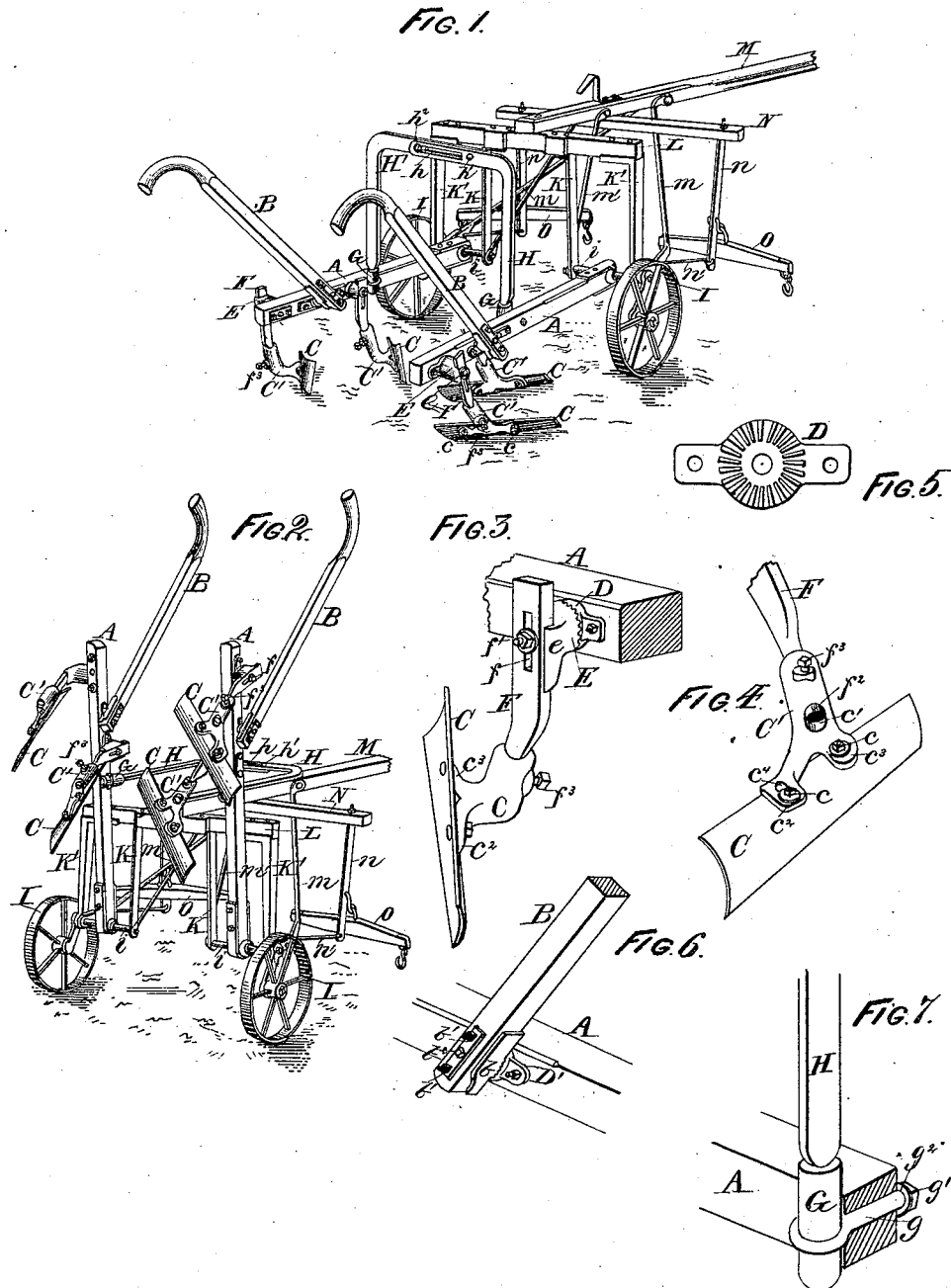


(No Model.)

M. O. MOREHOUSE.
CULTIVATOR.

No. 304,543.

Patented Sept. 2, 1884.



Witnesses:
E. Johnson
J. Bennett

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UNITED STATES PATENT OFFICE.

MARTIN O. MOREHOUSE, OF MENDOTA, ILLINOIS.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 304,543, dated September 2, 1884.

Application filed August 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, MARTIN O. MOREHOUSE, of Mendota, in the county of La Salle, and in the State of Illinois, have invented certain new and useful Improvements in Cultivators; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates especially to devices used in cultivating corn; and it consists in certain peculiarities of construction, all as will be more fully set forth hereinafter.

In the drawings, Figure 1 is a perspective view of my cultivator in the position it occupies when ready for use. Fig. 2 is a similar view, but showing the tooth-beams lifted up by means of the bent axes of the wheels, so that the teeth may clear the ground and the machine be readily transported from one place to another. Figs. 3 to 7, inclusive, are details.

A A represent the tooth-beams, which also form the bearings of the handles B B. The teeth C are secured to their beams in this manner: Rose-plates D (shown in detail in Fig. 5) are bolted to each beam, near their rear ends—one on the inner and another on the outer side of each beam—and upon these are fitted the radially-ribbed or rose-plate inner surfaces of holding-plates E, whose outer surfaces are provided with projecting guides or flanges *e e*, between which the legs F of the knife-shanks are secured, being vertically adjustable by means of slots *f* and securing-bolts *f'*, as shown in detail in Fig. 3. The lower ends, *f*², of these legs are made round, so as to fit within the holes *e'* of the tubular portions of the shanks proper, C', of said knives, to which the bent ends *c'* *c*³ of the shanks are attached by bolts *c c*, the end *c*² having a slot, *c*⁴, formed therein, for the purpose of securing additional adjustment, while the rounded ends *f*² of the legs F enable the shanks C' to be bodily adjusted thereon, and then secured in the desired position by means of the set-screws *f*³, as shown, and thus a separate adjustment of the tooth C, the shank C', and the leg F is secured, as well as of the holding-plate E, and any or all of these parts may be moved to any height, inclination, or exposure desired with the greatest ease, facility, and accuracy.

G G indicate pipe-joints located at about

the center of each beam A on the inner sides, and secured by means of eyebolts *g*, the shanks of which pass through said beams, and are screw-threaded and secured by nuts *g'* on their outer projecting ends, outside of said beams, washers *g*² being preferably interposed between the beams and the nuts, all as best shown in Fig. 7. These pipe-joints receive the lower rounded ends of the two parts H H' of the arch which connects the two beams A A together, and which parts are perforated and slotted at top, as shown at *h h'*, and held firmly at any distance apart required by the screw-bolts *h*² *h*². The handles B B are adjustably secured to the beams A A in this manner: Rose-plates D' (identical with the rose-plates D, already described) are secured, respectively, to the outside of one beam and the inside of the other. A metal plate, *b*, having side flanges and a radially-ribbed bearing-surface, is secured by bolts *b' b'* to the lower end of each handle B, and when the two rose-surfaces of the parts *b* and D' have been placed in the desired position, so that the handles will project at the proper inclination, then another bolt, *b*², is passed through the handle and through perforations in the center of the plate *b* and plate D'; and then through the beam A, and secured by nut upon its end, all as clearly indicated in Fig. 6. At the forward ends of the beams they are provided with bearings for the bent axes *i* of the wheels I, and from the inner ends of these axes there rise the standards K, while other standards, K', rise from between the wheels I and beams A, extending up to a transverse horizontal beam, L, to which the said standards are securely bolted. The rear end of the tongue M is bolted to the top of this beam L at its center, and the tongue is further supported by means of braces *m m'*, secured thereto by pivots and similarly pivotally secured to the axes *i i*. Another transverse beam, N, is secured to the under side of the tongue, from each end of which depends a rod, *n*, connected by brace *n'* at its lower end to the lower part of the adjacent brace *m*, and from each rod *n* is suspended a whiffletree, O, as clearly shown in Figs. 1 and 2.

My teeth C are of peculiar shape, as shown, being of a general mold-board form, and their preferred dimensions are fifteen by three inches, and have straight ends and are curved

longitudinally, as best shown in Figs. 3 and 4, wherein it will be seen further that the said mold-board teeth have a longitudinal diagonal twist, whereby one end is made to flare more than the other end, and this construction is of great utility, inasmuch as thereby the earth is gathered up by the end that flares most, and deposited by the other and more contracted end in the forward progress of the cultivator.

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

In combination with the beams A, provided with the rose-plates D, the holding-plates E, having flanges *e e*, the legs F, having slots *f*

and securing-bolts *f'* and rounded lower ends, *f''*, and set-screws *f'''*, the shanks *C'*, with tubular parts *c'* and bent ends *c'' c''*, the former having round holes therein and the latter provided with slots *c'*, the teeth C, and securing-bolts *c c*, all arranged and adapted to operate substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, on this 17th day of August, 1883, in the presence of two witnesses.

MARTIN O. MOREHOUSE.

Witnesses:

F. GIFFORD,

STANLEY S. STOUT.