

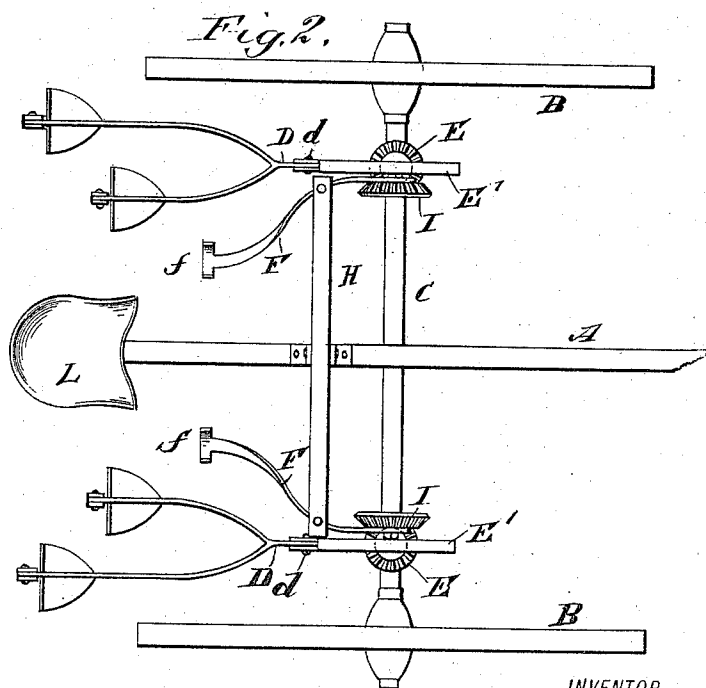
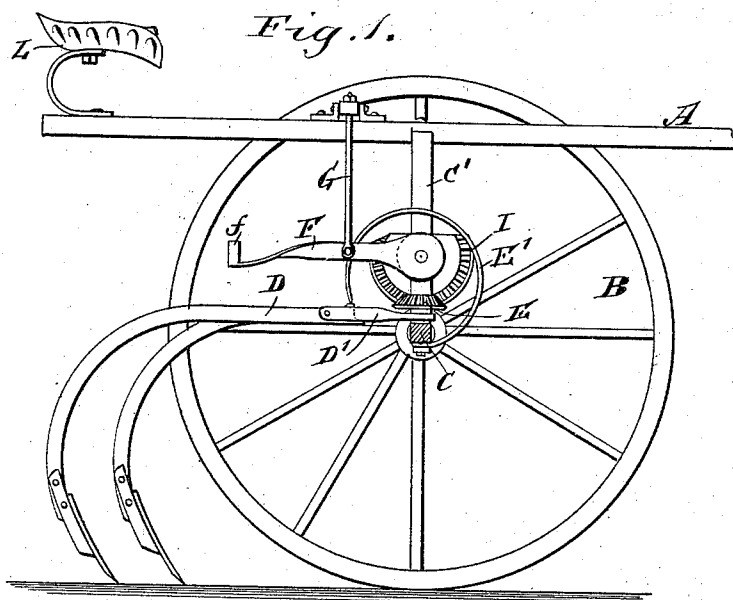
(No Model.)

2 Sheets—Sheet 1.

F. REIMERS.
CULTIVATOR OR PLOW.

No. 572,829.

Patented Dec. 8, 1896.



WITNESSES:

L. N. Legendre
H. L. Reynolds.

INVENTOR

F. Reimers

BY

M. J. [Signature]

ATTORNEYS.

(No Model.)

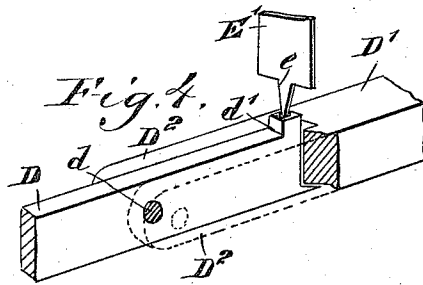
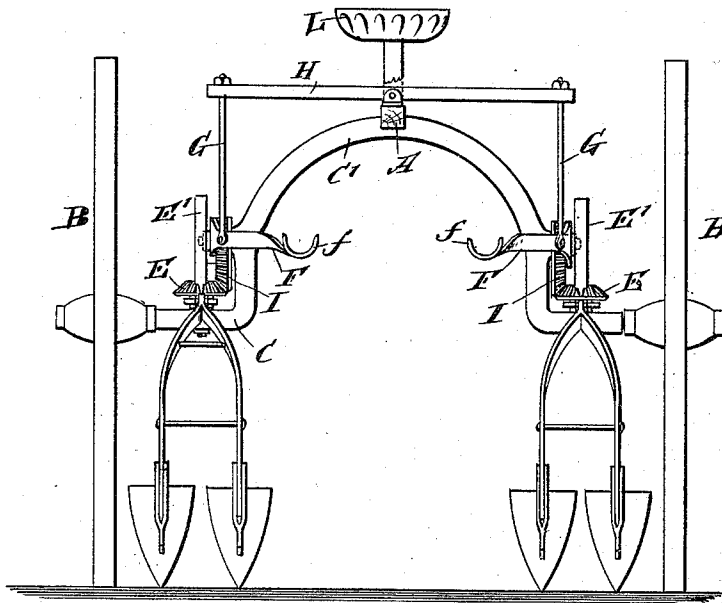
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Fig. 3.



WITNESSES :

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INVENTOR

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UNITED STATES PATENT OFFICE.

FERDINAND REIMERS, OF DAVENPORT, IOWA.

CULTIVATOR OR PLOW.

SPECIFICATION forming part of Letters Patent No. 572,829, dated December 8, 1896.

Application filed September 2, 1896. Serial No. 604,634. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND REIMERS, of Davenport, in the county of Scott and State of Iowa, have invented a new and Improved
5 Cultivator or Plow, of which the following is a full, clear, and exact description.

My invention relates to improvements in cultivators or plows; and it consists of certain mechanism by which the horizontal or
10 lateral adjustment of the plows may be readily accomplished while riding upon the machine. These features will be more particularly pointed out in the following specification.

Reference is to be had to the accompanying
15 drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the device. Fig. 2 is a plan view. Fig. 3 is a rear elevation, and Fig. 4 is a perspective detail view
20 of the hinge or pivot in the plow-beam.

The object of my invention is to produce a device for handling the shovels of a riding plow or cultivator which will be operated by
25 the feet of the user and which will have sufficient power to enable him to handle the same quickly and easily.

The wheels B, tongue A, and axle C are similar in their construction to the same parts
30 ordinarily used in cultivators. The plow-beam D is pivoted to the axle by a vertical pivot which will permit the beam to swing horizontally only, and surrounding this pivot and attached to the beam is a small bevel-wheel E. This need be but a small segment
35 of a bevel-gear, although I have herein shown the entire gear.

The forward portion of the beam D, which is pivoted upon the axle, is split at its rear
40 end, thus forming two lugs or ears D², which at their outer end have a horizontal pivot which passes through the beam D at a short distance from the end thereof.

A spring E', composed of flat steel, is fixed
45 at one end to the axle and is curved over so that the other end will engage the end d' of the beam D. The point of engagement of the spring and the beam is forward of the pivot d. The spring E' is so bent that it will press down
50 upon the end of the beam D, and will thus prevent the shovels on the other end from

dropping too low. The end of the spring E' is narrowed at the free end, and a point e is formed thereon. This point engages the beam and is narrow enough so that it will pass be-
55 tween the two ears D² of the forward section of the beam, but the end of the broad portion of the spring will engage the lugs D² and prevent its going any farther.

Pivoted to the side of the upward rise or
60 curve C' of the axle C are two shifting levers F. These levers at their outer ends have curved stirrups f formed thereon, which are made to receive the feet of the rider. The rear end of the lever is also bent so that it
65 extends toward the center and near to the operator. At a point intermediate the two ends of the lever is pivoted a link G, which is connected at its upper end with a bar H, pivoted at its center upon the tongue A. If
70 one of the levers F be depressed by the foot of the rider, the corresponding end of the lever H will be depressed and the other lever F will be raised by reason of its connection with the
75 bar H.

To the side of the arch C' of the axle and upon the same pivot which carries the lever F is fixed a bevel-gear I, which may be an
80 entire gear, as shown in Fig. 2, or a portion only, as shown in Fig. 1. This gear turns with the lever F. If one of the levers F be depressed, the other will be correspondingly raised and the bevel-gear connections be-
85 tween this lever and the plow-beams will cause the plow-beams to be swung upon their horizontal pivot in one direction. If the other lever F be depressed, the plow-beams will be swung in the opposite direction. The horizontal position of the plows is therefore di-
90 rectly and immediately under the control of the rider, while at the same time his hands are free for guiding the team or any other purpose desired. The seat to be occupied by the rider is shown at L.

It will be readily seen that some other form
95 of connection than the bevel-gear shown may be used to connect the levers F with the plow-beams, as, for instance, by making both the lever F and the plow-beam a bell-crank and connecting the two together. I do not there-
100 fore wish to be limited to the use of gears for this connection. Any other form of connec-

tion which is essentially an equivalent of the two mentioned may be substituted without departing from the spirit of my invention.

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

1. In a cultivator or plow, the combination
of the plow-beams pivoted to swing horizon-
tally, a shifting lever upon each side of the
10 cultivator, pivoted to swing vertically, and
connections between said shifting levers,
whereby their movements will alternate, and
bevel-gears upon said shifting levers and
plow-beams, substantially as shown and de-
15 scribed.

2. In a cultivator or plow, the combination
of plow-beams pivoted to swing horizontally,
a shifting lever upon each side of the culti-
vator, pivoted to swing vertically, a pivoted
20 equalizing-lever, links connecting the same

with the shifting levers, and a bevel-gear
connection between the shifting levers and
the plow-beams, substantially as shown and
described.

3. In a cultivator or plow, the combination 25
of a beam having a stub pivoted to the axle
to swing horizontally only, the outer beam
portion being pivoted thereto to swing verti-
cally, and a spring consisting of a flat bar at-
tached to the axle and curved over the same 30
to engage the vertically-swinging portion of
the beam and prevent its dropping below a
certain point, substantially as shown and de-
scribed.

FERDINAND REIMERS.

Witnesses:

WALDO BECKER,
G. A. KOESTER, Jr.,
WILLIAM J. BIRCHARD.