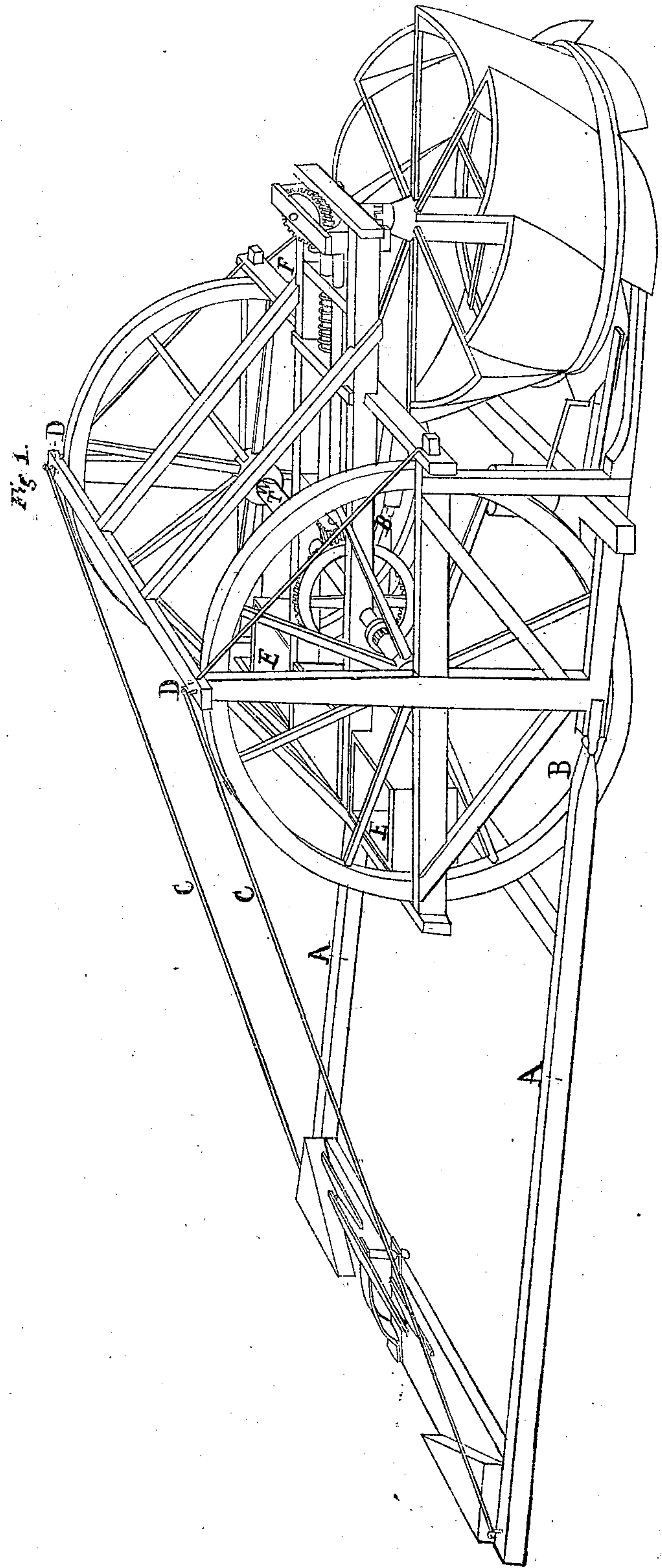


A. M. Wilson,
Mower.

No. 196

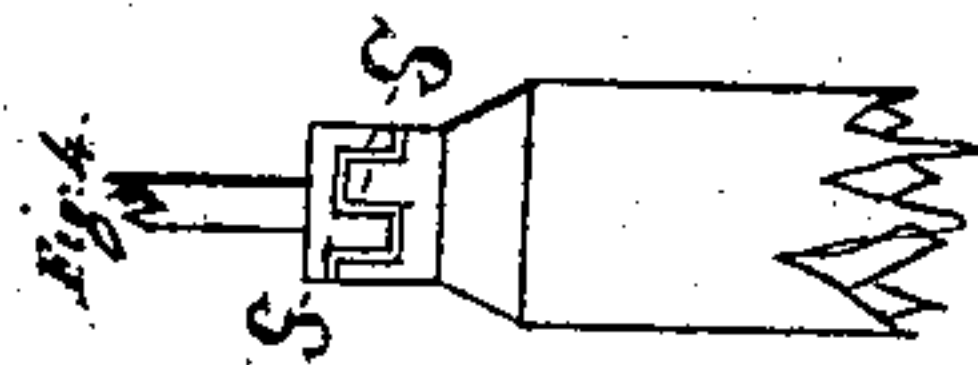
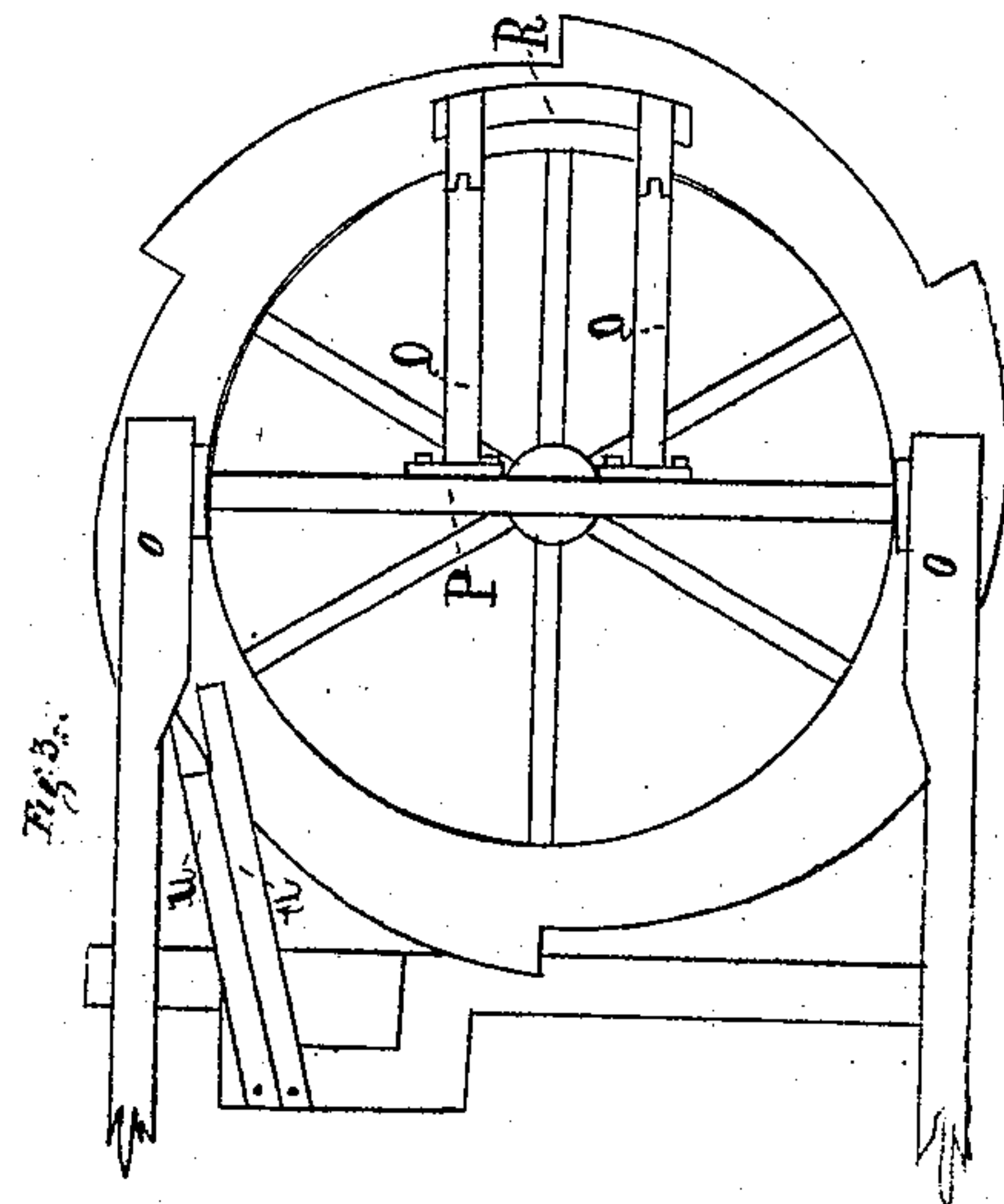
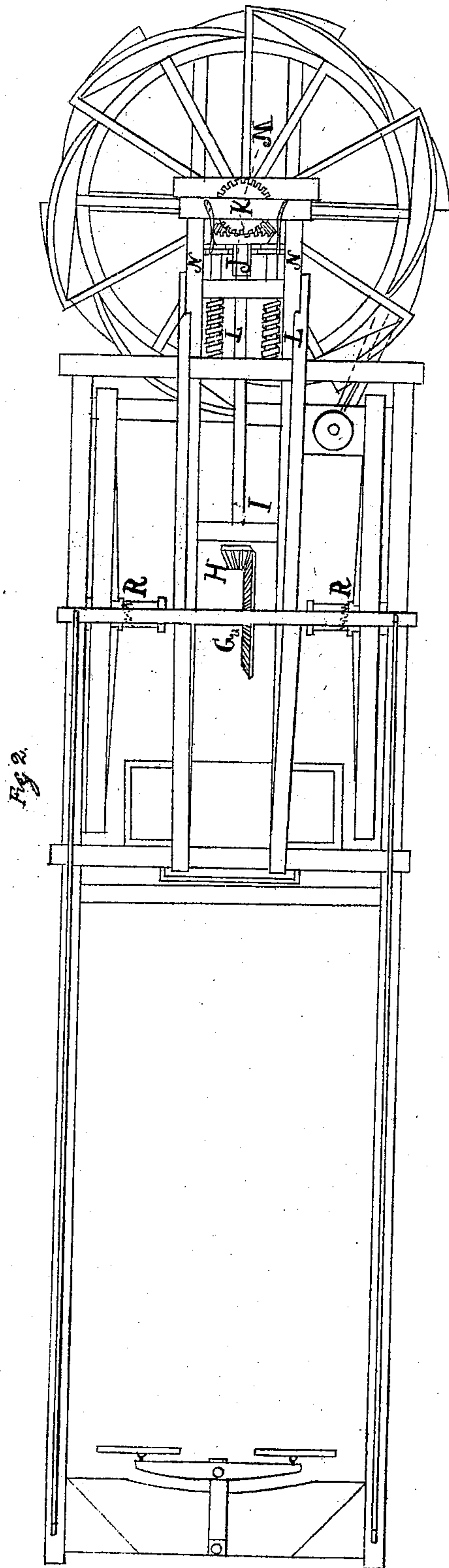
Patented May 15, 1837.



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Patented May 15, 1837



UNITED STATES PATENT OFFICE.

ALEX. M. WILSON, OF RHINEBECK, NEW YORK.

MACHINE FOR MOWING AND REAPING GRAIN, GRASS, &c.

Specification of Letters Patent No. 196, dated May 15, 1837.

To all whom it may concern:

Be it known that I, ALEXANDER M. WILSON, of Rhinebeck, in the county of Dutchess, in the State of New York, have invented certain Improvements on the Machine for Cutting Grass and Grain, for which Letters Patent of the United States were granted unto me dated the 30th day of December, 1835; and I do hereby declare that the following is a full and exact description of my said improvements.

The gathering wheel, with its knives or cutters, as described in the Letters Patent above referred to, and claimed as of my invention, remains unchanged, and the general arrangement of the machine is in many respects similar to that therein described, but the particular manner of constructing and connecting many of the parts have been altered and improved.

Figure 1, is a perspective view of the machine, the whole of which is sustained by a single frame, instead of by two connected frames as in my first machine. The shafts, A, A, are connected to the machine by bolts, at the point B; and, from their back ends, chains, cords, or rods, C, C, extend to the top of the frame at D, D, by which they are suspended. E, E, at the back end of the shafts, are boxes to contain weights by which the machine may be balanced in such a way as to cause the gathering wheel to bear upon the ground with a regulated degree of force. F, is a wing board affixed to the frame, and its fore edge coming nearly into contact with the gathering wheel, for the purpose of preventing any adhering grass, or grain, from passing around behind it.

Fig. 2, is a top view of the machine, showing the gearing by which motion is communicated from the shaft, or axle, of the ground wheels, to the axle of the gathering wheel. G, is a bevel wheel fixed on to the axle of the ground wheels, which drives a beveled pinion H, on the shaft I. On the opposite end of this shaft, there is a beveled wheel J, which meshes into the beveled wheel K, on the upper end of the shaft of the gathering wheel. In order to allow the cutters upon the gathering wheel to adapt themselves to any elevation in the ground, the upper end of the shaft of the

gathering wheel is allowed to recede. For this purpose, the bevel wheel J, slides on a feather on the shaft I, and is borne up into gear with the wheel K, by means of spiral springs L, L. The wheel K and the shaft of the gathering wheel revolve in a sliding box, or frame, M, having proper guides within the frame N N.

Fig. 3, represents the under side of the gathering wheel, and its knives, or cutters. O, O, are the runners at the sides, as in my first machine. P, is the cross bar which supports the gathering wheel on its step. From the cross bar P, two arms, Q, Q, extend toward the front of the machine, and have hinged to them a guard plate R, which upon level ground does not touch the under faces of the knives, but if it comes into contact with rising ground, it is thereby forced against them, and causes the upper end of the shaft of the gathering wheel to recede.

To keep the knives perpetually sharp and clean, I cause them to revolve between two scythe stones, placed upon spring pieces U, U, so affixed that they may be shifted at pleasure, a small stream of water being allowed to run continuously from a vessel placed for that purpose above the stones.

To prevent all binding, or cramping, in the shaft of the gathering wheel, it is not made in one, continuous piece from bottom to top, but it consists of two pieces connected together by a clutch-box, allowing a free motion in all directions. This mode of junction is shown in Fig. 4, where the shaft is shown without the gathering wheel, S, S, being the clutch-box, by which the two parts of the shaft are connected immediately under the sliding box, or frame M. To allow of the ready turning of the machine in either direction, without causing the ground wheels to drag, they are not attached firmly to the axle as in my former machine, but are connected thereto by ratchet, or disengaging boxes, which hold them in one direction, but allow them to revolve in the other, as shown at T, T, Fig. 2.

What I now claim as my improvement upon the machine for cutting grass and grain, as originally invented by me, is—

1. The application thereto of the sliding gear, operating in the way described, on

the upper end of the shaft of the gathering wheel, in combination with the hinged guard-plate, under the front edge of the wheel, and the clutch-box upon the shaft, to
5 allow of the adaptation of the knives and gathering wheel to uneven ground.

2. I also claim the manner of balancing

the machine by the chains, rods, or lines, sustaining the shaft, and the boxes for containing weights, as set forth.

ALEX. M. WILSON.

Witnesses:

THOS. P. JONES,
HAZARD KNOWLES.