No. 860,694. PATENTED JULY 23, 1907.

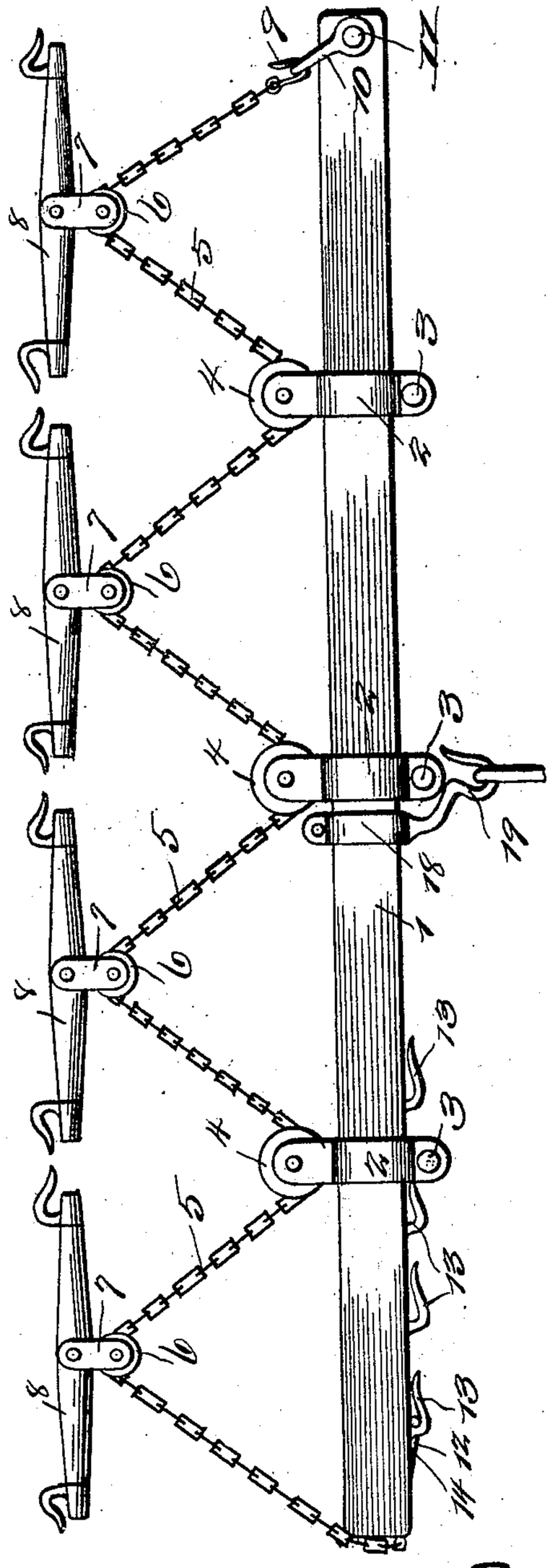
N. A. RODNESS.

DRAFT EQUALIZER.

APPLICATION FILED OCT. 13, 1906.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 4.

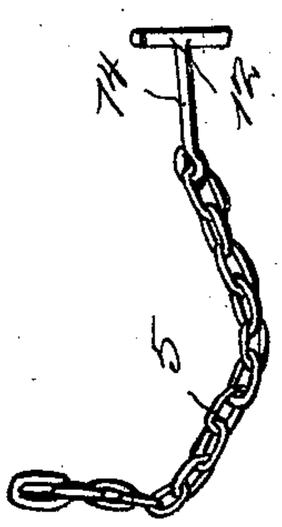


Fig. 3.

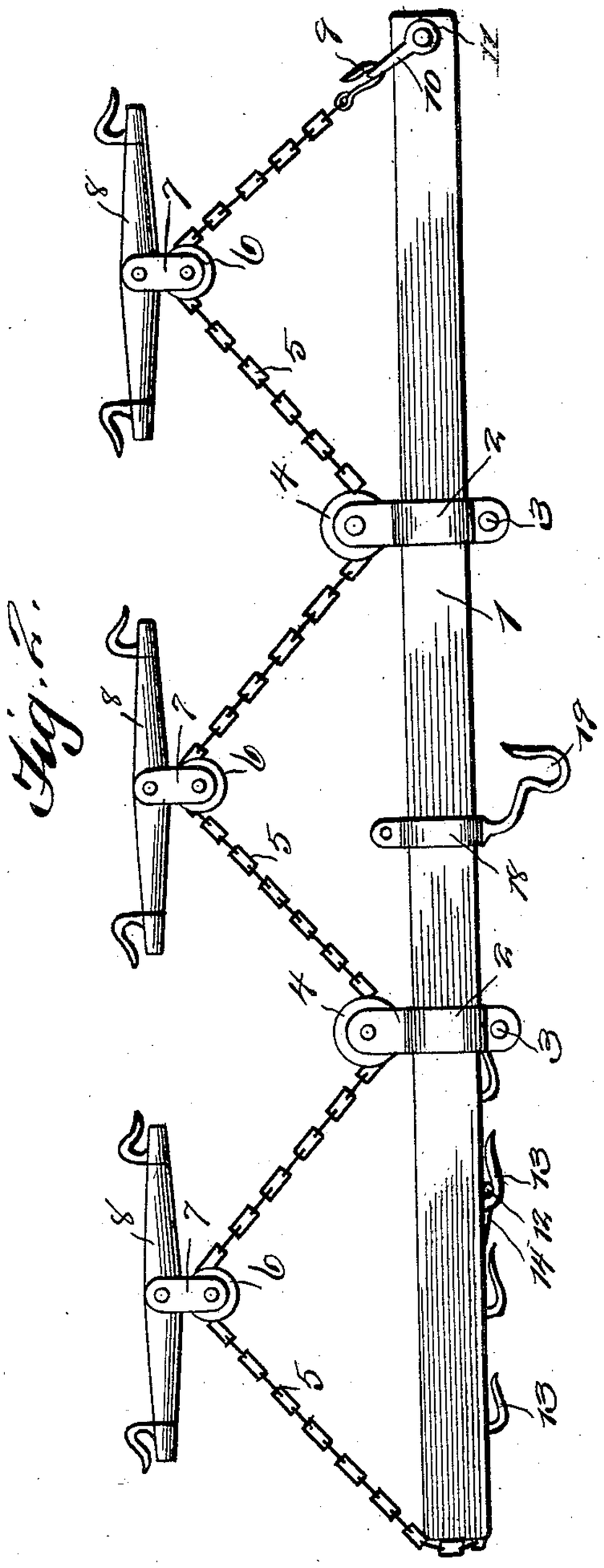
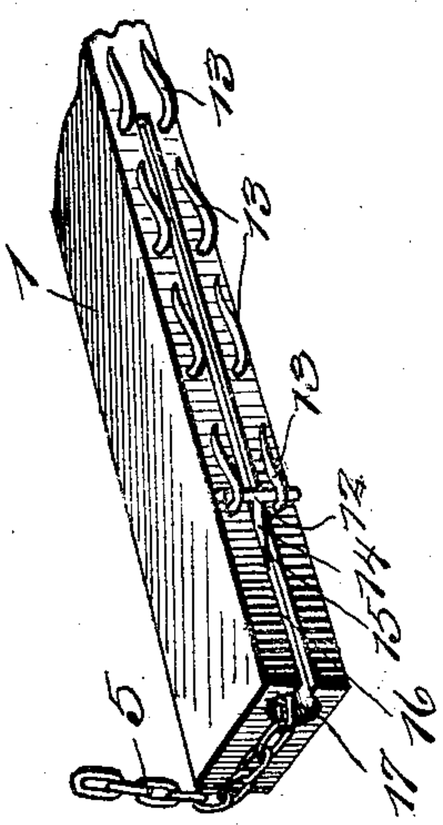


Fig. 5.



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UNITED STATES PATENT OFFICE.

NELS. A. RODNESS, OF CLARKFIELD, MINNESOTA.

DRAFT-EQUALIZER.

No. 860,694. Specification of Letters Patent. Patented July 23, 1907.

Application filed October 13, 1906. Serial No. 338,823.

To all whom it may concern:

Be it known that I, NELS. A. RODNESS, a citizen of the United States, residing at Clarkfield, in the county of Yellow Medicine and State of Minnesota, have invented a new and useful 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 appertains to make and use the same.

This invention relates to a new and useful equalizer, the object thereof being to produce a device of this nature, which is simple, durable and inexpensive to manufacture, and one which equalizes the draft at all points.

The primeval object is to provide an efficient device of this nature comprising a beam to which a plurality of pulleys are attached, over which a suitable chain travels, which chain also travels over the pulleys carried by the swingletrees; these swingletrees are adapted to be detached from the equalizer, if desired, after which the slack of the chain may be taken up, by the novel means carried by one end of the said beam.

This invention comprises further objects and combinations of elements which will be hereinafter more fully described, shown in the accompanying drawings, and the novel features thereof will be pointed out by the appended claims.

To obtain a full and correct understanding of the details of construction, combinations of elements, features and advantages, reference is to be had to the hereinafter set forth description and the accompanying drawings in connection therewith, wherein

Figure 1 is a top plan view of the equalizer showing four swingletrees attached thereto. Fig. 2 is a top plan view of the equalizer showing one of the swingletrees removed with the slack of the chain taken up. Fig. 3 is a perspective view of one end of the beam of the equalizer showing the means for holding the chain after the slack therein has been taken up. Fig. 4 is a detail view of one end of the chain showing the means for anchoring the chain.

Making renewed reference to the accompanying drawings, wherein similar reference characters indicate corresponding parts in the several illustrations, by figures, 1 designates the beam of the equalizer, to which is fixed the clips 2, which clips are fastened thereto by means of bolts 3, as shown clearly in Figs. 1 and 2; these clips carry the pulleys 4, over which the draft chain 5 travels, which draft chain also travels over the pulleys 6 journaled in the clips 7 carried by the swingletrees 8, as will be apparent from an examination of Figs. 1 and 2. This draft chain is provided, at one end thereof, with a hook 9, which engages with a clevis 10, carried at one end of the beam 1, as at 11; the other end of the chain is provided with an engaging element 12, which engages the spring hook devices 13, the resiliency of which is sufficient to allow the engaging element to spring thereunder, after which it is securely held from displacement. The portion 14 of this engaging element lies at an angle, as shown at 15, in the slot 16, formed in one face of the beam 1, the rear portion of this slot is enlarged and is circular in contour, as shown at 17, as clearly illustrated in Fig. 3 of the accompanying drawings; the draft chain is drawn through the enlarged portion of the slot 16, when the slack thereof is taken up, as will be clearly evident from an examination of the drawings.

The beam 1 is provided with a clip 18, to which is formed an integral hook 19, which is adapted to engage any suitable clevis, carried by a vehicle, as will be apparent.

It will be manifest, from the disclosure of the drawings, that by an equalizer embodying the features of the invention, one or more horses may travel ahead of the others, thereby equalizing the draft, and maintaining an evenness at all points upon the draft beam, thereby avoiding jerking and jarring, which is so often experienced.

It is to be understood that various changes and modifications may be employed in the construction and embodiment hereof, combinations of features, and elements, without in any way departing from the spirit and scope of the invention covered by the claims hereof; it being understood that whatever variations or modifications are employed must fall within the scope of the appended claims.

From the foregoing, the essential features, elements and the operation of the device, together with the simplicity thereof, will be clearly apparent, and, when manufactured in accordance with the invention, an inexpensive market will be easily obtained therefor.

Having thus fully described the invention, what is claimed as new and useful by the protection of Letters Patent, is:—

1. In an equalizer, a draft beam and chain, an engaging element, said beam having means with which said engaging element engages, said beam having a slot through which said chain is adapted to move.

2. In an equalizer, a draft beam and chain, means for holding one end of the chain when the slack therein is taken up, said beam having a slot through which the chain moves.

3. In an equalizer, a draft beam and chain, an engaging element, said beam having spring hook devices with which said engaging element engages.

4. In an equalizer, a draft beam and chain, means

for adjustably holding one end of the chain, said beam having a slot through which said chain moves.

5. In an equalizer, a draft beam and chain, an engaging element carried at one end of said chain, said beam having spring hook devices with which said engaging element engages, said beam having means through which said chain moves.

6. In an equalizer, a draft beam and chain, an engaging element, said beam having spring hook devices with which said engaging element engages, said beam having a slot through which said chain moves.

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

NELS. A. RODNESS.

Witnesses:
C. S. OMOLL,
I. F. FAGERLIE.