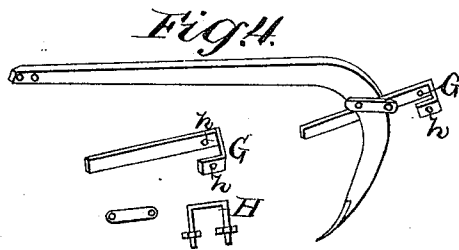
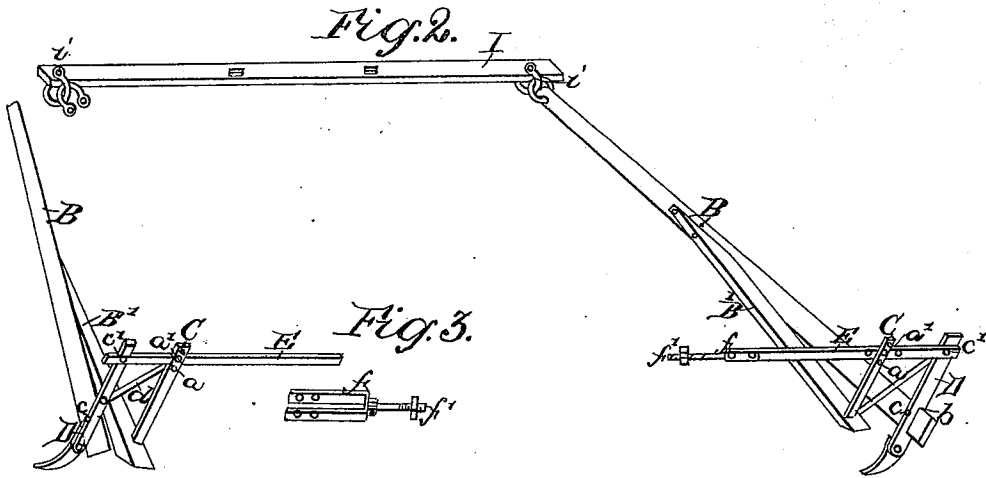
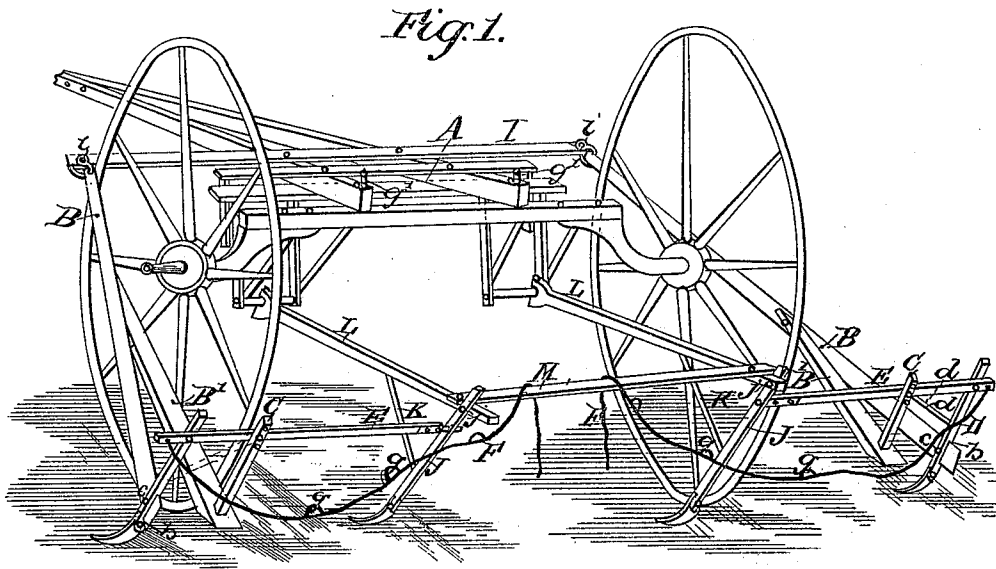


(No Model.)

J. R. RAUDABAUGH.
ATTACHMENT FOR SULKY PLOWS.

No. 355,338.

Patented Jan. 4, 1887.



Witnesses
O. Fred. Bellard
Vernon M. Worsey

Joshua R. Raudabaugh
By his Attorney h. W. Raudabaugh

UNITED STATES PATENT OFFICE.

JOSHUA R. RAUDABAUGH, OF CELINA, OHIO.

ATTACHMENT FOR SULKY-PLOWS.

SPECIFICATION forming part of Letters Patent No. 355,338, dated January 4, 1887.

Application filed August 23, 1886. Serial No. 211,701. (No model.)

To all whom it may concern:

Be it known that I, JOSHUA R. RAUDABAUGH, of Celina, in the county of Mercer and State of Ohio, have invented a new and useful improvement as an attachment to sulky corn-plows (as now in use for the cultivation of corn) for marking and laying out corn-ground, by which four, instead of two, marks or furrows are made at one operation, of which the following is a specification.

My invention relates to new and useful improvements in cultivators and attachments for connecting with sulky-plows; and it consists in the adjustment of the standards to the beams, the connection to the sulky-frame, and the means of raising and lowering the plows.

The object of my invention is to provide a durable and cheap frame and attachments for cultivators, whereby the marking or laying out of ground for planting corn by making four furrows at one operation as the sulky is carried forward by the team. I attain these objects by means of the peculiar construction and arrangement of the various parts of my invention, which will be more fully pointed out and described in the specification and claim, reference being had to the drawings accompanying this application, in which—

Figure 1 is a perspective view of my invention attached to sulky. Fig. 2 is a detached plan view, and Figs. 3 and 4 are detail views.

Similar letters refer to like parts throughout the drawings.

Referring to the drawings, A represents a sulky and frame with downward-projecting brackets for cultivator-beam attachments in the usual form.

B represents the frame of corn-row marker, which is formed of wood or metal and of suitable length and thickness.

A side extension, B', is secured to one side of frame B by having one end beveled and placed to the side of frame B, as shown, and secured by bolts or other suitable means, its opposite end extending inward at an angle and its lower face beveled. An upright or post, C, is secured to the upper face of side piece, B', near its outer end. The outer end of upright C is slotted and provided with side perforations, *a a*, through which pivot-pins *a'* are inserted. The outer end of frame-piece B has a cross-slot, *b*, formed in its inner face, into

which plow-standard D is inserted, and held in place by means of a clamp-bolt, *e*, the outer end of said standard being perforated to receive a bolt, *e'*.

A diagonal cross-brace, *d*, connects standard D and upright C, as shown. A cross arm or bar, E, is provided at one end with perforations *e*, by which it is secured to the top of standard D by bolts *e'*. A short distance inward it is perforated to receive pivot-pin *a'*, and rests in the slot formed in the end of upright C. The opposite end of lever-arm E is provided with a forked strap-hinge, *f*, having a threaded bolt projection, *f'*, and a suitable nut, as shown in Figs. 2 and 4, the purpose of which is to connect lever-arms E with sulky-beams at or near their rear end, and permit the marker to move vertically at the will of the operator.

To the outer end of lever-arm E is attached one end of rope or chain F, and the opposite end is secured to the top of the sulky-frame within easy reach of the operator, and at intervals from the inner end links or rings *g*, knotted in or secured to said rope or chain, and said rings are adapted to inclose a projection, *g'*, inserted in top of sulky-frame, whereby, when the marker is raised to pass over obstructions, or on transit from barn to field, the rings will hold the marker at the desired elevation, the marker falling in place when the ring is removed from the projection by the operator.

For the single-shovel cultivator or marker having a curved beam a hook-bar or grip-piece, G, is formed with an angular lap or curved end provided with perforations *h*, by which it is attached to end of lever E and operated the same as standard D. Grip-piece or hook-bar G is secured to the curved beam by means of a clip, H.

A cross-beam, I, is secured to the top of the sulky-frame and extends outward in front of and beyond the sulky-wheels, and the outer ends are provided with clevises *i*, by means of which connection is made to the beams B with clevises or rings *i'*.

As the marker-frames are made alike, except in reverse positions in use, they are placed one on each side of the sulky, and the front end of beams or frame B are connected to the outer ends of beam I, as shown, bringing each marker outside of the sulky-wheels. A sin-

gle shovel or marker with standard J is secured by the upper end of standard to the rear end of beams L, and is held in place by a cross-brace, K. The hinged bolt on the end of lever E enters standard J near its upper end, and is held by a nut, thus making a pivotal point when the outer markers are raised or lowered. In practice two of said single shovels are used in rear of sulky-frame, and the front end beams, L, are attached to loops under the frame. At the rear end of beams L a cross-piece, M, is secured at each end to the rear ends of beams L by means of bolts *j* or other suitable fastenings.

15 Having described my invention, what I

claim, and desire to secure by Letters Patent, is—

In combination with a sulky-cultivator having beams L and standards J, the cross-bar I, secured to the tongue in front of the wheels, the hinged frames B, outside the wheels, having standards D, the diagonal extension-bars B', provided with post C, the cross-bars E, pivoted upon standard D and post C, and hinged to the beams L, the cords F, and cross-bar M, substantially as shown and described.

JOSHUA R. RAUDABAUGH.

Witnesses:

G. W. RAUDABAUGH,
JOHN RAUDABAUGH.