

J. J. REED.
Wheel Cultivator.

No. 59,654.

Patented Nov. 13, 1866.

Fig. 1.

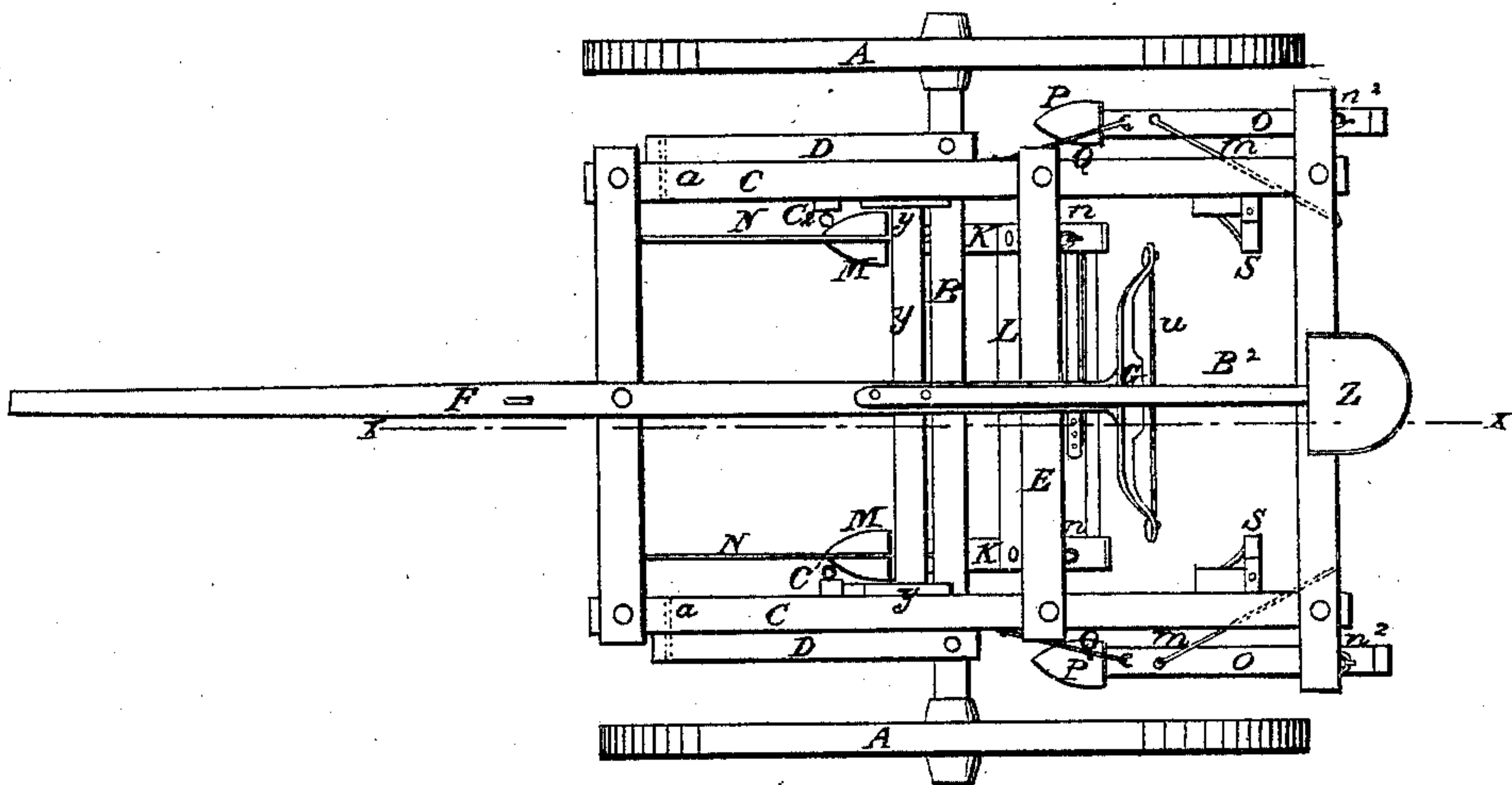


Fig. 2.

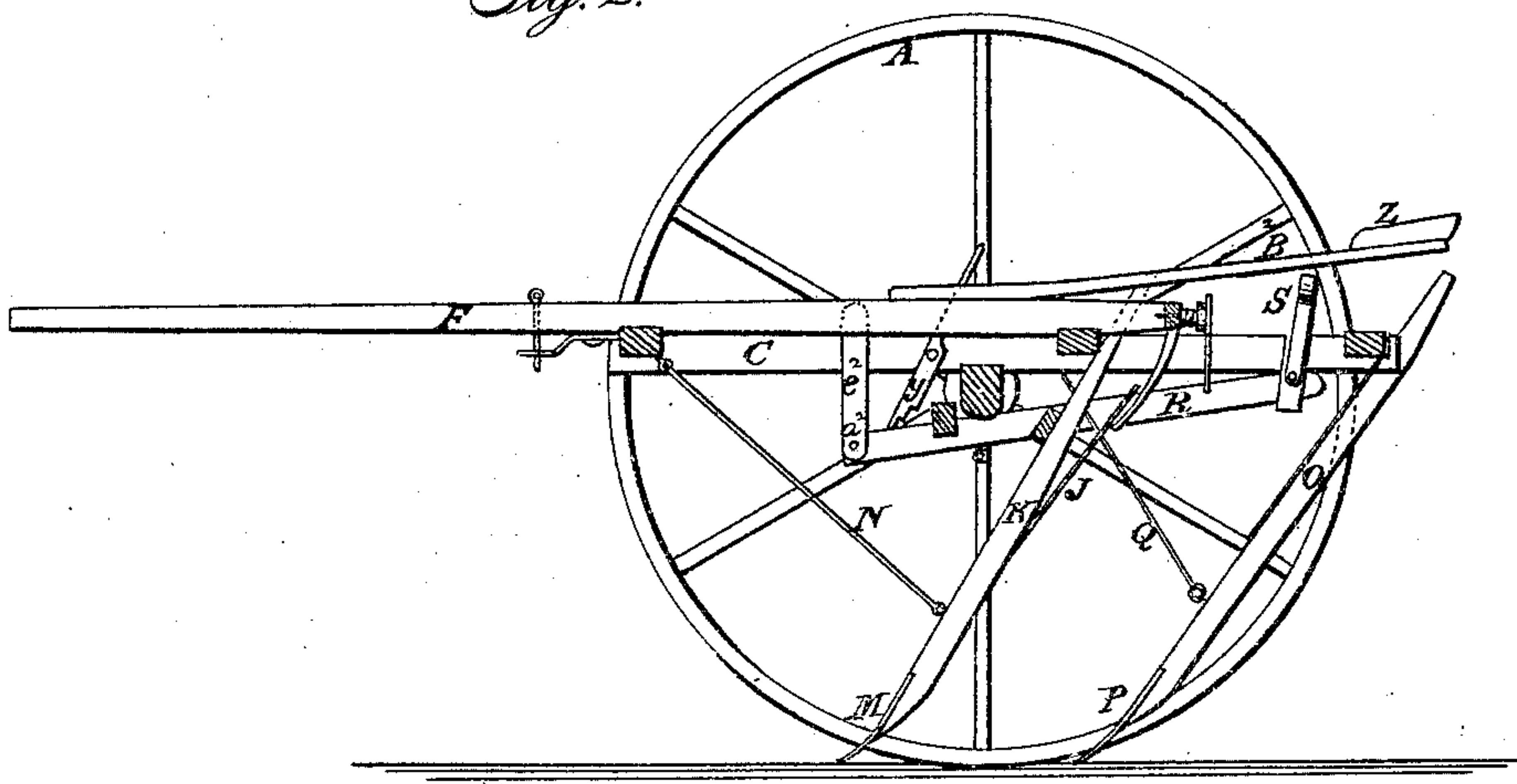
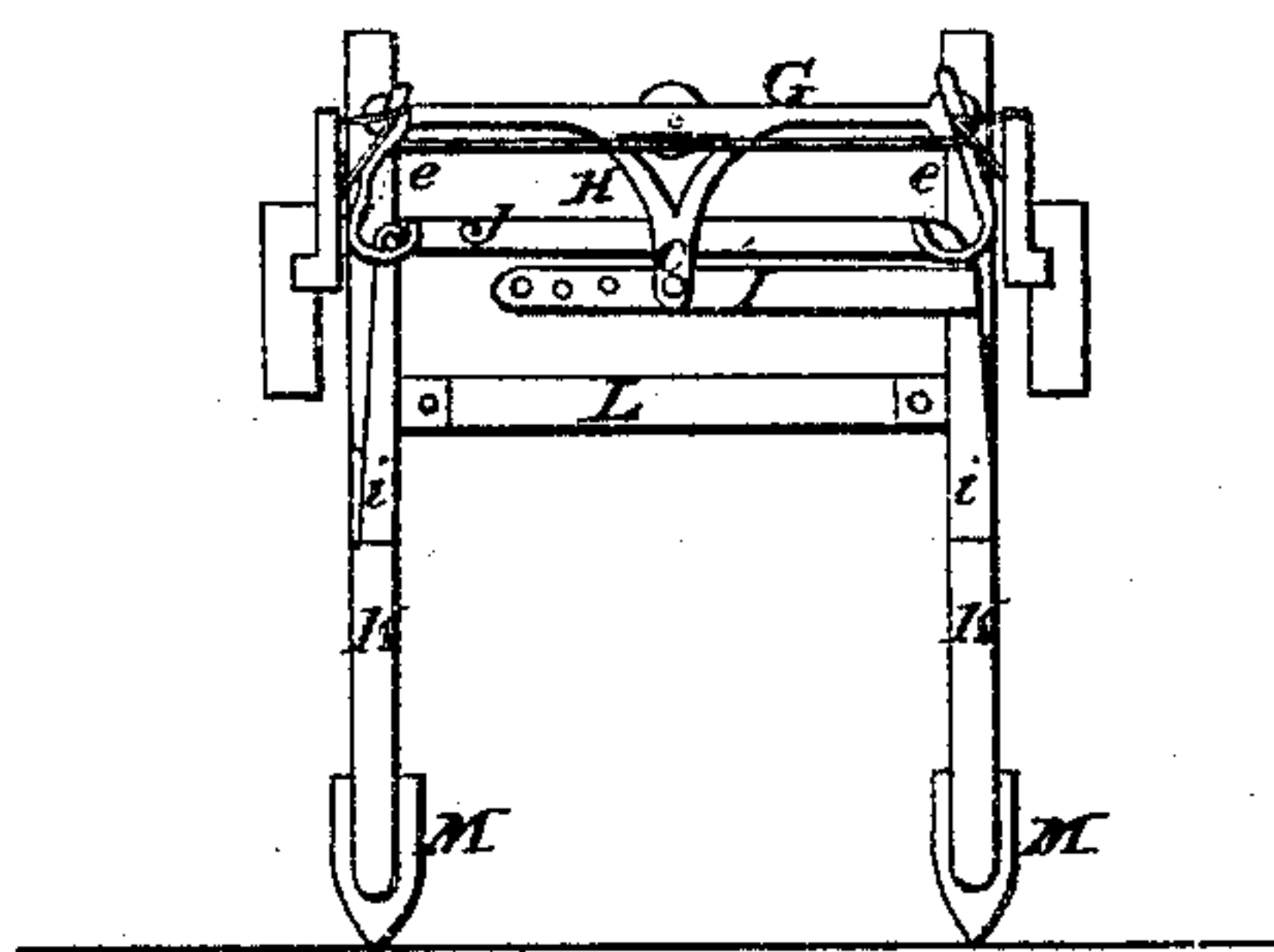


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN J. REED, OF POLO, ILLINOIS.

IMPROVEMENT IN SULKY-PLOWS.

Specification forming part of Letters Patent No. 59,654, dated November 13, 1866.

To all whom it may concern:

Be it known that I, J. J. REED, of Polo, in the county of Ogle, State of Illinois, have invented a new and useful Improved Sulky-Plow; and I do hereby declare that the following is a full, clear, and exact description thereof.

The nature of my invention consists in constructing a sulky-plow so as to stride the rows of plants, and operated in such a manner that the driver can, by means of a walking-beam pivoted to the rear end of the pole, impart a lateral motion to the plows, and by means of levers can elevate the plows, so as to pass over obstructions or move the machine from one place to another.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming a part of this specification.

Figure 1 is a top-plan view of my improved sulky-plow. Fig. 2 is a longitudinal vertical sectional elevation of the same, taken through the line *xx*. Fig. 3 is a side elevation of the device by which a lateral movement of the plows is produced.

Letters of like manner and kind indicate like parts in each of the figures.

A A represent two wheels of common construction, which run upon the axle-tree B, which is also of common construction. D D are two bars firmly secured to the top of the axle-tree, which extend forward to a suitable distance, at the front ends of which is pivoted, by bolts *a a*, (seen in dotted lines, Fig. 1,) the rectangular frame C, that is made of wood, and extends back to about an equal distance to the rear of the axle-tree. E is a cross-timber secured transversely across the frame C, just back of the axle-tree B. F is the pole, rigidly secured to the front cross-timber of the frame, extending back to the cross-piece E, to which it is also secured. At the rear end of the pole F is pivoted a walking-beam, G, to which are pivoted stirrups *e e*, for the purpose of operating the plows when a lateral motion is desired.

At the center of the walking-beam is secured a bifurcated pendent bar, H. At the lower

end of the said bar H is connected, by means of a pivot, *c*, the bar I, that is firmly secured to the yoke J, the said yoke J being pivoted at *i i* to the plow-standards K K. The said plow-standards K K, being pivoted at *n n* to the middle cross-bar of the frame C, are allowed to swing, so as to give the plows a lateral motion. The bar I is perforated, so that the position of the yoke, together with the plow-standards and plows, may be changed laterally, as desired, or as the nature of the work may require. Holes are also provided in the standards, so as to be elevated or lowered upon the cross-timber E of the frame C when deemed necessary.

L is a bar pivoted across the standards K K, for the purpose of keeping the lower ends of the standards in their relative position. M M are plows or teeth secured to the lower ends of the standards in any well-known way. N N are inclined braces or rods secured to the lower portion of the standard and to the forward end of the frame C for the purpose of supporting the standards K K. O O are standards secured by means of a pivot-joint, *n² n²*, to the rear cross-piece of the frame C. At the lower end of the standards O O are secured the plows or teeth P P.

The standards O O are supported by the inclined braces Q Q and *m m*. The inclined braces Q Q, being secured to near the lower end of the standards O O, extending upward, are secured to the side of the frame C, to support the standard against any longitudinal strain, while the braces *m m* extend upward and are secured to the rear cross-piece of the frame C.

R R are two bars connected to the under side of the axle-tree, which extend forward, and connect by pivot-bolts *a²* to the pivoted pendent bars *e² e²*. The bars *e² e²* are pivoted by bolts *c²* to the inside of the longitudinal timbers of the frame C.

At the rear ends of the bars R R are located and secured stirrups S S, by which the plows are elevated by the feet and a portion of the weight of the driver. These plows may be secured in an elevated position by means of the pivoted jack-levers Y Y by bringing their lower ends to bear upon the cross-bar W, that is secured at each end to the bars R R.

w is a stay rod or brace that passes from

end to end of the walking-beam, and connects with the stirrups *e e*, to keep them in proper position.

Z is the driver's seat, secured to the rear end of the inclined bar *B*². The front end of the said bar, being secured to the upper side of the pole, forms a spring for the seat of the driver.

When it is desired to elevate the plows out of the ground, or to move from place to place, or pass over an obstruction, the driver places his feet in the stirrups *S S* and presses down, which causes the frame to rise, carrying with it the plows, which may be secured at any point of elevation by means of the notches upon the lower ends of the jack-levers *Y Y* engaging with the cross-bar *W*.

A lateral motion may be given to plows *M* by the feet of the driver pressing the stirrups *e e*, so that the plows *M* may be made to follow all the sinuosities of the rows.

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

1. The walking-beam *G*, pivoted to the rear end of the tongue or pole *G*, in combination with the stirrups *e e*, yoke *J*, and plow-standards *K K*, substantially as herein shown and described, and for the purposes set forth.

2. The pivoted pendent bars *e*² *e*² and bars *R R*, in combination with the frame *C*, substantially as shown and described, and for the purposes set forth.

3. The projecting bars *D D*, in combination with the frame, substantially as herein shown and described.

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Witnesses:

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