

FILKINS & DE PUY.

Gang-Plow.

No. 10,153.

Patented Oct 25, 1853.

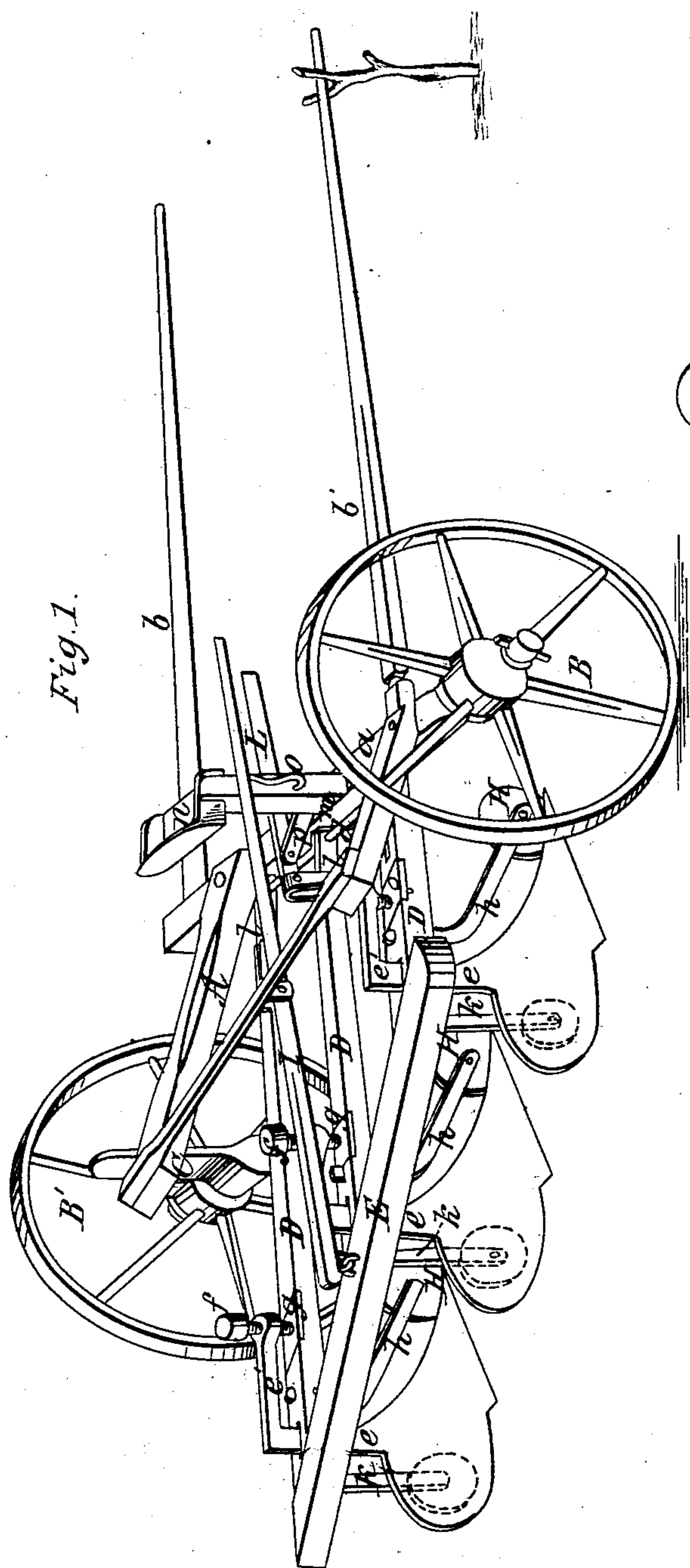


Fig. 1.

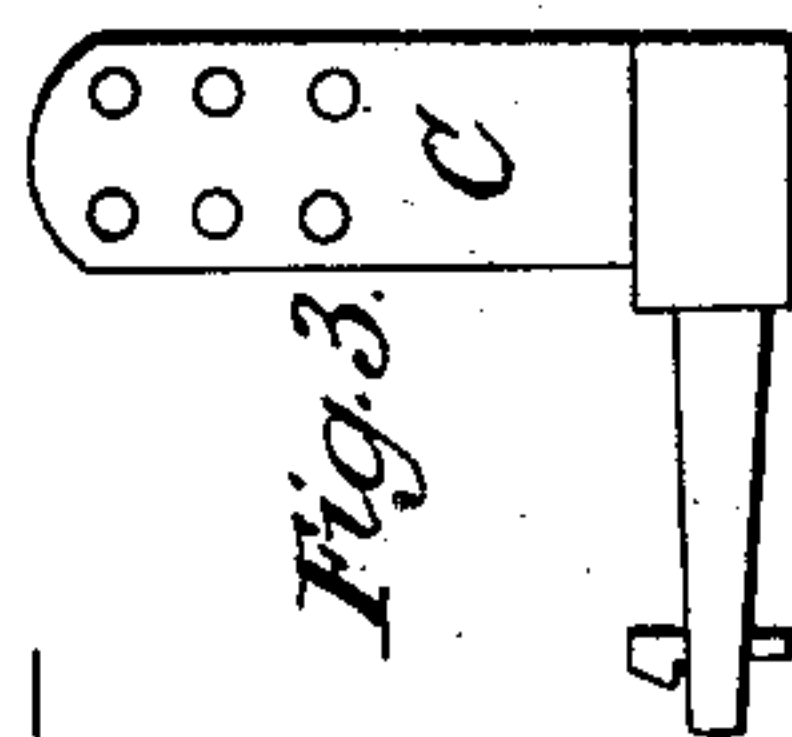


Fig. 3.

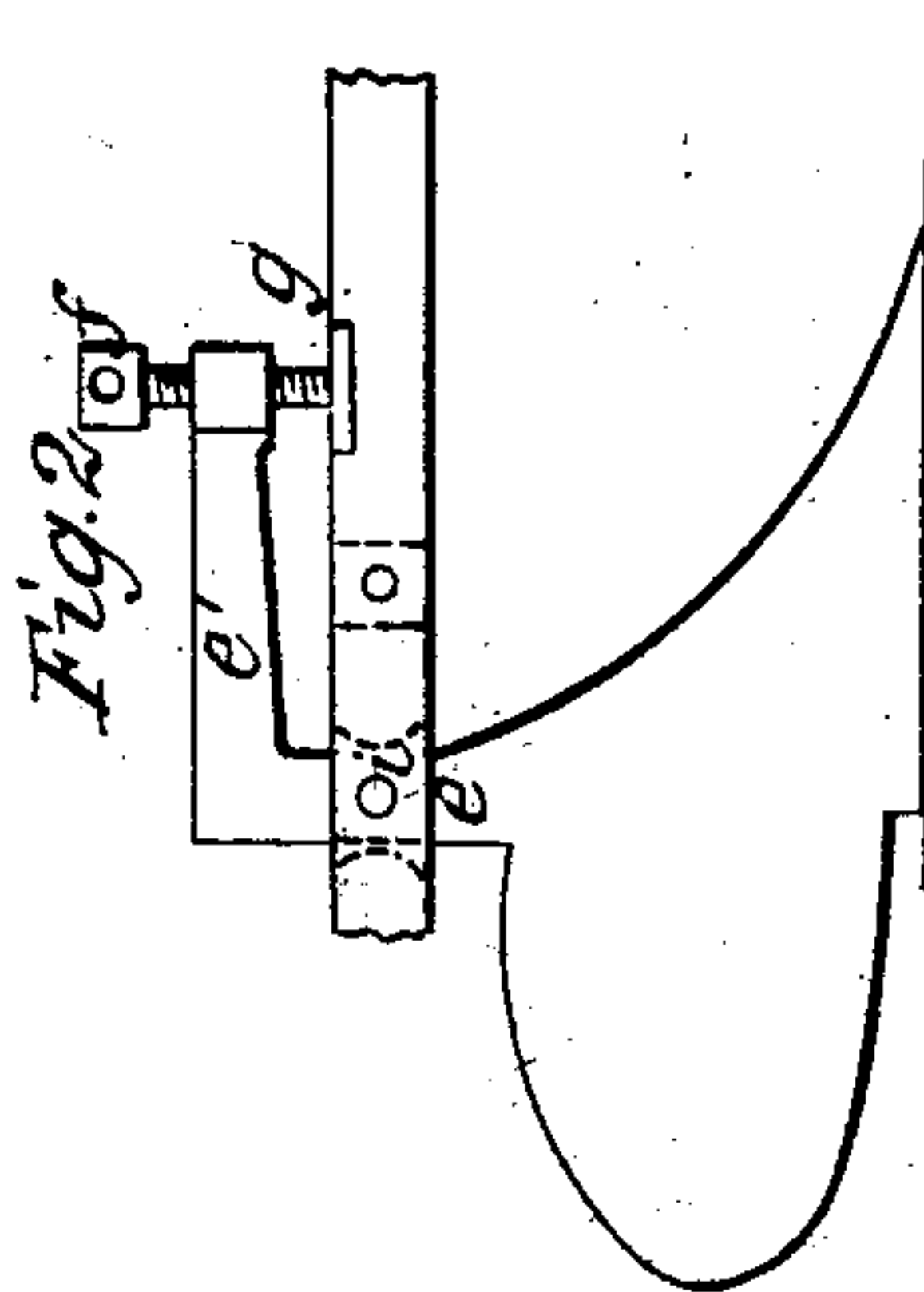


Fig. 2

UNITED STATES PATENT OFFICE.

JOHN D. FILKINS AND WILLIAM H. DE PUY, OF LIMA, INDIANA.

IMPROVEMENT IN ATTACHING HORSES TO PLOWS.

Specification forming part of Letters Patent No. **10,153**, dated October 25, 1851.

To all whom it may concern:

Be it known that we, JOHN D. FILKINS and WILLIAM H. DE PUY, of Lima, in the county of Lagrange and State of Indiana, have invented certain new and useful Improvements in Gang-Plows, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form part of this specification, and in which—

Figure 1 is a view in perspective of our gang-plow. Fig. 2 is a side elevation of one of the plow-irons, and Fig. 3 is a back elevation of the axle of the land-side wheel.

Our gang-plow, as represented in the annexed drawings, is composed of two distinct parts, the running-gear and the swing-frame, the latter having in this instance three adjustable plow-irons secured to it, and being connected in such a manner with the running-gear that the wheels of the latter can rise over obstructions without affecting the plows, while at the same time the driver, seated above the axle-tree, can raise either the front or the hinder extremity of the plow-frame without changing his position.

Each plow-iron is furnished with an adjustable disk-colter, which precedes the point of the share, and with a friction-wheel, which follows the land-side. Each plow-iron is also attached to its beam in such manner that the point of its share can be raised or lowered, according to the work it has to perform. Our gang-plow is arranged to be drawn by two teams harnessed abreast, the one acting on a stiff tongue to direct the machine and the other upon a limber tongue.

The running-gear consists of a frame, A, supported on two wheels, B B'. The wheel B, which runs in the furrow, is fitted to a main axle-tree, *a*, which extends across the plow, and to which the stiff tongue *b* and the limber tongue *b'* are secured. The land-side-wheel B' runs behind the main axle-tree upon a separate axle projected horizontally from an upright standard, C, which is connected with the frame A in such manner that it can be raised or lowered to set it to a greater or less depth of the furrow. This standard is passed between two arms projected laterally from the side of the frame A, and is secured in any desired position by two bolts passed through the arms and standard.

The swing-frame is composed of three beams, D D D, progressively increasing in length, con-

nected at their front extremities by a tie-rod, *d*, and at their hinder extremities by a diagonal cross-bar, E, to which they are framed. Each beam is furnished with a set of plow-irons, the latter being attached to the former by a standard, *e*, which is passed through a slot in the beam, and is held in place by a bolt or pivot, *i*, passing through the two. The standard after passing through the beam is bent forward in line with the beam to form an arm, the extremity of which is fitted with a set-screw, *f*, whose point bears against a plate, *g*, on the beam, and which can be turned in either direction to raise or lower the extremity of the arm, and thus turning the plow-irons on their pivot in the beam to raise or lower the point of the share. Each set of plow-irons is preceded by a disk-colter, H, whose arm *h* is passed through a mortise in the beam, and is pierced with a series of holes, through one of which a bolt is passed to hold the arm in place. As the point of the share is adjusted by the set-screw, this colter-arm is raised or lowered to adapt the colter to the plow. In order that this arm may not interfere with the action of the bent arm *e'* of the plow-standard, the mortise through which it is passed is not directly in front of the slot for the plow-standard, but is sufficiently out of line with the arm *e'* to allow the colter-arm *h* to be raised by the side of the bent arm *e'*. Each set of plow-irons is provided with a friction-wheel to diminish the friction of the sole of the plow against the bottom of the furrow. This wheel, which is dotted in Fig. 1, is secured to an arm, *k*, behind the plow-standard. The swing-frame, with the plow-irons thus constructed, is connected with the main axle-tree *a* of the running-gear by three links, *l*, which correspond in position with the three beams D, and thus allow the running-gear to rise when the wheels meet obstructions without throwing the plow-irons out of the ground, as would be the case with the ordinary gang-plow. Its longitudinal inclination is regulated by two levers, the one, I, having its hinder extremity connected with the back cross-bar, E, its front extremity passing by the right side of a standard, *m*, on the axle-tree which supports the seat *n* of the driver, this lever being suspended at an intermediate point from the cross-bar of the frame A by a link, which thus forms its fulcrum. The front extremity of the lever is in

reach of the hand or foot of the driver, who, by raising it or lowering it, can depress or raise the hinder end of the swing-frame, and can secure it in either position by a catch, *o*, on the standard. The other lever, *L*, acts upon the front extremity of the swing-frame in the same manner as the one first described does upon its hinder extremity. It is supported in a forked arm, *p*, projected backward from the main axle-tree, and its front extremity projects by the left side of the seat-standard *m*, being thus in reach of the foot of the driver. By means of these two levers the driver can raise either extremity of the swing-frame to regulate the ac-

tion of the plows, or he can raise the points of the shares out of the ground, which operation is always necessary when the plow is turned round.

What we claim as our invention, and desire to secure by Letters Patent, is—

The combination of the limber and stiff tongues with the running-gear to adapt it to being drawn by two teams abreast, as described.

JOHN D. FILKINS.

WILLIAM H. DE PUY.

Witnesses:

A. C. VAN ORNUM,
DAVID LARIMER.