

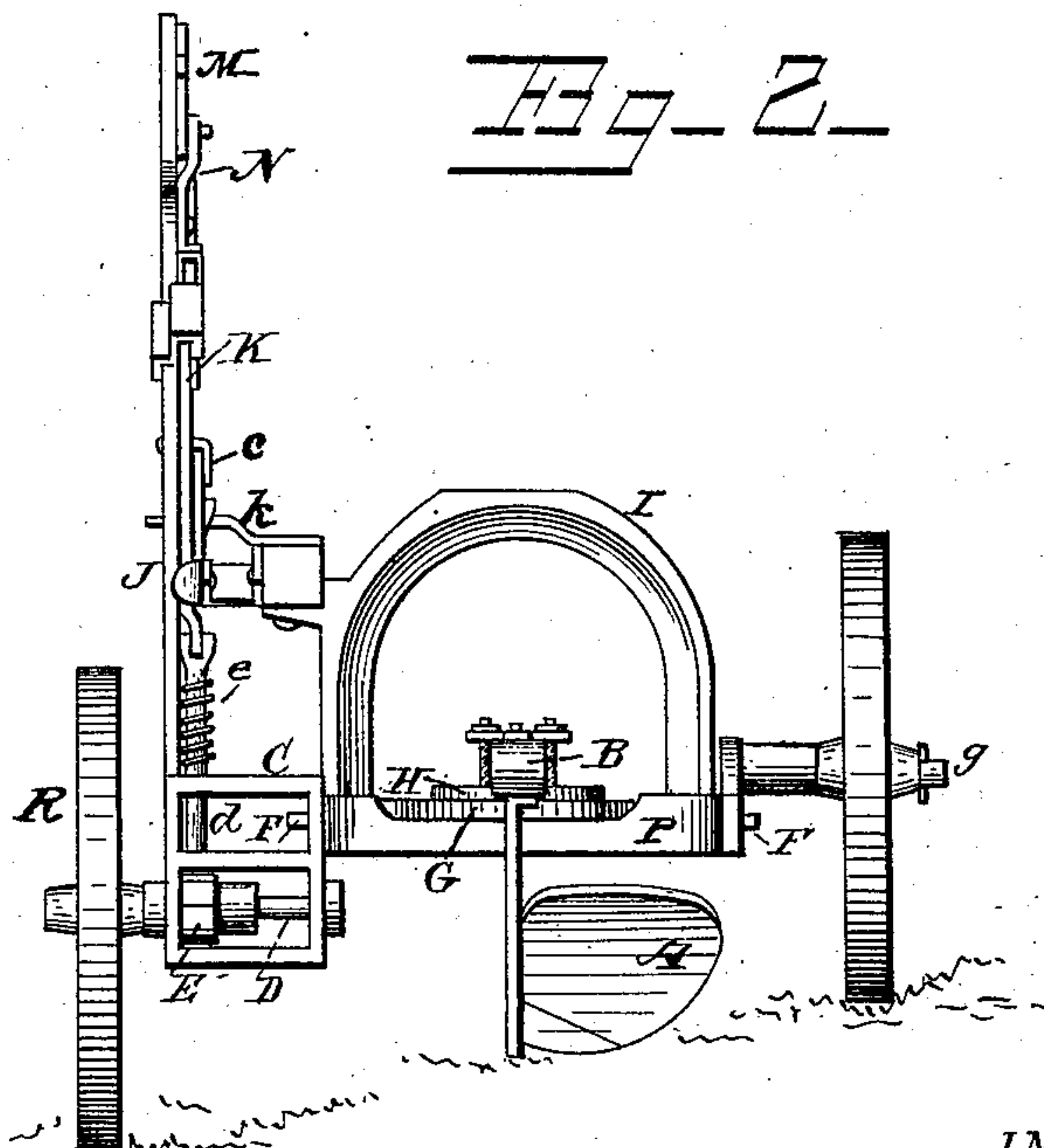
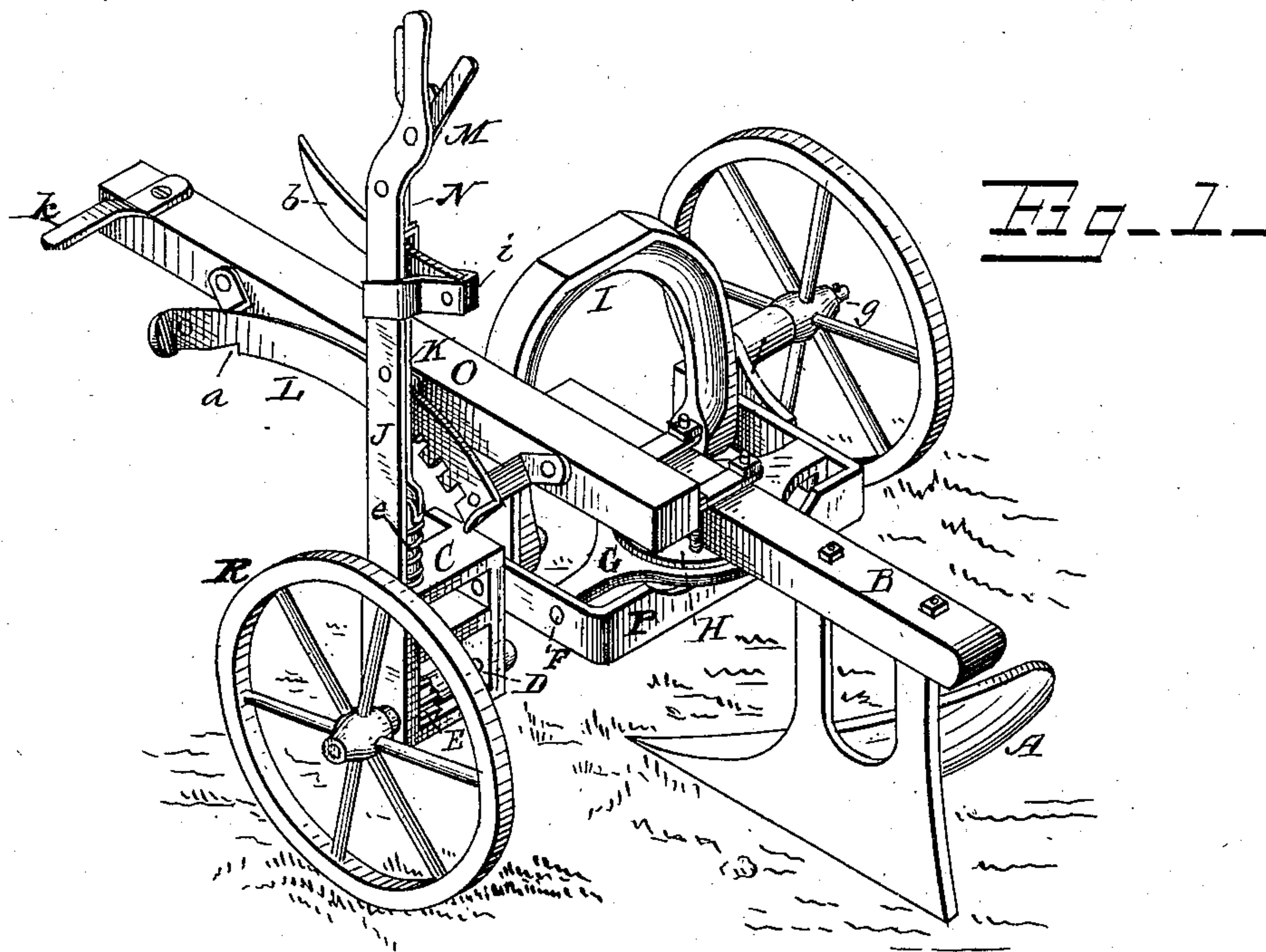
(Model.)

2 Sheets—Sheet 1.

A. BALL.
SULKY PLOW.

No. 289,798.

Patented Dec. 11, 1883.



WITNESSES
F. L. Ouraud
William J. Piercy

INVENTOR
Albert Ball,
per Fowler & Bond
Attorneys

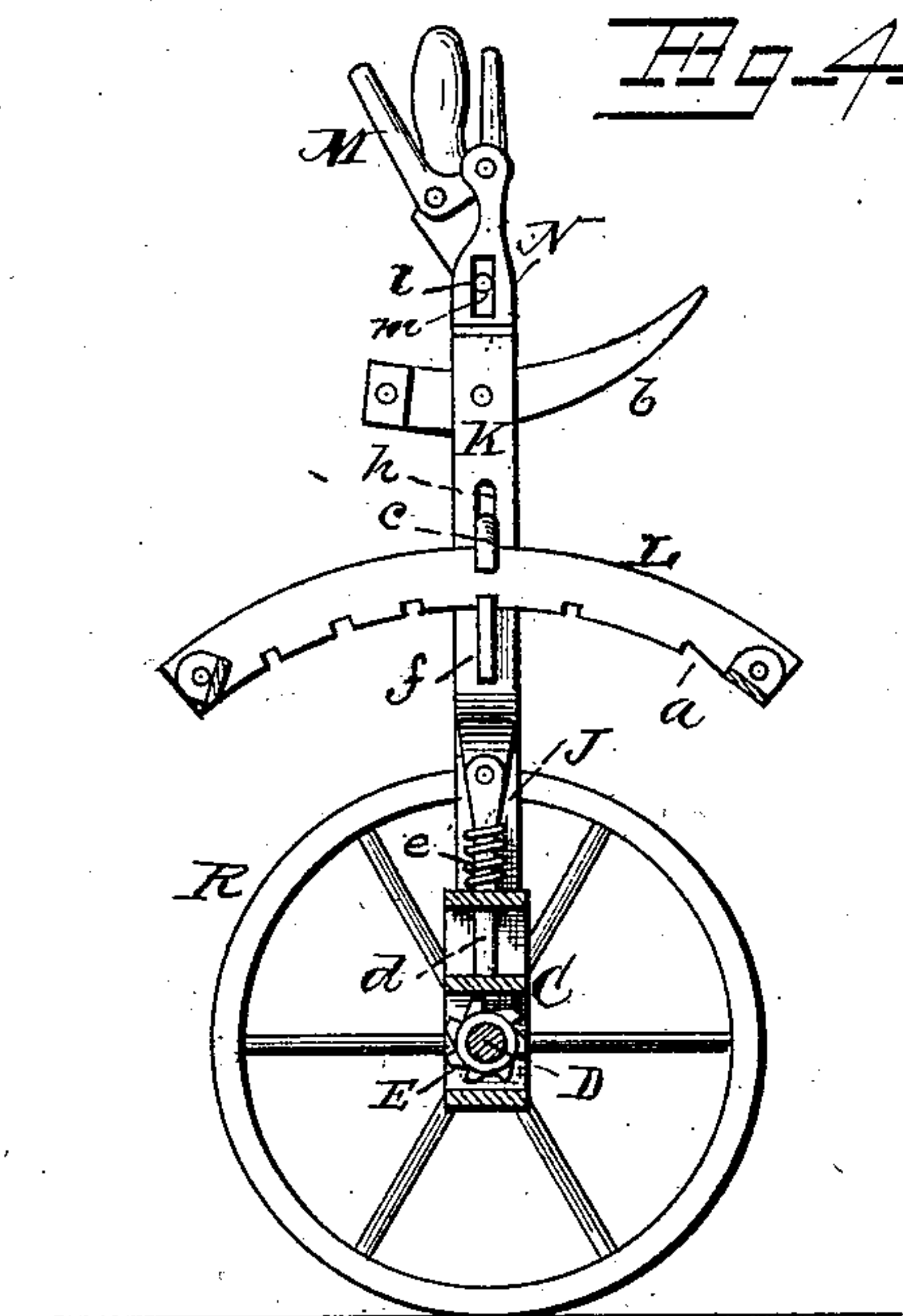
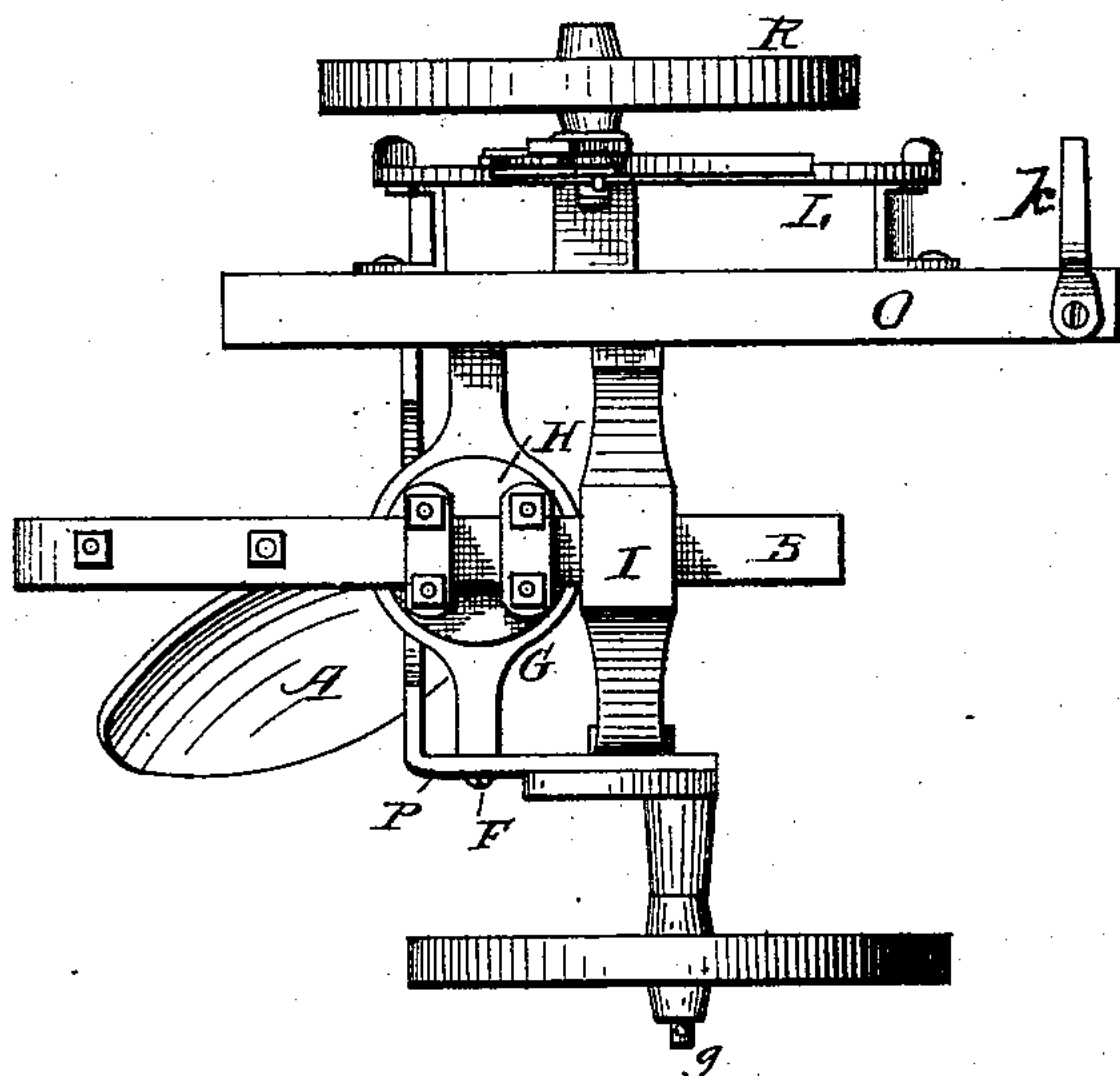
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UNITED STATES PATENT OFFICE.

ALBERT BALL, OF CANTON, OHIO.

SULKY-PLOW.

SPECIFICATION forming part of Letters Patent No. 289,798, dated December 11, 1883.

Application filed December 26, 1882. (Model.)

To all whom it may concern:

Be it known that I, ALBERT BALL, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Sulky-Plows; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 is a perspective view of my invention; Fig. 2, a rear end view thereof; Fig. 3, a top plan view; and Fig. 4, a sectional elevation, showing the operating-levers and connections.

The present invention has relation to certain new and useful improvements in sulky-plows, and the object thereof is to improve the general construction, whereby the operation of the plow is more effective and can be readily controlled by the driver with comparatively little difficulty.

The invention consists in the several details of construction, substantially as shown in the drawings, and hereinafter described and claimed.

In the accompanying drawings, A represents the plow, of the usual construction, attached to the beam B. A frame, C, is employed for supporting the axle D, and also forms a guide for a pawl, *d*, said frame having rigidly connected to it a lever, J, and also one end of a yoke, P, the opposite end thereof having secured to it the axle *g*. A frame, I, is connected to the yoke P, said frame having secured to it the usual tongue, O, and seat for the driver. The axle D, which rotates in its bearings has rigidly connected to it the drive-wheel R and also a ratchet-wheel E, with which engages the pawl *d*.

To the yoke P is attached the bed-plate G, for supporting the turn-table H, a bolt or rod, F, passing through the sides of the yoke, and the downwardly-curved ends of the bed-plate, so as to form a pivotal connection between the two and allow the bed-plate to have the required motion. The bed-plate G is formed with a circular recess, within which fits the turn-table H, and is connected thereto by a central bolt, which will admit of its turning, the plow-beam B being connected to the turn-

table by suitable bolts and clips, or in any other manner found most convenient. The pawl *d* is provided with a suitable spring, *e*, to retain it in a raised position when not operated to bring it in engagement with the ratchet-wheel E. The pawl *d* has pivoted to its upper end a lever, K, having an elongated slot, *h*, through which passes a guide-rod, *c*, rigidly connected to the lever J, thereby admitting the free vertical movement of the lever K, and also providing means for guiding and retaining in position the notched segment L, said segment being rigidly connected to the tongue O. The spring *e* not only retains the pawl *d* in an elevated position from engagement with the ratchet-wheel E, but causes a dog, *f*, upon the lever K to be forced upward to engage with the notched segment L.

To the upper end of the lever K is pivoted a trip-lever, *b*, the rear end of the trip-lever being pivoted to a suitable bracket, *i*, upon the lever J, said trip-lever being operated by an arm, *k*, secured to the tongue O, against which it is brought in contact.

To the upper end of the lever J is pivoted a bell-crank lever, M, and to this lever is pivoted a push-bar, N, said bar being guided by a pin, *l*, upon the lever J, entering an elongated slot, *m*, in the bar, as shown in Fig. 4. When it is desired to plow deeper, the lever J, with its attachments, is thrown back by first depressing the push-bar N through the medium of the bell-crank lever M, which will force down the lever K and disengage the dog *f* from the toothed segment L. This will admit the lever J being thrown back, which in turn depresses or lowers the frame C, and with it the yoke P, thereby bringing the plow in position to work deeper in the soil. The bed-plate G, being pivoted to the yoke, retains the plow-beam in a horizontal or nearly horizontal position, while the turn-table H, to which the plow-beam is attached, enables said beam to have the necessary sidewise or lateral motion. The axle D is somewhat lower than the axle *g*, so as to cause the plow A to assume an upright position while in use, the axle *g* being forward of the axle D. Thus when the plow is lifted out of the ground it will be in a vertical or upright position. By the employment of the pawl *d* and ratchet-wheel E, the axle D can be prevented from rotating, thereby rais-

ing the plow out of the ground by the draft of the team. When the lever J is brought forward, the trip-lever *b*, coming in contact with the arm *k*, will force the trip-lever up and also the lever K, thereby bringing the dog *f* to engage with the notched segment L at the notch *a* and releasing pawl *d*. Thus the plow is held in an elevated position from contact with the ground, while the other notches in the segment, in connection with the lever and dog, hold the plow at any desired depth in the ground.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The yoke P, having rigidly connected thereto the frame C, for supporting the axle D, and the axle *g*, in combination with the recessed bed-plate G, pivoted to the yoke, and the turn-table H, connected to the bed-plate by a central bolt or pivot, and having attached the plow-beam, substantially as and for the purpose set forth.

2. The frame C and axle D, having ratchet-wheel E and the yoke P, rigidly connected to said frame, in combination with the pawl *d*, spring *e*, and lever K, pivoted thereto, and

the lever J, rigidly secured to the frame, substantially as and for the purpose specified.

3. The combination, with lever J, rigidly connected to frame C, of the notched segment L and arm *k*, secured to the tongue O, the lever K, dog *f*, and pivoted trip-lever *b*, constructed and arranged to operate substantially as and for the purpose described.

4. The frame C, supporting the axle D, and the ratchet-wheel E, connected thereto, and the lever J, rigidly connected to the frame, in combination with the pawl *d*, spring *e*, lever K, having dog *f*, the trip-lever *b*, notched segment L, and arm *k*, substantially as and for the purpose specified.

5. The pivoted bed-plate G and yoke P, rigidly connected to the frame C, in combination with the axle D, notched wheel E, and levers J K, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ALBERT BALL.

Witnesses:

WILLIAM J. PIERO,
FRED W. BOND.