

M. B. MILLER.
SEED PLANTER AND CULTIVATOR.

(Application filed Mar. 12, 1900.)

(No Model.)

2 Sheets—Sheet 1.

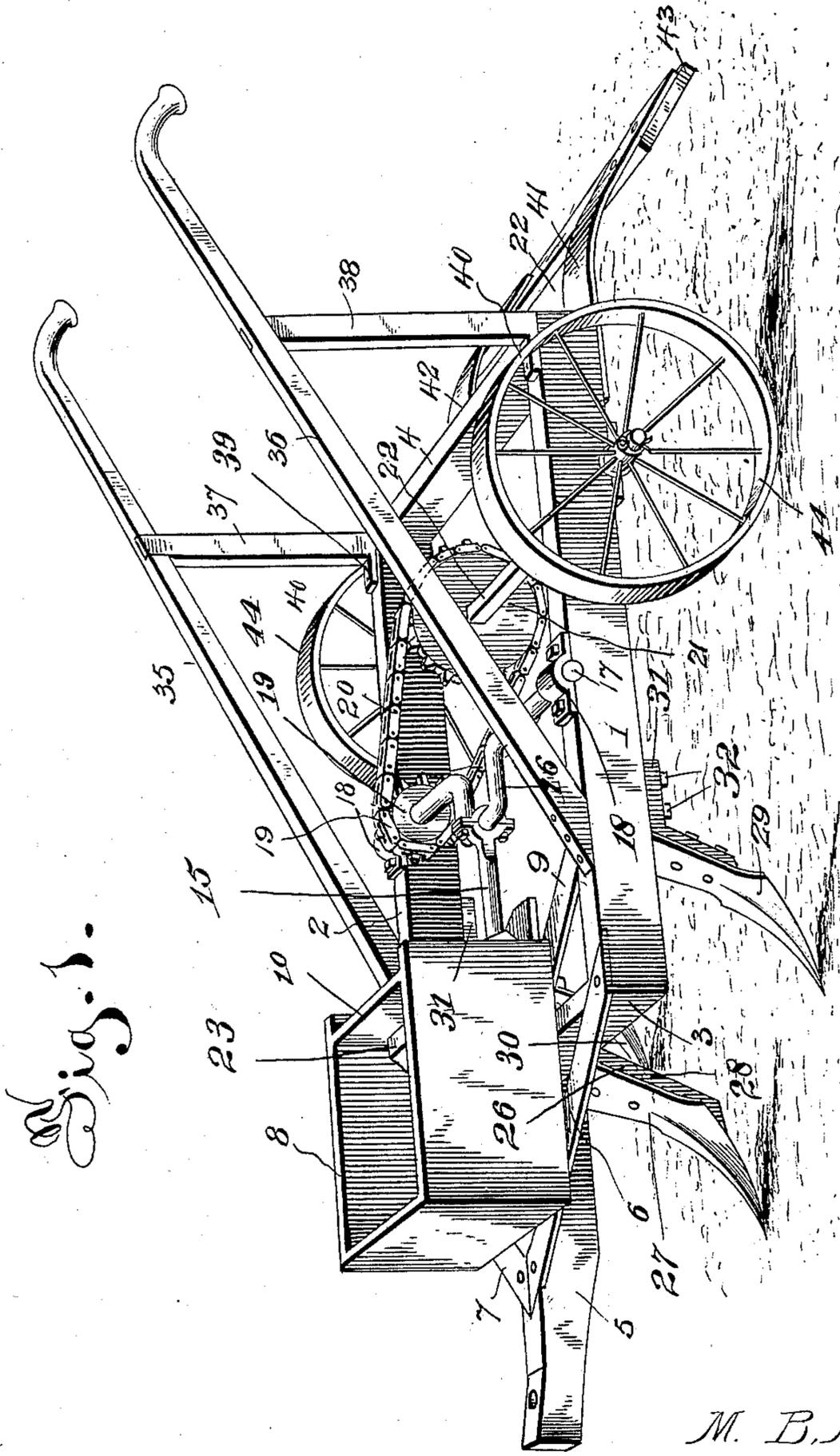


Fig. 1.

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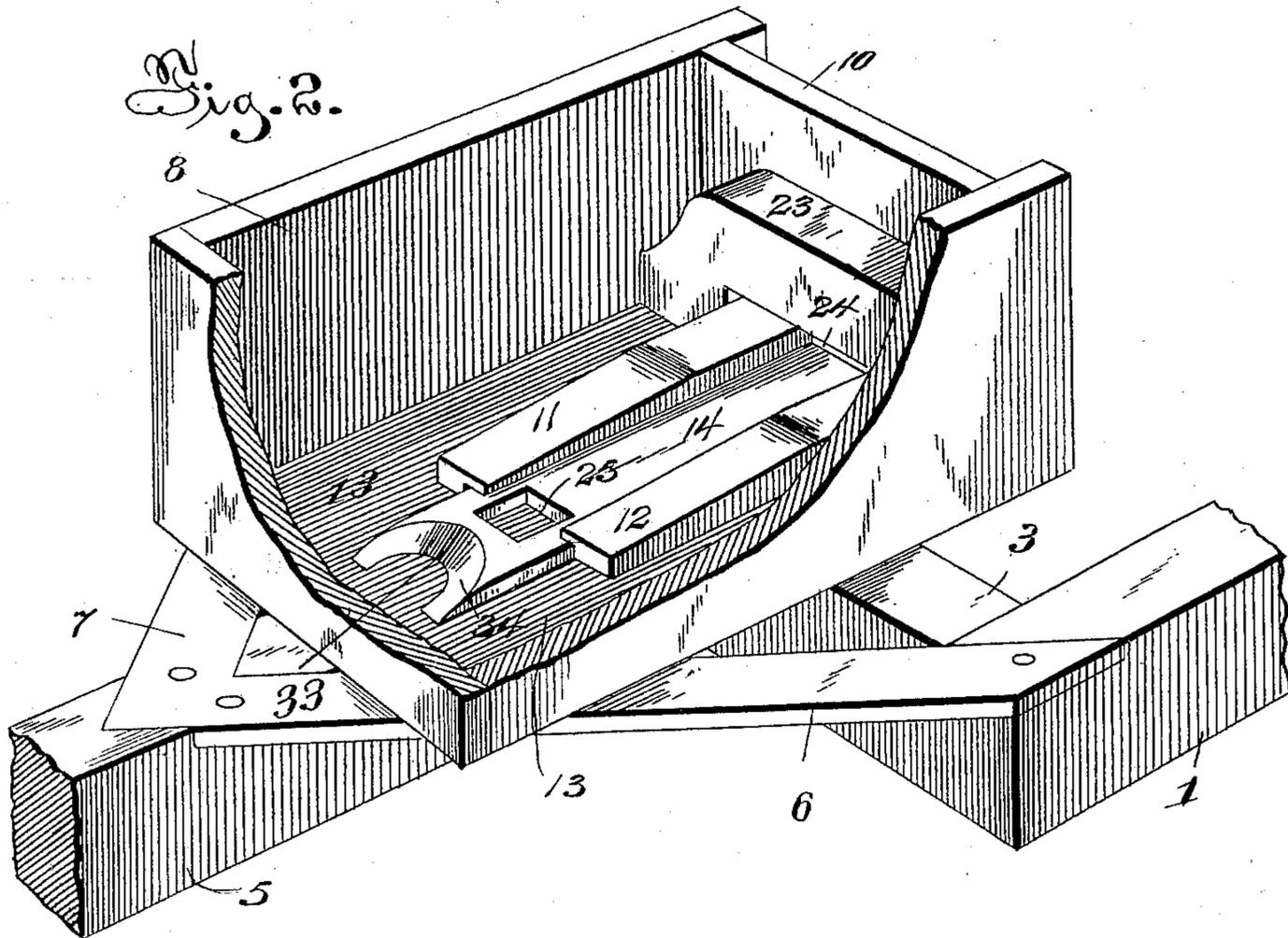


Fig. 3.

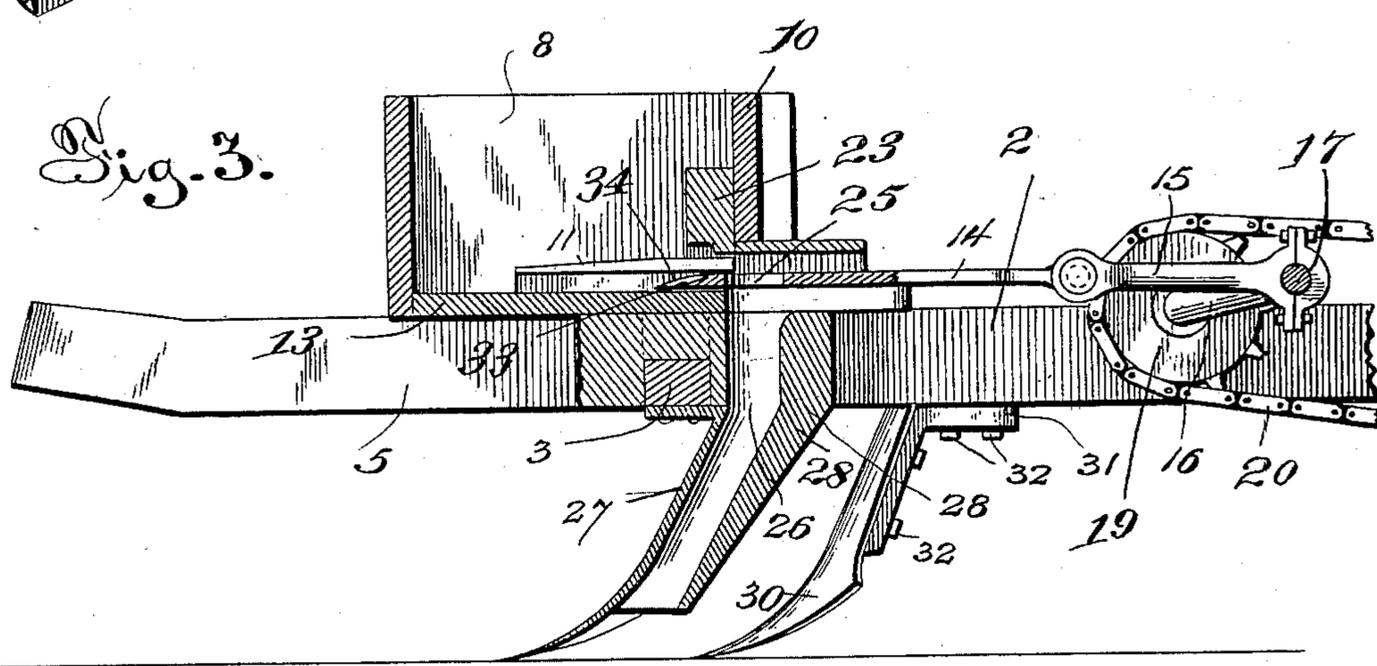
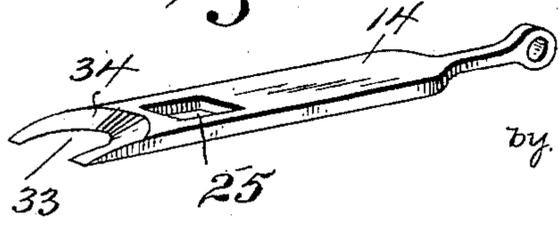


Fig. 4.



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UNITED STATES PATENT OFFICE.

MARGRETTE B. MILLER, OF ALPHABA, MISSISSIPPI.

SEED-PLANTER AND CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 652,284, dated June 26, 1900.

Application filed March 12, 1900. Serial No. 8,350. (No model.)

To all whom it may concern:

Be it known that I, MARGRETTE B. MILLER, a citizen of the United States, residing at Alphaba, in the county of De Soto and State of Mississippi, have invented certain new and useful Improvements in Seed-Planters and Cultivators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to machines for planting seed—such as corn, cotton, peas, broom-corn, and the like—the object of the invention being to simplify, cheapen, and render such machines more effective and easy in operation.

With this object in view my invention consists in a machine of the class described, the construction, arrangement, and combination of parts of which will be hereinafter fully described and the particular points of novelty therein specifically set forth in the claims appended to this specification.

In the accompanying drawings, Figure 1 is a perspective view of a planter constructed in accordance with my invention. Fig. 2 is a fragmentary perspective view, on an enlarged scale, of a part of the frame and seedbox, parts being broken away to more clearly illustrate the invention. Fig. 3 is a fragmentary sectional view on a longitudinal vertical plane, parts being broken away. Fig. 4 is a detail perspective view of the drop-bar slide detached from the machine.

Like numerals of reference mark the same parts wherever they occur in the several figures of the drawings.

Referring to the drawings by numerals, 1 and 2 indicate the sides, and 3 and 4 the front and rear cross-bars, respectively, of the main frame of the planter.

5 indicates the tongue or draft-pole, secured to the front of the frame in its central longitudinal plane and properly braced by means of plates 6 and 7, extending diagonally from the outer front corners of the main frame to the draft-beam 5 and secured at their ends by means of rivets, bolts, or other suitable fasteners.

8 indicates the seedbox or hopper, mounted upon and supported by the front cross-bar 3

of the main frame, the draft-beam 5, and the braces 6 and 7, said braces being let into the upper surface of the main frame and draft-beam, as best shown in Fig. 2, in order to afford a flush flat surface upon which to support said seedbox. The seedbox extends rearwardly beyond the cross-bar 3 of the frame and is provided with a further support for its overhanging rear portion, consisting of diagonal brace-bars 9, secured at their respective ends to the side bars and front cross-bar of the frame and also let into said bars to bring the upper surface of the braces and bars flush with each other, as before described.

Secured within the feed-box and extending through and beyond its rear end 10 are guide-bars 11 and 12, which are rabbeted in their lower inner corners in order to form, with the bottom 13 of the feed-box, a slideway for the feed-slide 14, which slide extends rearwardly beyond the box and is pivotally connected to a pitman 15 on a crank 16 of a shaft 17, journaled in bearings 18, secured upon the top of the side bars 1 and 2 of the main frame. Upon the shaft 17 is secured a sprocket-wheel 19, which is connected by a drive-chain 20 with a sprocket-wheel 21 on the axle 22, which carries the traction or supporting wheels 44 40 of the planter.

Within the seedbox and straddling the guide-bars 11 and 12 is a cross-bar 23, its central lower portion being cut away in order to provide passage-room to accommodate said guide-bars, and a block 24 is provided to close the space between the lower face of this bar, the inner sides of the guide-bars, and the upper face of the feed-slide 14, the use of which will be hereinafter described. The feed-slide is provided with an opening 25, near its forward end, extending entirely through it and so located that when the slide is forward this opening will form a pocket to receive a portion of the seed contained in the box, the bottom of the seedbox acting as the bottom of the pocket. When the slide is drawn rearward, the seed resting upon its upper face is held against spilling through the rear wall of the seedbox by means of the block 24, before mentioned, which acts as a scraper and holds back all seed except that portion contained in the pocket. At the rear end of the slide 14 the pocket 25 is brought into register and

immediately above a spout 26, through which the seed contained in the pocket is permitted to drop to the earth. The front wall of the spout 26 consists of a shovel or cultivator-tooth 27, secured to the under side of the front cross-bar 3 of the main frame, while the rest of the spout is formed in a block or casting 28, which is secured to the draft-beam 5 and to the front of which the shovel or tooth 27 is also secured. This shovel or tooth 27 being in advance of the spout and extending below its lower end, opens a small furrow to receive the seed, and the seed when dropped therein are covered by shovels or teeth 29 and 30, secured to the bottom of the side beams 1 and 2 of the main frame by means of brackets 31 and bolts or other suitable fastenings 32.

In order that the feed-slide 14 in its forward motion may efficiently perform its necessary function of sliding under the seed contained in the seedbox without obstruction to the slide or injury to the seed, its forward end is cut away centrally in substantially-semicircular form, as at 33, the walls of the semicircular notch thus formed being inclined upward and outward, as at 34. The result of this construction is that when the slide moves forward the seed will ride over these inclined walls, being guided by them to the longitudinal center of the slide and caused to drop over the rear wall of the notch into the pocket 25. By this construction there is no impediment to the forward movement of the slide, no squared ends to strike against, bruise, mash, or damage the seed, and a full supply is always furnished to the pocket.

35 and 36 indicate the handles, which are suitably secured at their forward ends upon the upper faces of the side bars 1 and 2 of the main frame and are supported near their rear ends by uprights 37 and 38, which uprights are provided with horizontal flanges 39 and 40 at their lower ends, secured in any suitable manner upon the top of the rear ends of the side bars of the frame.

41 and 42 indicate flat bars secured beneath the side bars 1 and 2 of the frame at their rear ends and extending rearwardly and downwardly, as shown in Fig. 1, their lower ends being connected by a cross-bar 43, which in the forward movement of the planter smooths the ground and finishes the proper covering of the seed.

The shovels or teeth 29 and 30 may be arranged to throw the earth inward to cover the seed dropped through the spout 26, or

their function may simply be to cultivate the ground on either side of the planted rows, leaving the covering entirely to the rear covering-bar 43.

From the foregoing description it will be obvious that I have provided a planter of the class described in which a minimum number of simple and economically-constructed parts are used and in which the various functions of the machine are performed with the least possible friction and exertion of power.

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

1. A seed-planter, comprising a rectangular frame, handles secured at their forward ends to the side bars of said frame, uprights having horizontal flanges at their lower ends secured to the rear ends of said side bars and supporting said handles, a draft-beam centrally secured to the front cross-bar of the frame, diagonal braces let into the upper surface of the front ends of the side bars of the frame and of the draft-beam, parallel diagonal braces let into the upper surface of the side bars and front bar of the frame and the draft-beam, and a feed-box supported upon the flush upper surfaces of the front bar of the frame, the diagonal sets of braces and the draft-beam, substantially as described.

2. A planter comprising a main frame having longitudinal side bars and front and rear cross-bars, a draft-beam centrally secured upon the front cross-beam, flush braces connecting the draft-bar with the front corners of the frame, a seedbox mounted upon the flush surfaces of the frame and draft-beam and the braces, a slide adapted to reciprocate in the feed-box, and a spout located to register with the slide in its rearmost position, said spout being formed in a block or casting secured below the draft-beam and having its front side open, and a shovel or tooth secured to the lower face of the front cross-bar of the frame and to said block or casting, substantially as described.

3. In a planter, a feed-slide provided with a notch or recess in its forward end, the walls of which are inclined outward and backward, and with a suitable opening or pocket in the rear of said walls, substantially as described.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

MARGRETTE B. MILLER.

Witnesses:

J. D. HARRISON,
T. B. MILLER.