

No. 693,683.

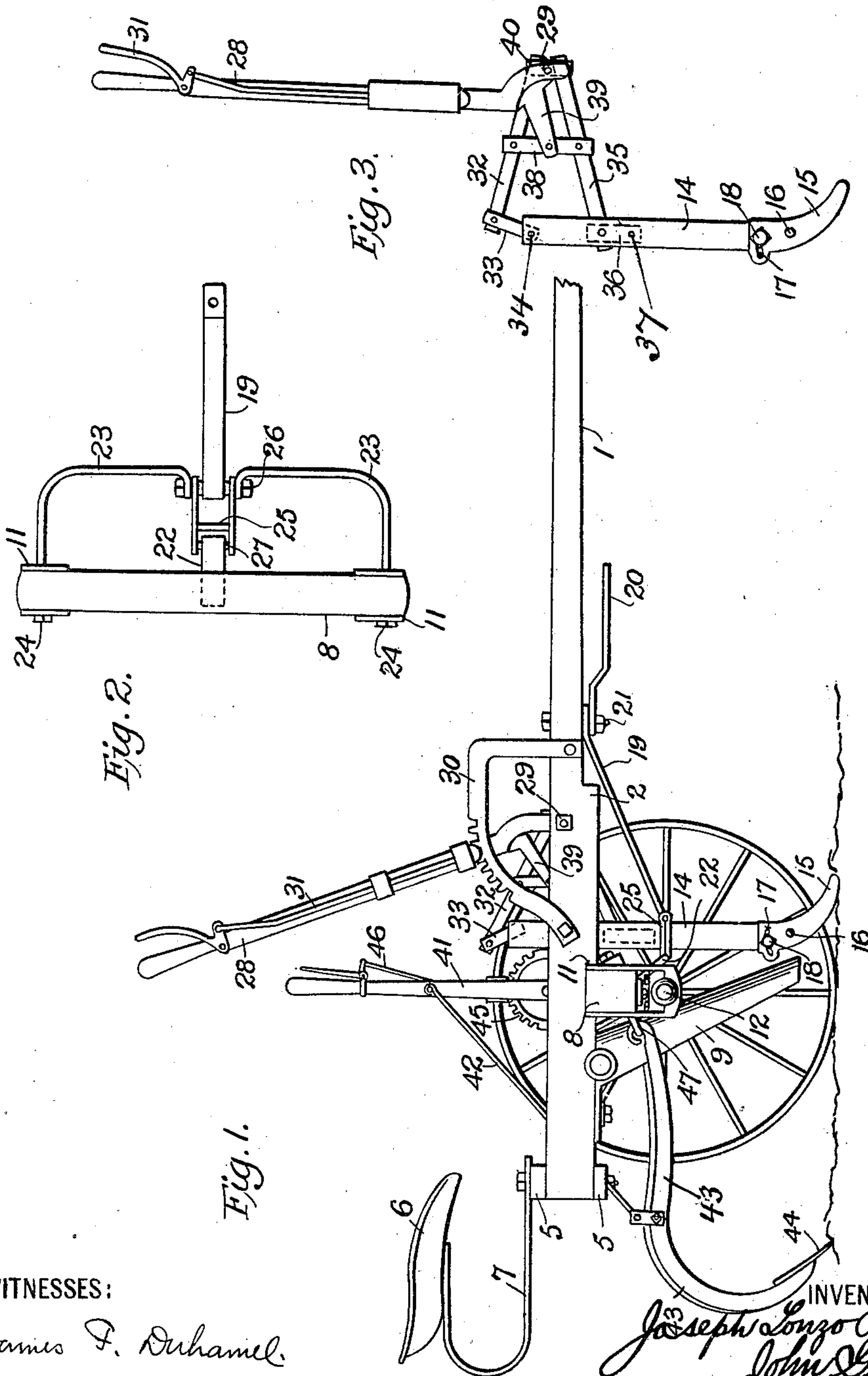
Patented Feb. 18, 1902.

J. L. BOYD & J. GILLIS.
CORN OR COTTON PLANTER.

(Application filed June 3, 1901.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

James F. Duhamel.
Rita Pratt

INVENTORS

Joseph Longo Boyd
John Gillis
BY Fred W. Wisker
ATTORNEY

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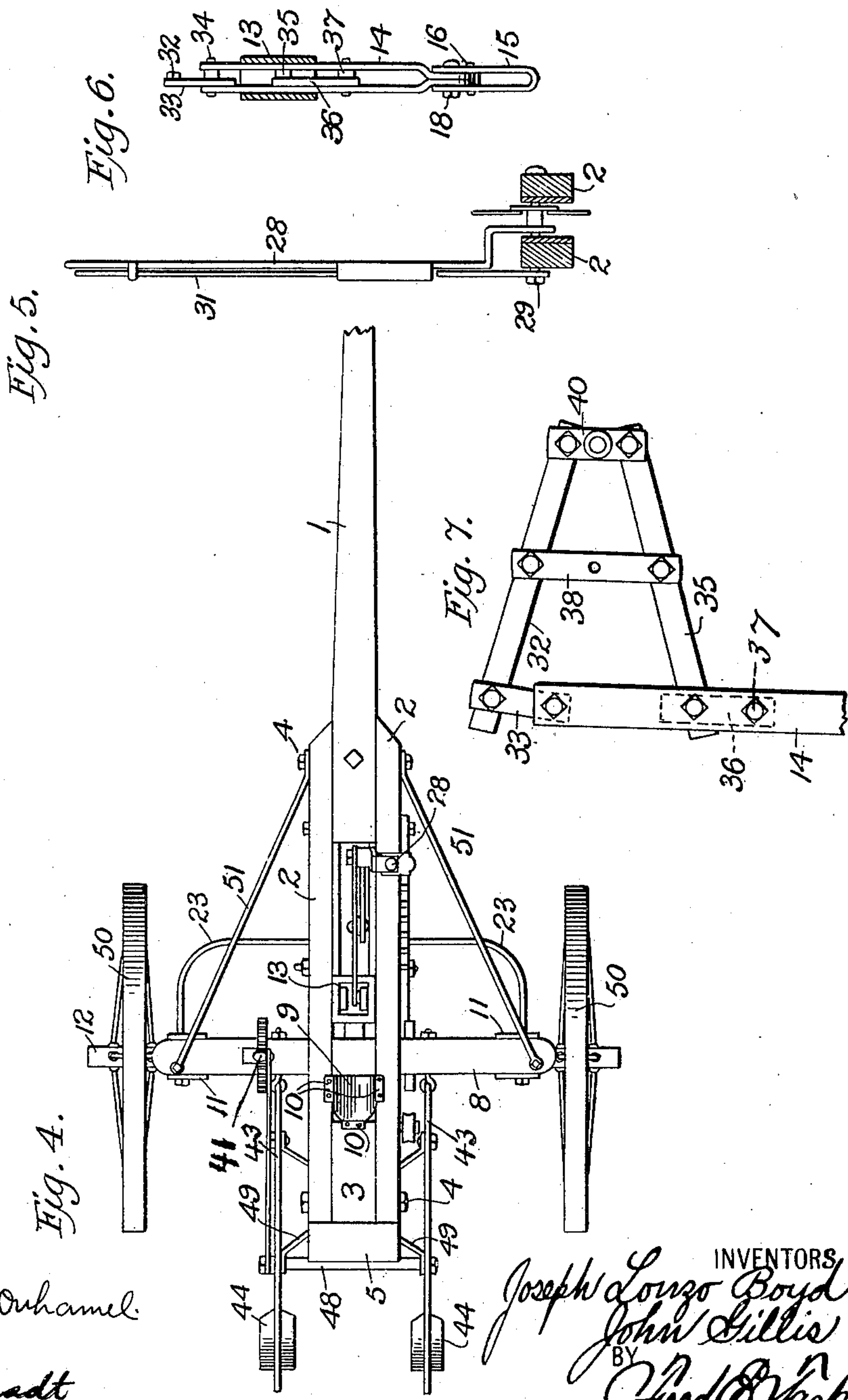
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Rita Bradt

INVENTORS

Joseph Lanzo Boyd
John Gillis
BY
Fred Wacker,
ATTORNEY

UNITED STATES PATENT OFFICE.

JOSEPH LONZO BOYD AND JOHN GILLIS, OF WILLIAMSON COUNTY, TEXAS,
ASSIGNORS OF ONE-THIRD TO W. M. LAND, OF WILLIAMSON COUNTY,
TEXAS.

CORN OR COTTON PLANTER.

SPECIFICATION forming part of Letters Patent No. 693,683, dated February 18, 1902.

Application filed June 3, 1901. Serial No. 62,817. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH LONZO BOYD and JOHN GILLIS, citizens of the United States of America, and residents of Williamson county, State of Texas, have invented certain new and useful Improvements in Corn and Cotton Planters, of which the following is a specification.

Our present improvements have reference to cotton and corn planters, and more specifically to that subdivision of the general class wherein the user of the machine rides upon a suitable seat mounted on the frame.

The object of the invention is to simplify and perfect the construction of planting-machines for use with corn, cotton, and similar substances, to economize in expense of construction by compacting the mechanism as much as possible, to promote and insure adjustability in the arrangement of the shovels and diggers, and to provide a combination that will operate easily and surely at all times, so that the best results and service may be attained.

The invention consists, essentially, in numerous details in the construction, combination, and arrangement of the various mechanical parts, substantially as will be hereinafter described and then more particularly pointed out in the claims.

In the accompanying drawings, illustrating our invention, Figure 1 is a side elevation of our improved cotton and corn planter. Fig. 2 is a detail plan view of the axle-supporting beam and certain connected parts. Fig. 3 is a side elevation showing in detail the leverage device for adjusting the position of the forward opening-plow. Fig. 4 is a plan view of the entire machine. Fig. 5 is a sectional edge elevation of the forward hand-lever and connections. Fig. 6 is a detail edge view of the front opening-plow and the footpiece for supporting it. Fig. 7 is an enlarged detail view of a portion of the leverage devices for adjusting the footpiece.

Like numerals of reference designate like parts throughout all the different figures of the drawings.

The main frame of our improved cotton and corn planter comprises, essentially, the parallel longitudinal timbers 2 2, that are clamped

together by various transverse bolts 4, a block 3 being interposed and clamped between timbers 2, at the rear end thereof, while the rearward end of the tongue 1, which tongue has the function of drawing the planter, is interposed and clamped between the forward ends of timbers 2. The opening between the timbers 2 and the end of tongue 1 and the block 3 serves for the reception therein of the mechanical parts of the machine, as will be presently described. The frame thus constructed is further strengthened by means of the cross-pieces 5 5 at the rear end, one being on top and one below the timbers 2. The upper cross-piece 5 has fastened thereto the curved spring 7, which carries the driver's seat 6.

A seed-chute 9 is supported in the main frame in an inclined position, with its lower end or mouth not far from the ground and at a point just in the rear of the forward opening-plow, said chute being sustained in the frame between the timbers 2 by having flanges 10, that are bolted upon the upper faces of timbers 2 and block 3, as indicated in Fig. 4.

8 designates a transverse beam secured crosswise of the timbers 2 2 and having the function of supporting the wheel-carrying axle. This beam 8 is embraced near each end by a strap or collar 11, in the lower ends of which the axle 12 is carried in suitably-constructed bearings, said axle having thereon at the ends drive-wheels 50, upon which the whole machine may be said to be carried.

In front of the cross-beam 8 and in the opening between the timbers 2 2 is a rectangular open-ended box 13, in which the standard 14 is supported in a manner to be presently more fully explained. Below the timbers 2 is a rectangularly-shaped frame 25, (indicated in Fig. 1 and shown in greater detail in Fig. 2,) which is supported at the front end by means of a strap 19, the forward end of which is bolted by means of a bolt 21 to the tongue 1, a draw-rod 20 being secured at its rear end by means of the same bolt 21. The strap 19 is secured to the rectangular frame 25 by means of the cross-bolt 26. The rectangular frame 25 is also supported by the rearwardly-extending strap 22, which is connected to the bolt 27 in frame 25 and also is

bolted beneath the cross-beam 8. Furthermore, the curved rods 23 23, one on each side of the center of the machine, pass from the bolt 26 in opposite directions and then are
 5 passed through the straps 11 and beam 8 and securely fixed in place by means of the nuts 24, screwed on their ends.

The standard 14, which has been said to be the part that carries the front opening-
 10 plow, is supported in a generally vertical position in the above-mentioned rectangular box 13 and likewise in the rectangular frame 25, as indicated in Fig. 1. This standard, as shown in Fig. 6, consists, essentially, of a
 15 pair of parallel strips. Said standard 14 is designed to carry the opening-plow upon the curved support 15, which embraces and is connected to the lower end of standard 14. Said support 15 is pivoted by means of pivot
 20 16 to the standard 14, and it is provided near its upper extremity with a curved slot 17, in which works the clamping-bolt 18, the parts being so arranged that the support 15 may have the angle of its position changed rela-
 25 tively to the standard 14 and may be changed in the position so as to make the angle of the opening-plow to the surface of the ground regulative at the pleasure of the operator.

28 designates the front operating-lever,
 30 which is pivoted by means of bolt 29 to the frame-timbers 2 2. It is provided with a common form of catch 31, that engages the teeth of the ratchet 30, likewise bolted to the timbers 2. This lever 28 is designed to elevate
 35 or depress the standard 14, carrying the front opening-plow. We will now proceed to describe the connections between the lever 28 and the standard 14.

32 designates a metallic strip which is at-
 40 tached to the short strip 33, which is supported loosely upon a pivot-bolt 34, carried horizontally in the upper end of the standard 14, said attachment allowing an oscillation of the parts to a limited extent when the lever
 45 28 is operated. Similarly, in order to provide for the same kind of oscillation, the metallic strip 35 is riveted to the upper extremity of an inner strip 36 within the stand-
 50 ard 14, the lower extremity of which strip 36 is attached by means of a pivot-bolt 37 to the standard 14 in like manner as the short strip 33 is connected. The lever 28 is provided near its lower end with a rear extension or projection 39, which is pivoted cen-
 55 trally to the cross-strip 38, that is pivoted at its ends to the aforesaid strips 32 and 35. These strips 32 and 35 are connected at the right-hand end, as shown in Figs. 3 and 7, by means of a connection 40, which is loosely piv-
 60 oted to them both by means of loose rivets, and through the center of this connection 40 passes the bolt 29, on which the lower end of lever 28 is pivotally supported, it being ob-
 65 served that the said strip 40 is loosely mounted on the transverse bolt 29 in order to allow of the necessary movement of oscillation. It may be here remarked that the purpose of

employing the rectangular box 13, which con-
 tains the standard 14, is to serve as a guide
 for said standard in order to render the means
 of elevation and depression thereof true and
 steady. It will be evident that the specified
 arrangement of levers whereby the standard
 14 is connected with the lower end of the
 lever-handle 28 will permit the necessary
 75 adjustability and oscillation of the standard to take place when it is essential to vary the angle at which the front plow is to cut its furrow.

A second lever 41 is pivoted to the timbers 80
 2, it being provided with a catch 46, that en-
 gages the teeth of the dentated sector 45, se-
 cured to timbers 2. This lever connects by
 a link 42 with the frame 43 of the coverers 44.
 These frames 43 are connected by means of
 85 hooks and eyes 47 with the rear of cross-beam 8 and firmly connected together by the cross-
 bar 48 and the diagonal rods 49. The pur-
 pose of the second lever 41 is therefore to
 enable the coverers to be lifted or depressed
 90 when made necessary by any contingency in the operation of the machine.

Although we have described and illustrated
 certain specific elements and connections, yet
 we reserve the liberty of varying from the
 95 precise embodiment of the invention herein disclosed, provided we do not go outside of the legitimate scope of the claims hereto ap-
 100 pended. We therefore expect to rearrange, vary, and change the precise form of the parts, their relation, and combination with each other in such manner as may be found
 requisite.

The operation of the machine will be easily
 apparent from the foregoing description of
 105 the construction and arrangement, for it will be seen that the chute 9 will receive its supply of seed through the open upper end thereof, and this seed will be discharged through the
 110 bottom or mouth end of the chute into the furrow or trench cut by the opening-plow 15, while the coverers 44, which follow along be-
 hind the seed-chute, will perform their proper function in covering up the seed that has
 115 been deposited. The various adjustable features whereby the machine may be adapted to serve on various kinds of ground and in uneven and irregular locations will enable the operator to prosecute the work of his
 120 machine without interruption and with great certainty and success.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a cotton and corn planter, the combi-
 125 nation with the main frame, consisting essentially of horizontal timbers to which the tongue is connected, an inclined seed-chute securely fastened to the timbers, rear coverers mov-
 130 ably mounted, a leverage mechanism for adjusting said coverers, a front opening-plow, a footpiece carrying it, a lever for adjusting the position of the footpiece, and connections between said lever and the footpiece consist-

ing essentially of an upper rod fastened to a short piece which is pivoted to the upper end of the footpiece, a lower rod likewise fastened to a short piece pivoted to the footpiece, two
5 connections between said rods, an end one and a middle one, a projection on the lower end of the lever that is pivoted to the middle connection, and a bolt passing through the end connection and likewise passing through
10 the lower end of the lever, substantially as described.

2. The combination with the main frame, the seed-chute, the coverers, the main supporting-wheels and the axle therefor, of a forward plow, a footpiece for carrying it consisting essentially of parallel bars, a rectangular box in the main frame through which the footpiece passes, a rectangular frame below the main frame serving as a guide and
15 sustaining device for the footpiece, stay-rods for said lower rectangular frame, an operating-lever pivoted to the main frame for adjusting vertically the position of the footpiece, and a plurality of connecting-pieces
20 inter-pivoted to each other for connecting the lower end of said operating-lever with the footpiece, substantially as described.

3. The combination with the main frame, the seed-chute, the adjustable coverers, and

the wheels and their axle, of the footpiece, 30
the adjustable support on the lower end thereof for the opening-plow, the guide in the main frame for the footpiece, the guide below the main frame for the footpiece, the operating-
35 lever for adjusting the position of the footpiece vertically, and means connecting said operating-lever to the footpiece consisting essentially of an upper strip 32, a short piece 33 to which the piece 32 is attached, said piece 33 being pivoted to the upper end of the foot-
40 piece, a lower piece 35, a piece 36 to which the piece 35 is attached, said piece 36 being pivoted to the footpiece, a middle connection 38 attached to the pieces 32 and 35, an end
45 piece 40 attached to the pieces 32 and 35 by means of loose pivots, a rigid connection on the lower end of the operating-lever which is pivoted to the middle piece 38, and a pivot
50 for the end of the operating-lever which pivot passes through the connection 40, substantially as described.

Signed at Taylor, Texas, this 25th day of May, 1901.

JOSEPH LONZO BOYD.
JOHN GILLIS.

Witnesses:

P. O. WILLSON,
M. G. FALLON.