

No. 673,230.

Patented Apr. 30, 1901.

E. B. WINTERS.
PLOW.

(Application filed Aug. 7, 1900.)

(No Model.)

2 Sheets—Sheet 1.

Fig-1.

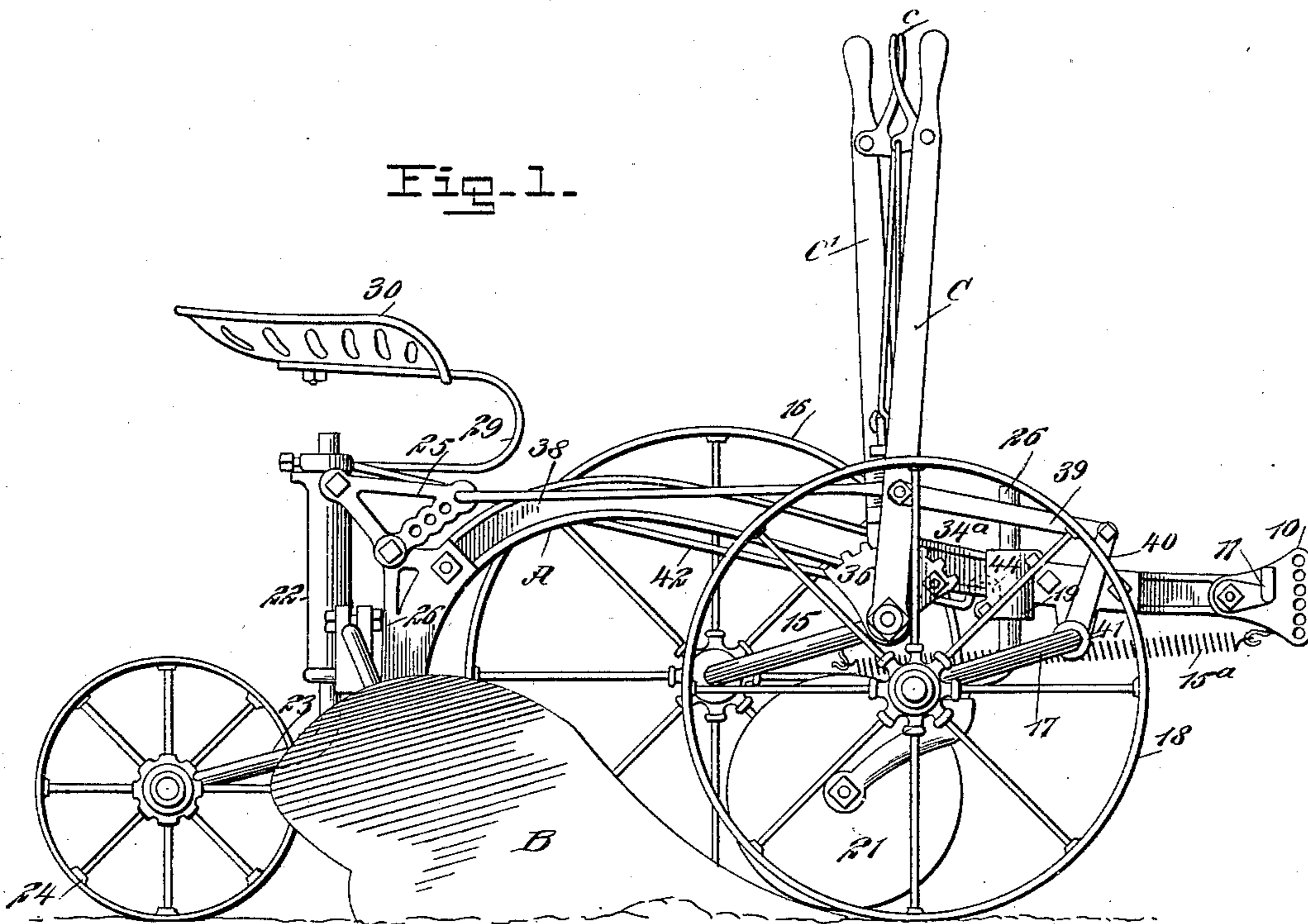
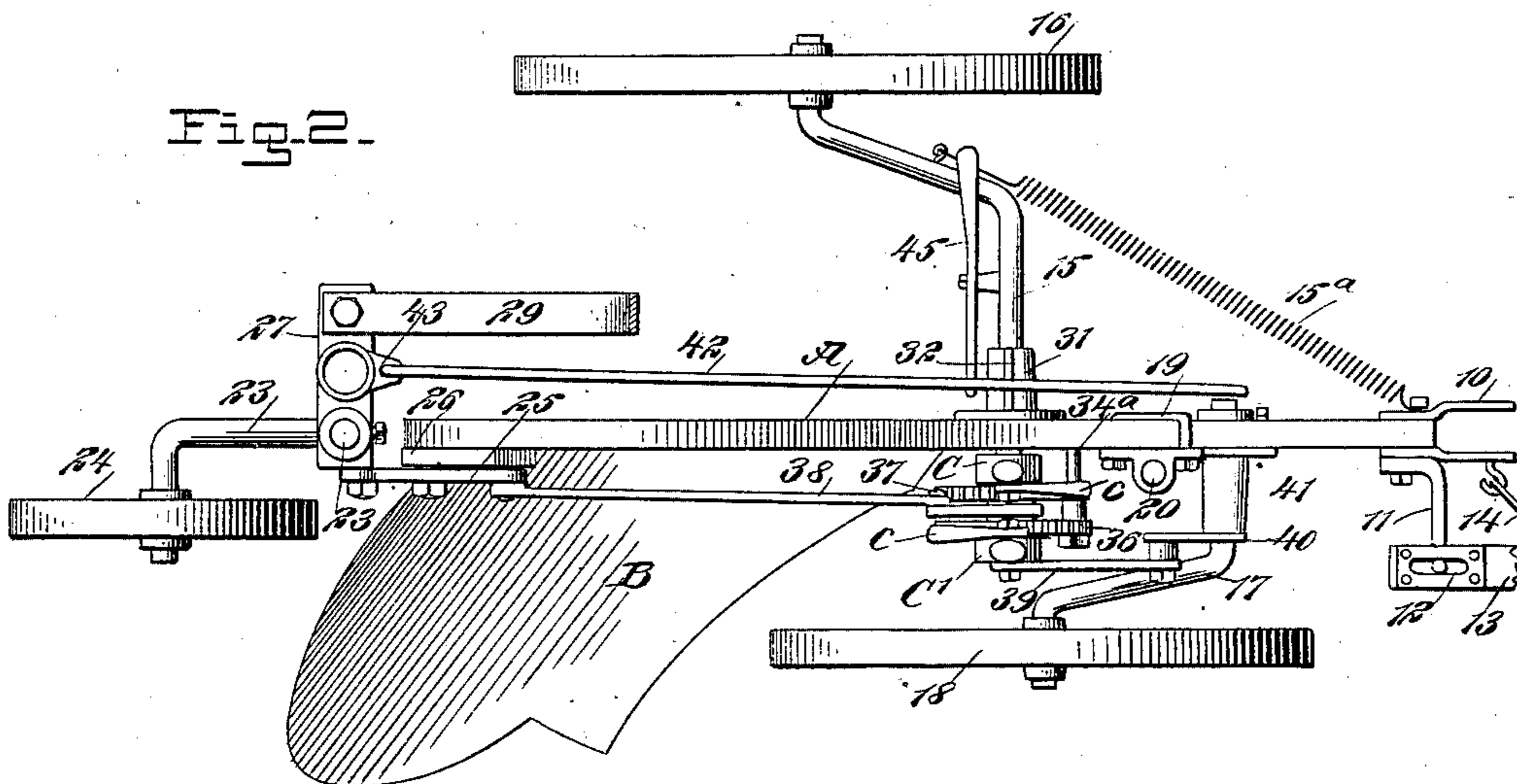


Fig-2.



WITNESSES:

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INVENTOR

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No. 673,230.

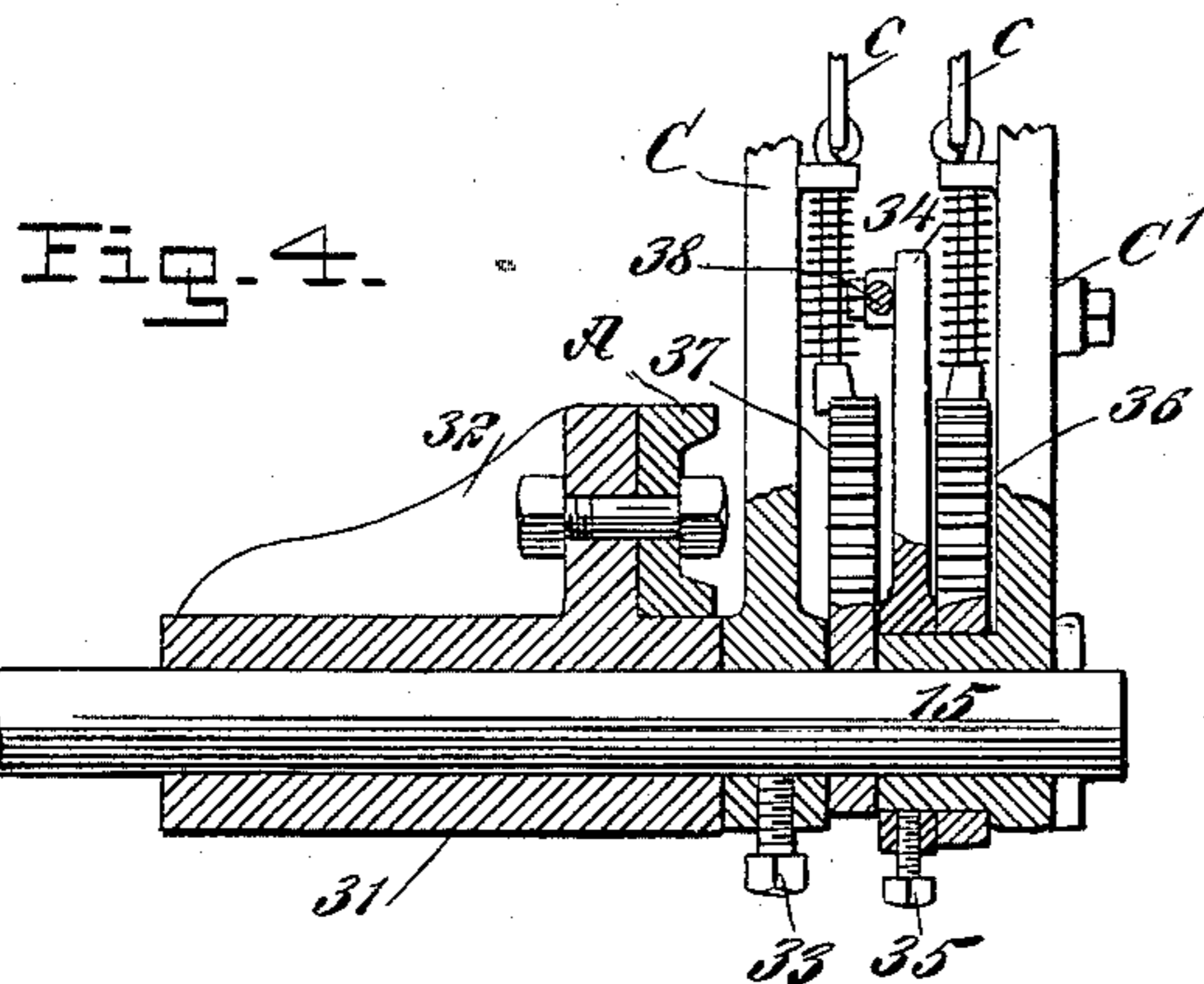
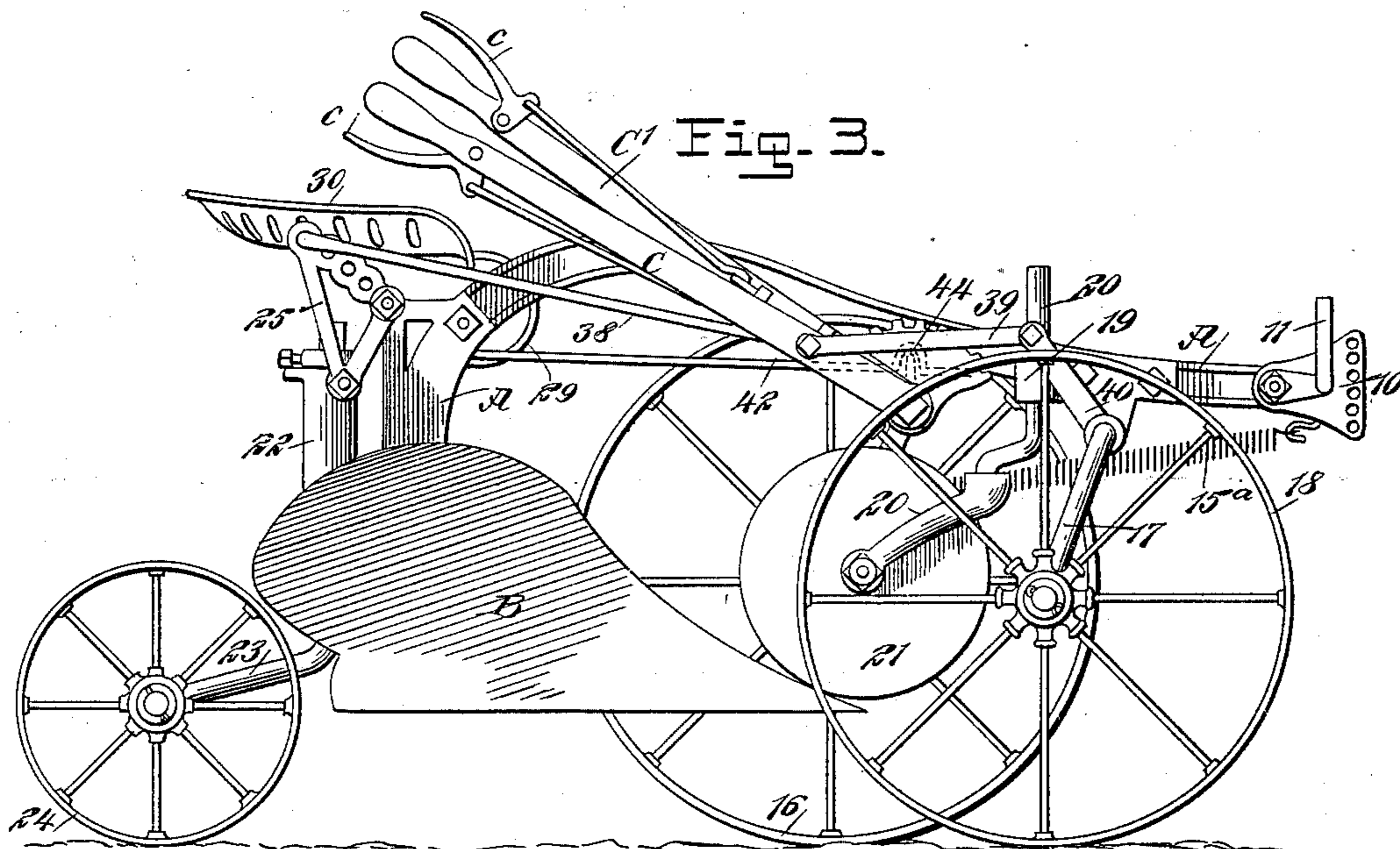
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WITNESSES:

James F. Duhamel.
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Edward B. Winters.

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UNITED STATES PATENT OFFICE.

EDWARD BLOUNT WINTERS, OF COFFEYVILLE, KANSAS, ASSIGNOR OF
ONE-HALF TO WILLIAM P. BROWN, OF SAME PLACE.

PLOW.

SPECIFICATION forming part of Letters Patent No. 673,230, dated April 30, 1901.

Application filed August 7, 1900. Serial No. 26,142. (No model.)

To all whom it may concern:

Be it known that I, EDWARD BLOUNT WINTERS, a citizen of the United States, and a resident of Coffeyville, in the county of Montgomery and State of Kansas, have invented a new and Improved Plow, of which the following is a full, clear, and exact description.

One purpose of this invention is to provide a sulky-plow or lister which is used without a frame and to so construct the plow that by means of two mediums only the beam and parts carried thereby may be carried high and held in raised position or the share may be so adjusted that the point will enter the ground to a greater or less extent.

A further purpose of the invention is to provide a rear support for the beam not adjustable and to which the beam is pivotally hung, said rear support not being affected by the adjusting mechanism and having means for sustaining the driver's seat, so that the weight of the driver has no influence upon the beam in its vertical adjustment.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improved plow, illustrating the share in the ground. Fig. 2 is a plan view of the plow. Fig. 3 is a side elevation of the improved plow, illustrating the share as held at an elevation from the ground; and Fig. 4 is a section through the adjusting-levers and bearings for the land-side axle, upon which the levers are mounted.

A represents the beam, and B a plowshare, which is attached to the beam in any approved manner. The beam is provided with a clevis 10 at its forward end, and at the furrow side of the beam, adjacent to the clevis, an angular arm 11 is secured, one member whereof is upright, and this upright member of the arm 11 is passed through a slot 12 in the tongue 13, and said tongue may be held fixed by means of a suitable latch 14, connected with the clevis and arranged to enter a keeper on the tongue, and when the tongue is so held the plow is guided thereby. The tongue, however, is limber when released

from the latch 14, and it is evident that the plow may be drawn either through the medium of the said clevis or the tongue 13.

Two axles 15 and 17 are employed, both of which are crank-axles. The axle 15 is the land-side axle and extends through the beam some distance beyond its furrow side, and said land-side axle 15 is provided with a suitable supporting-wheel 16, the furrow-axle 17 being provided with a corresponding supporting-wheel 18. A clip 19 is attached to the beam between the two axles, and this clip serves to hold the shank 20 of a colter 21, of any suitable description. The beam A is adapted to be raised and lowered and is supported at its forward portion by the aforesaid wheels 16 and 18; but the rear support for the beam, with which it is pivotally connected, is not adjustable and consists of a tubular standard 22, in which the upper portion of an angular shank 23 is mounted, the lower end of the shank carrying a small supporting-wheel 24, as shown in Figs. 1, 2, and 3.

The pivotal connection between the standard 22 and the beam A is accomplished through the medium of an elbow-lever 25, one point of which is pivoted to the upper portion of the tubular standard 22, another point to a projection 26 of the beam, and a third point facing in a forward direction when the share is in the ground, as shown in Fig. 1. A plate 27 is secured to the upper surface of the tubular standard 22, extending in direction of the land side of the beam and beyond the said land side, as shown best in Fig. 2, and the supporting-standard 29 for the seat 30 is attached to this plate, so that the weight of the driver does not come on the beam A at any time.

The inner end of the land-side axle 15 is journaled in a bearing 31, secured to the land-side of the beam A, the beam being secured to this bearing, and said bearing at its top is provided with a longitudinal rib or fin 32. (Best shown in Fig. 4.) A lever C is secured by a set-screw 33 or otherwise to the land-side axle 15, adjacent to the furrow side of the beam A, as best shown in Fig. 4, and a second lever C' is mounted to turn loosely on the inner end of the said shaft 15, as is also shown in Fig. 4. A crank-arm 34 is secured upon the hub of the loosely-mounted lever C', being secured to the hub by a set-screw 35 or

the like. The crank-arm 34 is between the two levers C and C', and at each side of the crank-arm racks are located, (designated, respectively, as 36 and 37,) and the shaft 15 passes loosely through one of these racks, while the hub of the lever C' is held to turn in the opposing rack. Both racks are stationarily attached to the beam by means of a bolt 34^a or the equivalent of the same.

The loosely-mounted lever C' is connected, through the medium of the crank-arm 34, with the bell-crank lever 25 by a connecting-rod 38, and this lever C' is likewise connected with the furrow-axle 17 by means of a link 39, as is best shown in Figs. 1 and 2, which link is connected with a crank-arm 40, secured to the said axle, so that when the lever C' is moved in one direction, together with the lever C, both axles 15 and 17 will be simultaneously raised or lowered to raise or lower the forward portion of the beam, while the connecting-rod 38 and bell-crank lever 25 will serve at the same time to correspondingly raise or lower the rear portion of the beam.

If it be desired to adjust the plow-point to cut to a greater or a less extent in the ground, the lever C' only need be manipulated or the lever C, which latter lever simply operates the land-side axle 15. The levers are assisted in moving the axles to an upper position by attaching a spring 15^a to the land-side axle and to the forward portion of the beam. The furrow-axle 17 is journaled in a suitable bearing 41, attached to the beam, as is shown in Fig. 2. When the axles are adjusted to a vertical position, so as to raise the plowshare, as shown in Fig. 3, the fin 32 on the bearing 31 is made to enter a depression 44 in a latch-rod 42, which latch-rod at its rear end is attached to an extension 43 from the plate of the tubular standard, thus serving to hold up the beam. It will be understood that each lever C and C' is provided with thumb-latches c, which engage with the racks 36 and 37 and serve to hold the plowshare in the desired lowered position and likewise assisting in holding the plowshare in its upper position.

The rod 42 is preferably disengaged from the fin 32 by means of a lever 45, carried by the axle 15, one end of the lever extending beneath the said rod.

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

1. In a plow, a rear support, a beam having a bell-crank connection with said rear support, crank-axles journaled at the forward portion of the beam, each axle carrying a supporting-wheel, and adjusting-levers, both levers being upon the same axle, one lever being fixed to the axle and the other lever being loosely mounted on the axle and having an operative connection with the opposing axle and likewise with the bell-crank lever.

2. In a plow, the combination, with a beam, a rear support, a wheel carried by the said

rear support, a bell-crank lever connected with the said support and the rear of the beam, crank-axles located at opposite sides of the beam, a land-side axle extending beyond the furrow side of the beam, a lever attached to the land-side axle at the furrow side of the beam, a second lever loosely mounted on the inner end of the land-side axle, a connection between the loosely-mounted lever and the axle at the furrow side of the beam, a crank connected with the loosely-mounted lever, and a connecting-rod attached to the said crank and to the bell-crank lever, for the purpose set forth.

3. In a plow, a rear support having means for attachment to a seat, a beam having a bell-crank connection with said rear support, crank-axles journaled at the forward portion of the beam, each axle carrying a supporting-wheel, and adjusting-levers, both levers being upon the same axle, one lever being fixed to the axle and the other lever being loosely mounted on the axle and having an operative connection with the opposing axle and likewise with the bell-crank lever, locking devices for the levers, and a locking device for the beam, substantially as described.

4. In a plow, the combination, with a rear support, a seat carried thereby and a wheel mounted on an extension from the said support, a beam and a bell-crank lever pivotally attached to an extension from the rear of the beam and to the said support, of a land-side crank-axle, bearings for the same attached to the beam, the land-side axle extending beyond the furrow side of the beam, a furrow crank-axle, a bearing for the same attached to the beam at a point in advance of the bearing for the land-side axle, the bearing for the land-side axle being provided with a fin, an adjusting-lever secured to the portion of the land-side axle which extends beyond the furrow side of the beam, being adapted to raise and lower the land-side axle, a second adjusting-lever loosely mounted on the land-side axle at the furrow side of the beam, the loosely-mounted lever being provided with an attached crank-arm and a connecting-rod pivoted to said crank-arm and the bell-crank lever, a crank secured to the furrow-axle and a link connection between said crank and the loosely-mounted lever, whereby both levers may be operated together to raise and lower the beam, or whereby the levers can be operated singly, a latch-rod attached to the rear support and having a section prepared to receive the fin on the bearing for the land-side axle, and a trip for said latch-rod, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD BLOUNT WINTERS.

Witnesses:

ELMER JOYCE,
J. S. JOHNSON.