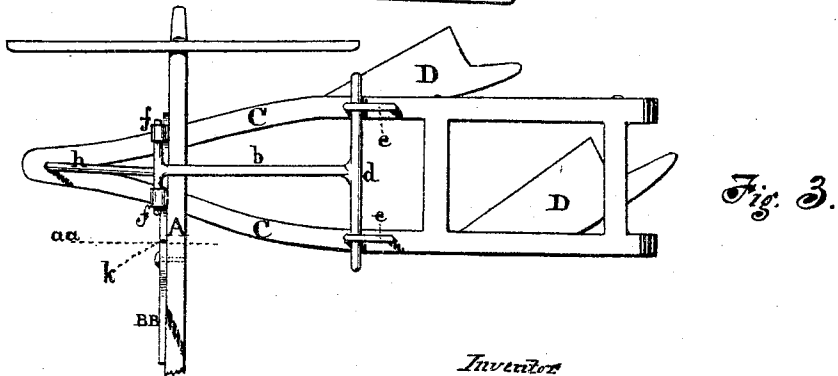
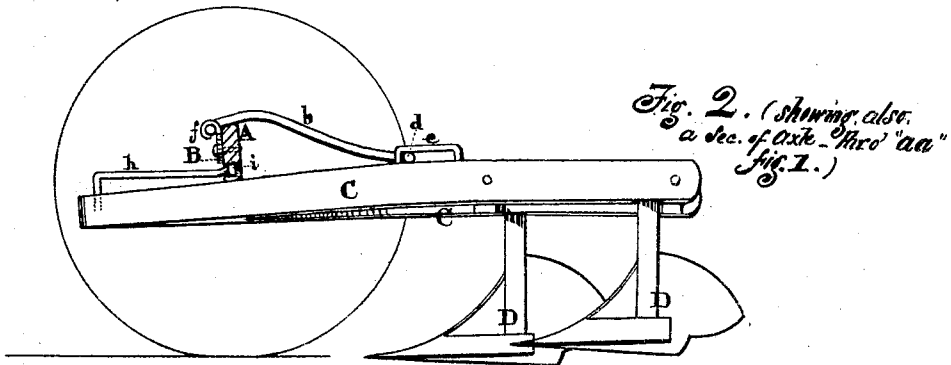
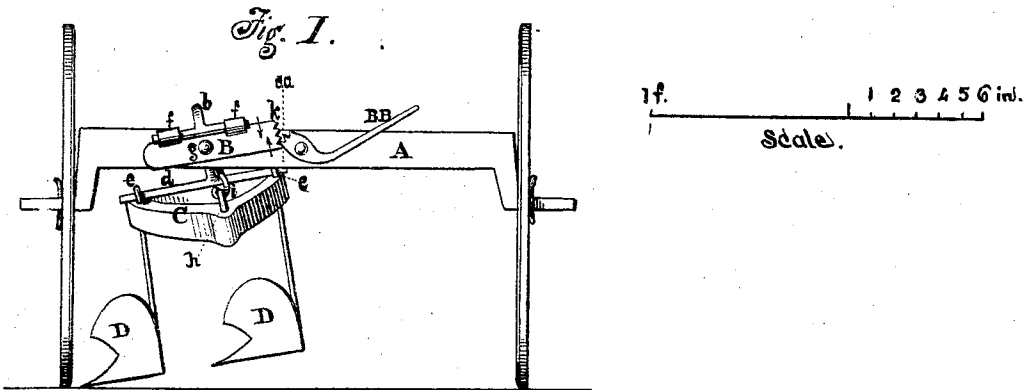


M. S. CURTISS.
Gang-Plows.

No. 140,480.

Patented July 1, 1873.



Witnesses.
John Gordon.
Peter Parker.

Inventor
Marshall S. Curtiss
by E. Thurston, his atty.

UNITED STATES PATENT OFFICE.

MARSHALL S. CURTISS, OF BRADFORD, ILLINOIS.

IMPROVEMENT IN GANG-PLOWS.

Specification forming part of Letters Patent No. **140,480**, dated July 1, 1873; application filed November 13, 1872.

To all whom it may concern:

Be it known that I, MARSHALL S. CURTISS, of Bradford, in the county of Stark and in the State of Illinois, have invented an Improvement in Gang-Plows for "Tilting" the Plows transversely in Tilling the Ground; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings making a part of this specification, in which like letters of reference refer to like parts, and in which—

Figure 1 represents a front view of a gang-plow with the tilting device; Fig. 2, longitudinal elevation of plow tilted; Fig. 3, plan.

This invention is a device for tilting laterally (and simultaneously) the beams of a gang-plow, (with the attached plows,) in order to plow ground which slopes to the right or left of the desired furrow, and is more particularly applicable to that class of gang-plows which have their beams united in one frame and hinged to a plate on the axle-tree, or similar arrangements. In this invention the plate to which the united beams are attached by the transverse horizontal end of the rod which supports the plow-beams is pivoted horizontally to the axle-tree at its middle, and has at one end a series of cogs or teeth which engage with a toothed segment of a wheel terminating in a handle within reach of the driver's seat, by which the plate is swung up or down (tilted) at one end, and with it the attached rod and beams.

In the drawings, A represents the axle-tree; B, a vertical plate pivoted at its middle, *g*, to the front of the axle-tree, and receiving at its upper part, *ff*, the ends of the transverse rod which terminates the rod *b* which passes back

over the axle-tree A and finishes in a second transverse rod, *d*, arranged in guides *ee* connected with and supporting the plow-beams C C. This plate terminates at one end in a segmental edge having teeth or cogs which engage with similar ones in another pivoted segmental plate, provided with a handle, B B. The plate B and the segment B B might be otherwise connected by a rod or link, and be equally effective for the above purpose. C C represent the plow-beams; D D, the plows.

The operation of this invention is as follows: When it is desired to tilt or incline the plows laterally, the lever B B is depressed, the toothed segment of which carries with it the engaged end of the plate B, and simultaneously the connected rod *b* and its attached beams C C with their respective plows. The lever and segment B B may be operated from the driver's seat on the plow-beams, and may be fastened at desired points by a pin, screw, or ratchet, or any effective simple device, so as to maintain the same at the proper point for the inclination of the plows.

What I claim as my invention is—

The plate B provided with teeth or cogs *k*, and pivoted to axle A, in combination with lever B B, and transverse arms *ff* of rod *b* having transverse arms *d* arranged in guides *ee* of beams C C, the whole constructed to operate substantially as set forth.

In testimony that I claim the foregoing tilting device for gang-plows I have hereunto set my hand this 5th day of November, 1872.

MARSHALL S. CURTISS.

Witnesses:

J. M. MORSE,
HENRY W. WELLS.