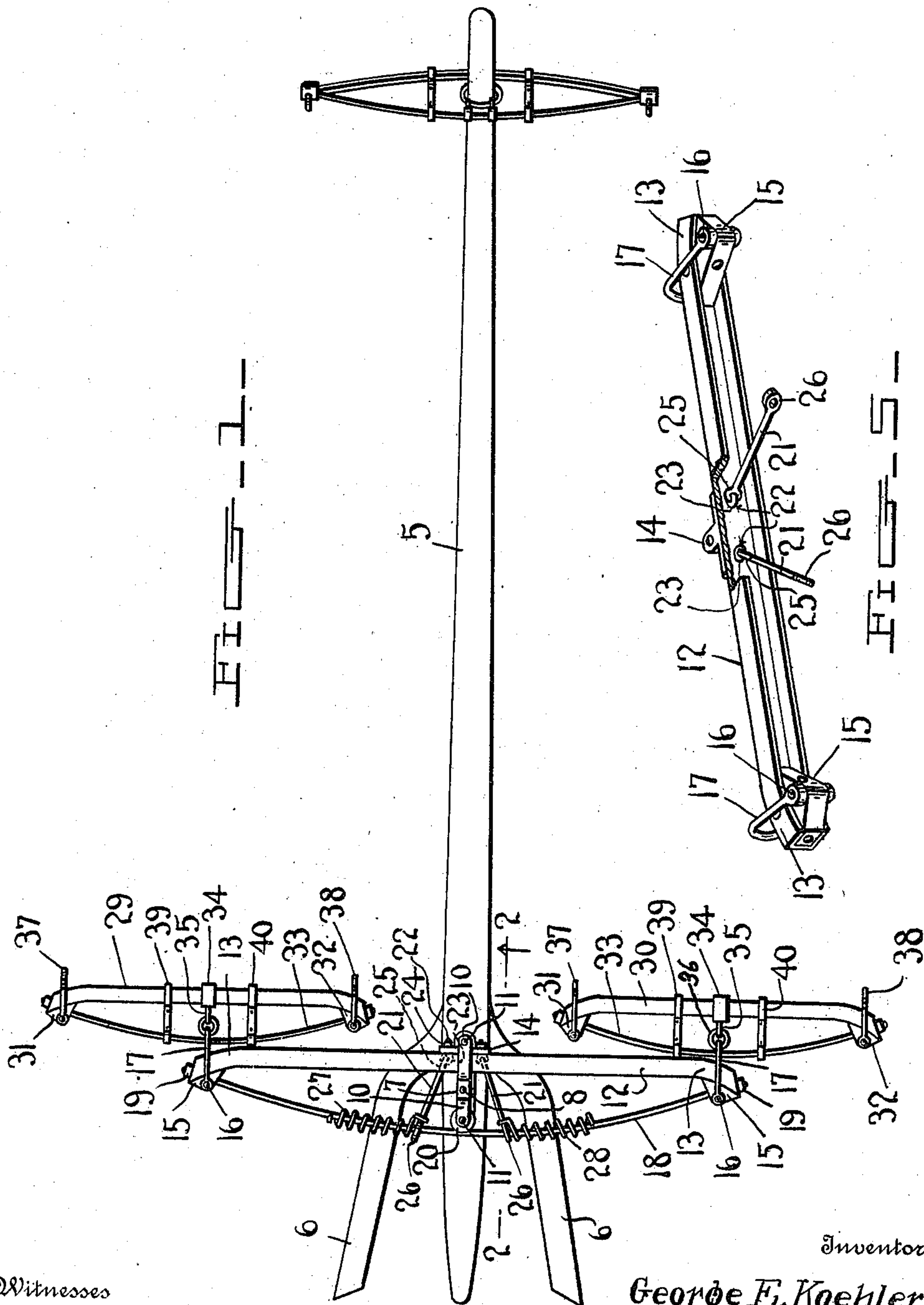


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G. E. KOEHLER.
DRAFT EVENER.
APPLICATION FILED JUNE 4, 1909.

Patented July 12, 1910.

2 SHEETS—SHEET 1.



Witnesses

L. B. James

Francis Boyle

Inventor

George E. Koehler

By

Charles H. Chandler

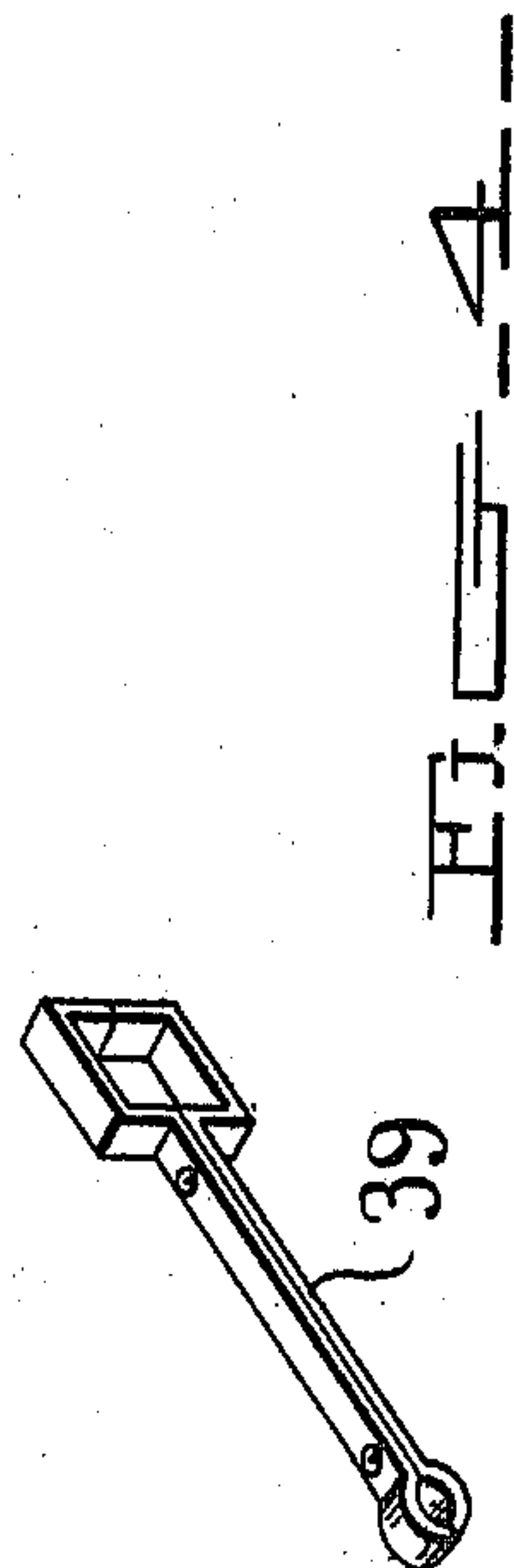
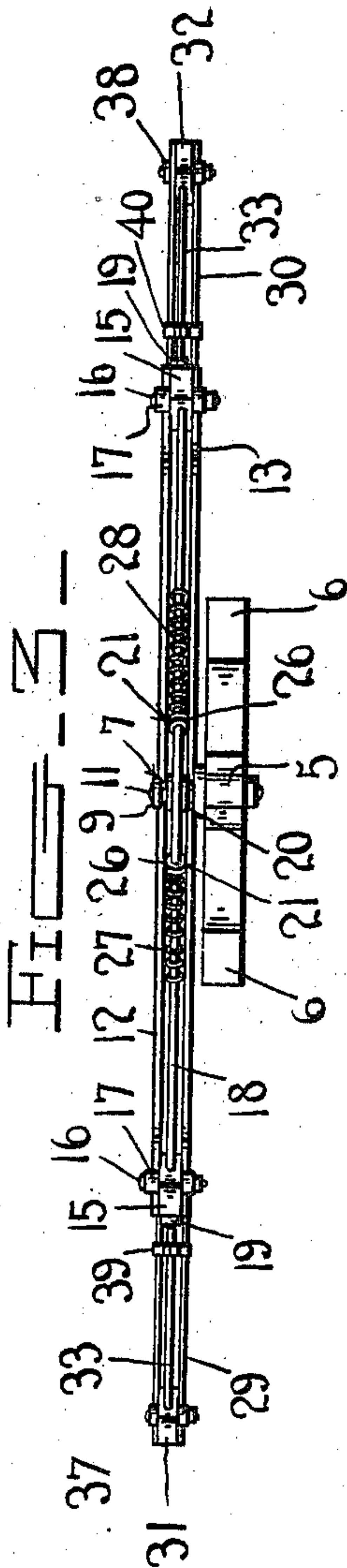
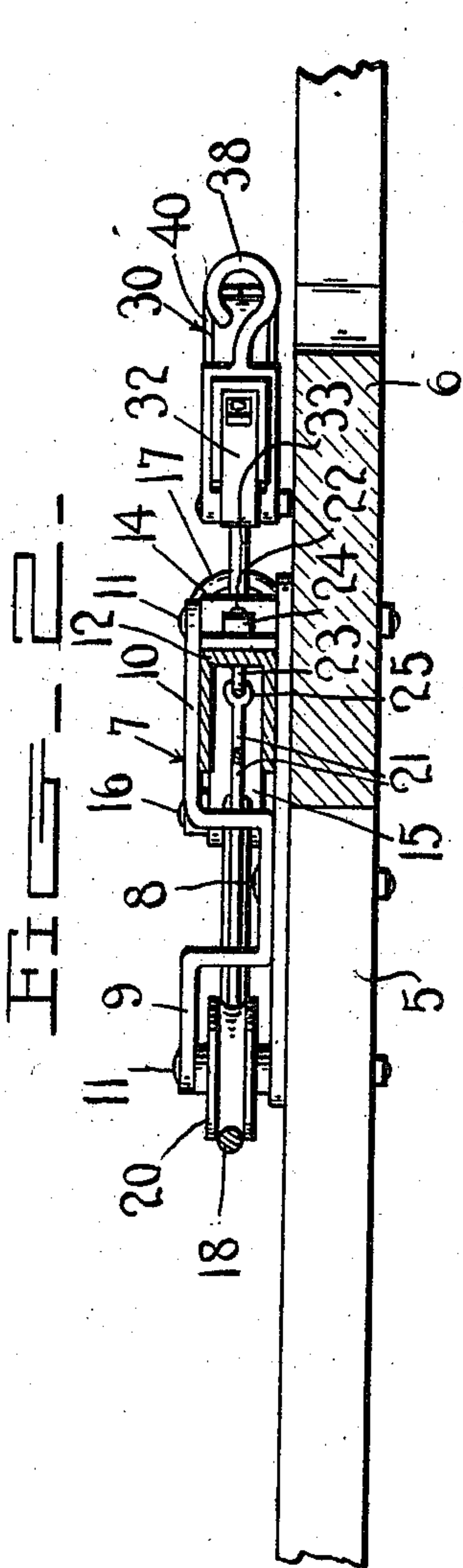
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By

Charles Chandler

Attorney

UNITED STATES PATENT OFFICE.

GEORGE E. KOEHLER, OF AINSWORTH, IOWA.

DRAFT-EVENER.

963,902.

Specification of Letters Patent.

Patented July 12, 1910.

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To all whom it may concern:

Be it known that I, GEORGE E. KOEHLER, a citizen of the United States, residing at Ainsworth, in the county of Washington, State of Iowa, have invented certain new and useful Improvements in Draft-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.

This invention relates to improvements in draft eveners, and more particularly to the type employed on wagons.

The device consists essentially of an evener-bar which is adapted to be secured to the draft pole in a novel manner and a keeper in which the evener is slidingly fitted. A sheave is provided and a bow-shaped rod is adapted to bear on the sheave having its opposite ends secured to the opposite ends of the evener. The swingletrees are formed with bow-shaped rods which are connected with opposite ends of the evener, the whole constituting a device which will positively insure an equalized pull.

One object of the invention is the provision of a means for maintaining the curved bar of the evener in its central and normal position on the sheave.

Another object is the provision of an improved form of brace between the evener and the bow-shaped rod.

With these and other objects in view as will more fully hereinafter appear, the present invention consists in certain novel details of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings and more particularly pointed out in the appended claims, it being understood that various changes in the form, proportion, size and minor details of the device may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings forming part of the specification:—Figure 1 is a plan view of the device. Fig. 2 is a longitudinal section taken on the line 2—2, of Fig. 1. Fig. 3 is a rear end view of the device. Fig. 4 is a detail perspective view of a brace rod. Fig. 5 is a detailed perspective of the evener-bar.

Similar numerals of reference are employed to designate corresponding parts throughout.

In the drawings the numeral 5 designates the pole which is shown to be provided at its inner end with the usual forked formation 6; what will subsequently be termed a keeper is rigidly secured to that portion of the pole at the front end of the fork. This keeper is preferably formed of a single piece of metal substantially rectangular in contour and at its middle is bent downwardly as shown at 7. This downward-turned portion is provided with an opening which receives a bolt 8 which extends through the pole 5 and serves to secure the bent intermediate portion to the pole. By virtue of the bending of the keeper the opposite end portions extend parallel with and are disposed above the plane of the pole; these end portions are designated by the numerals 9 and 10 and at their free ends are provided with openings for the reception of suitable shafts or bolts 11, the lower ends of which enter the pole 5.

By referring now to the drawings it will be seen that the evener-bar 12 is disposed between the bent portion 7 and the front end of the keeper. This evener-bar is provided at either end with a rearwardly bent portion 13 and at its middle is provided on its forward side with a socket 14. This socket is preferably formed of a piece of cast metal and corresponds in width to the thickness of the evener-bar, and is centrally provided with a vertical opening which receives one of the bolts 11 extending through the front end of the keeper. The opposite and rearwardly bent end portions 13 of the evener are on their inner faces provided with sockets 15 similar to the socket 14 and like the latter are provided with vertical openings for the reception of a bolt 16 which extends therethrough and through the opposite sides of a U shaped clevis 17; a bow-shaped rod or bearing bar is designated by the numeral 18 and has its opposite ends extending through the outer ends of the sockets 15 at the opposite ends of the evener bar and through the front side of the latter; the opposite ends of the rod are screw threaded and receive suitable nuts 19 by means of which the rod is secured in position as shown in the drawings. Journaled on the rear-most bolt 11 of the keeper is a sheave or pulley 20 which forms a bearing for the bow-shaped rod 18. Thus it will be seen when the evener is oscillated the rod 18 will bear on the rear side of the sheave 20.

In the construction of the parts the in-

intermediate portion of the rod 18 is designed to bear continually on the sheave and in order to maintain it in this position or in other words, when either of its ends have
 5 been moved either forward or rearward to return the evener to a position perpendicular to the pole 5, the following construction is employed:—By referring now to the drawings it will be seen that the socket 14 at the
 10 middle of the front side of the evener is provided with openings which register with similar transverse openings extending through the evener and fitted in these openings are what will subsequently be termed
 15 a pair of braces. Each of these members consist of two sections 21 and 22 and when they are in position as shown in the drawings they will be disposed on either side of the sheave 20. The front section 22 of each of
 20 the braces consists of a short bolt, the threaded shank of which extends inwardly from the outer face of the socket 14 and terminates in an eye or opening 23 while the outer or threaded end has fitted thereto a nut 24
 25 which bears on the outer face of the socket 14. The section 22 is of a length to extend substantially half way through the evener and the rear section 21 extends through the opening from the opposite side of the evener
 30 and terminates in an eye 25 which interlocks with the eye 23, while the opposite end terminates in an eye 26 which encircles the bow-shaped rod 18 on one side of the sheave 20, as before described. Helical springs 27
 35 and 28 surround the bow-shaped rod 18 on the outer sides of the eyes 26 of the braces and each spring has its outer terminal suitably secured to the rod while its inner terminal is secured to the eye 26. The braces
 40 are so positioned that a considerable space will exist between them and either side of the sheave 20. Thus it will be seen when the evener is oscillated so as to bring one of the eyes and body portion of the braces into
 45 engagement with one side of the sheave the spring connecting the brace with the bow shaped rod will be compressed and immediately the power which turns the evener is removed, the spring will operate to return
 50 the evener to its original position. From the foregoing it will be seen that I have provided a device in which the pull is centered on the sheave 20 and rod 18.

By referring now to the drawings it will
 55 be seen that the evener is provided at its opposite ends with swingletrees 29 and 30. Each of these members corresponds in shape to the evener having at its opposite end the sockets 31 and 32 which receive the opposite
 60 ends of a bow-shaped rod 33 similar to the rod 18 and which extends through the

clevis 17. The middle portion of each swingletree is provided with a collar 34, which is provided with an eye 35 disposed on the inner face of the swingletree and connection
 65 between the eye and clevis 17 is established by means of a ring 36 which engages both the clevis 17 and eye 35. The opposite ends of the swingletrees are provided with the trace hooks 37 and 38, and connection be-
 70 tween the intermediate portions of the swingletrees and bow-shaped rod 33 is established by means of a pair of braces 39 and 40 which are disposed on either side of the collar 34. Each of these braces consists of
 75 an elongated rod having an enlarged opening at one end to receive the swingletree while at its opposite end it is provided with a relatively small opening to receive the rod 33. Thus it will be seen that the pull on
 80 the swingletree will be centered on the clevis 17 and middle portion of the bow-shaped rod 33.

From the foregoing description it can be readily understood how the evener will
 85 positively prevent unequal pull due to its mounting and it can be further seen that the device is exceedingly simple and comparatively inexpensive to manufacture and which may be readily attached and detached, when-
 90 ever desired.

Having thus described my invention what is claimed as new, is:—

1. In a draft evener, the combination with a draft pole, of an evener bar having arcuate terminals, a bowed truss rod terminally secured in said terminals, a brace link carried by the evener bar and movably secured to said truss rod, tension means for limiting the movement of said brace link;
 95 clevises secured to said arcuate terminals and encircling said truss rod and evener bar, and swingle-trees carried by said clevises.

2. In a draft evener, the combination with a draft pole, of an evener bar pivoted on
 105 said pole and consisting of a channel bar, brackets closing the ends of said channel bar, a bowed truss rod terminally secured in said brackets, a brace link pivoted on the evener bar and movably mounted on the
 110 truss rod, tension means on the truss rod for limiting the movement of said link, clevises secured in said brackets, and encircling said evener bar, and swingle-trees carried by said clevises.

In testimony whereof, I affix my signature, in presence of two witnesses.

GEORGE E. KOEHLER.

Witnesses:

A. E. SANDS,
 S. A. STEPHENS.