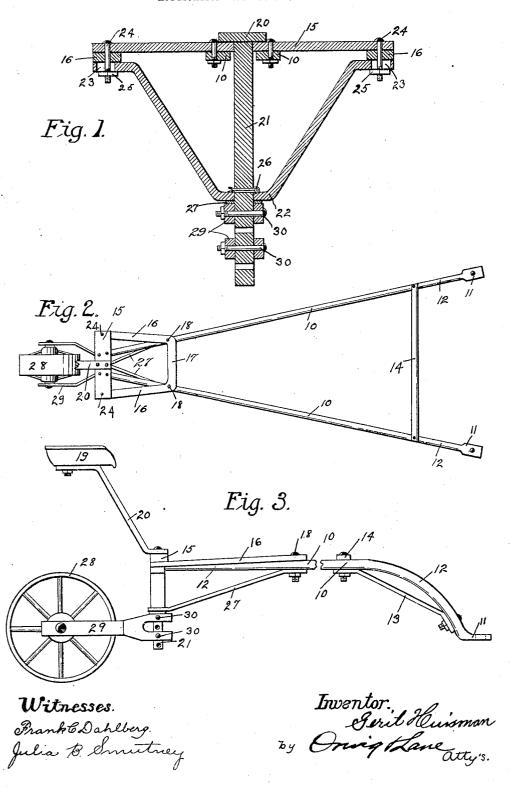
## G. HUISMAN. RIDING ATTACHMENT FOR HARROWS. APPLICATION FILED OCT.19, 1908.



## UNITED STATES PATENT OFFICE.

GERIT HUISMAN, OF KAMRAR, IOWA

## RIDING ATTACHMENT FOR HARROWS.

No. 852,118.

Specification of Letters Patent.

Patented April 30, 1907.

Application filed October 19, 1906. Serial No. 339,670.

To all whom it may concern:

Be it known that I, GERIT HUISMAN, a citizen of the United States, residing at Kamrar, in the county of Hamilton and State of Iowa, have invented new and useful Improvements in Riding Attachments for Harrows, of which the following is a specification.

The object of my invention is a riding attachment for harrows of simple, durable and 10 in-expensive construction provided with a single supporting wheel so arranged and braced to properly support the rider under all conditions to which the attachment is liable to be subject.

My invention consists in the arrangement and combination of the various parts of the attachment, whereby the objects contemplated are obtained as hereinafter more fully set forth, pointed out in my claims and illus-20 trated in the accompanying drawings, in which,

Figure 1 shows an enlarged, transverse, sectional view through the frame at the rear upright. Fig. 2 shows a top or plan 25 view of the riding attachment with the seat removed and, Fig. 3 shows a side elevation of

the complete attachment. Referring to the accompanying drawing the main frame is composed of two converg-30 ing reach bars 10, preferably made of tubular metal and having their forward ends flattened at 11 to be attached to a part of the harrow. Said front ends also curve downwardly and forwardly at 12 to bring the 35 bodies of the reach bars above the harrow. These curved portions are braced and re-inforced by the brace-bars 13, bolted to the under side thereof. Immediately over the rear of the curved portion 12 is a cross brace 14 40 holding the forward ends of the reach bars properly spaced apart. The rear ends of the reach bars come close together and are bolted to the flat cross piece 15. This cross piece has secured to its ends a re-inforcing frame 45 comprising two sides 16, slightly convergent, and connected by the cross piece 17. forward corners of said re-inforcing frame

18 The driver's seat is indicated by the numeral 19 and is supported on the spring arm 20, which is secured to the top central portion of the cross piece 15. The said cross piece 15 is provided, beneath the spring arm 20, with an opening to receive the upper end of the up-

being secured to the reach bars by the bolts

The lower portion of the upright 21 is form. supported as follows: The numeral 22 indicates the cross brace having said upright passed through its central portion and hav- 60 ing its sides extend upwardly and outwardly to the rear ends of the re-inforcing frame 16. Formed in the ends of the cross piece 22 are the slots 23. Bolts 24 are passed through the cross piece 15, the braces 16 and the slots 65 23, and nuts 25 are placed on said bolts thus providing means for securely holding cross piece 22 in proper position and also providing means for giving said cross piece lateral adjustment. In order to hold the upright 21 70 against downward movement I have placed a cotter pin 26 therein directly above the cross piece 22. I have provided for holding the lower portion of the upright 21 against movement forwardly and rearwardly as follows: 75 Two braces 27 are bolted to the reach bars 10 and are extended rearwardly and downwardly over each other and are united at their rear ends and provided with an opening through which the upright 21 is passed.

The supporting wheel 28 is provided with a comparatively long hub and the frame 29 is connected with the hub and extended straightforwardly and mounted upon the lower end of the upright 21. Two bolts 30 85 are extended through the frame 29 and suitable openings provided therefore in the upright 21, thus fixing the frame 29 to said upright. In this connection I have provided means for vertically adjusting upright 21 rel- 90 ative to the frame 29 by arranging a series of openings as shown in Fig. 1 in the lower end of the upright 21 so that the bolts 30 may be placed in any ones of this series. This feature is of great advantage when it is desired 95 to raise or lower the rear ends of the reach bars.

In practical use the forward ends of the reach bars are attached to a part of the harrow and the driver or operator occupies the 100 seat 19 from which he drives the draft animals attached to the harrow and manipulates the harrow adjusting the levers. The wheel 28 follows the harrow when turning around curves or when advancing in straight lines. 105 If it should be found that the driver's weight on the seat is not accurately centered relative to the supporting wheel, and there should be a tendency for the wheel to incline to either side, the cross piece 22 may be adjusted lat- 110 erally sufficient to bring the upright 21 to a right 21 which is preferably cylindrical in vertical position. By the peculiar arrangements of the parts shown it is not necessary to secure the upright 21 to the frame in such a way as to prevent downward movement of the frame relative thereto because the spring arm 20 is secured directly above the top of the upright 21. The pin 26 serves to prevent upright 21 from moving downwardly relative to the frame, however, this pin may be easily detached so the parts can be easily separated.

o Having thus described my invention, what I claim and desire to secure by Letters Patent

of the United States therefore is;

1. A riding attachment for harrows, comprising two convergent reach bars having forward ends designed for connection with the harrow, and their rear ends adjacent to each other, a cross piece fixed to the rear ends of the reach bars, a re-inforcing frame fixed to the outer ends of said cross piece extending forwardly and attached to the reach bars and connected by a cross piece, a seat support secured to the top of the central portion of the cross piece, a cross brace with its central portion spaced below said cross piece and 25 its sides extended upwardly and outwardly

and secured to the ends of said cross piece, an upright rotatably mounted in a vertical position in said cross piece and in said cross brace, the upper end of said upright engaging the bottom of the seat support, a wheel frame fixed to the lower end of said upright and extending rearwardly and a supporting wheel in said frame.

2. A riding attachment for harrows, comprising two converging reach bars having 35 their forward ends designed for attachment to a harrow, a cross piece secured to the rear ends thereof, a cross brace with its central portion spaced below said cross piece and its ends extending upwardly and outwardly and 40 adjustably fixed to the ends of said cross piece, an upright rotatably mounted in said cross piece and cross brace, a wheel frame adjustably secured to the lower end of the upright, and a supporting wheel in said 45 frame.

GERIT HUISMAN.

Witnesses:

KAREL YANSSEN, G. B. KRAY.