

No. 886,805.

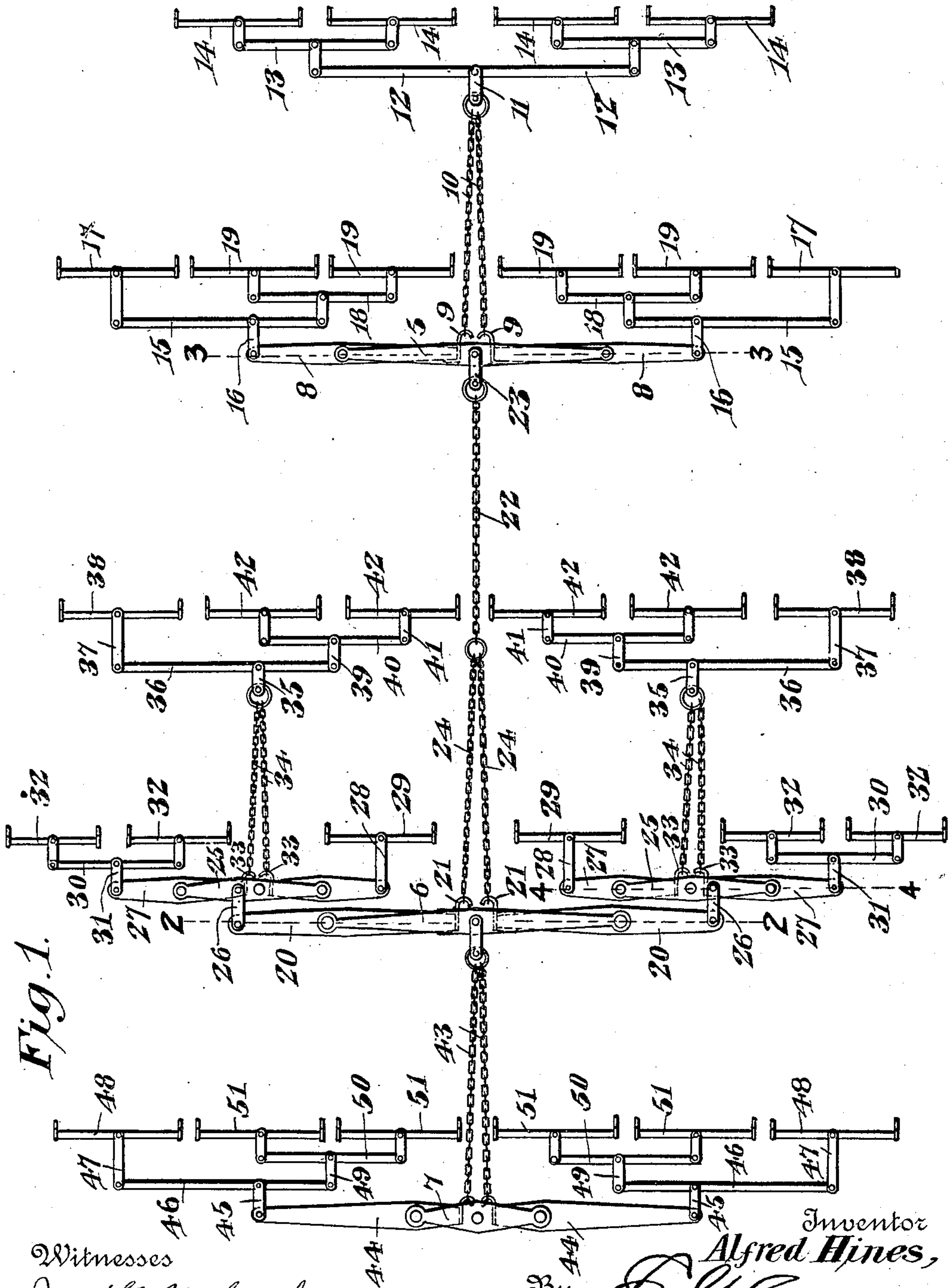
PATENTED MAY 5, 1908.

A. HINES.

DRAFT EQUALIZER.

APPLICATION FILED DEC. 31, 1907.

2 SHEETS—SHEET 1.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

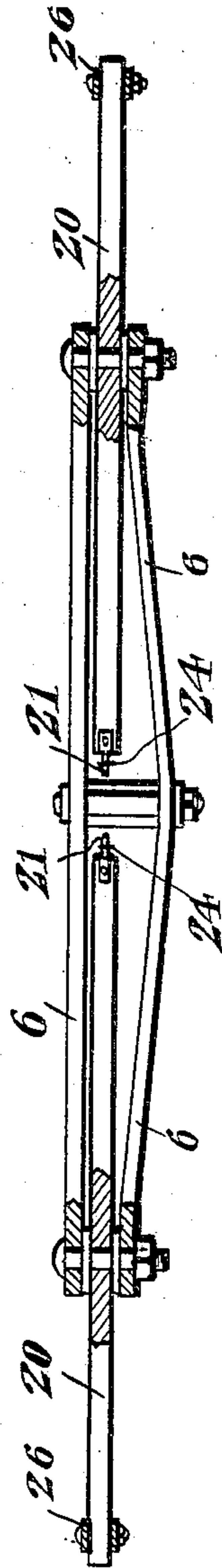


Fig. 3.

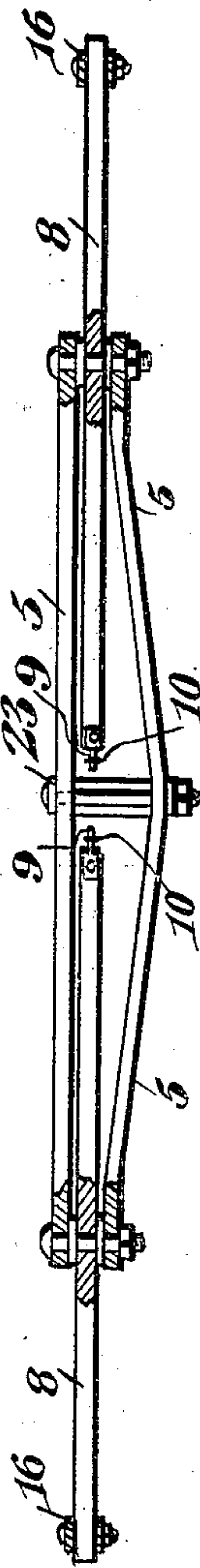
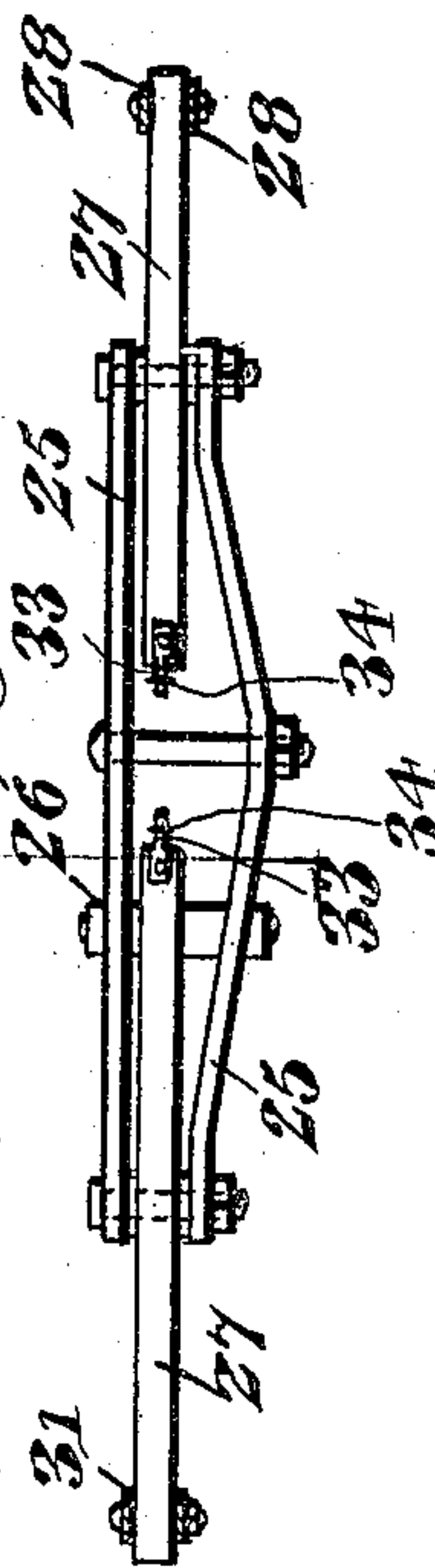


Fig. 4.



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UNITED STATES PATENT OFFICE.

ALFRED HINES, OF WASCO, OREGON.

DRAFT-EQUALIZER.

No. 886,805.

Specification of Letters Patent.

Patented May 5, 1908.

Application filed December 31, 1907. Serial No. 408,720.

To all whom it may concern:

Be it known that I, ALFRED HINES, a citizen of the United States, residing at Wasco, in the county of Sherman and State of Oregon, have invented a new and useful Draft-Equalizer, of which the following is a specification.

The principal object of the present invention is to provide a novel combination of parts in which the teams can be placed close to the load, and the work of each team and individual horse is equalized and adjusted, moreover to provide a combination in which the different equalizers of a set can be made longer than is ordinarily the case, it being well known that long equalizers and eveners are better than short ones.

A further object is to provide means whereby different numbers of draft animals may be used as leaders.

The preferred embodiment of the invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a plan view of the equalizer. Figs. 2, 3 and 4 are sectional views respectively on the lines 2—2, 3—3, and 4—4 of Fig. 1.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

In the embodiment illustrated, a plurality of evener beams, designated respectively 5, 6 and 7 are employed. These evener beams, each preferably consists of upper and lower sections. Levers 8 are pivoted between their ends to the ends of the front evener beam 5, and are disposed longitudinally thereof. The inner ends of the levers 8 have suitable hooks 9, to which are attached a split cable 10, the front end of this cable being secured by links 11 to a whiffletree bar 12. Secured to the ends of this bar are doubletrees 13 to which are connected swingletrees 14. Levers 15 are pivotally connected between their ends by links 16 to the outer ends of the levers 8. Said levers 15 have their inner arms shorter than their outer arms. A swingletree 17 is connected to the outer end of each lever 15, while a doubletree 18 is connected to the inner or shorter arm of each lever. Swingletrees 19 are connected to said doubletree. It will be observed that the various swingletrees 17 and 19 are disposed in alinement, one set being located on each side of the split cable 10.

The rear evener bar 6 has levers 20 ful-

crumed between their ends to the ends of said bar. The inner ends of the levers 20 have suitable hooks 21 and a cable 22, fastened by a suitable link 23 to the central portion of the front evener beam 5, has its rear portion divided or split, as shown at 24, the sections being respectively connected to the hooks 21 of the levers 20. Secondary evener beams 25 are fulcrumed between their ends on links 26 that are connected to the outer ends of the levers 20, and as shown in Fig. 4, these secondary evener beams 25 preferably comprise upper and lower sections. Secondary levers 27 are fulcrumed between their ends on the ends of the secondary beams 25, and secured to the inner ends of the inner levers 27 by links 28 are swingletrees 29. Doubletrees 30 are connected by links 31 to the outer ends of the outer levers, and swingletrees 32 are connected to the ends of said doubletrees. It will be observed that the swingletrees 29 and 32 are all disposed in alinement, and three are located on each side of the split cable 24. The inner ends of the secondary levers 27 have hooks 33, to which are connected the rear ends of split cables 34, the front ends of said cables being connected by links 35 to levers 36, arranged in advance of the secondary evener beams 25 and in rear of the front main evener beam 5. The levers 36 have their outer ends connected by links 37 with swingletrees 38, while their inner ends are connected by links 39 with doubletrees 40, and said doubletrees have link connections 41 with swingletrees 38 and 42. The swingletrees 38 and 42 are located in alinement. With this arrangement, and because of the differences in lengths of the arms of the various levers, it will be evident that the four horse leader will equalize the six horses attached to the front evener beam 5, and the ten horses together will equalize the draft of the twelve horses connected to the rear evener beam 6. The rear evener beam 7 has a split cable connection 43 with the inner ends of levers 44 fulcrumed between their ends on the ends of the rearmost evener beam 7. To the outer ends of the levers 44 are connected by means of links 45 the levers 46. The outer ends of the levers 46 have link connections 47 with swingletrees 48, while their inner ends have link connections 49 with doubletrees 50. Swingletrees 51 are connected to these doubletrees. Therefore in this construction because of the relative lengths of the outer and inner arms of

the levers 44, it will be evident that the rear six horses equalize the draft of the twenty two horses, or animals in advance of the same. It will be evident that additional sections may be added as desired.

The particular feature of the present invention resides in the combination disclosed wherein sets of animals connected only indirectly to the main draft cable are located on opposite sides of the same and equalize the draft of an equal number of draft animals connected directly to the main draft cable. These two sets of animals in turn equalize those of the others in advance.

From the foregoing, it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size; shape, proportion, and minor details of construction, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is:—

In a draft equalizer, the combination with a front evenner beam and a rear evenner beam, of a plurality of levers fulcrumed between

their ends to the ends of the front evenner beam and the ends of the rear evenner beam, a plurality of sets of whiffletrees connected to the inner and outer ends of the levers of the front evenner beam, a split cable connected to the front evenner beam and to the inner ends of the levers of the rear evenner beam, secondary evenner beams pivoted to the outer ends of the levers of the rear evenner beam on opposite sides of the split cable, secondary levers fulcrumed between their ends to the ends of the secondary evenner beams and respectively having arms of different lengths, whiffletrees connected to the outer ends of the secondary levers, other levers located in advance of the secondary levers, in rear of the front evenner beam, and on opposite sides of the split cable, whiffletrees connected to the ends of said other levers, and split cable connections between said other levers and the inner ends of the secondary levers in rear thereof.

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

ALFRED HINES.

Witnesses:

HAROLD W. BELL,
JOHN W. HALE.