May 10, 1932. O. G. ROBERTS 1,858,114

PLOW

Filed Nov. 30, 1929 2 Sheets-Sheet 1

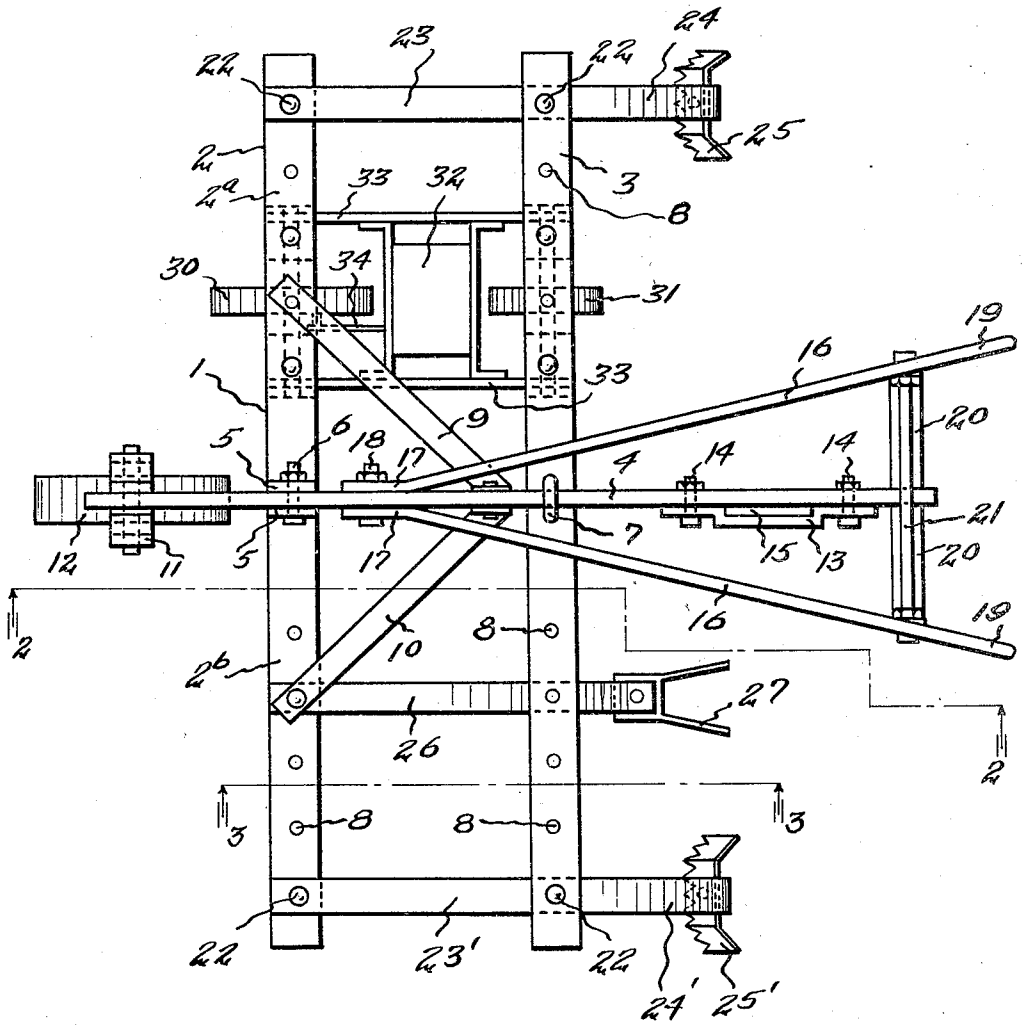


FIG 1

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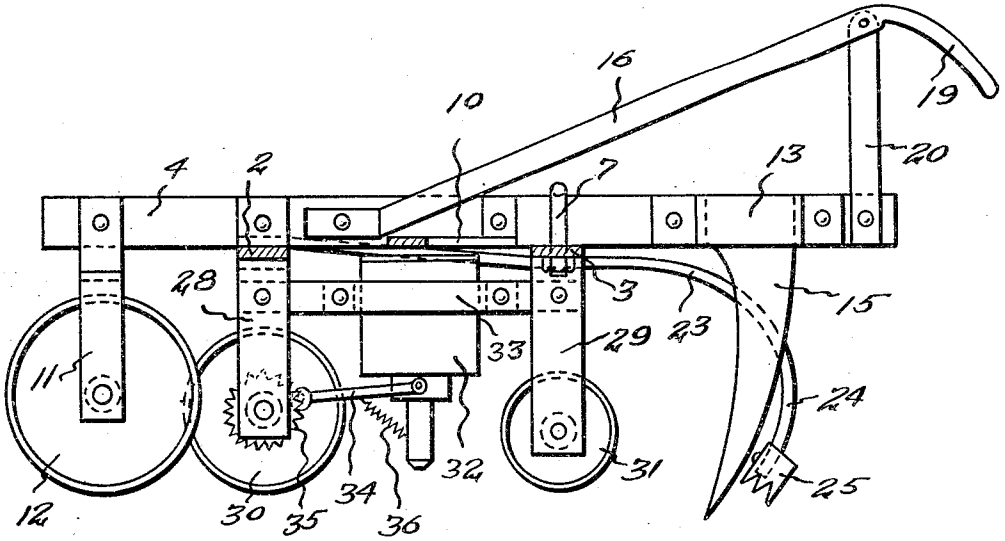


FIG 2

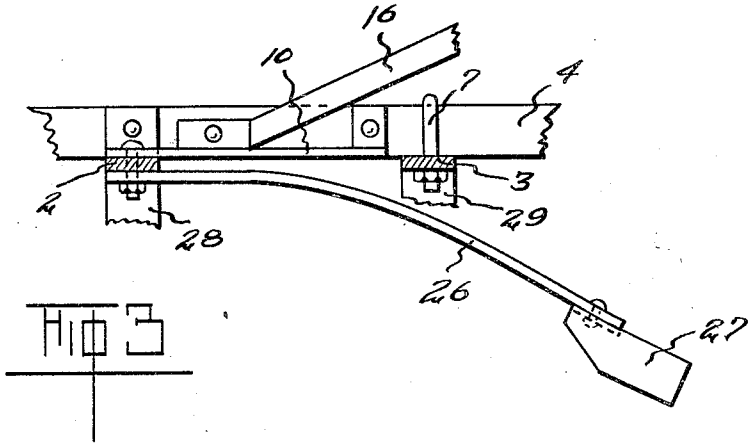


FIG 3

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Patented May 10, 1932 1,858,114

UNITED STATES PATENT OFFICE

OLIVER G. ROBERTS, OF SAN BENITO, TEXAS

PLOW

Application filed November 30, 1929. Serial No. 410,813.

This invention relates to a combined plow and planter, adapted to cultivate small truck crops planted in double rows.

In the drawings hereto annexed,

Figure 1 is a plan view of the combined plow and planter.

Figure 2 is a cross-sectional view thereof, taken on line 2—2, Figure 1, and

Figure 3 is a cross-sectional view taken on line 3—3, Figure 1, showing some of the parts broken away.

The herein disclosed plow comprises a frame 1 formed of two cross-members 2 and 3, and a central supporting member 4. The front cross-member 2 is formed of two sections 2^a and 2^b, equal in length, each of said sections having an inner angle portion 5 adapted to engage the sides of the supporting member 4 and rigidly attached thereto by means of the bolt 6. The rear cross member 3 is positioned at its center beneath the supporting member 4, substantially centrally of the ends thereof, and is rigidly attached thereto by means of the U-bolt 7. As shown in Figure 1, the front cross member 2 is positioned between the rear cross member 3 and the forward end of the supporting member 4. Each of said cross members 2 and 3 is provided with a plurality of openings 8 equally spaced from the opposite ends thereof, as clearly shown in Figure 1. To reinforce the front cross member 2, diagonal braces 9 and 10 are provided and are rigidly connected at their ends respectively to said cross member and to the supporting member 4 at a point adjacent the U-bolt 7.

Mounted on the front end portion of the supporting member 4 is a bifurcated bracket 11 which has rotatably mounted between the arms thereof a wheel 12. Attached to the rear of the supporting member 4 by means of the clamp 13 and bolts 14 is a main plow 15, positioned substantially at right angles to said supporting member, see Figure 2. To aid the maneuvering of the combined plow and planter, handle bars 16 are provided, the forward ends 17 of which are securely attached by means of the bolt 18 to the supporting member 4 at a point between the cross members 2 and 3, said handle bars 16 diverging from said point and extending upwardly from said supporting member and terminating in handles 19. To maintain said handle bars 16 in position and to increase the rigidity thereof, braces 20 and cross bar 21 are provided adjacent the handles 19 thereof, said braces connecting said handle bars 16 to the end of the supporting member 4.

Attached to the outermost ends of the cross members 2 and 3 by means of the bolts 22 placed in the outermost of the spaced holes 8, are spring foot pieces 23 and 23′, which terminate at the rear thereof in downwardly curved portions 24 and 24′. Secured to the bottom ends thereof are auxiliary plows 25 and 25′. As is apparent said spring foot pieces are adjustable as to position, with respect to said cross members.

Positions between the spring foot piece 23′ and the supporting member 4 is a curved spring bar 26 which is attached only at its forward end to the front cross member 2 as shown in Figures 1 and 3, and which has fastened to the other end thereof a fender 27. If desired, a similar spring bar may be positioned on the other side of said cross member 2, i. e. on the section 2^a.

Attached to the under surface of each of the cross members 2 and 3 between the supporting member 4 and the spring foot piece 23, are bifurcated brackets 28 and 29, which have rotatably mounted, respectively between the arms thereof, wheels 30 and 31. Between the cross members 2 and 3 and the wheels 30 and 31, is positioned a conventional planter mechanism 32 which is rigidly secured to the brackets 28 and 29 by means of the planter supports 33. The planter mechanism 32 is operated by means of a connecting arm 34 and cam 35 mounted on the wheel 30, as shown; a spring 36 acting to maintain said connecting arm 34 in operative engagement with said cam 35, all of which is of conventional design.

The main plow 15 is adapted to run in the middle between two rows, the auxiliary plows 25 and 25′ plowing between rows spaced from the above mentioned rows. The fender 27 functions to prevent the plants or vegetables being covered up with dirt. The plant-

er 32 is adapted to function when in use in the manner well known in the art.

Both the plow and the planter are used at the same time, when it is desired to plant an additional row of vegetables along side of a row of vegetables already growing, to thus provide a row of vegetables that will mature later, and assure a continued supply of fresh vegetables. When used in this manner, it is a simple proposition to plant the new row of vegetables exactly parallel to and evenly spaced from the row already growing.

The machine herein disclosed can likewise be used either as a planter, or as a cultivator, and when so used, is preferably used to plant or to cultivate a double row at the same time. When used as a double planter to plant two parallel rows at the same time, the spring bar 26 and fender 27 are removed, and another planter mechanism 32 is attached by means of another pair of bifurcated brackets, and then the device is used as a double plow and planter. Then later, when the vegetables start to grow, both planter mechanisms may be removed and fenders are substituted therefor, so that this device may then be used as a double row plow or cultivator.

While a preferred embodiment of the invention has been shown, the same is susceptible of changes and modifications within the scope of the appended claims.

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

1. In a plow, a frame structure comprising a front cross member, a rear cross member, a supporting member at right angles to and centrally of said cross members, said supporting member having its center located between said cross members, a wheel rotatively mounted on the front end of said supporting member, a main rigid plow mounted on the rear end of said supporting member, handle bars secured to said supporting member, spring foot pieces adjustably secured to said cross members on opposite sides of said supporting member and at equal distances from said supporting member, auxiliary plows on said spring foot pieces, a spring bar attached to said cross member between one of said auxiliary plows and said supporting member, and a fender carried by the free end of said spring bar.

2. A plow comprising a frame structure, said frame structure comprising a front cross member, a rear cross member, a supporting member secured at right angles to and centrally of said cross members, said supporting member having its center located between said cross members, diagonal braces connected to said front cross member and to said supporting member to reinforce said front cross member, a wheel rotatively mounted on the front end of said supporting member, handle bars secured to said supporting member at approximately the center thereof, said handle bars extending beyond the rear end of said supporting member, vertical braces attached to said handle bars and to said supporting member adjacent its rear end to reinforce said handle bars, a cross bar connecting the free ends of said handle bars, a main rigid plow mounted on said supporting member adjacent its rear end and between said vertical braces and said handle bar connections on said supporting member, spring foot pieces adjustably secured to said cross members at equal distances from said supporting member on opposite sides thereof, auxiliary plows on said spring foot pieces, a spring bar attached to said front cross member, and a fender carried by the free end of said spring bar.

3. In a plow, a frame structure comprising a front cross member, a rear cross member, a supporting member at right angles to and centrally of said cross members, said supporting member having its center located between said cross members, a wheel rotatively mounted on the front end of said supporting member, handle bars secured to said supporting member adjacent the center thereof, vertical braces supporting the rear ends of said handle bars to the rear end of said supporting member, a rigid main plow mounted on said supporting member adjacent its rear end, spring foot pieces adjustably secured to said cross members at equal distances from said supporting member and on opposite sides thereof, auxiliary plows on said spring foot pieces, said front and rear cross members having a plurality of spaced holes therethrough, and a spring bar attached to said cross members on each side of said supporting member.

In testimony whereof I affix my signature.

OLIVER G. ROBERTS.