No. 763,293. PATENTED JUNE 21, 1904.

L. KRAUSS.

DRAFT EQUALIZER FOR REAPERS.

APPLICATION FILED APR. 18, 1904.

NO MODEL.

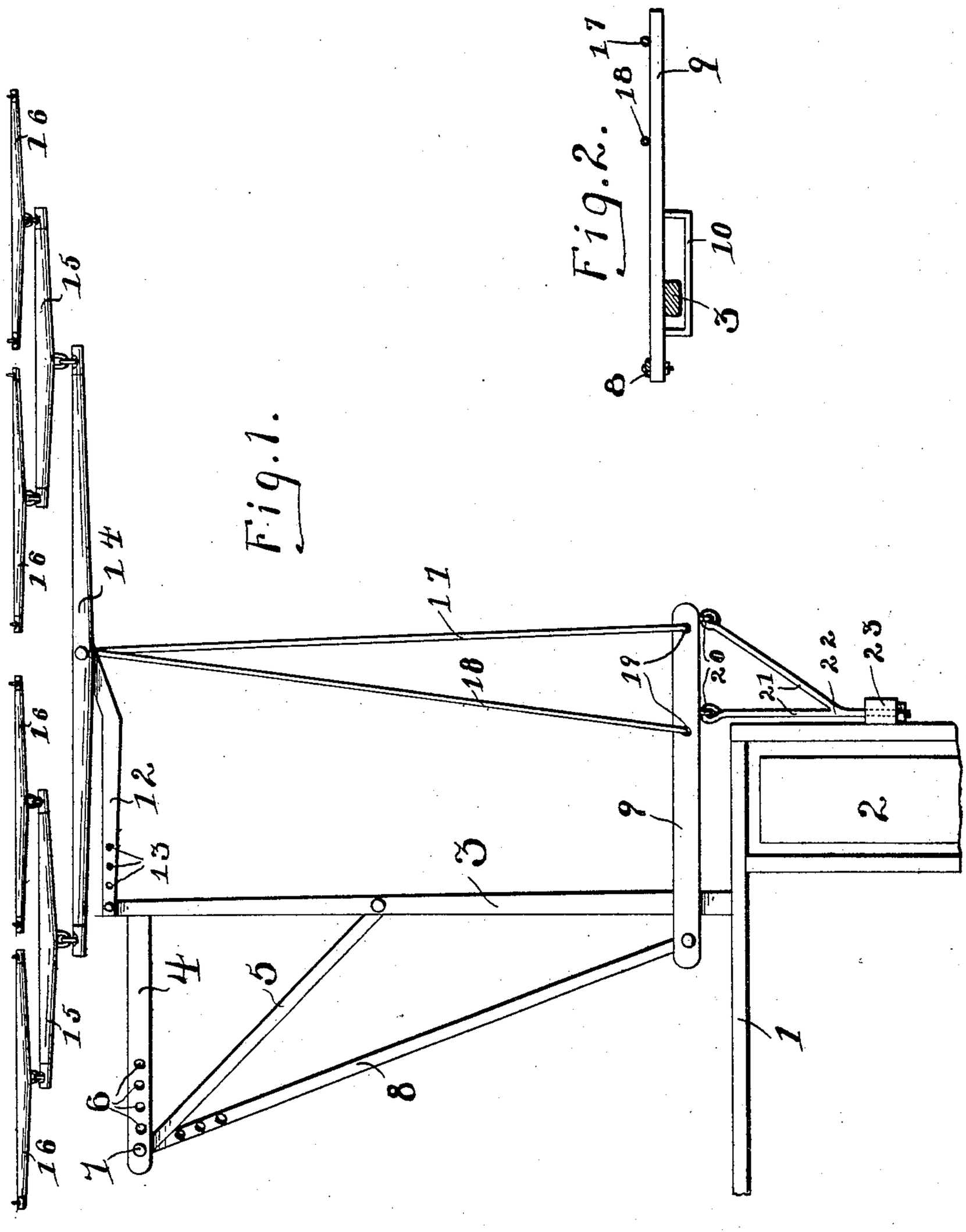

Fig. 1.

Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

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DRAFT-EQUALIZER FOR REAPERS.

SPECIFICATION forming part of Letters Patent No. 763,293, dated June 21, 1904.

Application filed April 18, 1904. Serial No. 203,663. (No model.)

To all whom it may concern:

Be it known that I, LOUIS KRAUSS, a citizen of the United States, residing at Gypsum, in the county of Saline and State of Kansas, have invented certain new and useful Improvements in Draft-Equalizers for Reapers; and I do 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 improvements in draft-equalizers, and is especially adapted for use in connection with reapers and machines of that nature.

The object of the invention is to provide a four-horse evener or equalizer which will compensate for the side draft of such machines and which will evenly distribute the pull to all the horses.

A further object is to provide a draft-equalizer of this character which will be simple in construction, strong and durable, efficient, and well adapted to the purpose for which it is designed.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a top plan view of an equalizer constructed in accordance with the invention. Fig. 2 is a vertical sectional view through the tongue, showing the manner of connecting the equalizer-bar therewith.

Referring more particularly to the drawings, 1 denotes a portion of the frame of a reaper, 2 denotes the master-wheel of the same, and 3 denotes the tongue of the machine. Near the outer end of said tongue is secured a right-angularly-disposed arm or bar 4, which projects laterally from said tongue on the sickle side of the machine. To the outer end of the bar 4 is connected the end of a brace-bar 5, the opposite end of which is connected to the tongue 3.

In the bar 4 is formed a series of openings 6, in one of which is arranged a bolt 7, by which is connected to the bar 4 the outer end of a push-bar 8, the inner end of said push-bar being connected to the short end of an equalizing-bar 9, which is slidably mounted on the tongue 3 by means of a guide loop or staple 10, secured to the under side of the bar 9 and forming a keeper for the same.

To the outer end of the tongue 3 is pivotally connected an arm 12, which projects laterally from said tongue in an opposite direction from the arm 4 and is adjustable on said tongue by means of a series of bolt-holes 13.

The outer end of the arm 12 is bent forwardly or offset slightly, and to said offset end is pivotally connected a draft-bar 14, to the ends of which are pivotally connected doubletrees 15, and to the ends of said doubletrees are connected swingletrees 16, whereby four horses may be hitched abreast.

To the pivotal connection of the draft-bar 14 and the bar 12 is connected the forward ends of draw-bars 17 and 18. The rear ends of these bars diverge and are connected to the equalizing-bar 9, as shown at 19.

To the rear side of the bar 9 are connected eyes 20, to which are loosely connected the outer end of a draw-bar 21, the forward end of which is branched or forked, as at 22. The inner end of the bar 21 is connected to an eye or socket 23, secured to the frame of the machine adjacent to the outer side of the master-wheel 2.

By the arrangement of the equalizing-bar and the draft-rods as herein shown a part of the pull on the equalizing-bar 9 is transferred to the push-bar 8, thereby pushing upon said bar, which, by reason of its connection with the laterally-projecting arm 4 on the end of the tongue, will apply a force to this side of the same which will compensate for the pull on the other side of the tongue, thereby equalizing the pull and keeping the pole in a central position.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the prin-

ciple or sacrificing any of the advantages of this invention.

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

1. In a draft-equalizer for reapers and the like, the combination with the draft-tongue, of an equalizing-bar slidably mounted on the same, an arm projecting laterally from the outer end and on the sickle side of said tongue, a push-bar connected at its inner end to the short end of said equalizing-bar, and at its outer end to said laterally-projecting arm, draft-trees pivotally connected to said tongue, and means whereby the same are connected to said equalizing-bar to exert a forward push on said push-bar, substantially as described.

2. In a draft-equalizer for reapers and the like, the combination with the draft-tongue, of an equalizing-bar slidably mounted on the same, an arm projecting laterally from the outer end and on the sickle side of said tongue, a push-bar connected at its inner end to the short end of said equalizing-bar, the outer end of said push-bar being adjustably connected to said laterally-projecting arm, a pivoted arm projecting laterally from the opposite side of said tongue, a draft-bar connected to the outer end of said pivoted arm, draft-trees connected to the ends of said bar, means whereby the end of said pivoted arm is connected to the long end of said equalizing-bar to impart a pushing movement to said push-bar and means for loosely connecting the long end of said equalizing-bar to the frame of said reaper, substantially as described.

3. In a draft-equalizer for reapers and the like, the combination with the draft-tongue, of an equalizing-bar slidably mounted on the same, an arm projecting laterally from the outer end and on the sickle side of said tongue, a push-bar connected at its inner end to the short end of said equalizing-bar, the outer end of said push-bar being adjustably connected to said laterally-projecting arm, an arm adjustably pivoted to the outer end of said tongue on the opposite side of the same, draft-trees connected to the outer end of said pivoted arm, rearwardly-diverging draft-rods connected at their outer ends to said pivoted arm and at their inner or rear ends to the long end of said equalizing-bar, and a draw-bar having a branched or forked end loosely connected to said long end of the equalizing-bar, the opposite end of said draw-bar being connected to the frame of said reaper, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

LOUIS KRAUSS.

Witnesses:
J. F. KRAUSS,
T. P. WHEATLEY.