

N. FRYMAN.
DRAFT EQUALIZER.
APPLICATION FILED SEPT. 14, 1908.

912,461.

Patented Feb. 16, 1909.

Fig. 1.

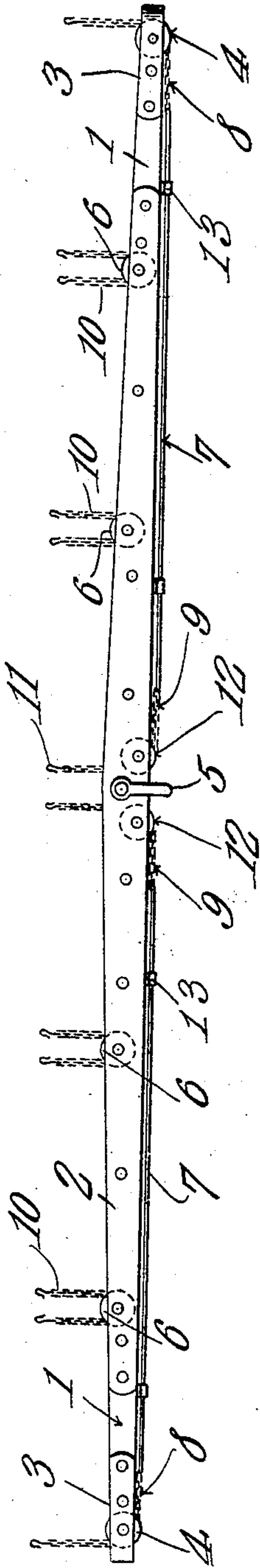


Fig. 2.

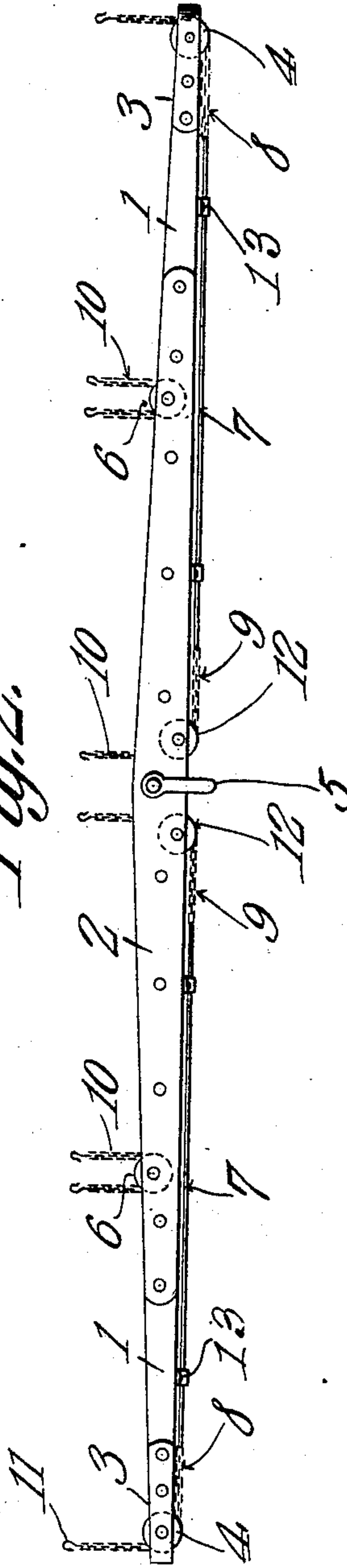
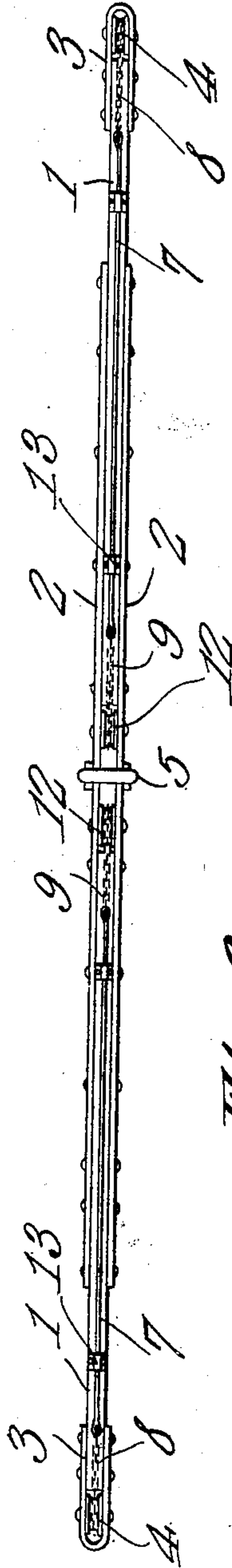


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

NICHOLAS FRYMAN, OF BOWDON, NORTH DAKOTA.

DRAFT-EQUALIZER.

No. 912,461.

Specification of Letters Patent.

Patented Feb. 16, 1909.

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To all whom it may concern:

Be it known that I, NICHOLAS FRYMAN, a citizen of the United States, residing at Bowdon, in the county of Wells and State of North Dakota, have invented a new and useful Draft-Equalizer, of which the following is a specification.

This invention relates to draft equalizers.

The objects of the invention are, the provision in a merchantable form of a device of the above mentioned class which shall be inexpensive in construction, facile in operation and devoid of complicated parts, other and further objects being made manifest as the nature of the invention is hereinafter disclosed and described.

The invention consists in the novel construction and arrangement of parts hereinafter described, delineated in the accompanying drawings, and particularly pointed out in the appended claim, it being understood that various changes in the form, proportions, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

In the accompanying drawings:—Figure 1 shows in a top plan, my invention embodied in the form of a six-horse equalizer. Fig. 2 is a top plan of a four-horse equalizer constructed in accordance with my invention. Fig. 3 is a rear elevation of an equalizer of the four-horse type, as shown in Fig. 2.

In carrying out my invention, I provide equalizer bars 1, having their adjacent ends spaced apart, cover-plates 2 uniting the bars 1. Carried by the remote ends of the equalizer bars 1 are the U-shaped tips 3 within which are rotatably mounted the end pulleys 4. The equalizer of my invention should be provided with means for attaching the same to a vehicle, and I have shown at 5, a simple device adapted to the end sought to be attained. Disposed upon each side of the attaching means 5, and rotatably mounted in and between the cover plates 6, and between the adjacent ends of the equalizer bars 1, are the center pulleys 12. Between the end pulleys 4 and the center pulleys 12 are the intermediate pulleys 6, rotatably mounted between the cover plates 2 and pivoted adjacent the front of the device. Slidably mounted upon the rear of the equalizer bars

1 are the longitudinally disposed rods 7, carrying at their remote ends flexible elements 8, preferably chains, which are passed forward about the end pulleys 4. Other flexible elements 9 are carried by the adjacent ends of the rods 7 and are passed forward about the center pulleys 12 between the adjacent ends of the equalizer bars 1. Still other flexible elements 10 are provided, which pass about the intermediate pulleys 6, having their terminals at the front of the equalizer bars 1, as shown. The various flexible elements 8, 9 and 10 carry at their free terminals, hooks 11 or other trace engaging means. For the slidable mounting of the rods 7, I provide guides 13 mounted upon the rear faces of the equalizer bars 1, and arranged to hold the rods 7 from contact with the equalizer bars, whereby the sliding friction of the said rods 7 may be reduced, and the equalizer bars protected against the attrition of the moving rods.

I am aware that my invention may be used in connection with equalizers adapted for the use of various numbers of animals, and I have illustrated my invention as adapted for use with four and with six animals, without, however, limiting the use of the invention to the particular forms shown, they being simply chosen embodiments suitable for illustration.

In explanation of the operation of my invention, let reference now be had to Fig. 1 which illustrates an equalizer of the six-horse type. Regarding the attaching means 5 as the point of division, my equalizer may be resolved into two similar sets of three pulls each, each of the two sets similar to the other and counterbalanced thereby. Referring to the equalization in each of these two sets, it will be seen that the outer horse pulls against the inner horse and the intermediate horse; the inner horse pulls against the outer horse and the intermediate horse; the intermediate horse, in his turn, pulling against the inner and the outer horses, the slidable mounting of the rods 7 and the relation between the flexible elements and the pulleys over which they pass, furnishing the means whereby the efforts of the various draft animals may be adjusted to one another.

Having thus described my invention, I claim—

A draft device comprising a pair of longitudinally disposed bars having their inner ends spaced apart to form an intermediate

chamber and each provided with a recess opening through one longitudinal edge of the bar, cover plates rigidly secured to the longitudinal bars and forming the upper and lower walls of the intermediate chamber and said recesses, U shaped clips rigidly secured to the outer ends of the longitudinal bars and extended in the same longitudinal plane with said bars, terminal pulleys journaled in said clips, a pair of central pulleys journaled in the chamber and having their peripheral edges projecting laterally beyond the adjacent longitudinal edges of the cover plates, intermediate pulleys journaled in the recesses and having their peripheral edges projecting laterally beyond the outer longitudinal edges of said cover plates, keepers se-

cured to the longitudinal bars, rods of equal length slidably mounted in said keepers, chains connected with the opposite ends of each rod and extending over the adjacent terminal, and central pulleys and provided with draft hooks, chains extending around the intermediate pulleys and provided with similar hooks, and a clevis pivotally mounted on the cover plates between the central pulleys.

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

NICHOLAS FRYMAN.

Witnesses:

FRED JANSONIUS,
IDA JANSONIUS.