chain 3, while the other end 4 has a chain 5 connected thereto. The chain 5 passes under a pulley 6, and is connected to it by an eye 7. This pulley 6 is carried by 55 and rotatable with the partial rocking draft equalizing shaft 8, which is mounted in a roll or bearing 9 of the clevis member 10.

This clevis member 10 comprises an upper and lower part 11 and 12. These parts straddle the main equalizing beam 1, and are bolted to it, by means of the pivot bolt 60 13, in order that they may have a slight rocking motion. The forward ends of the parts 11 and 12 are connected together by means of the rivet 14, as shown clearly in Figs. 1 and 2. One end of the shaft 8 is 65 provided with a head 15, which together with the collar 16, (which is carried by said shaft) prevents lateral movement of the shaft. The collar 16 is fixed to the shaft by means of the pin 17. Projecting laterally 70 of the collar are two ears 18, and penetrating these ears are the ends of the forked shaped arm 19. To the ends of the forked shaped arm nuts 20 are threaded, in order to hold the arm securely in position and at 75 right angles to the shaft. The extremities of the forks of this arm, where they pass through the ears, are restricted in order to form the shoulders 21, between which and the nuts 20 the ears 18 are clamped. The 80 arm 19 projects downwardly from the shaft, so that when a pulling action is exerted upon the doubletree 22 (which is connected to the arm by means of the chain connection 23) 85 through the medium of the swingletrees 24, the chain 5 will be wound slightly about the pulley 6, which will cause one end of the equalizer beam 1 to move in the direction of the arrow 25. But, when a pulling action 90 upon the swingletree 2 exceeds the pulling action upon the swingletrees 24, the chain 5 will unwind from about the pulley 6, which will cause the end 26 of the beam 1 to move in the direction of the arrow 27, and vice 95 versa.

When mounting the shaft 8 in its roll or bearing 9, the pulley 6 and the collar 16 are arranged in their positions upon the shaft, subsequently to the insertion of the shaft 100 through the roll or bearing 9.

The rear end of the clevis member 10 is in the form of a loop, in which is positioned the usual form of elliptical shaped split ring 29, whereby the equalizer may be connected to any suitable wagon, plow or vehicle.

The invention having been set forth, what is claimed as new and useful is:—

1. In an equalizer, a main equalizing beam 110 having a pivoted clevis member near one end thereof, a swingletree connected to one end of said beam, a rocking shaft carried by the

clevis member and provided with a pulley at its end, said pulley having a chain connection with the other end of the beam, a doubletree having swingletrees, and connections between the doubletree and the shaft.

2. In an equalizer, a main equalizing beam having a clevis member and provided with a swingletree at one end and a chain at the other, a rocking shaft carried by the clevis member having a downwardly projecting arm and a pulley at its end to which said chain is connected, and a doubletree having swingletrees provided with connections with said arm.

10 3. In an equalizer, a main equalizing beam having a clevis member and provided with a swingletree at one end and a chain at the other, a rocking shaft carried by the clevis member having a collar and a pulley at its 15 end to which said chain is connected, an arm projecting downwardly from said collar, means to hold the collar to the shaft, and a

doubletree having swingletrees provided with connections with said arm.

4. In an equalizer, a main equalizing beam 25 having a clevis member and provided with a swingletree at one end and a chain at the other, a rocking shaft carried by the clevis member having a collar and a pulley at its end to which said chain is connected, a 30 forked arm projecting downwardly from said collar having means for connecting the forks thereto, means to hold the collar to the shaft, means to coöperate with the collar to prevent lateral movement of the shaft, and a 35 doubletree having swingletrees and provided with connections to said arm.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DANIEL W. McNATT.

Witnesses:

CHAS. GRAHAM,  
CARL WILSON.