

W. W. Mathews.

Gang-Plow.

N^o 74238

Patented Feb. 11, 1868.

FIG. 1.

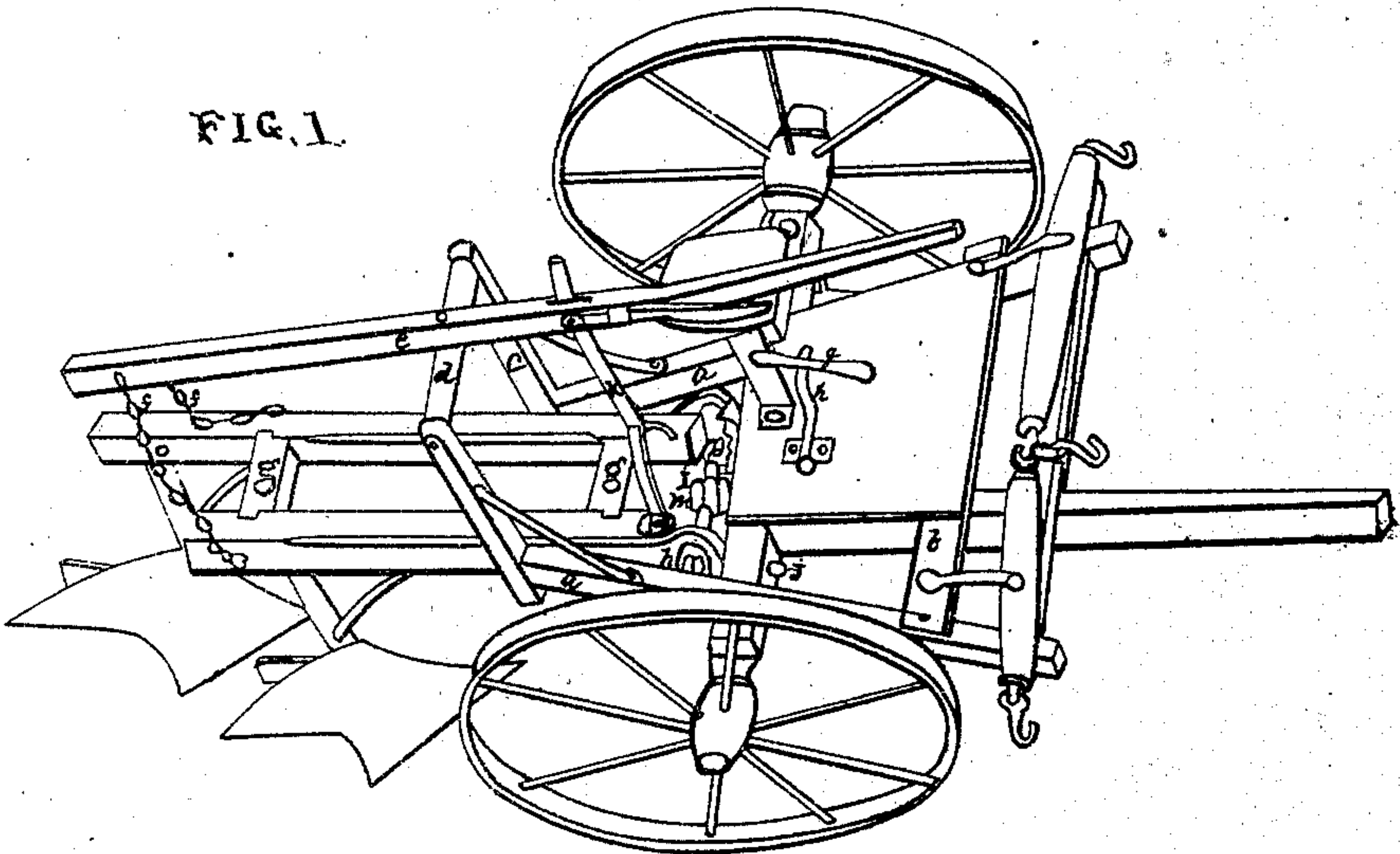


FIG. 2.

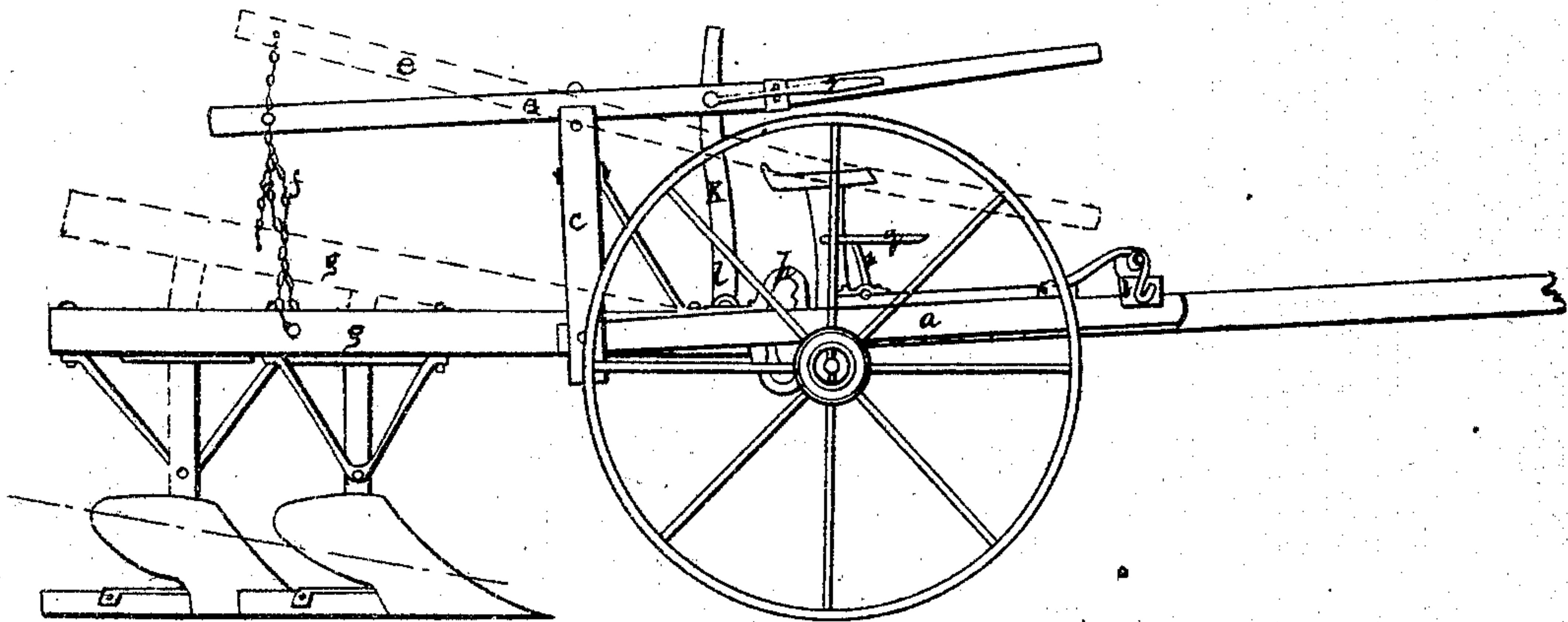


FIG. 3.

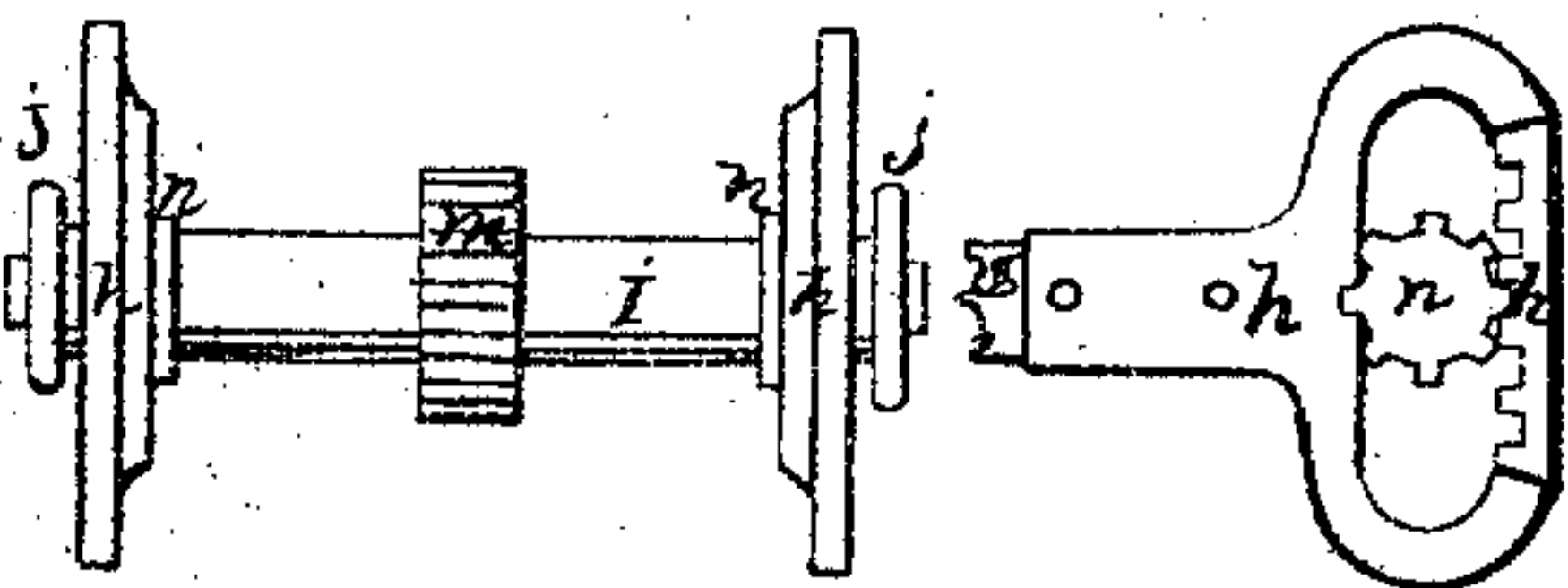
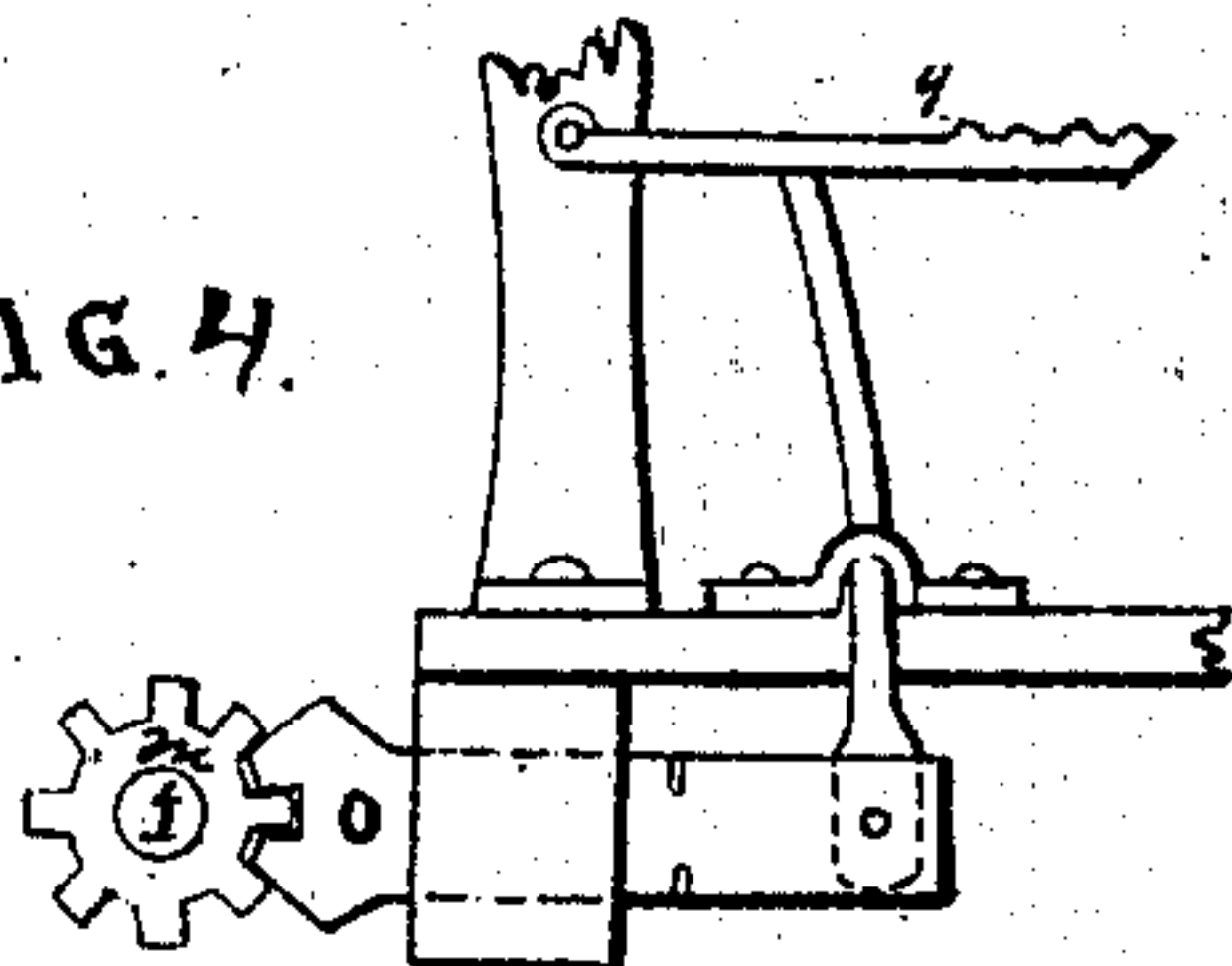


FIG. 4.



Witnesses.

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W. W. MATHEWS, OF YATES CITY, ILLINOIS.

Letters Patent No. 74,238, dated February 11, 1868.

IMPROVEMENT IN GANG-PLOUGHS.

The Schedule referred to in these Letters Patent and making part of the same.

Be it known that I, W. W. MATHEWS, of Yates City, Knox county, and State of Illinois, have invented a new and useful Gang-Plough; and I do declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part explanatory of this specification, in which—

Figure 1 is a vertical perspective view.

Figure 2 is a longitudinal view.

Figure 3 is a section of clevis and draught cog-bar, and

Figure 4 is a section of lock and treadle.

The nature of my invention consists in so constructing the frame that the plough may keep its proper position notwithstanding any lateral pressure; also in lowering and raising the front of plough-beam, so as to insure the proper entrance and exit of the ploughs.

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

Of any of the most-approved forms and material, I construct the wheels, axle, tongue, &c., setting the furrow-wheel deeper than the land-wheel. Upon this axle I secure the braces *a a* and the draught-bars *b b*, to which the treble-trees are attached. To the rear ends of braces *a a* the standards *c c* are secured, resting in upper ends of which is the axle *d*, to which is bolted the lever *e*, the rear end of which is connected, by chains or rods, *f f*, to the framed plough-beam *g*, the front end of which has two clevises, *h h*, coupled to the draught cog-bar *i*, which is secured by the staples *j j* to the principal axle. The gang-ploughs are secured to compound beam in any approved manner. To the front end of beam is connected the lever *K*, as shown in drawings, by rounding and turning outwards the lower ends of the yoke *l*, and securing them by staples in upper edge of beam. This lever runs through the mortise in lever *e*, and the levers *e* and *K* are readily connected by means of a spring-pin, *r*. The draught-bar *i* is of wrought iron, and has attached three cast-iron cog-wheels, *m* and *n n*. The centre wheel, *m*, meshes with the lock *o*, which is kept to the wheel by a spring fixed to front of axle. The lock is thrown out of gear by the lever or crank *p*, operated by the treadle *q*, fixed to standard of driver's seat. The outer cog-wheels on draught-bar are alike, having an outer circular flange, acting as friction-rollers to the inner edge of clevises.

To drive the plough on the road, or when turning, the clevis being raised on draught-bar, the heel of beam is elevated by the depression of the handle of lever *e*, and in this position is secured to *K* by the pin *r*. To run the plough into the ground, the levers are connected by pin in upper hole, and the driver, by foot on treadle, withdraws lock from cog-wheel *m*, and with one hand, by levers *e* and *K*, lowers the clevises on cogs until the ploughs gain the required depth of furrow. To run ploughs out of ground, (usually necessary when turning,) withdraw the lock on cog *m*, and raise clevis-end of beam, until ploughs run to the surface.

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

1. The braces *a a*, draught-bars *b b*, standards *c c*, constructed and in combination substantially as shown, for the uses and purposes herein set forth.

2. The method of raising, lowering, and securing the front end of plough-beam by means of the levers *e* and *K*, pin *r*, clevises *h h*, draught-bar *i*, cog-wheels *m* and *n n*, with their friction-rollers, flanges, the lock *o*, crank-lever *p*, and treadle *q*, or by any means substantially the same, all in combination and as shown, for the uses and purposes herein set forth.

W. W. MATHEWS.

Witnesses:

W. H. HASKELL,

J. H. RAINY.