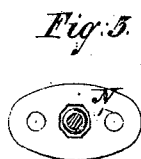
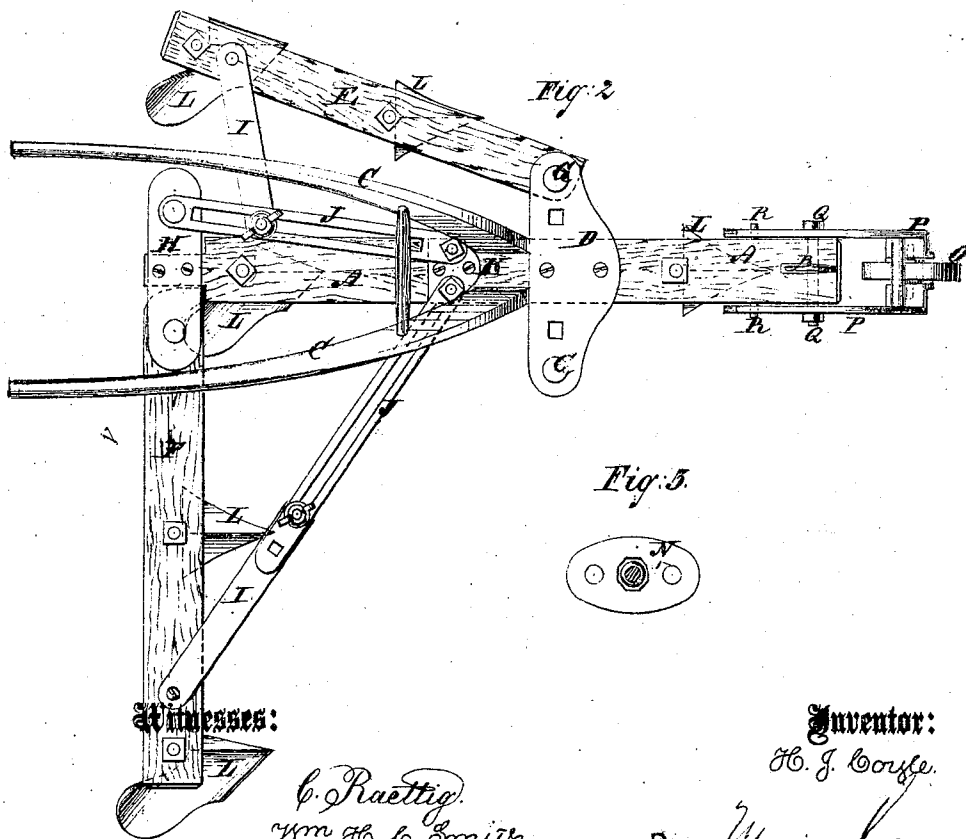
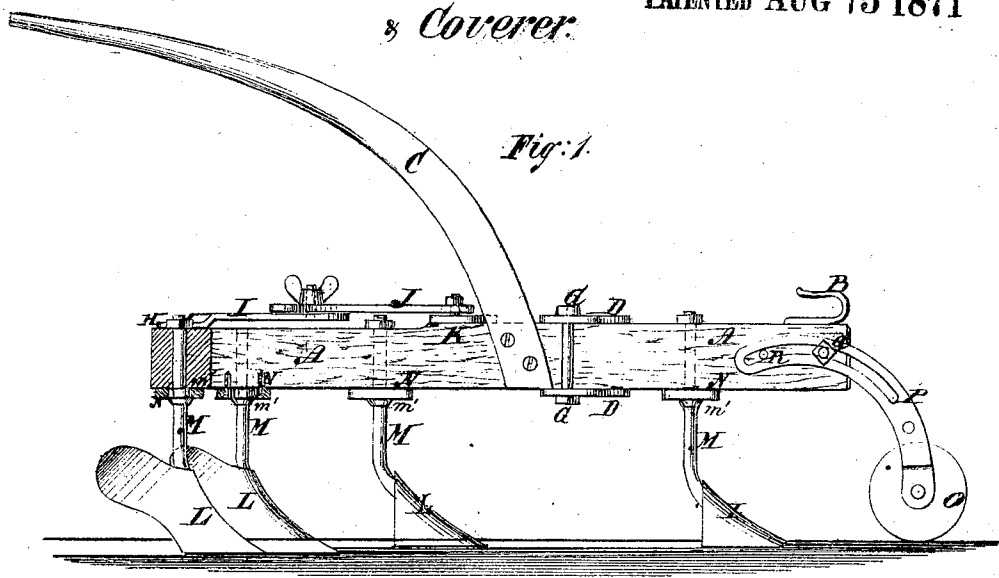


117989

*H. J. Coyle, Comb<sup>d</sup> Cultivator, Marker*

*& Coverer.*

PATENTED AUG 15 1871



Witnesses:

*C. Praetig.*  
*Wm. H. C. Smith.*

Inventor:

*H. J. Coyle.*

PER *Mum Co*  
Attorneys.

# UNITED STATES PATENT OFFICE.

HUGH J. COYLE, OF BUFFALO, NEW YORK.

## IMPROVEMENT IN COMBINED CULTIVATORS, MARKERS, AND COVERERS.

Specification forming part of Letters Patent No. 117,989, dated August 15, 1871.

*To all whom it may concern:*

Be it known that I, HUGH J. COYLE, of Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Combined Cultivator, Marker, and Coverer; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a side view of my improved machine, partly in section, to show the construction. Fig. 2 is a top view of the same, one side of the frame being arranged as a marker or coverer, and the other side as a cultivator. Fig. 3 is a detail view of one of the socket-plates.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved machine which shall be simple in construction and convenient in use, being so constructed that it may be conveniently arranged for use in either capacity, doing its work well and thoroughly; and it consists in the construction and combination of various parts of the machine, as hereinafter more fully described.

A is the main or central beam, to the forward end of which the draft is attached by means of a draft-hook, B, clevis, or other connection, and to the middle part of which are attached the handles C, by means of which the machine is guided and controlled. D are two plates securely attached to the upper and lower sides of the beam A, in front of the handles C. The ends of the plates D project at the sides of the beam A to receive the forward ends of the beams E F, which are pivoted to and between the ends of the said plates by bolts G, several holes being formed in the said plates to receive the said bolts, so that the forward ends of the said beams E F may be moved toward or from the beam A, according to the distance apart of the rows of plants to be cultivated. H are two plates attached to the rear end of the beam A, the ends of which project at the sides of said beam A to receive the ends of the beams E F when the machine is adjusted as a marker or coverer. To the beams E F, near their outer ends, are attached the ends of the bars I, to the other ends of which are attached bolts, which pass through slots in the bars J, and have hand-nuts screwed upon their upper ends, so that by tightening

the said nuts the bars I and J may be securely clamped to each other when adjusted. The other ends of the bars J are bolted to a small plate, K, attached to the beam A, in the rear of the handles C, in such a position that when the beams E F are adjusted for use as a cultivator, as shown by the beam E, the rear ends of the bars J may be secured to the plates H by the same bolts that secure the beams E F to said plates when the machine is adjusted as a marker or coverer. By this construction the inclination or spread of the beams E F may be adjusted as required. L are the plows, the forms of which must depend upon the work to be done. The standards M of the plows L pass up through holes in the beams A E F, and are secured by nuts screwed upon their upper ends. Upon the standards M, at the lower side of the beams A E F, are formed collars *m*, which rest against the lower sides of the beams A E F, and which are made octagonal in form, and fit into octagonal holes in the plates N. The plates N are secured to the under side of the beams A E F in proper positions to receive the plow-standards. By this construction the direction of the plow-points may be adjusted as required, and when adjusted the plows will be held securely in place. A number of the socket-plates N, in different positions, and at different distances apart, may be attached to the beams A E F, to enable the plows to be adjusted as the particular work to be done may require. O is the gauge-wheel, which is pivoted to and between the lower ends of the bars P, which are curved and slotted, as shown in Fig. 1, and which pass up upon each side of the forward end of the beam A, to which they are secured by a bolt and nut, Q, which bolt passes through the forward end of the said beam A, and through the slots of the said bars P. In adjusting the bars P they are guided in their movements by the guide-pin or pins R attached to the said beam A, and which enter the slot of the bars P, as shown in Figs. 1 and 2.

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

The central beam A, combined with the wing-beams E F, adjustably arranged with respect to the former, as described, for the purpose of being readily adapted to serve the purpose of a coverer, marker, or cultivator-frame.

Witnesses:

P. I. DOUW,  
J. B. FOLEY.

HUGH J. COYLE.