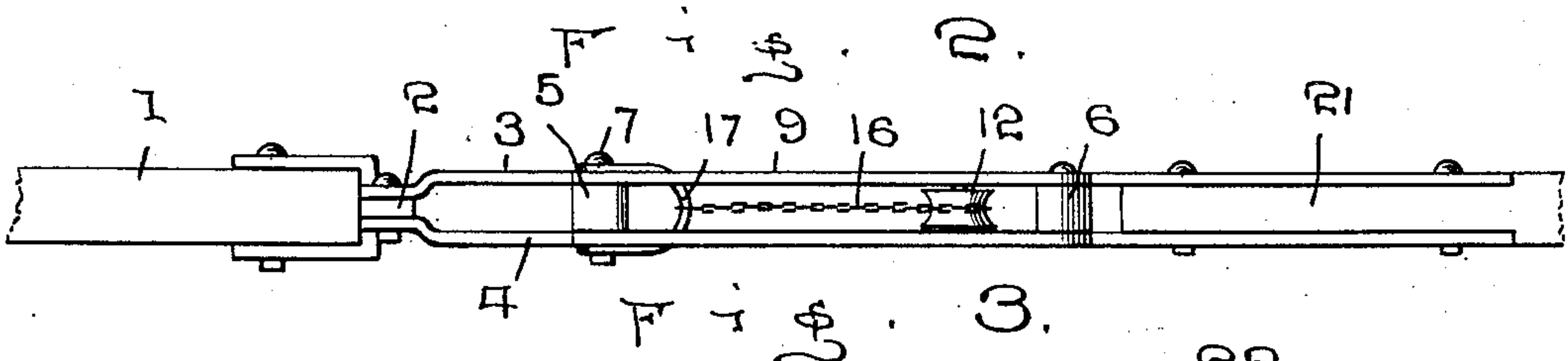
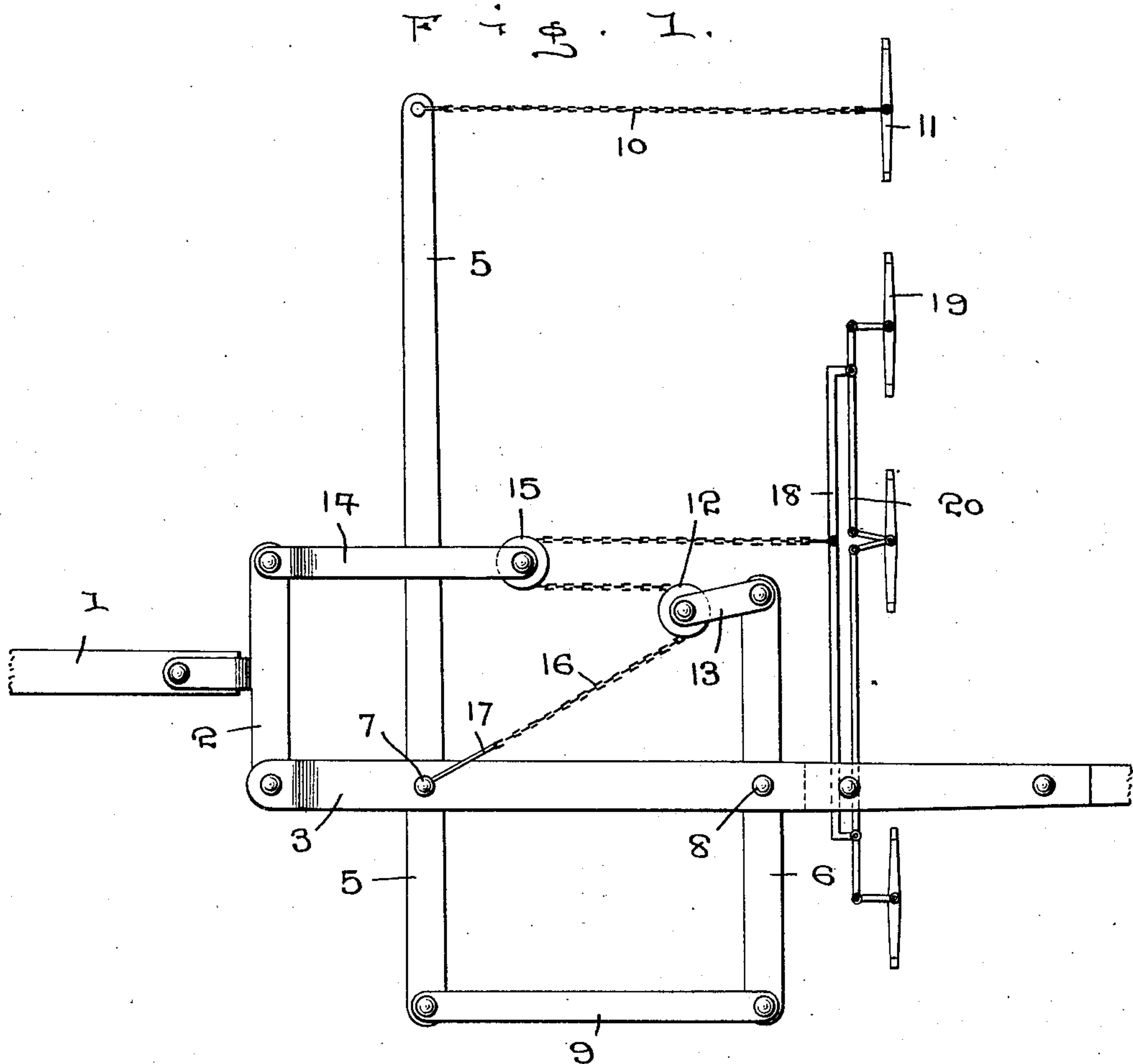


J. MILLER.
FOUR HORSE EVENER.
APPLICATION FILED MAR. 22, 1910.

998,028.

Patented July 18, 1911.

2 SHEETS—SHEET 1.



WITNESSES:

Thomas W. Riley
M. Newcomb.

INVENTOR

J. J. Miller

BY

W. J. Fitzgerald & Co.
Attorneys

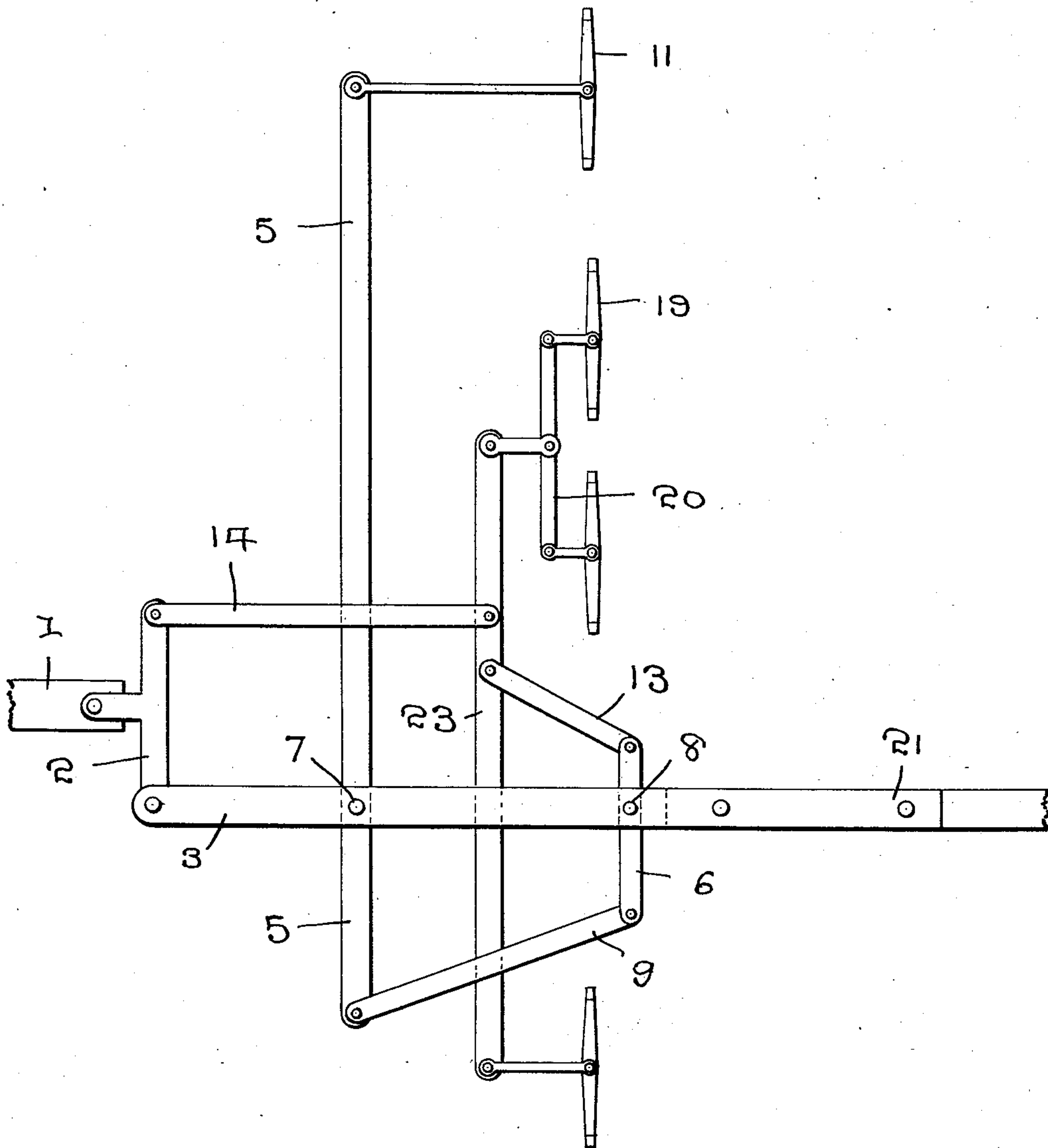
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Fig. 4.



WITNESSES:

Thos. W. Riley
M. Newcomb

J. Miller ^{INVENTOR}

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 Attorneys

UNITED STATES PATENT OFFICE.

JOSEPH MILLER, OF RAMONA, KANSAS.

FOUR-HORSE EVENER.

998,028.

Specification of Letters Patent.

Patented July 18, 1911.

Application filed March 22, 1910. Serial No. 550,881.

To all whom it may concern:

Be it known that I, JOSEPH MILLER, a citizen of the United States, residing at Ramona, in the county of Marion and State of Kansas, have invented certain new and useful Improvements in Four-Horse Eveners; 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.

My invention relates to new and useful improvements in draft equalizers and my object is to provide an equalizer to which four animals may be hitched and in such manner that the weight will be equally distributed among the four draft animals.

A further object is to provide means for attaching a tongue to the equalizer when an object is being drawn which is not provided with a tongue, and, a further object is to provide means for attaching the equalizer to objects having a tongue.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the specification and claims.

In the accompanying drawings which are made a part of this application, Figure 1 is a top plan view of the equalizer. Fig. 2 is an end elevation thereof, Fig. 3 is an elevation of a clip employed for attaching the equalizer to a tongue, and, Fig. 4 is a view of a modified form of equalizer.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates the beam of a plow and 2 indicates a clevis attached to the end of said beam, said clevis extending a distance to either side of the beam. Attached to one end of the clevis 2 are straps 3 and 4, one above and one below the clevis, said straps extending forwardly a distance from the clevis and having extending transversely thereof a bar 5 and an auxiliary bar 6, the bar 5 being pivoted between the straps 3 and 4 forwardly of the clevis and the auxiliary bar 6 at a point adjacent the outer ends of said straps, pins 7 and 8 being employed respectively for pivoting the bars 5 and 6 between the straps.

The bars 5 and 6 extend substantially an equal distance to one side of the straps 3 and 4 and are connected together by means of links 9, while the opposite end of the bar 5 is extended a considerable distance beyond

the opposite side of the straps and has connected thereto a chain 10, to the forward end of which is attached a swingletree 11.

The ends of the auxiliary bar 6 extend substantially an equal distance on opposite sides of the straps and the inner end of the bar 6 has secured thereto a pulley 12, said pulley being attached to the auxiliary bar in any preferred manner as by means of links 13, one above and one below the pulley.

Attached to the opposite end of the clevis from that engaged by the straps are arms 14, which arms pass above and below the bar 5 and have secured between their forward ends a pulley 15 and coöperating with the pulleys 12 and 15 is a chain 16. The rear end of the chain 16 is attached to the pin 7 through the medium of a clevis 17 and passes thence around the pulley 12, rearwardly around the pulley 15 and thence forwardly to engagement with a double tree 18 and to this double tree are secured swingletrees 19, preferably three in number, the usual or any preferred form of evener bars 20 being introduced between the double trees and swingletrees.

By hitching the animals in this manner, the plow attached to the beam 1 will be properly guided and all of the draft animals will be on the solid ground instead of a portion thereof traveling upon the plowed ground.

Should it be desired to provide a tongue in connection with the plow, the straps 3 and 4 may be extended a distance forwardly of the auxiliary bar 6 to receive the end of a tongue 21, while if the evener is to be used in connection with an implement such as a binder which is already provided with a tongue, the straps 3 and 4 are dispensed with and the bars 5 and 6 rested upon the tongue and over the bars 5 and 6 is disposed a clip 22, the bars being pivoted to the clip and tongue in the same manner as to the straps 3 and 4.

When the evener is used in connection with a binder or similar implement, it is also necessary to attach the arms 14 to the implement in any suitable manner.

It will be readily seen that by hitching the three animals to the beam in the manner shown, a direct forward pull will be made on the beam, although the animals are positioned to one side of the draft of the beam and it will further be seen that by attaching the single animal to the elon-

gated bar and connecting the same to the auxiliary bar and the draft chain of the other animals in the manner shown, said single animal will be compelled to draw its proportionate share of the load. It will likewise be seen that by attaching the tongue to the evener, any object to which the evener is attached may be readily guided and it will likewise be seen that the evener can be equally as well attached to an implement having a tongue therein without materially changing the parts of the evener.

In Fig. 4, I have shown a modified form of device, in that the chain 16 is dispensed with and a bar 23 substituted therefor, the auxiliary bar 6, in this instance, being placed in advance of the bar 23 and the ends of the link 13 and the arms 14 pivoted to said bar 23. A swingletree is attached to one end of the bar 23 and a double tree at the opposite end thereof, thereby disposing a draft animal on each side of the tongue.

What I claim is:—

1. A device of the class described, comprising the combination with a clevis, of a pair of straps attached to one end of the clevis and a pair of arms at the opposite end thereof, an elongated bar pivotally attached between said straps and extending to opposite sides thereof, an auxiliary bar forwardly of the first mentioned bar and pivoted between said straps, links connecting one end of the bars, a pulley at the opposite end of the auxiliary bar, a similar pulley at the forward ends of said arms, a chain connected at the pivotal point between said straps and the first mentioned bar and extending around said pulleys, a double tree at the forward end of said chain, swingletrees carried by said double tree and a swingletree attached to the free end of the first mentioned bar.

2. In a device of the class described, the combination with a pair of straps, a pair of arms, means to secure said straps and arms to an object, a bar extending transversely of the straps and between the straps and arms, means to pivotally engage the bar to the straps, an auxiliary bar forwardly of the first mentioned bar, means to pivotally engage the same between the straps, links connecting the outer ends of said bars, a

pulley at the inner end of said auxiliary bar, a similar pulley at the inner ends of said arms and a chain having one of its ends attached to the pivotal point between the first mentioned bar and the straps, said chain extending forwardly around the pulley on the auxiliary bar, thence rearwardly around the pulley carried by the arms, means to attach a plurality of draft animals to the forward end of the chain, means to connect a single draft animal to the free end of the first mentioned bar and a tongue adapted to be secured between the forward ends of said straps.

3. A device of the class described, comprising a bar and an auxiliary bar, means to pivotally attach said bars to an object, a link connecting one end of said bars, a pulley at the inner end of the auxiliary bar, a pair of arms, a pulley carried by said arms, a chain extending from the pivotal point of said first mentioned bar forwardly and around said pulley on the auxiliary bar, thence rearwardly around the pulley carried by said arms, means to attach draft animals to the forward end of said chain and means to attach a draft animal to the free end of the first mentioned bar.

4. A device of the class described, comprising the combination with a pair of straps, a pair of arms, means to anchor said straps and arms to an object, of an elongated bar pivotally attached between said straps and extending on opposite sides thereof and between the arms, an auxiliary bar forwardly of the first mentioned bar and pivoted between said straps, a double tree, to which draft animals are to be attached, a link attached to one end of the auxiliary bar, links connecting the opposite end of the auxiliary bar with the first mentioned bar and means connecting the first mentioned link and arms to the double tree.

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

JOSEPH MILLER.

Witnesses:

FRANK E. MILLER,
A. A. RODES.