

G. W. MANUEL.
Gang-Plows.

No. 137,697.

Patented April 8, 1873.

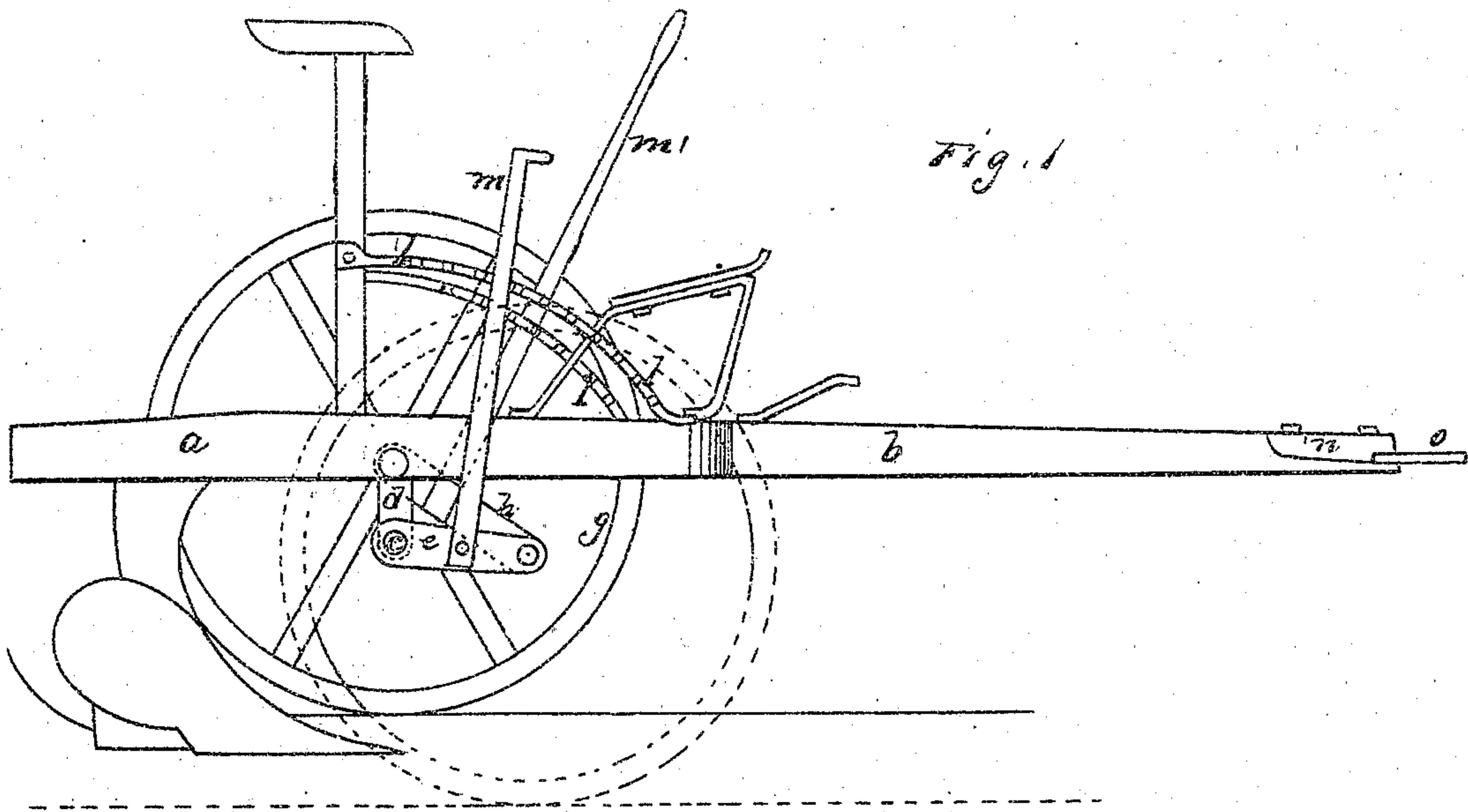


Fig. 1

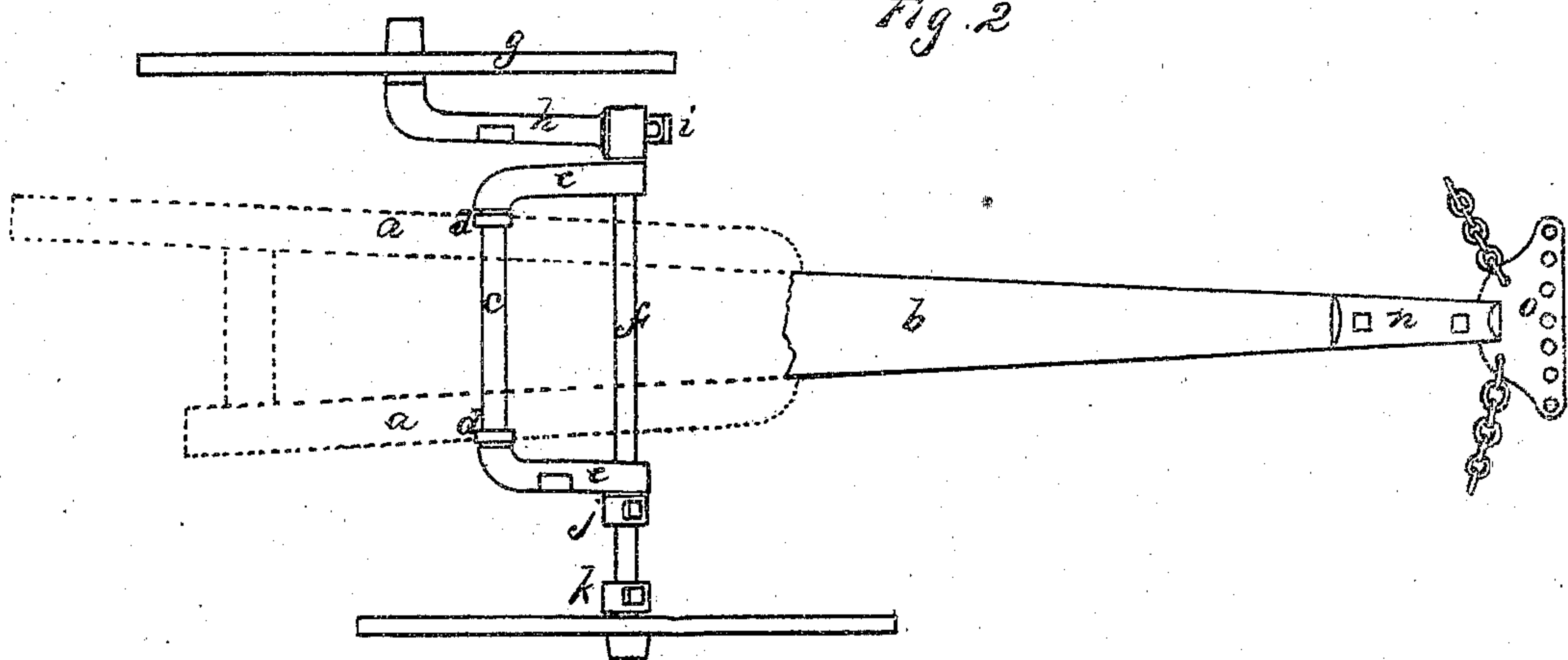


Fig. 2

Witnesses.
Jas F. Gehrig
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UNITED STATES PATENT OFFICE.

GEORGE W. MANUEL, OF NAPA, CALIFORNIA.

IMPROVEMENT IN GANG-PLOWS.

Specification forming part of Letters Patent No. 137,697, dated April 8, 1873; application filed September 20, 1872.

To all whom it may concern:

Be it known that I, GEORGE W. MANUEL, of Napa, in the county of Napa and State of California, have invented an Improvement in Gang-Plows; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My improvement consists, mainly, of an extension axle for the driving-wheels, so that both wheels can be made to rotate on the undisturbed soil in striking out land, or one wheel be made to traverse in the furrow and one on land, as desired; also, to the arrangement and disposition of the racks and levers so that only one lever need be released from the rack for raising and lowering of the plows.

Referring to the drawing, Figure 1 is a side elevation of my plow. Fig. 2 is a top view of the operating-gear.

It will be observed that the hounds or beams *a a*, to which my plows (two in number) are attached, are rigid with the draft-pole *b*, and that the crank-axle *c* is supported by vertical brackets *d d*, attached to the hounds or beams of the plow-frame. From the crank-axle extend crank-arms *e e'*, through which the axle *f* of the driving-wheels pass. The land-wheel *g* is provided with a crank-arm, *h*, through the end of which the driving-axle passes, where it is held by a set-screw, *i*. The racks *l l'* are nearly on a plane with each other; and the one next the furrow-wheel may be attached to the frame in a more rigid manner than the rack *l'*, as it is intended to keep the short lever—or the one that operates in this rack—more constantly in position, or so that it will slide up and down in the teeth, except in case

it is desired to raise the plows entirely from the ground, as when passing from field to field. Both levers *m m'* are mortised into the crank-arms *e e'*, and neither is provided with teeth on its inner sides, as in the construction of ordinary levers.

By constructing the levers in this way the cost is reduced, and no projections are had to prevent easy working.

The operation of my plow is as follows: The short or right-hand lever is set to the position desired in the teeth of the rack; and with his right hand the driver can raise or lower the plows easily at will, without the necessity of putting forth much strength or the full monopoly of both hands, and thus divert his attention from the draft-horses engaged in drawing the machine, and causing the sods to be turned irregular in width.

It should here be observed that, in practical operation, my plow will be found to be the most complete and perfect implement in use for the purpose designed.

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

In a gang-plow of substantially the described construction, the lever *m*, adapted to slide in notches of its rack, in combination with the lever *m'*, adapted to be moved forward and backward, and the connecting-parts, arranged as described, for the purpose set forth.

In testimony whereof I have hereunto set my hand and seal.

G. W. MANUEL. [L. S.]

Witnesses:

C. W. M. SMITH,
JAS. T. FAHEY.