

L. BRENNEIS.

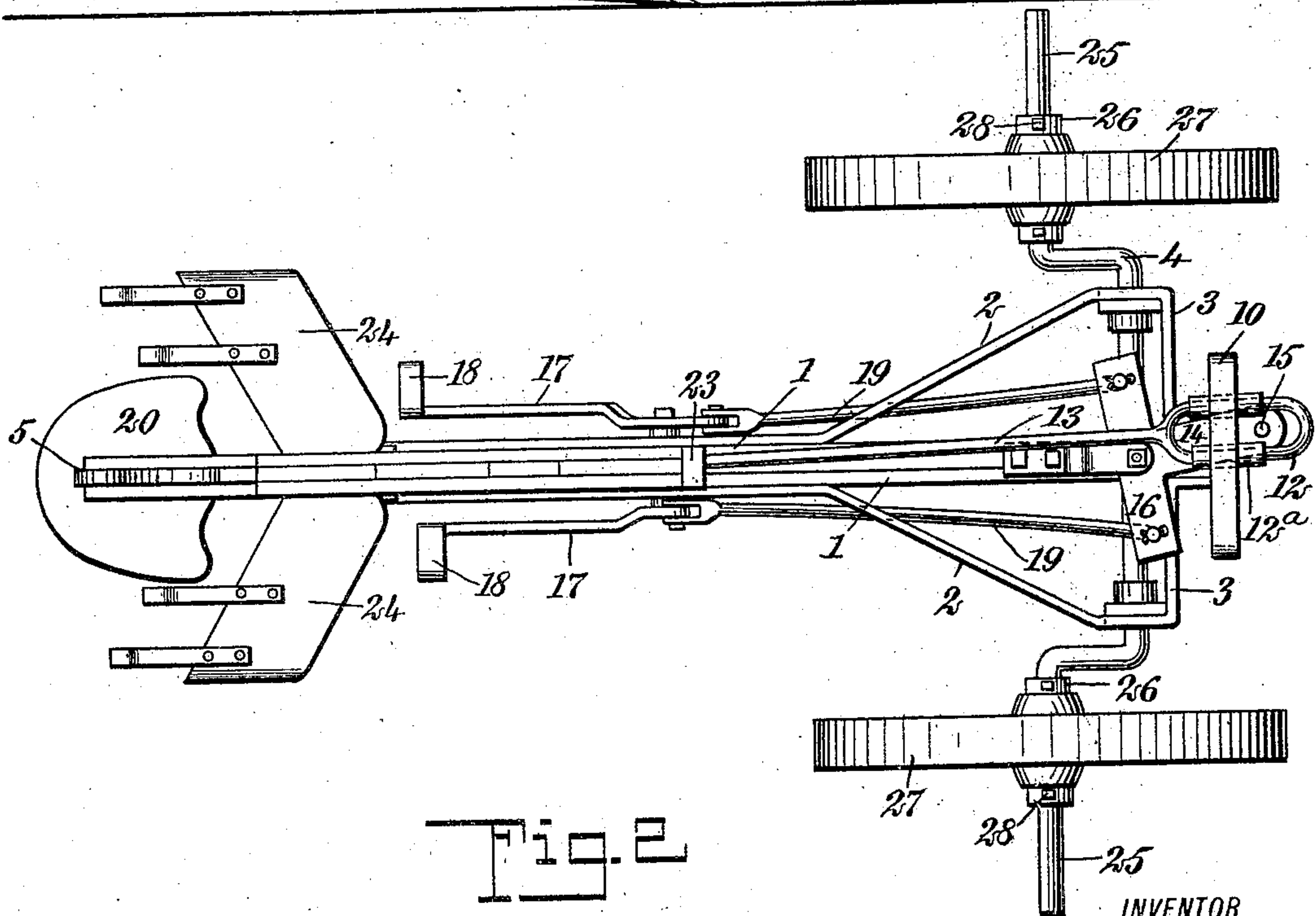
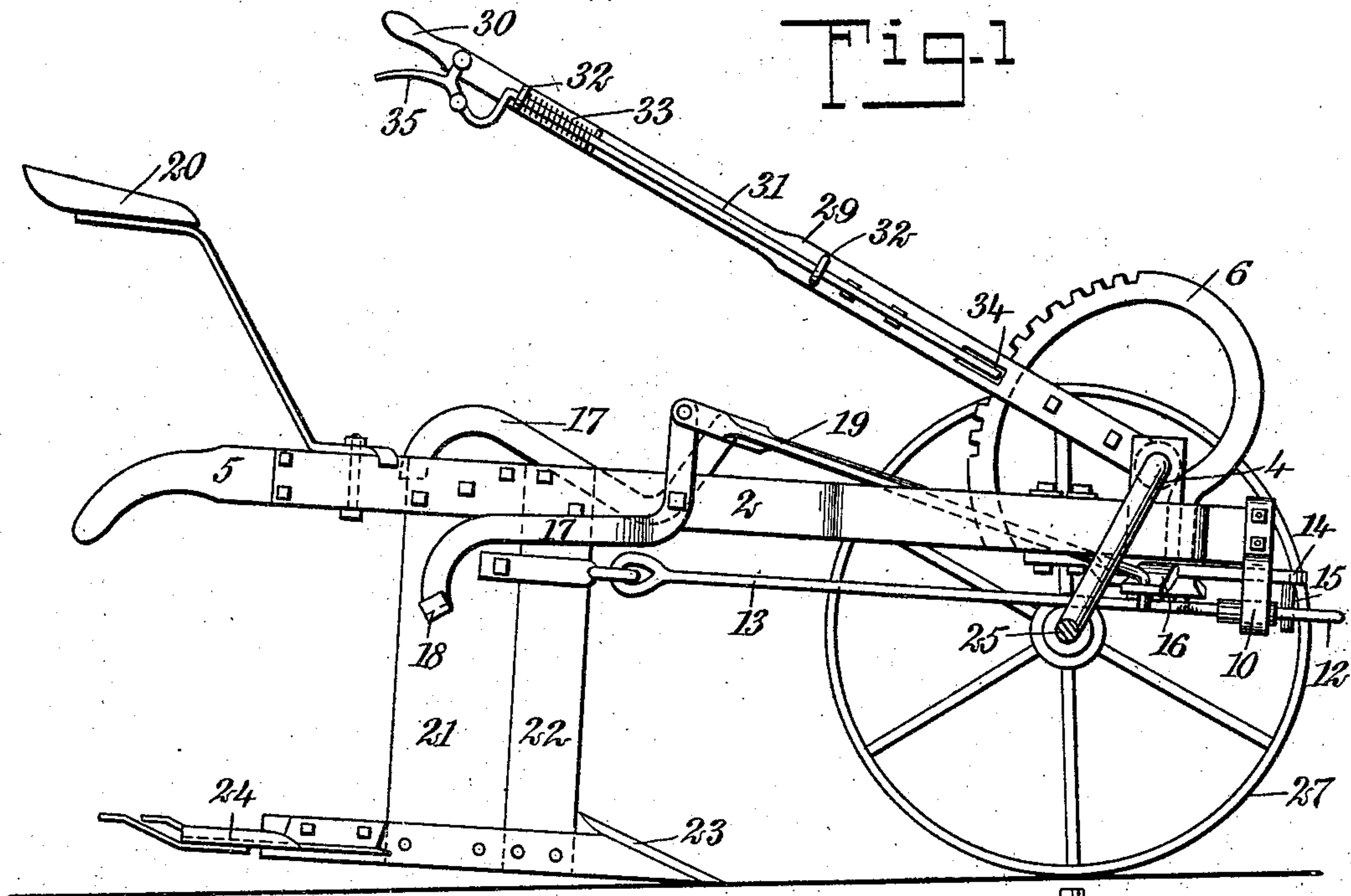
BEET PLOW.

APPLICATION FILED SEPT. 10, 1908.

Patented July 20, 1909.

2 SHEETS—SHEET 1.

928,736.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 3

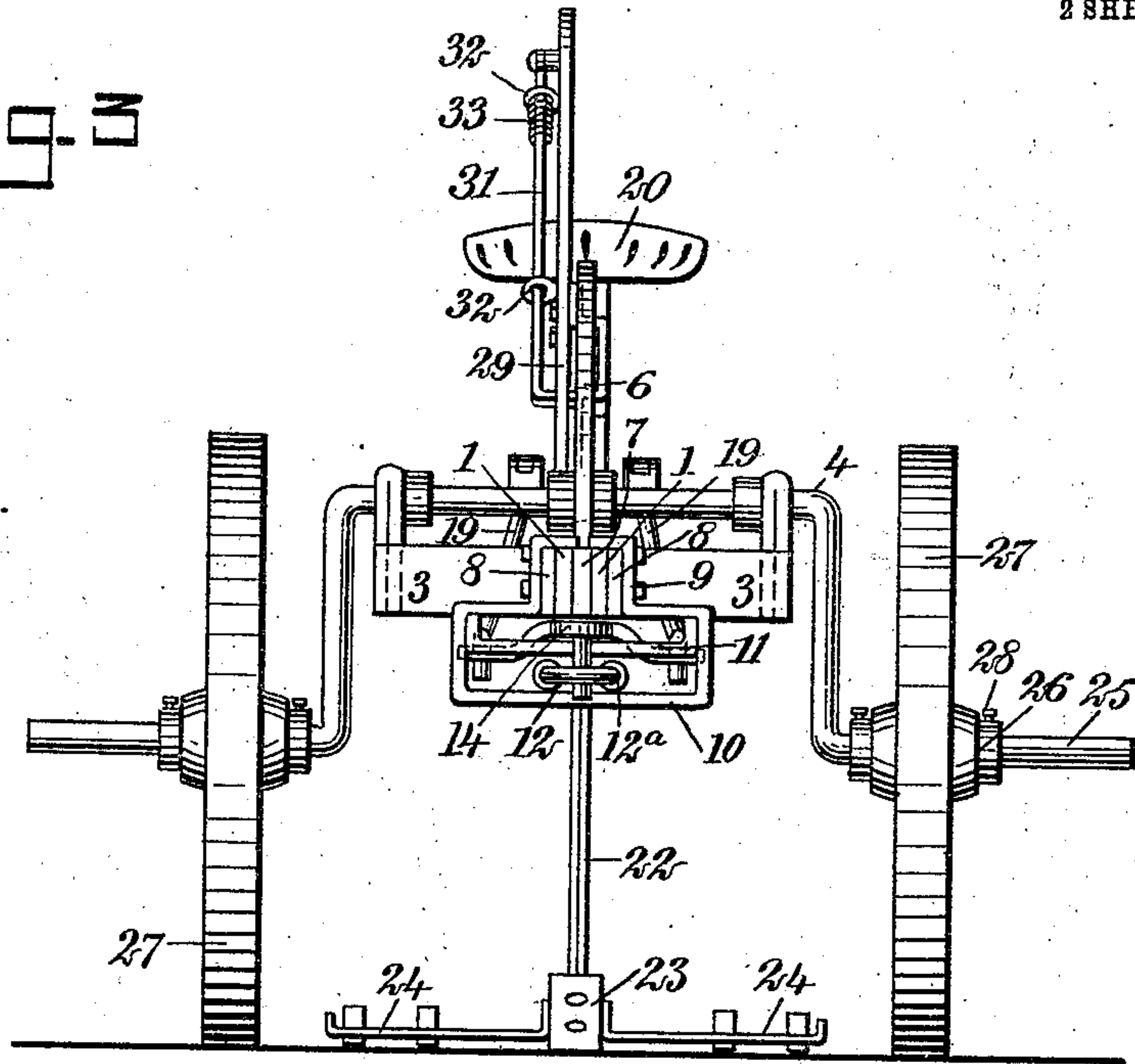


Fig. 4

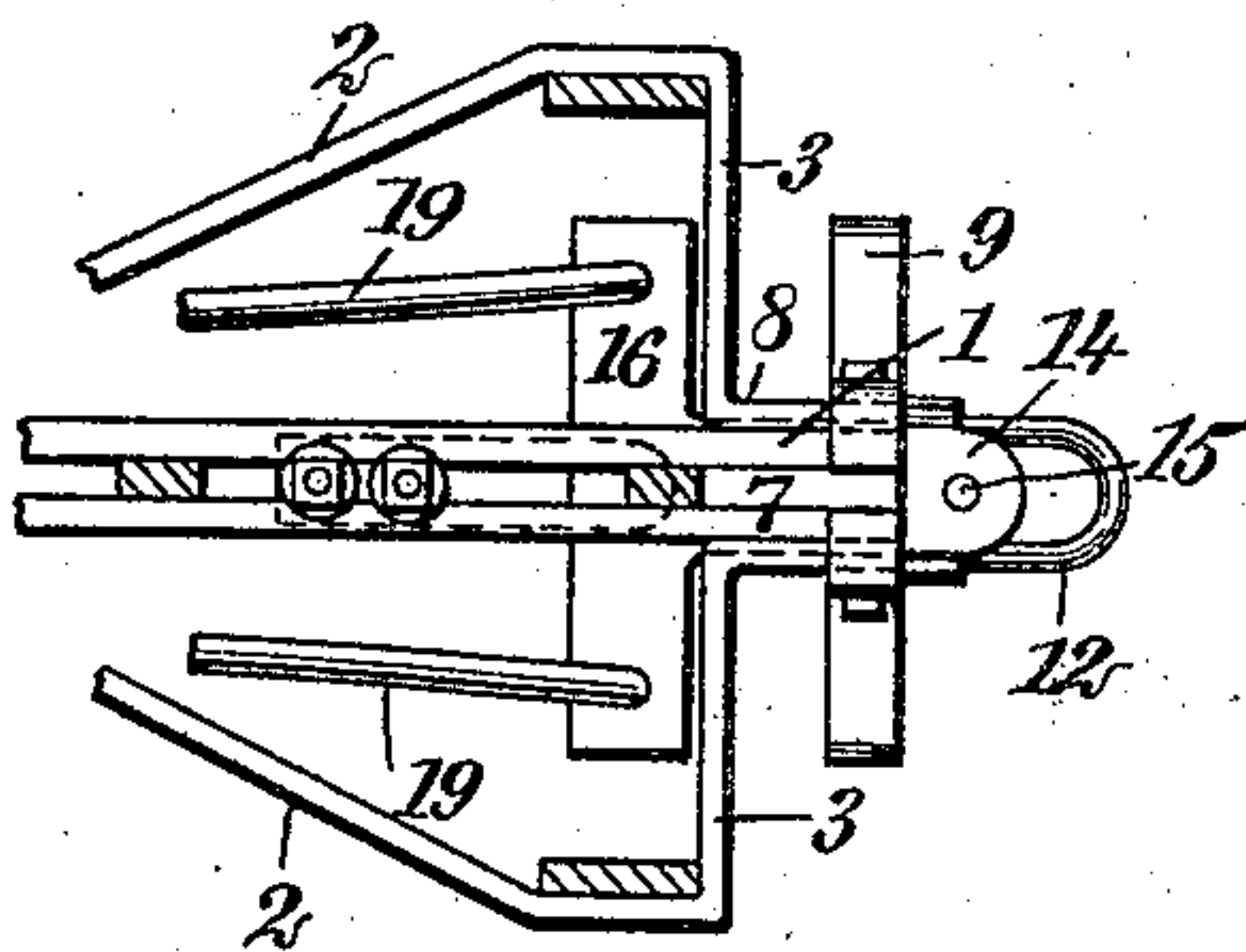
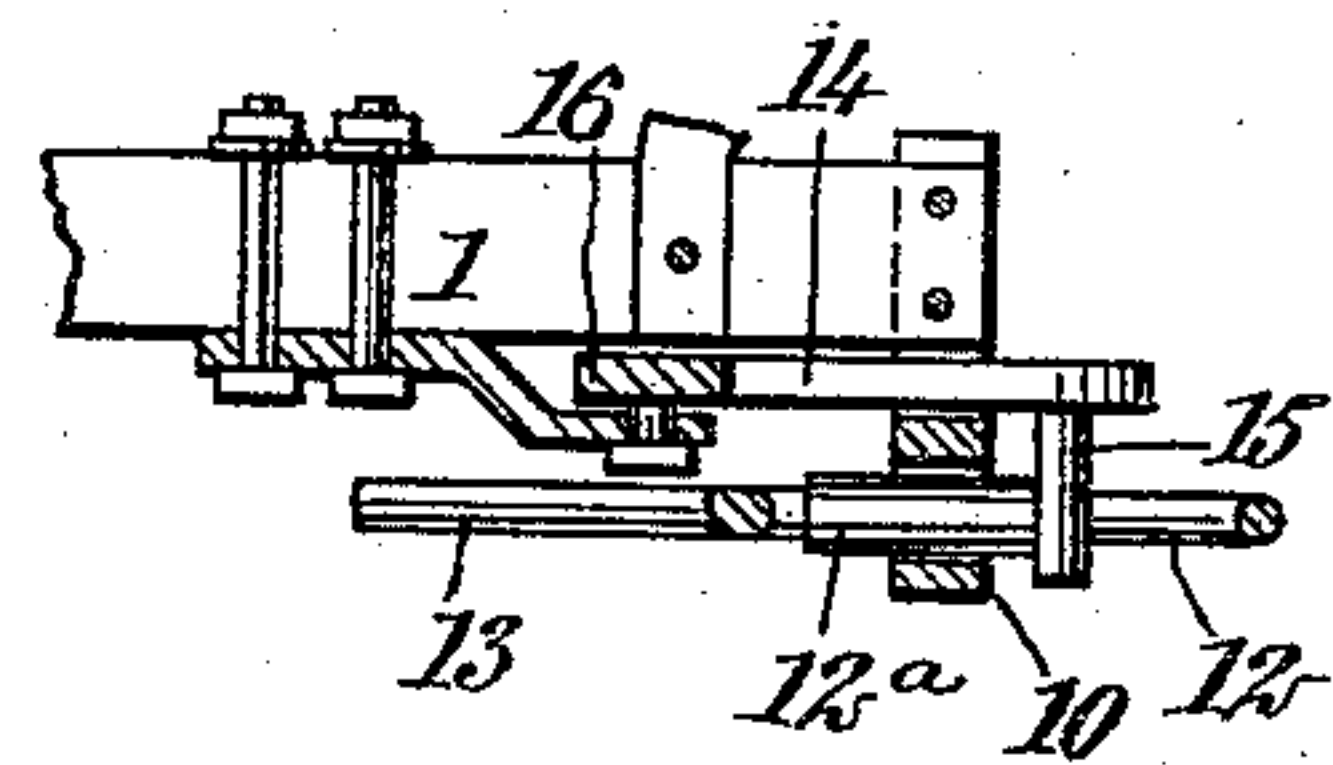


Fig. 5



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UNITED STATES PATENT OFFICE.

LOUIS BRENNEIS, OF OXNARD, CALIFORNIA.

BEEET-PLLOW.

No. 928,736.

Specification of Letters Patent.

Patented July 20, 1909.

Application filed September 10, 1908. Serial No. 452,404.

To all whom it may concern:

Be it known that I, LOUIS BRENNEIS, a citizen of the United States, and a resident of Oxnard, in the county of Ventura and State of California, have invented a new and Improved Beet-Plow, of which the following is a full, clear, and exact description.

My invention relates to beet plows and it has for its object to provide one with bell crank levers pivoted to the frame, the bell crank levers having treadles on one set of terminals and links connecting the other set of terminals with a yoke pivoted to the frame, the yoke having a pin which engages the draft bar to shift it.

Another object of my invention is to provide sleeves to which the wheels are journaled, the sleeves being mounted to slide on the axles and means which are provided to secure the sleeves in predetermined positions.

Still another object of the invention is to secure a crank to the axle and a lever to the crank, the lever having a key which is adapted to fit a curved rack.

A further object of the invention is to provide the improved frame shown in the drawings and hereinafter described.

Still other objects of the invention will appear in the following complete description.

In this specification I will describe the preferred form of my invention, but I do not limit myself thereto, as I consider myself entitled to all forms and embodiments of the invention which may be held to fall within the scope of the appended 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, in which—

Figure 1 is a side elevation of my invention; Fig. 2 is an inverted plan view thereof; Fig. 3 is a front elevation of the invention; Fig. 4 is a fragmentary view showing the yoke pivoted to the frame of the device and the means by which it is adapted to shift the draft bar; and Fig. 5 is a sectional side elevation of the parts shown in Fig. 4.

By referring to the drawings, it will be seen that beam members 1 are provided, extending longitudinally of the plow, and attached to the sides of these beam members 1 are bracing members 2, the bracing members 2 diverging near the front of the plow and forming loops 3 in which a crank portion 4 of the axle is journaled. At the rear of the

plow between the beam members 1, is secured a handle 5, and in the front of the plow, between the beam members 1, is secured a curved rack 6. At the front of the plow, the base 7 of the curved rack 6, the beam members 1 and terminals 8 of the loops 3 of the bracing members 2, are secured together by a clamp 9, bolts passing through the said clamp and through the several members held therebetween. The clamp 9 has a depending loop 10, which is divided by a partition 11, thus forming two guides, in the lower one of which a link 12 with a draft bar 13 is disposed, and in the other guide, above the partition 11, is disposed a finger 14, to which is secured a pin 15, the pin being disposed in the link 12. This finger 14 is secured to a yoke 16, pivoted beneath the beam members 1, and at the side of the bracing members 2 are pivoted bell crank levers 17, treadles 18 being secured to one set of arms of the bell crank levers, the other arms being connected with the yoke 16 by means of links 19. A seat 20 is secured at the rear of the plow, to the beam members 1 and the bracing members 2, this seat being disposed just above and in the rear of the treadles 18, so that the operator may place his feet on the treadles to rock the yoke 16 and thereby shift the draft bar 13, as may be desired, in order that the plow may move in the desired direction relatively to the rows of beets. A standard 21 is secured between the beam members 1, the standard being disposed beneath the beam members and in the front of the standard 21 is secured a cutter 22, a plow 23 being disposed in the front of the cutter and beet cutting knives and lifters 24 being disposed at either side of the standard 21, are secured thereto. The ends 25 of the axle have sleeves 26 disposed thereon and wheels 27 are journaled on the said sleeves. It will, therefore, be seen that the sleeves may be slid on the axle so that the wheels will rotate at predetermined distances from each other and from the beam members. Screws 28 pass through the sleeves 26, said screws being adapted to press against the axle to hold the sleeves in predetermined positions. A lever 29 is secured to the crank portion 4 of the axle, said lever extending rearwardly so that its handle 30 is in close proximity to the seat 20. A rod 31 is mounted on the lever 29, there being guides 32 which hold it in place, and a spring 33 being provided, which holds the rod 31

downwardly so that a key on its inner terminal 34 will engage the teeth in the curved rack 6. A lever 35 is pivoted to the handle 30, this lever 35 being pivoted to a curved terminal of the rod 31.

In the use of my invention, the operator seated on the seat 20, places his feet on the treadles 18, and as he drives the horses, he is able to control the direction of movement of the plow by means of the bell crank levers 17, which he operates by his feet on the treadles 18. When he wishes to have the plow moved slightly in one direction, he presses down one of the treadles, which rocks the yoke 16 by means of the links 19, the finger 14 on said yoke 16 moving, carrying with it the pin 15 which is disposed in the link 12 of the draft bar 13, the draft bar 13 being pivoted to a member secured to the standard 21. The pin 15 readily moves the draft bar so that the horses pull the beet plow from another angle, thereby changing the position of the beet plow in the rows which are being traversed. When the operator desires to lift or lower the plow 23 and the cutting knives and lifters 24, he can readily so do by freeing the key on the end of the rod 31 by means of the lever 35, and by moving the lever 29 along the curved rack 6 he can operate the crank 4 to which the axle is secured, the crank 4 of the axle being journaled in the bracing members 2 of the frame as has been stated, it being possible in this manner to lift or lower the front of the frame so that the plow and the beet cutting knives or lifters will enter the ground at a different angle. It is also possible to adjust the wheels 27 relatively to the frame, so that they will travel along a predetermined path between the rows of beets. Rollers 12^a are disposed on the sides of the link 12 so that it may move readily on the loop 10.

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

1. In a beet plow, a frame, a draft bar pivoted thereto, two horizontal guides disposed one over the other, the draft bar being disposed in one of the guides, rollers separating the draft bar from the guide, a yoke pivoted to the frame, the yoke having a finger, which is disposed in the other guide, a pin and slot connection between the finger and the draft bar, two levers spaced apart

and pivoted to the frame, treadles on one set of terminals of the levers, links connecting the levers to the yoke, one at either side of its pivot, and a seat disposed in the rear of and above the plane of the treadles.

2. In a beet plow, a frame, a draft bar pivoted thereto, a guide secured to the frame in which the draft bar is disposed, two levers spaced apart and pivoted to the frame, treadles on the levers respectively, links pivoted to the draft bar pivot, the said links being pivoted to the said yoke one at either side of its pivot, a finger secured to the yoke, means connecting the finger and draft bar so that the position of the latter may be controlled by the former, the side being at all times in the same position relatively to the draft bar, and a seat disposed in the rear of the treadles and above the plane in which they are normally disposed.

3. In a beet plow, a frame, a draft bar pivoted thereto and having an opening therein, a guide secured to the frame in which the draft bar is disposed, two bell crank levers spaced apart pivoted to the frame, a treadle on one arm of each of the bell crank levers respectively, links pivoted to the other arms, a yoke pivoted to the frame, the links being pivoted at either side to the said yoke, a pin secured to the yoke disposed in the opening in the draft bar, and a seat disposed behind and above the treadles.

4. In a beet plow, a frame, a draft bar pivoted thereto and having an opening therein, a guide secured to the frame in which the draft bar is disposed, two bell crank levers spaced apart pivoted to the frame, a treadle on one arm of each of the bell crank levers respectively, links pivoted to the other arms, a yoke pivoted to the frame, the links being pivoted at either side to the said yoke, a pin secured to the yoke disposed in the opening in the draft bar, a seat disposed behind and above the treadles, and rollers on the draft bar which are adapted for traveling in the guide.

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

LOUIS BRENNEIS.

Witnesses:

G. W. PARNELL,
A. J. McKENNY.