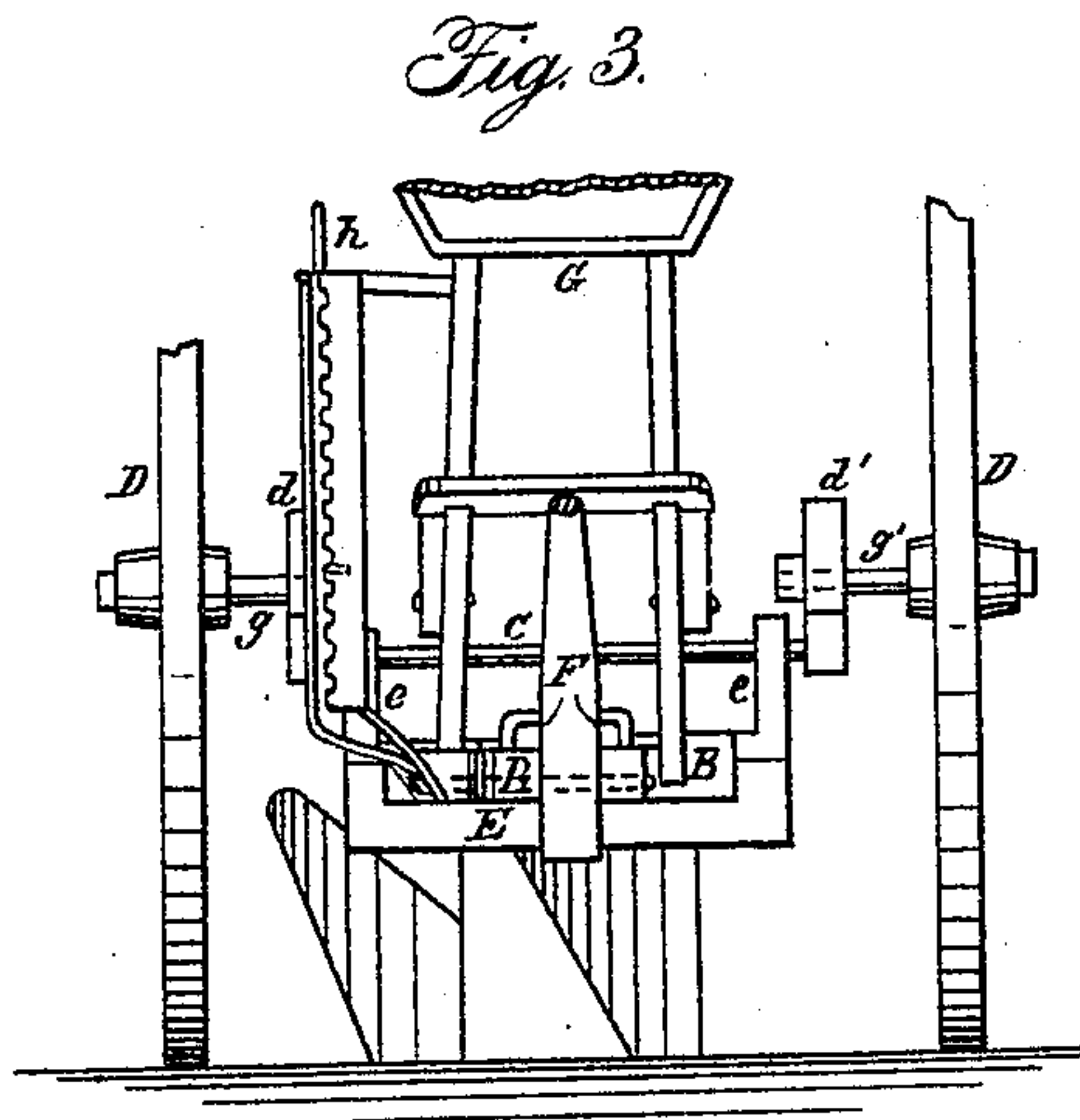
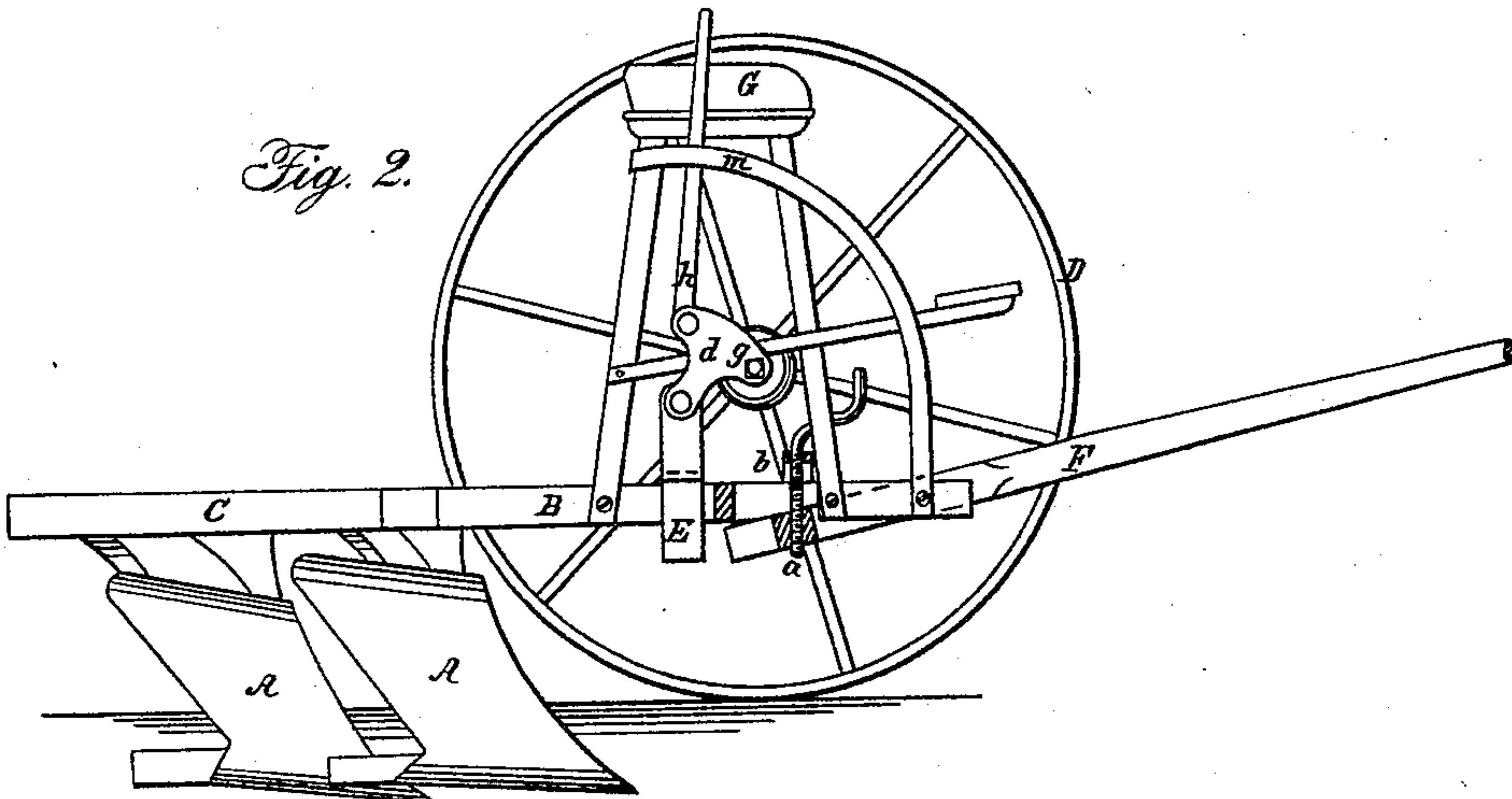
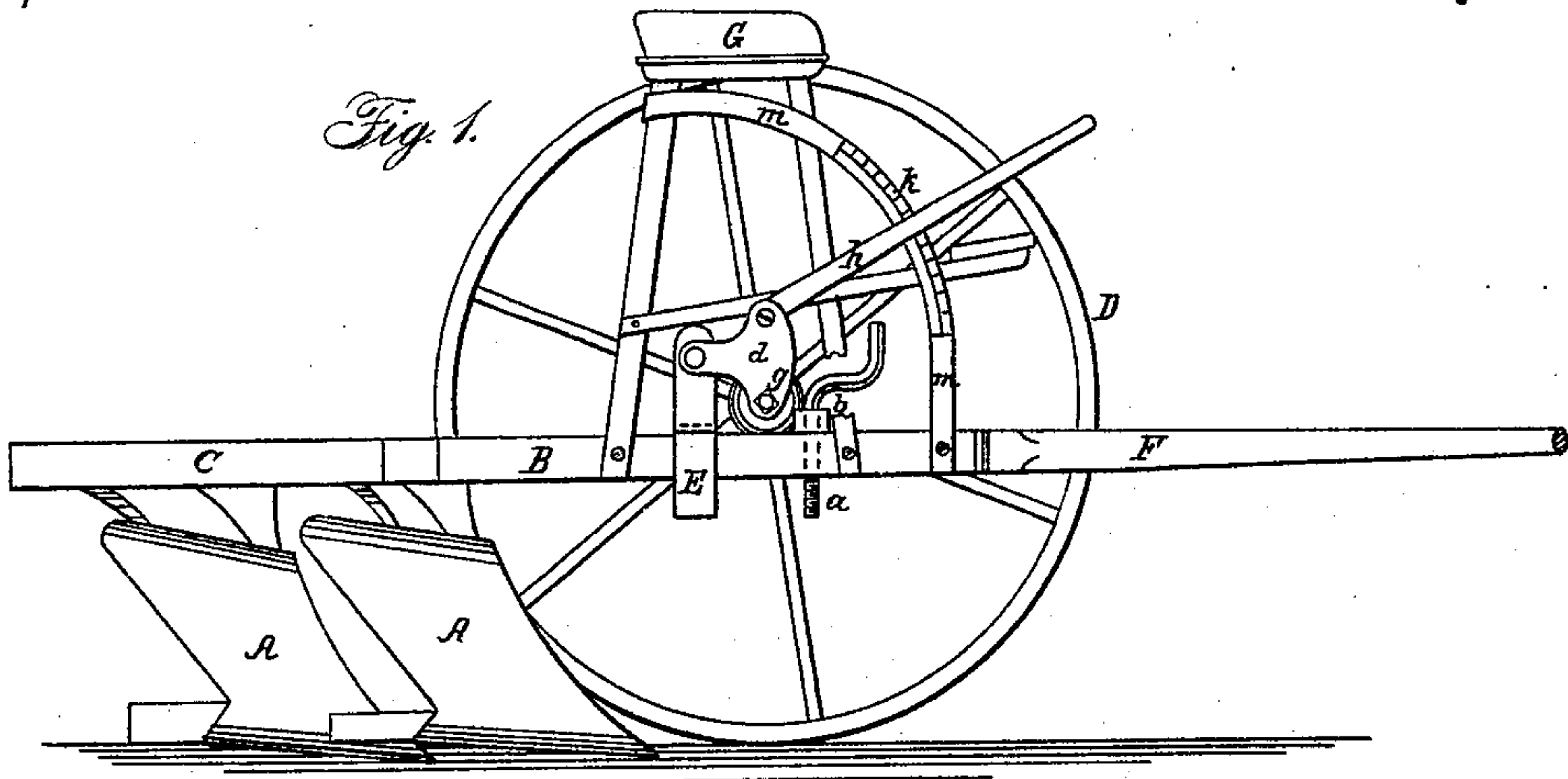


J. W. SURSA.

Wheel Plow.

No. 64,923.

Patented May 21, 1867.



Witnesses:

Pres. Tusche
Wm. Treum

Inventor:

Jos M Sursa
Per Munn &
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UNITED STATES PATENT OFFICE.

JANES W. SURSA, OF SAN LEANDRO, CALIFORNIA.

IMPROVEMENT IN GANG-PLOWS.

Specification forming part of Letters Patent No. 64,923, dated May 21, 1867.

To all whom it may concern:

Be it known that I, JANES W. SURSA, of San Leandro, in the county of Alameda and State of California, have invented a new and useful Improvement in Gang-Plows; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of my improved gang-plow, with a wheel taken off to show the device for raising and lowering the plow. Fig. 2 is the same view, showing the device for adjusting the height of the draft-pole when the plow is raised or lowered. Fig. 3 is a front-end view.

Similar letters of reference indicate like parts.

This invention relates to an improvement in gang-plows; and consists in the arrangement of a device for raising and lowering the plows, whereby they may be set at any required depth for working, or elevated above the ground to clear it entirely when the plow is moved from place to place; also, in connection therewith, an arrangement for adjusting the draft-pole to the plow as it may be raised or lowered.

A A are plows of ordinary construction, suspended, as usual, to two plow-beams, B B, which are connected at the rear by a diagonal cross-piece, C, and in the middle, between the wheels D D, by a cross-tie, E. The plow-beams B B are wider apart at the rear than the front end, to which the draft-pole F is pivoted, so that the fore end may be depressed or elevated more or less, as required, to adapt it to the height of the horses when the plow is raised or lowered, as hereinafter explained. For this purpose an adjusting-screw, *a*, is set in a bridge, *b*, on the top of the beams B B, and screws into the rear end of the draft-pole, as shown in Figs. 1, 2. Over the cross-tie E is placed a transverse shaft, *c*, which is hung in iron boxes *e e* at each end of the cross-tie, and outside of the boxes *e e* segmental arms *d d'* are hung on the ends of the

shaft *c*. To these segmental arms *d d'* are affixed, with screws and nuts, the axle-arms *g g'*, to carry the wheels D D. The segment-arm *d'* is provided with a number of holes in its periphery for receiving the axle-arm *g'*, for the purpose of adjusting the wheel D on the land-side to the depth required in plowing. The axle-arm *g* is connected with one end of the periphery of the segment-arm *d*, and at the other end of the segment is pivoted a hand-lever, *h*, that passes up near the driver's seat G, to be operated by him in raising and lowering the plows. The lever *h* works up and down in a segmental or curved rack, *k*. It is provided with a spring on one side to bear against the outside guide *m*, and press the lever in the notches of the rack, to hold it fast at any required point of elevation or depression.

It will be seen that when the lever *h* is raised to the top of the rack *k*, the segment-arms *d d'* will be raised relatively to the axle-arms *g g'*, and that the shaft *c* will be actually depressed, thereby lowering the plow-beams B B and the plows A A accordingly, and, when the lever *h* is depressed to the bottom of the rack *k*, that the operation is reversed, and the plows will be raised above the ground. Their position may also be adjusted at any intermediate point of elevation or depression.

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

1. The combination and arrangement of the shaft *c*, the segment-arms *d d'*, the axles *g g'* of the wheels D D, the hand-lever *h*, and the rack *k*, for raising and lowering the gang-plows A A, substantially as herein described.

2. The arrangement of the draft-pole F, pivoted to the plow-beams B B, and depressed and elevated by the screw *a*, substantially as and for the purpose set forth.

The above specification of my invention signed by me this 13th day of December, A. D. 1866.

JANES W. SURSA.

Witnesses:

CHS. H. CUSHING,
G. E. SMITH.