

Patented Mar. 27, 1860.

Fig. 4.

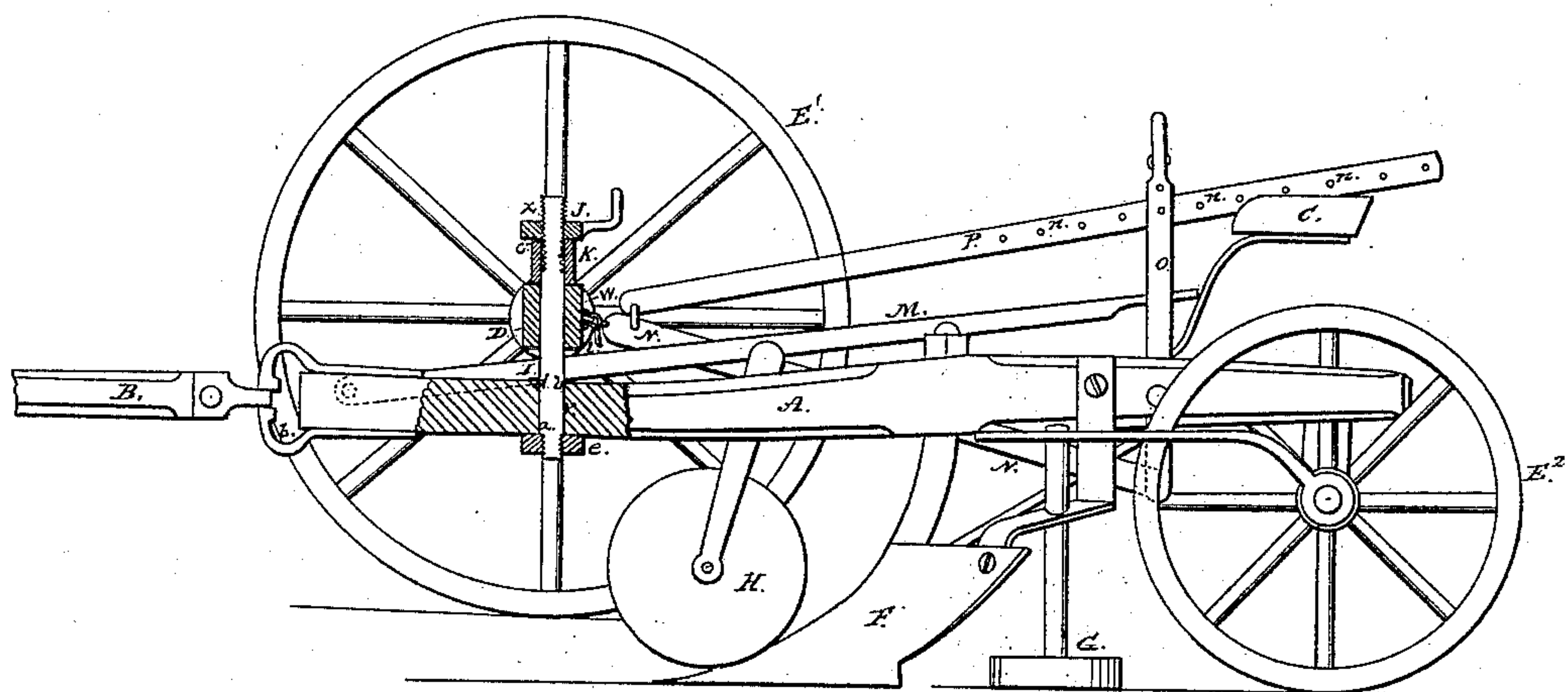


Fig. 2.

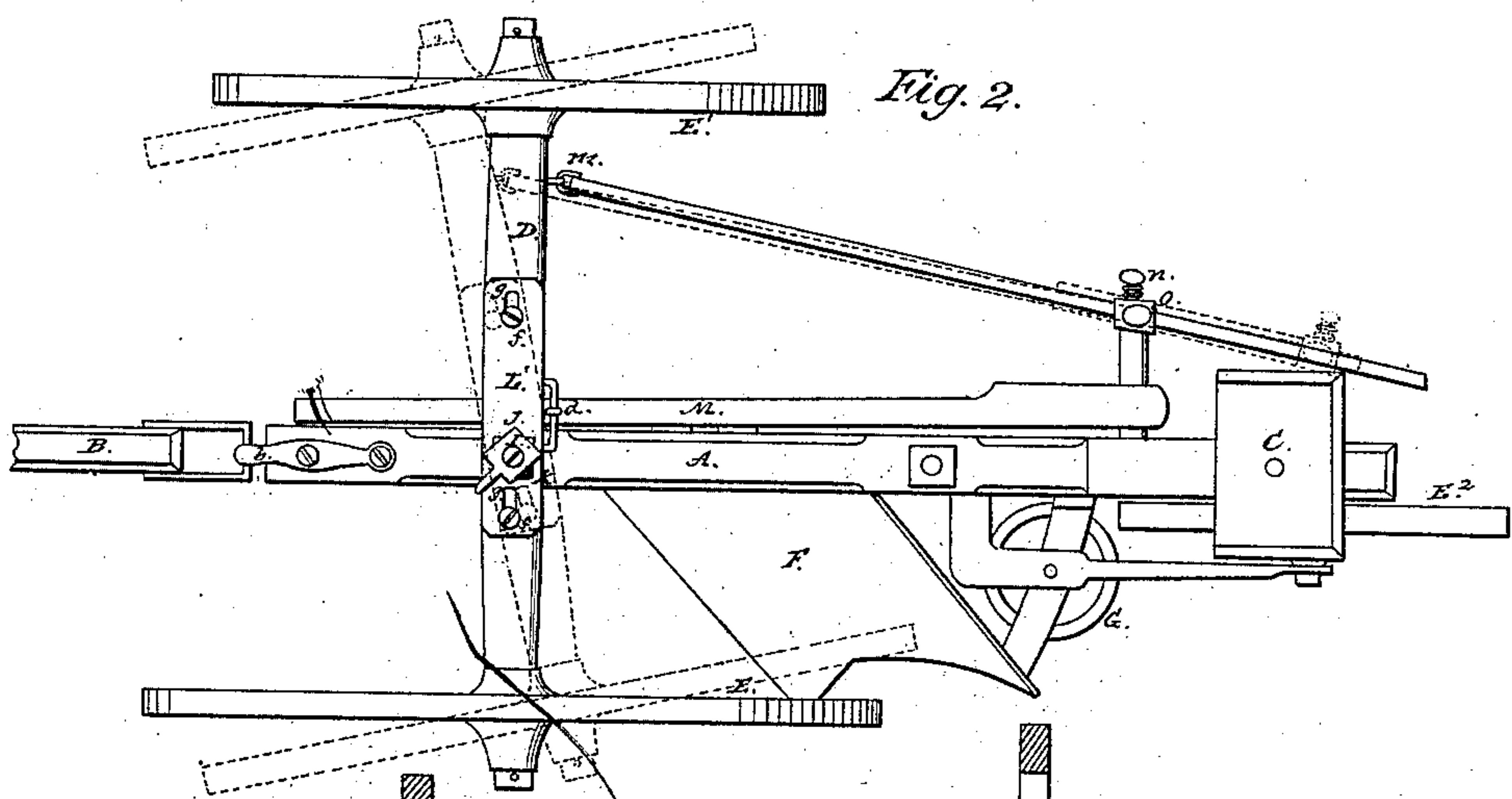
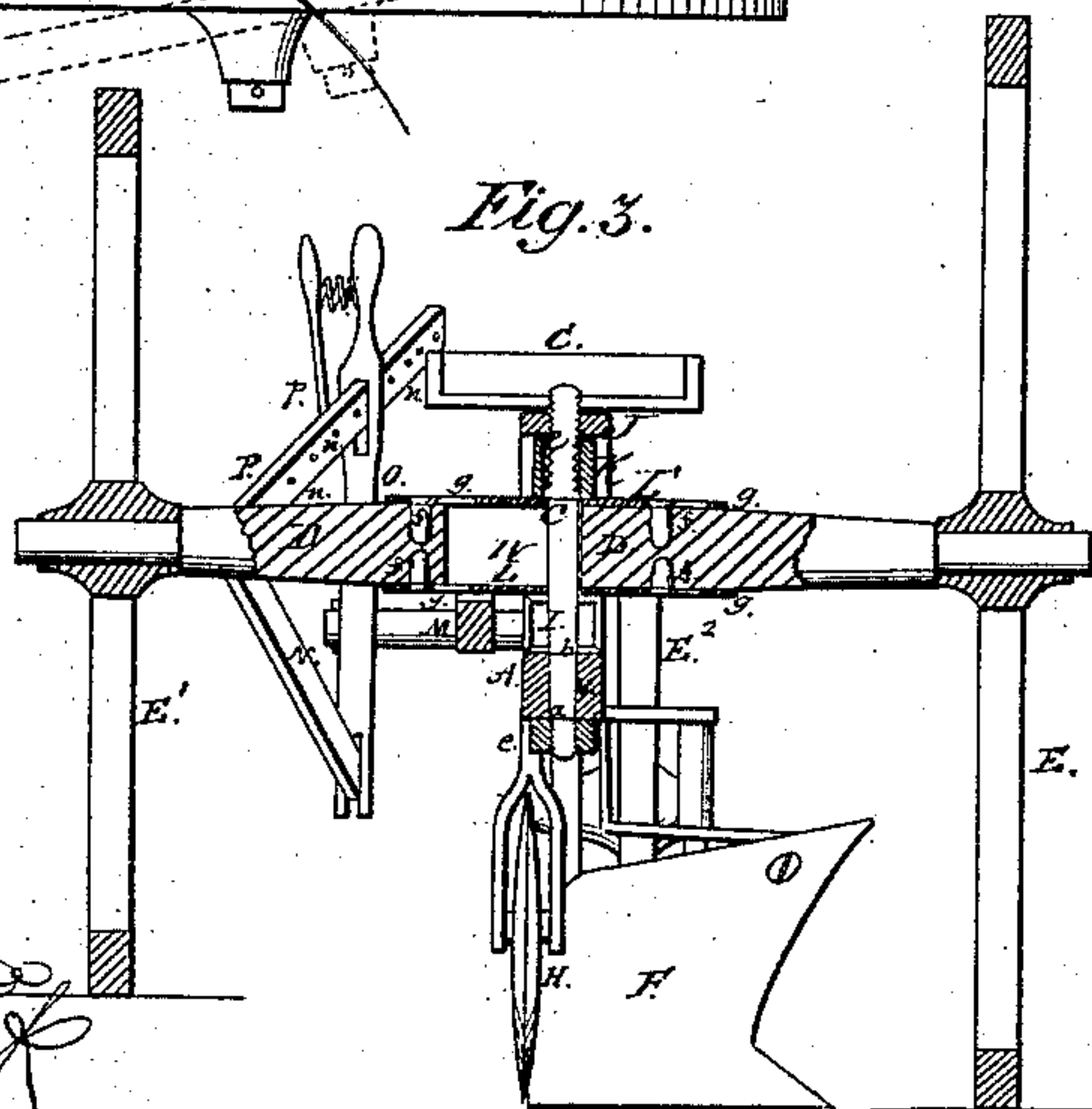


Fig. 3.



Witnesses:

Goodwin W. also
Robt. W. Hewick

Inventor:

G. W. Hunt

UNITED STATES PATENT OFFICE.

GEORGE W. HUNT, OF MUSCATINE, IOWA.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. 27,634, dated March 27, 1860.

To all whom it may concern:

Be it known that I, GEORGE W. HUNT, of the city and county of Muscatine, and State of Iowa, have invented a new and useful Improvement in Plows; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation and partial section of my improved plow. Fig. 2 is a plan or top view of the same. Fig. 3 is a vertical transverse section of the same.

Similar letters of reference in each of the several figures indicate corresponding parts.

My invention consists, first, in the arrangement of a vertical coupling and adjusting pin, which has that portion which passes through the beam round and that portion which passes through the axle square, in combination with a diagonal adjusting-bar, a connecting-rod, and a vertical lever. By this arrangement the beam, with its attachments, is allowed a chance to play up and down, according to the undulations of the soil on the landside of the plow, independently of the axle, and the axle, with its wheels, is allowed a chance, when it is desired to turn a corner, to swing round horizontally independently of the beam.

My invention consists, second, in the arrangement of a long slot in the axle with an upper and under slotted sliding plate and the coupling and adjusting pin. By this arrangement the plow can be set so as to plow to a greater or less depth and yet always have its sole resting square upon the bottom of the furrow.

My invention consists, third, in the arrangement of the beam, slotted axle, coupling-pin, slotted plates, diagonal connecting-rod, adjusting-bar lever, driver's seat, treadle, plow, horizontal rotary landside-wheel, and rotary colter, all in the manner described, and for use together.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the beam. At its forward end a tongue, B, is attached by means of a loop and a clevis, b, and on its rear end a driver's seat, C, is mounted. The beam is suspended,

near its front end, on an axle, D, of two propelling-wheels, E E', of different diameters, and has its rear end supported by a third wheel E², as shown.

F is the plow. It is arranged about midway of the beam, as usual. This plow has no land-side-bar attached to it, but has a wheel, G, arranged on a vertical shaft, placed behind in such position that its circumference bears against the land side of the furrow as the plow moves through the earth. This horizontal revolving wheel answers as the landside and avoids friction, and also steadies the plow. H is the revolving colter arranged in front of the plow.

I is the vertical coupling-pin, which couples the axle and beam together. This pin is made round from a to b, and from b to c it is square. The upper end of this pin is made round, and has a screw-thread cut on it. This pin passes up loosely through a round hole, r, in the beam, and an oblong slot, w, in the axle, and is confined in place from vertical play by means of a shoulder, d, a head, e, and a nut, J, which latter screws on its upper end. It will be observed that the pin extends up some distance above the top of the axle. The object of this is to allow the axle, with its attachments, to move up and down on the square part of it, accordingly as the undulations of the soil operate upon the landside propelling-wheel E', and thus avoid lifting the plow from its set position.

K is a metal tube surrounding the exposed portion of the coupling-pin. This tube protects the screw-thread x from injury as the axle moves up and down over it.

L L' are two slotted plates, one arranged on top and the other on the bottom of the axle. Set-screws ff pass through the axle and slots gg of the plates. The coupling-pin also passes through square holes in said plates, so that it has no lateral movement independently of the plates. Now, suppose the plow is adjusted by the screw and nut of the coupling-pin to run deeper, or its point is pitched down and its rear thrown up, all that has to be done to have its sole run horizontal from point to rear is to shift the upper plate to the mold-board side and the under plate to the land side, for by thus shifting the plates the coupling-pin is caused to incline, and in doing so the axle is not af-

fect, but the beam is caused to take such a position as will throw the base of the plow horizontal.

M is a treadle pivoted to the front of the beam, and connected by a link, *l*, to the rear of the axle, and extended back to the driver's seat. This treadle enables the driver with his foot to raise and lower the front end of the beam and the plow, as occasion may require.

N is a connecting-rod hinged at *m* to the landside end of the axle, and extended back to near the rear end of the beam and there pivoted to a vertical hand-lever, O, of the beam, as shown.

P is an adjusting-bar, on which the lever moves back and forth. This bar has a series of holes, *n*, formed in it, and the lever has a spring stop-pin, *p*, which falls into said holes. With this arrangement the plow can readily be turned round a corner, for by moving the lever backward the connecting-rod exerts a thrust forward, and consequently the axle turns on the round part of the coupling-pin and assumes, with the propelling-wheel, the position shown in red lines. To bring the axle and wheels back to the position shown in black lines, the lever is moved backward on the bar P.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The arrangement of a vertical coupling and adjusting pin, I, which has that portion which passes through the beam round and that portion which passes through the axle square, in combination with a diagonal adjusting-bar, P, a connecting-rod, N, and a vertical lever, O, substantially as and for the purposes set forth.

2. The arrangement of a long slot, *w*, in the axle with an upper and under slotted sliding plate, L L', and the coupling and adjusting pin I, substantially as and for the purposes set forth.

3. The arrangement of the beam A, slotted axle D, coupling-pin I, slotted plates L L', diagonal connecting-rod N, adjusting-bar P, lever O, driver's seat C, treadle M, plow F, horizontal rotary landside-wheel G, and rotary colter H, in the manner and for the purposes set forth.

The above specification of my improved plow signed by me this 16th day of January, 1860.

G. W. HUNT.

Witnesses:

GOODWIN Y. AT LEE,
R. W. FENWICK.