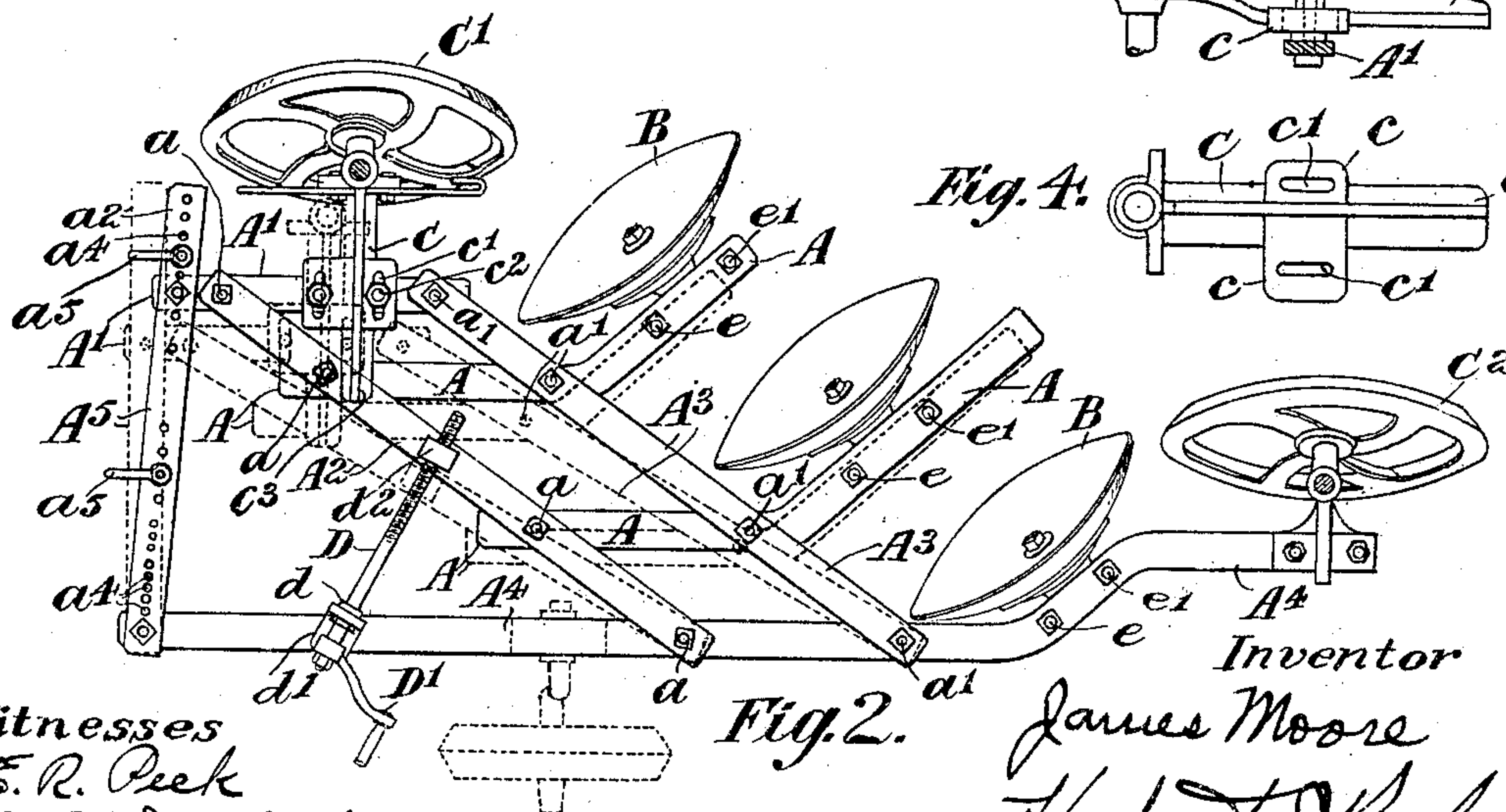
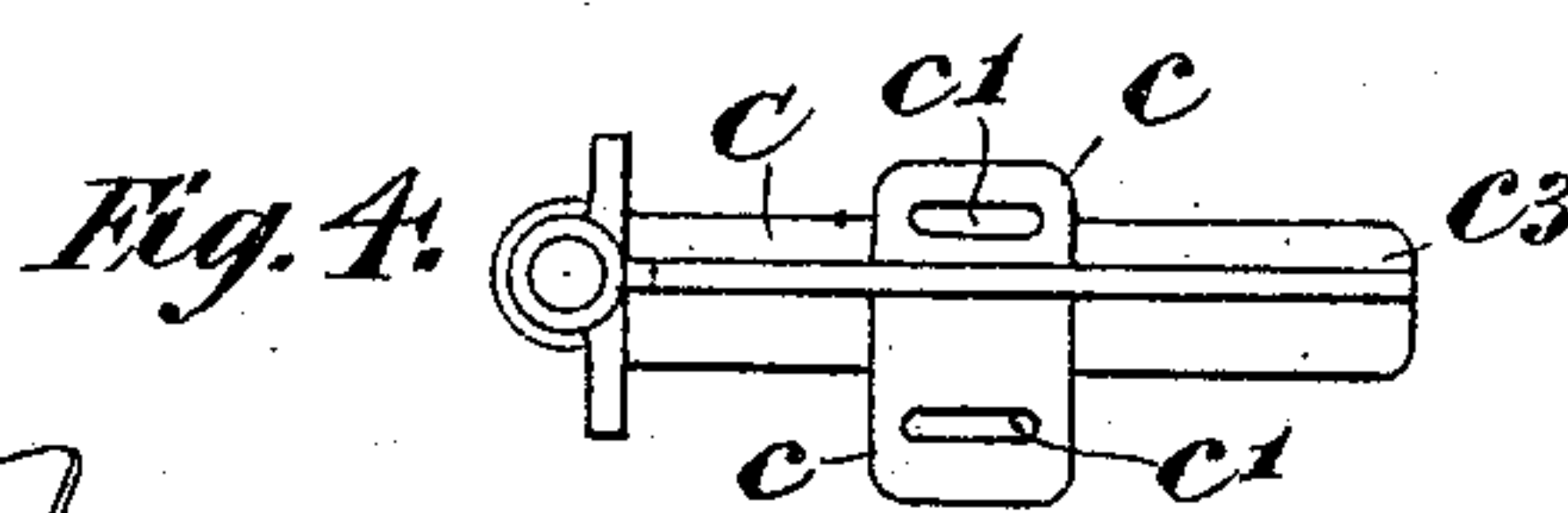
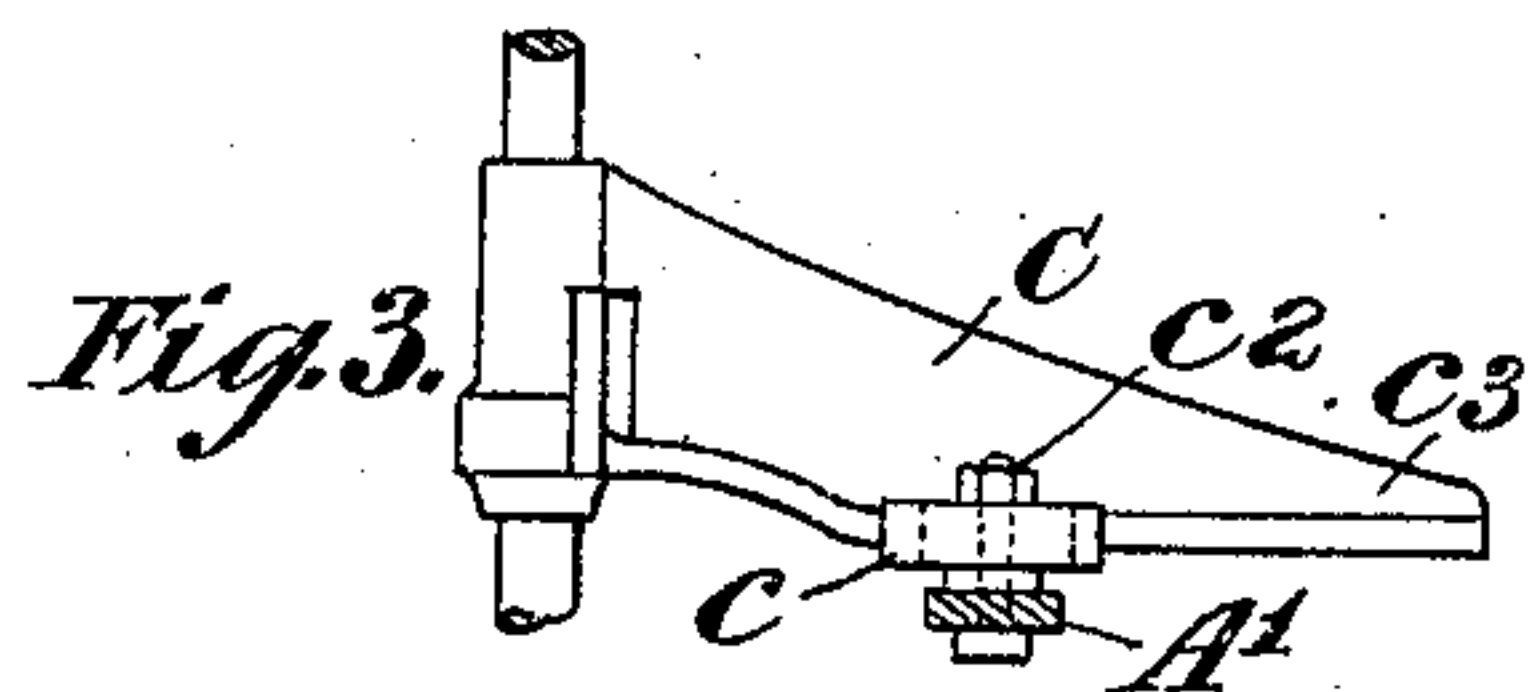
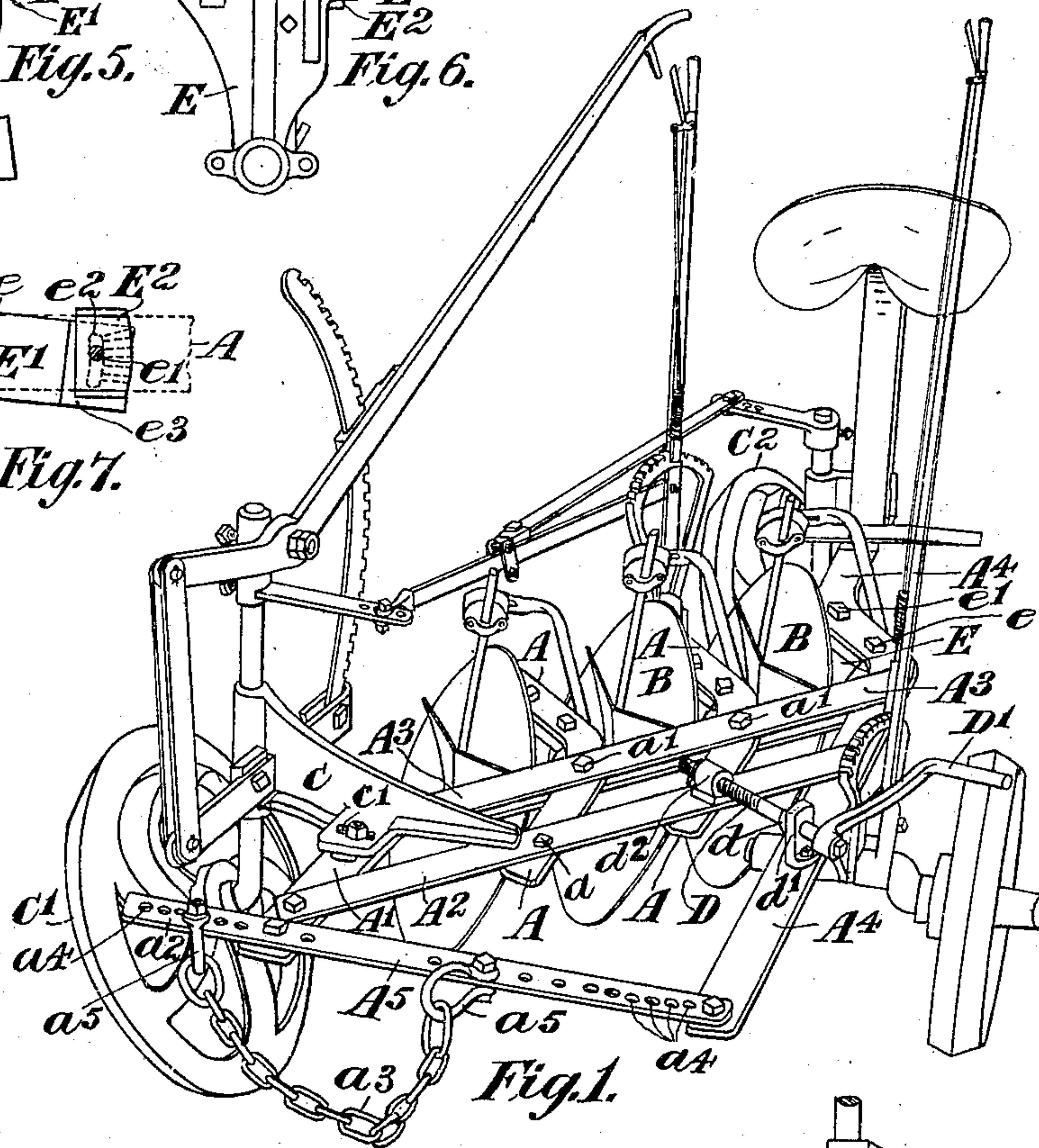
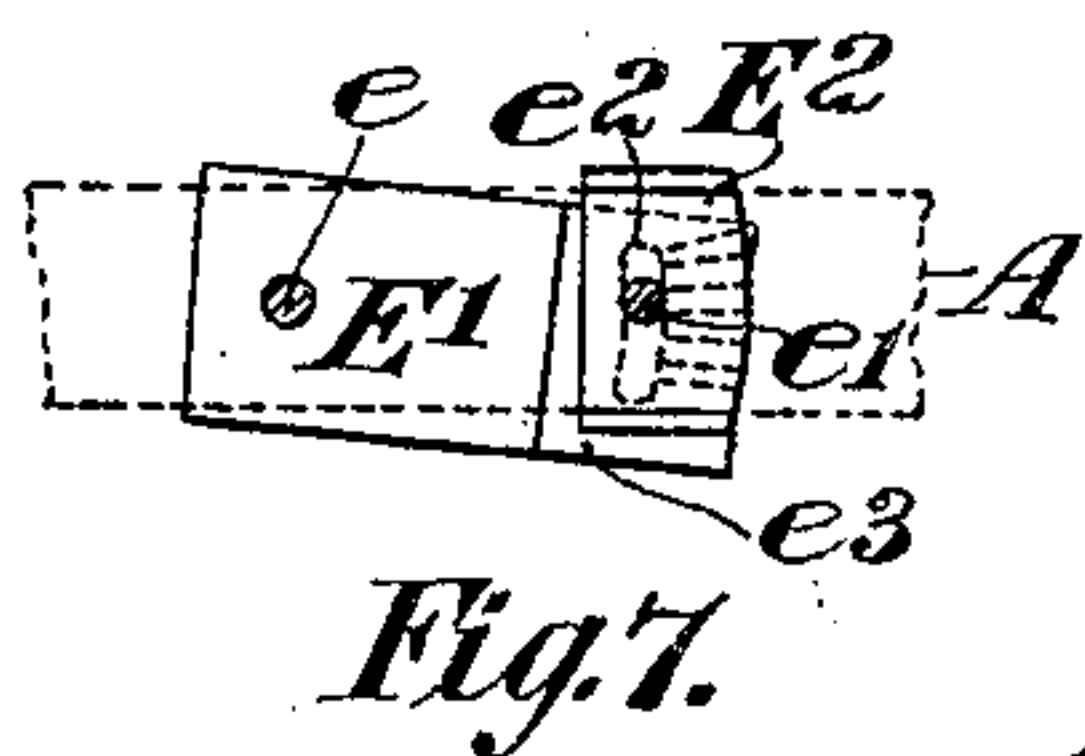
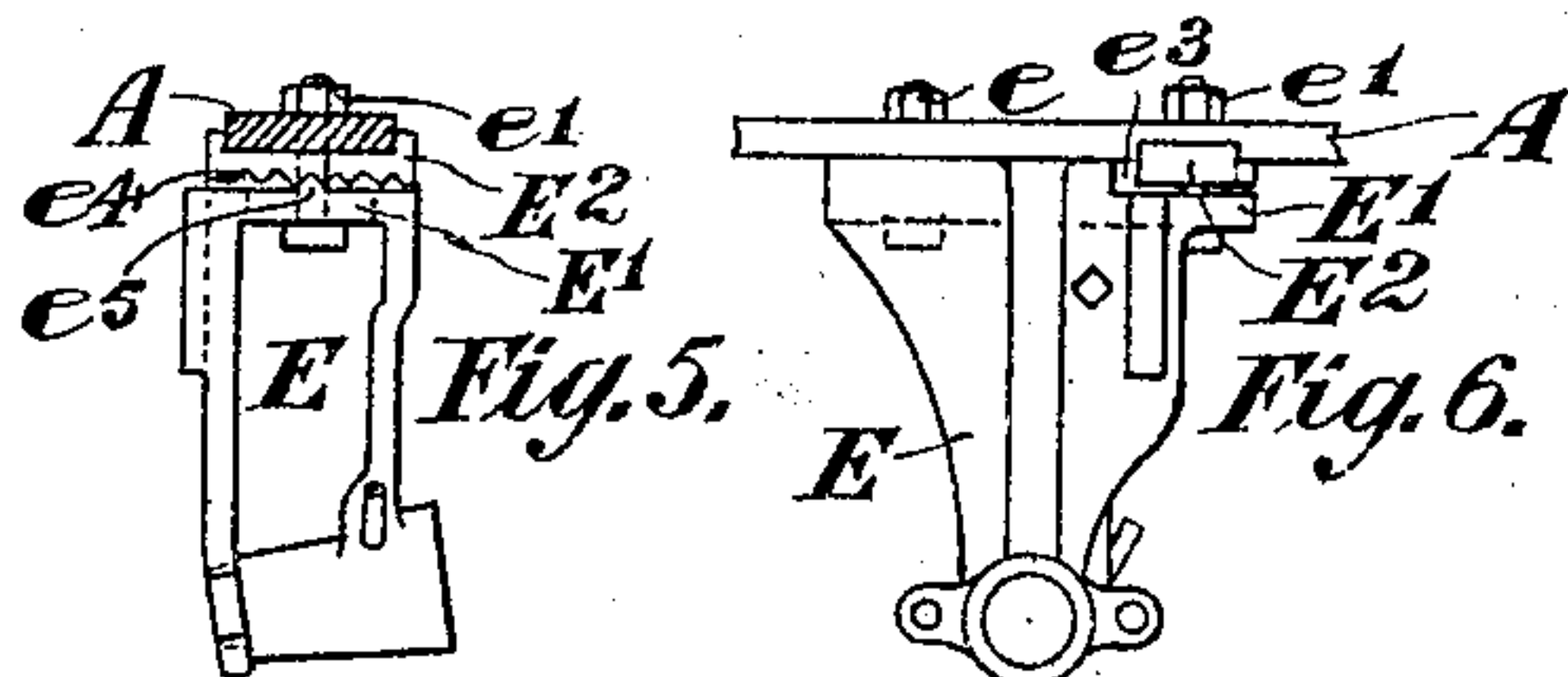


No. 836,773.

PATENTED NOV. 27, 1906.

J. MOORE.  
DISK PLOW.

APPLICATION FILED JULY 13, 1905.



Witnesses  
E. R. Peek  
C. P. Wright Jr.

Inventor  
James Moore  
By: Hubert Check  
Atty.



# UNITED STATES PATENT OFFICE.

JAMES MOORE, OF ELSTERNWICK, VICTORIA, AUSTRALIA, ASSIGNOR OF  
ONE-HALF TO T. ROBINSON & CO. PROPRIETARY LIMITED, OF SPOTTIS-  
WOODE, VICTORIA, AUSTRALIA.

## DISK PLOW.

No. 836,773.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed July 13, 1905. Serial No. 269,491.

*To all whom it may concern:*

Be it known that I, JAMES MOORE, manager  
T. Robinson & Co., Proprietary Limited, a sub-  
ject of the King of Great Britain and Ireland,  
5 residing at "Braeside," Railway Crescent, El-  
sternwick, in the British State of Victoria,  
Commonwealth of Australia, have invented  
certain new and useful Improvements in  
Disk Plows, of which the following is a speci-  
10 fication.

This invention relates to improvements in  
disk plows; and it consists mainly in an im-  
proved framework therefor which, in addi-  
tion to its adaptability for quickly altering  
15 the width of the furrows, always preserves  
and correctly maintains at any desired width  
of said furrows the proper line of draft,  
the improvements being equally applicable  
either to a two-furrow plow or to a plow for  
20 cutting a greater number of furrows, while  
the other improvements consist in the means  
of supporting and adjusting the disks and to  
other combinations of parts hereinafter de-  
scribed.

25 The invention will now be fully described,  
aided by a reference to the accompanying  
sheet of drawings, in which—

Figure 1 is a perspective view of a disk  
plow embodying my improvements; Fig. 2, a  
30 plan view to clearly illustrate the adjustable  
framing which carries the disks; and Figs. 3  
and 4 are side view and plan, respectively,  
of the front furrow-wheel bracket, while Figs.  
5, 6, and 7 are side and end views and plan,  
35 respectively, of the adjustable bracket for  
supporting the disks.

The framework comprises a system of par-  
allel beams or bars, of which those marked A  
have their rear part bent at an angle of forty  
40 degrees, or thereabout, toward the disks B,  
which they support, while a shorter bar A'  
supports the front furrow-wheel bracket or  
carrier C, and a longer beam A<sup>4</sup> carries the  
hindmost disk and the back furrow-wheel.  
45 The beams A and A' are pivotally secured at  
their fore ends by bolts *a* to a bar A<sup>2</sup>, which  
lies obliquely over them, while at a short dis-  
tance rearward and lying parallel with afore-  
said oblique bar A<sup>2</sup> are a pair of over-and-un-  
50 der oblique beams A<sup>3</sup>, the angle of said  
oblique beams A<sup>2</sup> and A<sup>3</sup> being such as will  
allow for the forward advance of the line of  
disks B. Said disk beams A and A' lie be-

tween and are pivotally secured by bolts *a'* to  
the under and over oblique bars or beams A<sup>3</sup>. 55

The landside or rear disk beam A<sup>4</sup> also lies  
parallel with beams A, and it also is pivotally  
connected by bolts *a* and *a'* with the oblique  
beams A<sup>2</sup> and A<sup>3</sup>, while the front part of  
beam A<sup>4</sup> extends in a direct line forward to a 60  
position about transversely opposite to the  
end of the front-wheel beam A', and the for-  
ward end of both said beams A' and A<sup>4</sup> are  
connected to a transverse bridle-bar A<sup>5</sup>,  
which stretches across the full width in front 65  
of plow-frame and has an extension *a*<sup>2</sup> pro-  
jecting beyond the furrow-side beam A'.  
Said bridle-bar A<sup>5</sup> lies in advance of the front  
furrow-wheel C', and to it the draft-chain *a*<sup>3</sup>  
is attached. The object of the projection *a*<sup>2</sup> 70  
on the furrow side is to enable the draft-  
chain *a*<sup>3</sup> to be hooked or shackled at a posi-  
tion well beyond the center line of draft in  
order to counteract against the landward  
tendency of the rear disks. Also by the bridle- 75  
bar A<sup>5</sup> being of such an unusual length and at  
such a forward position the plow is caused to  
run or work steadily and with less tendency  
to lift the disks B from their working or cut-  
ting position. The said bridle-bar A<sup>5</sup> at 80  
both its ends has a series of holes *a*<sup>4</sup> to secure  
the plow-frame at its desired width and also  
to receive the shackles *a*<sup>5</sup>. D is a screwed  
adjusting-rod secured by collars *d* to a  
bracket *d'*, arranged on the landside-beam A<sup>4</sup>, 85  
while its screwed part takes into a swivel-nut  
*d*<sup>2</sup>, secured to the oblique beam A<sup>2</sup>, and D' is  
a handle for rotating the screwed rod D and  
which latter is used for the purpose of ad-  
justing the distance apart of the beams car- 90  
rying the disks, and hence regulating the  
width of the furrows, and which adjustment  
in the width of furrows may be from a frac-  
tion of an inch to several inches.

By detaching the bridle-bar from either or 95  
both bar A' and beam A<sup>4</sup> and then rotating  
screw-threaded rod D in the proper direction  
the inclined or oblique beams A<sup>2</sup> A<sup>3</sup> will be  
swung forwardly or rearwardly the desired  
distance to bring the plow-bars A the re- 100  
quired distance apart, and consequently  
space the plows or disks B as desired. Dur-  
ing this adjustment the inclined beams  
swing on their pivotal connections with beam  
A<sup>4</sup> and also on the various bolts *a* *a'*, and the 105  
plow-bars A are maintained parallel with



each other and in the line of draft. After the parts have been adjusted to bring the plows B the desired distance apart the bridle-bar is again attached to the front ends of bars A' and beam A<sup>4</sup>.

The vertical post of the rear furrow-wheel C<sup>2</sup> is carried by a bracket which is secured to the landside-beam A<sup>4</sup>, while the vertical post of the front furrow-wheel C' is supported by the bracket C, attached to the off-side beam A', and as said front and rear furrow-wheel posts are connected by levers they will always maintain a true draft line.

The bracket C, which supports the post of the front furrow-wheel C', is provided with side lugs c, in which are slot-holes c', through which bolts c<sup>2</sup> pass for securing said bracket to the bar A', and by said slots c' lying transverse to the line of draft the front furrow-wheel can be adjusted to a greater or less width of furrow when necessary. Said bracket is provided with an extension or foot piece c<sup>3</sup>, which rests on the front oblique beam A<sup>2</sup> to maintain the vertical position of the front furrow-wheel post.

The whole of the system of framework-bars (marked A to A<sup>5</sup>, respectively) are usually placed on the flat and not edgewise, as is the ordinary practice in other plows. Further, the framework is made preferably of spring-steel, the disks B being carried by cast-iron or other metal bearing-brackets E, in which the disk axles revolve, while said bracket-bearings are secured to the rear end parts of the beams A and to the beam A<sup>4</sup>. The said bearing-brackets E are so constructed that each may be adjusted to set the disks at the requisite angle by each bracket-bearing being secured to the under side of the disk beams A and beam A<sup>4</sup> by two bolts e and e', the forward bolt e passing through a hole in the beams and flange of bearing-bracket E and the rear bolt e' passing through a hole in the beam and through a radially-slotted hole e<sup>2</sup> in the bearing-bracket E. The flange E' of the bearing-bracket E is rabbeted at e<sup>3</sup> to permit of a stop-plate E<sup>2</sup> being placed between the rear part of the bearing-flange E' and the beams A or the beam A<sup>4</sup>, said plate E<sup>2</sup> being serrated at e<sup>4</sup> on its under side to receive an angular projecting rib e<sup>5</sup>, formed on the rabbeted part of the flange E', so that when the bolts e and e' are screwed up the bearing-bracket E will be locked securely at the desired position to suit the angle at which each disk B is to lie, the forward bolt e during the process of adjustment acting as a pivot.

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

1. In combination, in a plow, a landside-beam at its rear end provided with a back furrow-wheel and at its rear portion having a lateral deflection, a plow carried by said

beam and arranged at said deflection in advance of said wheel, a frame pivotally joined to and extending laterally from said beam and adjustable forwardly and rearwardly and comprising plow-bars arranged in the line of draft and provided with spaced plows, a front furrow-wheel carried by said frame, draft attachments coupled to said frame and to said beam, and means for adjusting said frame with respect to said beam, substantially as described.

2. In a disk plow, in combination, a frame comprising swinging adjustable bars and parallel plow-bars arranged in the line of draft and pivotally joined to said first-mentioned bars, said plow-bars having their rear end portions deflected laterally, brackets depending from said laterally-bent ends, means adjustably securing said brackets to said ends, and the disks carried by said brackets.

3. In a plow, in combination, an adjustable plow-bar frame, means for swinging the same forwardly or rearwardly, a bracket secured at the outer end of said frame and having an inward extension engaging the frame to hold the bracket against tilting, and a furrow-wheel having its post mounted in said bracket.

4. In a disk plow, in combination, a landside-beam at its rear portion provided with a furrow-wheel, a frame pivotally joined to said beam and extending laterally therefrom and at its outer end provided with a furrow-wheel, said frame comprising bars arranged transversely of the line of draft and plow-bars pivotally joined to said first-mentioned bars and arranged in the line of draft and provided with disks, a bridle-bar adjustably secured to and connecting the outer portion of said frame and the front portion of said beam and provided with draft attachments, and means between said beam and said frame for adjusting the frame forwardly or rearwardly.

5. In a disk plow, in combination, a landside-beam provided with a wheel and having a depending bracket provided with a disk, a swingable frame pivotally joined to and extending laterally from said beam and provided with a wheel and comprising bars arranged transversely of the line of draft and plow-bars pivotally joined to said first-mentioned bars and arranged in the line of draft and at their rear ends provided with depending brackets and disks carried thereby, means coupling together the outer end of said frame and forward portion of said beam and adapted to receive draft attachments, and means for swinging said frame to vary its angle with respect to said beam.

6. A disk-plow frame comprising a landside-beam provided with a wheel, and a swingable adjustable frame provided with a wheel and consisting essentially of bars arranged across the line of draft and spaced



plow-bars arranged in the line of draft and pivotally joined to said first-mentioned bars, brackets depending from the plow-bars and provided with disks, means adjustably securing said brackets to said plow-bars to permit adjustment of the brackets with respect to the bars to change the angles of the disks, draft appliances applied to said beam and to the outer end of said frame, and adjusting means between said frame and beam, whereby said adjustable frame can be swung to vary the distances between the disks.

7. In a plow, in combination, a landside-beam, a swingable frame extending laterally therefrom and pivotally joined thereto and comprising bars arranged transversely of the line of draft and plow-bars pivotally joined thereto and arranged in the line of draft and provided with plows, a bridle-bar detachably connecting the front end portion of said beam and the outer portion of said frame and adapted to receive the draft attachments, and means for adjustably coupling the outer portion of said frame to said bridle-bar whereby the outer portion of said frame can be coupled to said bridle-bar at different distances from the front portion of said beam.

8. In a plow, in combination, a landside-beam, a swingable frame extending laterally therefrom and pivotally joined thereto and comprising bars arranged transversely of the line of draft and plow-bars pivotally joined thereto and arranged in the line of draft and provided with plows, a bridle-bar connecting the front portion of said beam and the outer end of said frame and extending outwardly beyond the outer end of said frame and at said extended end provided with a draft attachment, and means adjustable longitudinally of said bridle-bar for coupling the outer end of said frame thereto, substantially as described.

9. In a disk plow, in combination, a landside-beam, an adjustable frame pivotally joined to and extending laterally from said beam and swingable forwardly or rearwardly and provided with plows, a furrow-wheel carried by said beam, a furrow-wheel arranged at the outer end of said frame, a bridle-bar connecting the forward portion of said beam and the outer portion of said frame, means adjustable longitudinally of said bridle-bar for detachably coupling said beam and the outer end of said frame thereto, and draft attachments carried by and adjustable longitudinally of said bridle-bar.

10. In a disk plow, in combination, a landside-beam at its rear portion provided with a furrow-wheel, a frame pivotally joined to said beam and extending laterally therefrom and at its outer end provided with a furrow-

wheel, said frame comprising bars arranged transversely of the line of draft and plow-bars pivotally joined to said first-mentioned bars and arranged in the line of draft and provided with disks, a rotary threaded rod loosely coupled to said beam and extending laterally therefrom to said frame, and a swiveled nut mounted on an intermediate portion of said frame and receiving said rod, for the purposes substantially as described.

11. In a plow, in combination, a landside-beam, an adjustable frame extending laterally from said beam and pivotally joined thereto at a distance in rear of the front end of said beam and provided with plows, means detachably coupling together the front portion of said beam and the outer portion of said frame, and a screw-rod for swinging said frame forwardly and rearwardly, said rod being loosely coupled to said beam in advance of the pivotal connection between the frame and beam and extending laterally from said beam and coupled to said frame at a point intermediate its length, as and for the purposes substantially as described.

12. A disk-plow frame comprising a landside-beam having a furrow-wheel, and a swingable adjustable frame having a wheel and consisting essentially of bars arranged across the line of draft and spaced plow-bars arranged in the line of draft and pivotally joined to said first-mentioned bars and having laterally-bent rear ends having brackets provided with disks, and means between said frame and beam whereby said adjustable frame can be swung forwardly or rearwardly to vary the distances between the plow-bars, substantially as described.

13. In a disk plow, in combination, a landside-beam provided with a rear furrow-wheel, an adjustable frame pivotally joined to said beam intermediate the length thereof and extending laterally therefrom and at its outer end provided with a furrow-wheel, said frame comprising bars extending across the line of draft and plow-bars pivotally joined thereto and arranged in the line of draft and provided with disks, means for adjusting said frame with respect to said beam, means detachably coupling together the front portion of said beam and the outer portion of said frame, and a draft attachment arranged at the outer portion of said frame, as and for the purposes described.

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

JAMES MOORE.

Witnesses:

BEDLINGTON BODYCOMB,  
JOHN DELBRIDGE.