

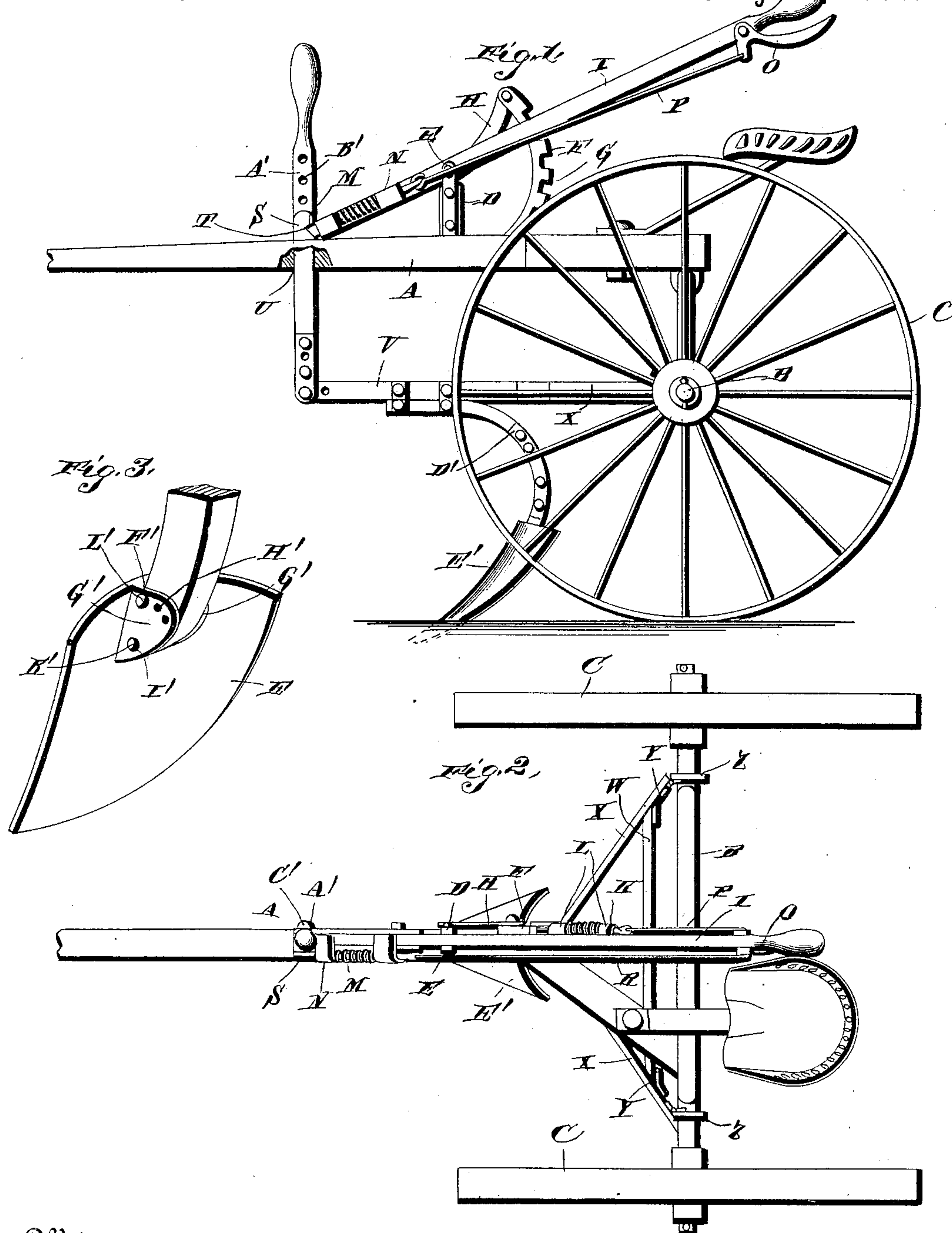
(No Model.)

J. A. HAZLEWOOD.

SULKY CULTIVATOR.

No. 386,583.

Patented July 24, 1888.



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UNITED STATES PATENT OFFICE.

JAMES ALLAN HAZLEWOOD, OF CLIFTON, TEXAS.

SULKY-CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 386,583, dated July 24, 1888.

Application filed April 16, 1888. Serial No. 270,783. (No model.)

To all whom it may concern:

Be it known that I, JAMES ALLAN HAZLEWOOD, a citizen of the United States, residing at Clifton, in the county of Bosque and State of Texas, have invented a new and useful Improvement in Sulky-Cultivators, of which the following is a specification.

My invention relates to an improvement in sulky-cultivators for loosening the ground before planting the crop; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a sulky-cultivator embodying my improvements. Fig. 2 is a top plan view of the same. Fig. 3 is a detail view.

A represents the tongue of the sulky-frame, B represents the axle, and C represents the supporting wheel. From the upper side of the tongue, at a suitable distance from the rear end thereof, projects a vertical standard, D, having ears E at its upper end.

F represents a curved arm, which projects from the upper side of the tongue at a suitable distance in rear of the standard D, and is provided on its rear side with a series of notches, G. A curved arm, H, connects the upper ends of the arm F and standard D, and has its extremities bolted thereto, as shown.

I represents a hand-lever, which is fulcrumed on the bolt that connects the arm H to the standard D. On one side of the said hand-lever is a spring-actuated locking-bolt, K, which is guided in suitable keepers, L, and is adapted to engage the notches G of the curved arm F. On the opposite side of lever I, at the front end thereof, is a similar spring-actuated locking-bolt, M, which is guided in suitable keepers, N.

O represents a lever, which is pivoted to the lever I near the rear end thereof, and is connected to the bolts K M, respectively, by link-rods P R.

From the upper side of the tongue, at a suitable distance in advance of standard D, projects a vertical stud, S, which has a shoulder, T, projecting rearward from its upper end and adapted to be engaged by the bolt M, for the purpose to be hereinafter stated. The

tongue is provided alongside the stud or ear S with a vertical opening, U.

V represents a beam, which is provided at its rear end with a cross-bar, W. X represents a pair of diagonally-arranged braces, which have their front ends bearing on opposite sides of the beam and bolted thereto at a suitable distance from the rear end of the beam, and said diagonal braces are secured to the ends of the cross-bar W by means of angle-irons Y, which are bolted to said braces and to the said cross-bars. The rear ends of the braces project rearward beyond the cross-bar for a suitable distance, and are provided with hinged rearward-extending links Z, and said links are pivoted to a suitable portion of the sulky-frame.

From the foregoing description it will be understood that the front end of the beam is adapted to be raised and lowered.

A' represents a vertical rod, which has its lower end pivotally connected to the front end of the beam V. The said rod extends up through the opening U, and is provided near its upper end with a vertical series of openings, B'. The front end of the lever I has a pair of forward extending ears, and a bolt, C', is passed through the said ears and through one of the openings B', and thereby serves to pivot the front end of the said lever to the rod A' at any desired vertical adjustment on the latter.

D' represents a curved foot or standard, which is bolted to the under side of the beam V, and is adapted for the attachment of a furrow-opening or cultivating plow, to be hereinafter described.

The operation of my invention is as follows: When the front end of the beam is lowered so as to cause the shovel or plow to operate in the ground, the bolt K is engaged with one of the notches in the curved arm F, and the bolt M is engaged with the shoulder of the ear or lug S, so as to lock the vertical rod A' firmly in position, and thereby support the beam at the correct inclination. The depth at which the plow or cultivator operates in the ground may be regulated by adjusting the rod A' up or down on the front end of the lever I. When it is desired to raise the plow from the ground to pass an obstruction, to enable the machine

to be turned at the end of a furrow, or when the machine is to be driven across the field or along a road and is not in operation, the operator grasps the rear end of the hand-lever I and the rear projecting arm of the lever O, raises the latter lever and thereby causes the link-rod to withdraw the bolt from the notches of arm F and the shoulder of lug or ear S, and by pressing downward on the rear end of the said hand-lever the rod A' is caused to move upward and thereby raise the front end of the beam and consequently raise the front end of the plow or shovel.

A cultivator thus constructed will be found extremely useful in stirring and loosening the soil before planting a crop, and will also be used for cultivating a growing crop.

E' represents the cultivating or furrow-opening plow, which is provided with a recess at its upper end for the reception of the lower end of the curved foot or standard. From the upper end of the said plow project a pair of rearwardly-extending downwardly-curved ears G', having a series of transversely-aligned openings, H', that are concentric with an opening, I'. A pivotal bolt, K', passes through the opening I', and through an opening in the lower end of the foot or standard, thereby pivoting the plow to the standard and adapting the same to be turned to any desired inclination. A frangible pin, L', is inserted through one pair of the openings, H', and through an opening in the standard, thereby securing the plow at the desired adjustment and permitting the plow to turn rearward and ride uninjured over an obstruction, as will be readily understood.

Having thus described my invention, I claim—

1. The combination of the sulky-frame, the

beam having the cross-bar at its rear end, and the rearward-diverging brace-arms connecting the beam to the ends of the cross-bar, the links hinged to the rear ends of the brace-arms and pivoted to the sulky-frame, the hand-lever fulcrumed on the frame, and the rod A', connecting the hand-lever to the front end of the beam, substantially as described. 45

2. The combination of the sulky-frame having the tongue, the hand-lever fulcrumed on a suitable support on the tongue, the curved arm or segment plate F, having notches G, and rising from the tongue in rear of the fulcrum of the lever, the lug or ear S, rising from the tongue in advance of the fulcrum of the lever, the spring-actuated bolt on the lever adapted to engage both the notches of the segment-plate and the lug or ear S, the lever O, pivoted to the lever I, the link-rods connecting lever O to the spring-actuated bolt, whereby said bolt may be withdrawn simultaneously for the purpose set forth, the vertically-movable beam having the plow or shovel, and the rod connecting the front end of lever I and the front end of the beam, substantially as described. 50 55 60 65

3. The combination of the standard, the plow having the rearward-extending ears G', having openings I' and openings H' concentric therewith, and the pivotal bolt in openings I', connecting the plow to the standard, and the frangible pin extending through one of the openings H' and through the standard, substantially as described. 70

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses. 75

JAMES ALLAN HAZLEWOOD.

Witnesses:

A. M. CARTER,
FRANK KELL.