

N. Maxson.

Mower.

N^o 30636

Patented Nov. 13, 1860.

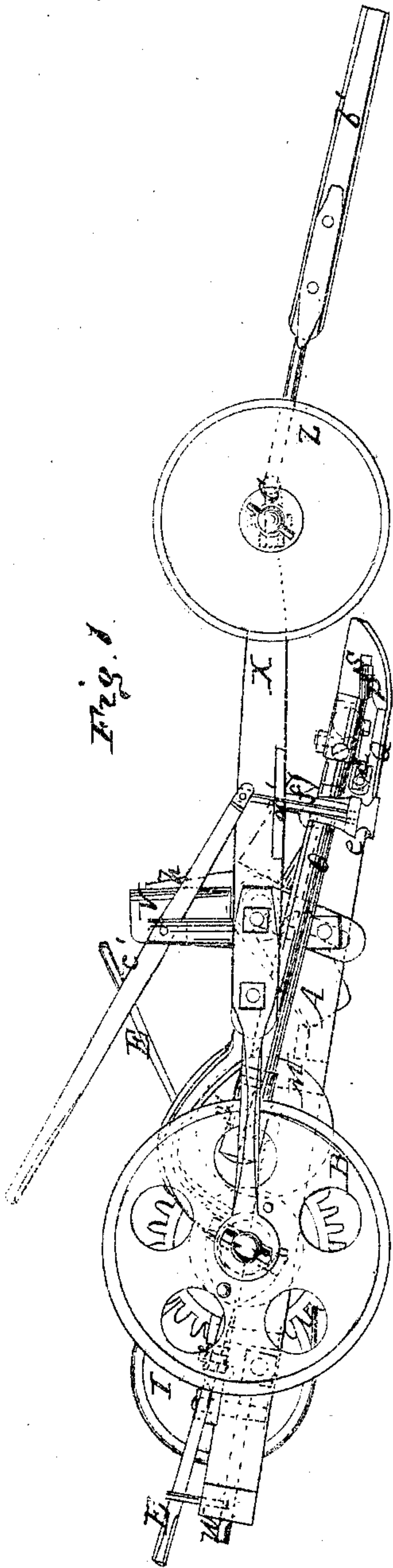


Fig. 1.

Fig. 3.

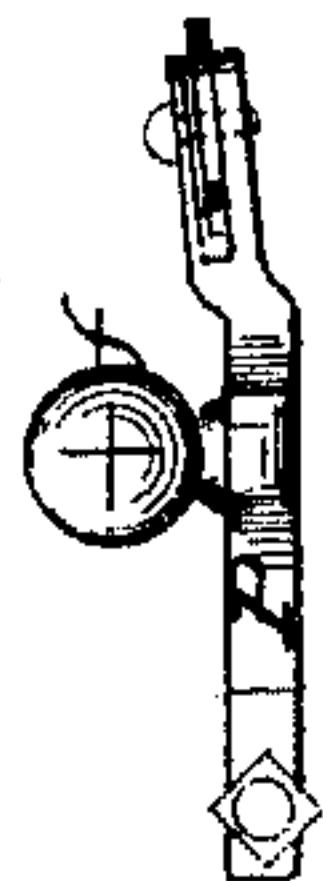


Fig. 6.

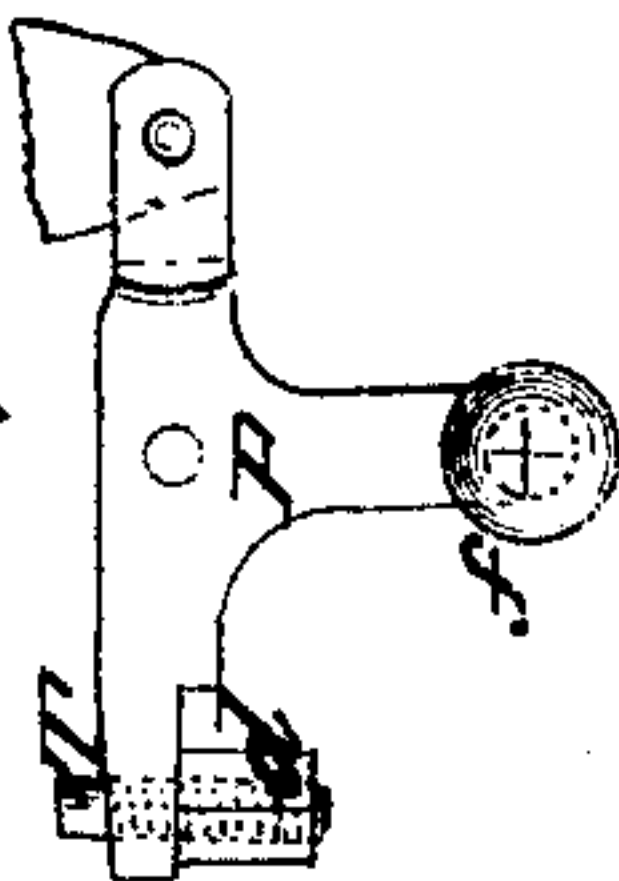


Fig. 4.

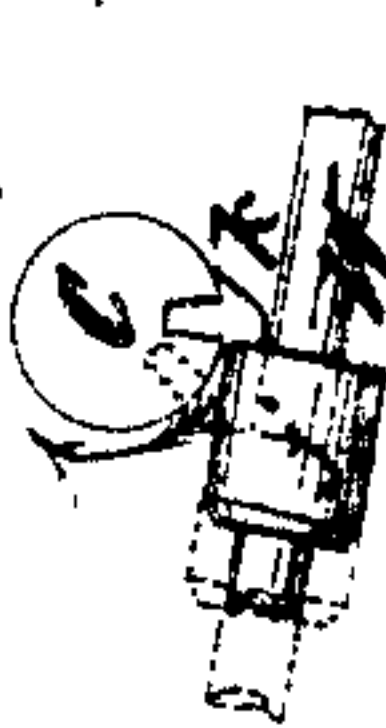


Fig. 5.

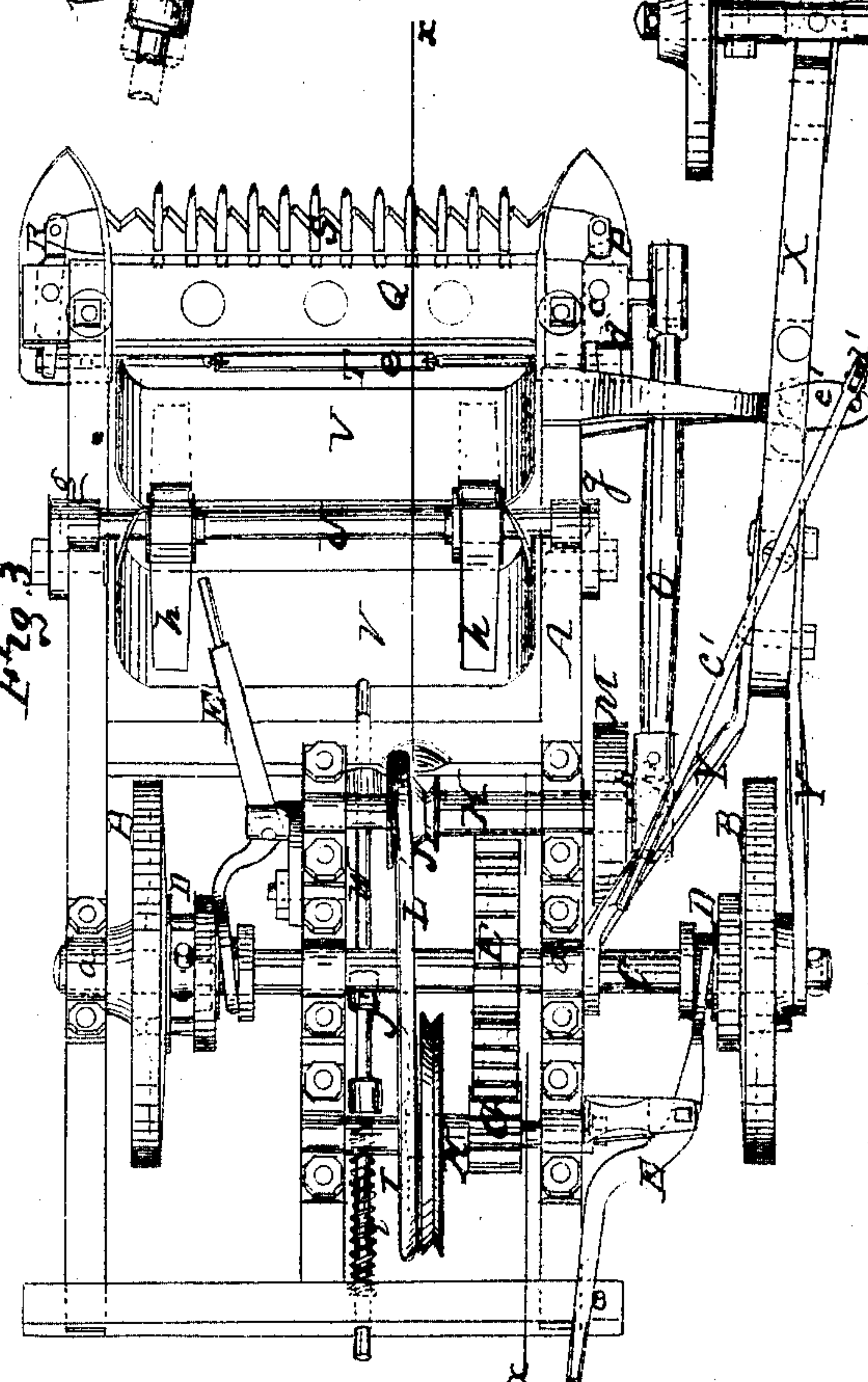
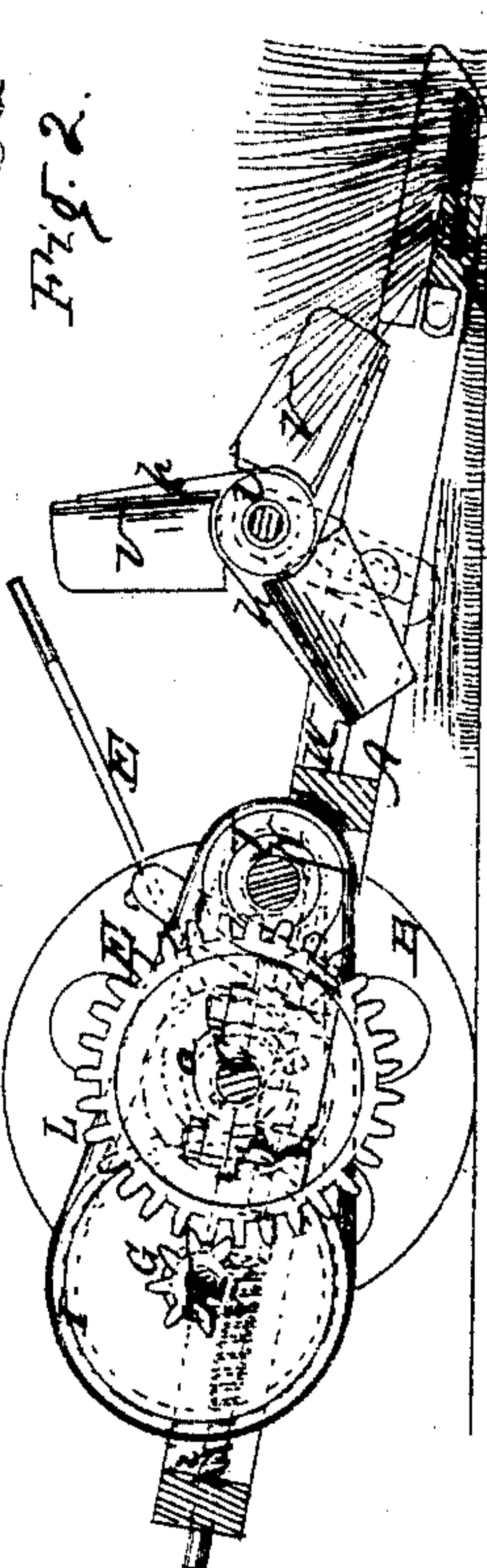


Fig. 2.



Witnesses
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NATHAN MAXSON, OF WILMINGTON, OHIO.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 30,636, dated November 13, 1860.

To all whom it may concern:

Be it known that I, NATHAN MAXSON, of Wilmington, in the county of Clinton and State of Ohio, have invented a new and Improved Grain and Grass Harvester; 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, in which—

Figure 1 is a side elevation of my invention. Fig. 2 is a side sectional view of the same, taken in the line *x x*, Fig. 3. Fig. 3 is a plan or top view of the same. Figs. 4, 5, and 6 are views of detached parts of same.

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

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a rectangular frame, the back part of which is supported by two wheels, B B, the axle C of which is fitted in suitable boxes, *a*, on the frame. The wheels B B are placed loosely on their axle C, and are connected therewith, when necessary, by means of catches D D, which may be actuated by levers E E, arranged in the usual way.

On the axle C there is permanently secured a spur-wheel, E, which gears into a pinion, G, on a shaft, H, in the frame A, and on the shaft H there is a pulley, I, around which and a smaller pulley, J, on a shaft, K, in front of the axle C, there is placed a belt, L. To the outer end of the shaft K there is attached a crank-pulley, M, the pin *b* of which has a ball or sphere fitting in a socket in the back end of a rod, O, forming a universal-joint connection. (See dotted lines in Fig. 3.) The front end of the rod O is connected in a similar manner to a T-shaped lever, P, which is fitted in the front part of the frame A, at one side, *c* being the fulcrum of the lever, which passes through the finger-bar Q, near one end, the finger-bar being at the front end of the frame A. At the opposite end of the finger-bar there is a lever, R, and to the front ends of the levers P R a sickle, S, is attached, said sickle being of the usual reciprocating kind. To the back ends of the levers P R there is attached a rod, T, which may be provided with a nut, *d*, at one end to admit of the sickle being strained perfectly taut. The rod also may be provided with a spring, *e*, (metal or india-rubber,) in

order to allow the sickle a certain yielding capacity to compensate for any irregularity or inequality of strain in the levers P R.

The outer arm of the lever P is provided with the ball *f*, which is fitted into the socket at the front end of the rod O. The precise form of the lever P, with its ball *f*, is shown clearly in Figs. 5 and 6.

In the frame A, and directly back of the finger-bar Q, there is placed transversely a shaft, U. This shaft is fitted in suitable bearings, *g g*, attached to the frame in such a way that they may be adjusted vertically, so as to bring the shaft U to the required height. The shaft U has radial arms *h* attached, to which plates V are attached, the ends of the plates being turned or curved to form sides. These plates V are shown in Fig. 3; but any proper number may be used.

In the frame A there is placed a longitudinal rod, W, on which a spiral spring, *i*, is fitted. The spring *i* has a tendency to keep the rod W shoved forward to the extent of its movement, and on the rod W there is a hub or projection, *j*, against which a pin, *k*, on the axle C acts as the latter rotates. The front end of the rod W, when not restrained, projects sufficiently forward to be within the path of rotation of the plates N, and prevent the movement of the same.

X is a bar, the back end of which is fitted by arms Y to the axle C, the arms being allowed to turn on the axle. The front end of the bar X is supported by a pair of wheels, Z, to the axle *a'* of which the draft-pole *b'* is attached. On the bar X there is a lever, *c'*, the front end of which is connected by a rod, *d'*, to a bar, *e'*, which projects from the frame A, the bar *e'* working on a curved guide-pin, *f'*, attached to the under side of the bar X.

The operation is as follows: As the machine is drawn along a reciprocating motion is given the sickle from the axle C through the medium of the gearing F G, belt L, crank-pulley M, connecting-rod O, and lever P. In consequence of having the connecting-rod O attached to the crank-pulley and lever P by the ball-and-socket connection, all unnecessary play and much friction is avoided, and by having the rod T attached to the levers P R the sickle may be strained perfectly taut, so as to work through the fingers without producing any great degree of friction, the sickle being pre-

vented from chafing or rubbing against the fingers. As the grain is cut it falls on the plate or platform V, that is in line with the finger-bar Q, the bar W preventing the casual rotation of the platforms, and at every revolution of the axle C the pin *k* throws back the rod W, and the loaded plate V turns down by gravity only, and discharges the gavel on the ground or stubble, the succeeding plate stopping in line with the finger-bar in consequence of the previously-filled plate V being arrested by the rod W, which was thrown forward by the spring *i* as soon as the pin *k* of the axle C passed the hub or projection *j* on the rod. These revolving plates V form a very simple and efficient grain-discharging device. The

sickle may be raised at any time by actuating the lever *c'* on bar X.

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

The arrangement of the automatic intermittently-rotating platforms V between the finger-bar R and dividing-axle C, as herein shown, so that the cut grain will fall over the fingers upon the said rotary platforms and be discharged, as set forth.

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