

E. O. DOAK.
FOUR AND FIVE HORSE EVENER.
APPLICATION FILED DEC. 6, 1904.

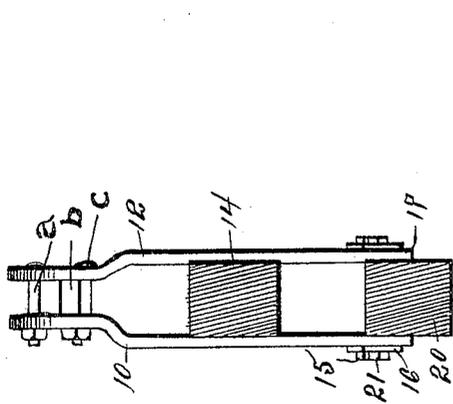


Fig. 2

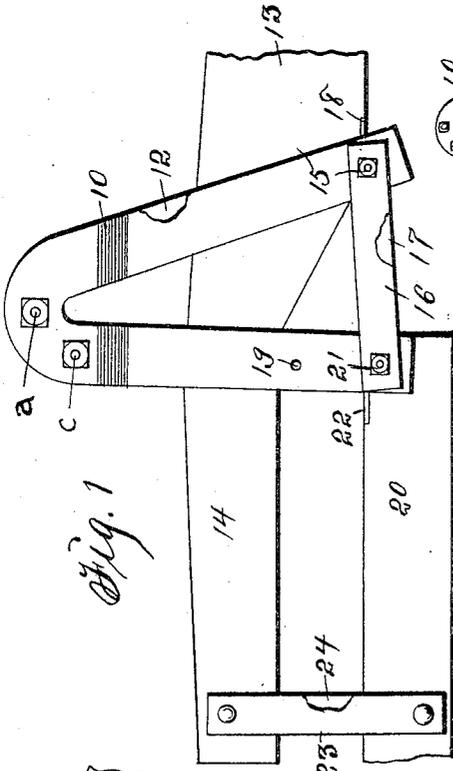


Fig. 1

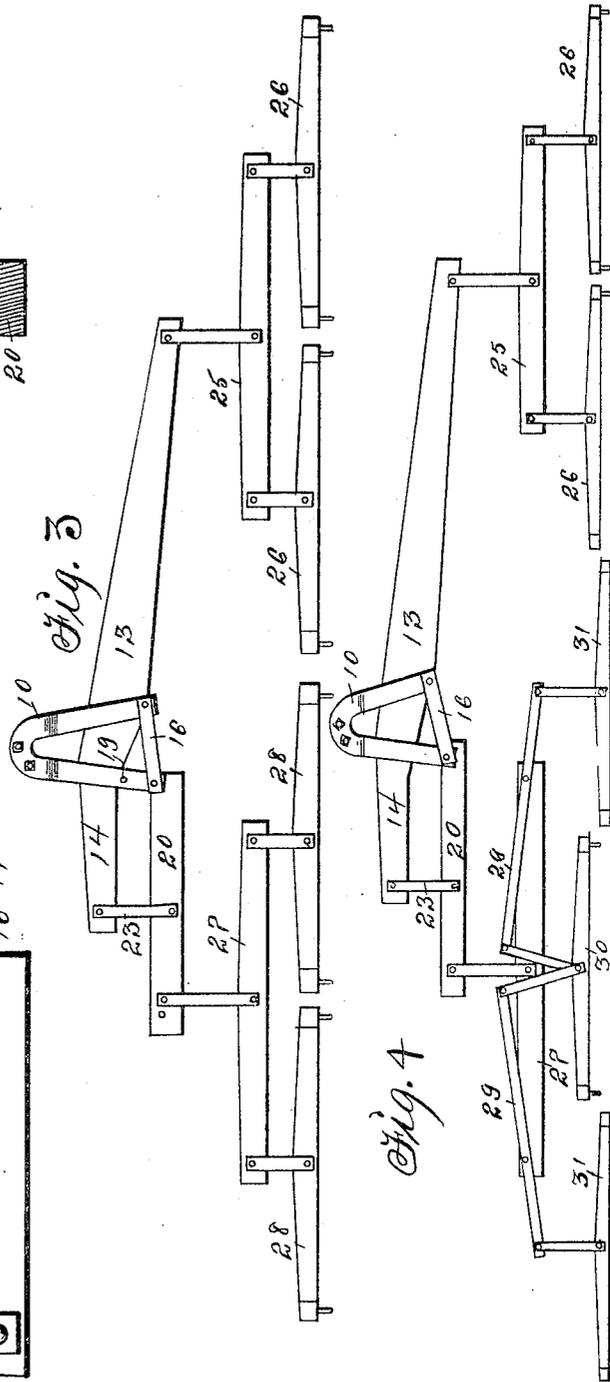


Fig. 3

Fig. 4

Witnesses:
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UNITED STATES PATENT OFFICE.

EGBERT O. DOAK, OF SAC CITY, IOWA.

FOUR AND FIVE HORSE EVENER.

No. 798,573.

Specification of Letters Patent.

Patented Aug. 29, 1905.

Application filed December 6, 1904. Serial No. 235,758.

To all whom it may concern:

Be it known that I, EGBERT O. DOAK, a citizen of the United States, residing at Sac City, in the county of Sac and State of Iowa, have invented a new and useful Four and Five Horse Evener, of which the following is a specification.

My object is to provide a simple, strong, durable, and transformable evener that is specially adapted to be alternately used for five horses or for four horses in such a manner that one horse can be in the furrow and the other three or four on the unplowed land and one horse on one side of the tongue and the other three or four on the other side.

My invention consists in the construction, arrangement, and combination of a metal frame of peculiar form and combining a plurality of eveners of different lengths with the frame and connecting doubletrees and swingle-trees therewith, as hereinafter set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 shows a metal frame and one end portion of a short evener combined therewith. Fig. 2 is an edge view of the metal frame and shows transverse sectional views of the eveners connected with the frame. Fig. 3 shows all the parts connected as required for use as a four-horse evener. Fig. 4 shows the evener transformed as required for hitching five horses thereto.

The numerals 10 and 12 designate two mating members of a metal frame adapted to be pivotally connected at its apex and rear end to a plow, wagon, or harvester by means of a draw-bolt *a* or in any suitable way. The mating members are V-shaped and uniform and permanently connected at their rear ends by placing a collar *b* between them and a bolt through coinciding holes in the members that are located eccentrically relative to their apexes and through the washer between them. The collar keeps them apart. The main evener 13 and an auxiliary evener 20 are fitted between the front ends of the members.

The main evener 13 has an elbow-shaped extension 14 extended through the metal frame and is pivotally connected with one of the front corners of the frame at the edge of the corner of the evener formed by its widest part and its elbow-shaped extension by means of a bolt 15 and straight metal bars 16 and

17, provided with perforations in their end portions through which the bolt is passed. A metal plate 18 is inlaid and fixed to the front edge of the evener to serve as a bearing for the bolt 15. A bolt 19 is fixed in the frame to engage the front edge of the narrow part and short arm of the evener 13, as required, to restrict its forward motion in the frame.

A short and auxiliary evener 20 is pivoted at its inner edge and inner end to one of the front corners of the frame by a bolt 21, passed through coinciding perforations in the metal bars 16 and 17 and the overlying ends of the parts 10 and 12, and a metal plate 22 is fixed on the end and rear edge of the auxiliary evener, as required, to aid in securing the bolt in its place, as shown in Fig. 1. This evener 20 is also pivotally connected with the free end of the elbow-shaped extension 14 of the main evener 13 by straight links 23 and 24 in such a manner that the short evener will have free vibratory motion relative to the frame and also relative to the main evener 13.

By connecting a doubletree 25 with the long arm of the main evener 13 and two swingletrees 26 to the ends of the doubletree and a doubletree 27 to the free end of the short arm 20 and two swingletrees 28 to its ends, as shown in Fig. 3, my invention is adapted for hitching four horses thereto abreast, as required, to equalize the draft applied by the four horses. By connecting eveners 29 with the ends of the doubletree and swingletree 30 with their long arms and inner ends and swingletrees 31 with their short arms and outer ends my invention is transformed, as required, for hitching five horses abreast and to equalize the force applied by them.

Having thus set forth the purpose of my invention and construction, function, and arrangement and combination of all the parts, the practical operation and utility thereof will be readily understood by teamsters and others familiar with the art to which it belongs.

What I claim as new, and desire to secure by Letters Patent, is—

1. In an evener, a frame consisting of two uniform V-shaped irons having coinciding bolt-holes in the centers of their apexes and coinciding bolt-holes in eccentric position relative to the apexes, a collar between the irons

and a bolt passed through the eccentric bolt-holes and the collar and a nut on the end of the bolt.

2. In an evener, a frame consisting of two uniform V-shaped irons having coinciding bolt-holes in eccentric positions relative to the apexes, a collar between the irons and a bolt passed through the eccentric bolt-holes and the collar and a nut on the end of the bolt, an evener having an elbow-shaped extension pivotally connected with the one front corner of the frame and extended horizontally between the two mating members of the frame and metal cross-pieces fixed to the front ends of the frame, as shown and described.

3. In an evener, a frame consisting of two uniform V-shaped irons having coinciding bolt-holes in eccentric position relative to their apexes, a collar between the irons and a bolt passed through the eccentric bolt-holes and the collar and a nut on the end of the bolt, an evener having an elbow-shaped extension pivotally connected with the one front corner of the frame and extended horizontally between the two mating members of the frame and metal cross-pieces fixed to the front ends of the frame and a short auxiliary evener pivoted to the other front corner of the frame and pivotally connected with the end of the extension of the main evener by means of links, arranged and combined, as shown and described.

4. In an evener, a frame consisting of two uniform V-shaped irons having coinciding bolt-holes in eccentric position relative to their apexes, a collar between the irons and a bolt passed through the eccentric bolt-holes and the collar and a nut on the end of the bolt, an evener having an elbow-shaped ex-

tension pivotally connected with the one front corner of the frame and extended horizontally between the two mating members of the frame and metal cross-pieces fixed to the front ends of the frame, and a short auxiliary evener pivoted to the other front corners of the frame and pivotally connected with the end of the extension of the main evener by means of links and a doubletree connected with each of the free ends of the two eveners, arranged and combined as shown and described.

5. In an evener, a frame consisting of two uniform V-shaped irons having coinciding bolt-holes in eccentric position relative to the apexes, a collar between the irons and a bolt passed through the eccentric bolt-holes and the collar and a nut on the end of the bolt, an evener having an elbow-shaped extension pivotally connected with the one front corner of the frame and extended horizontally between the two mating members of the frame and metal cross-pieces fixed to the front ends of the frame and a short auxiliary evener pivoted to the other front corners of the frame and pivotally connected with the end of the extension of the main evener by means of links, a doubletree connected with each of the free ends of the two eveners, an evener connected with each end of the doubletree that is connected with the auxiliary evener and a swingletree connected with their inner ends by means of links and swingletrees connected with their outer ends, arranged and combined as shown and described.

EGBERT O. DOAK.

Witnesses:

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