# Whitney & Hardison,
## Mower.

No. 51396 Patented. Dec. 5. 1865.

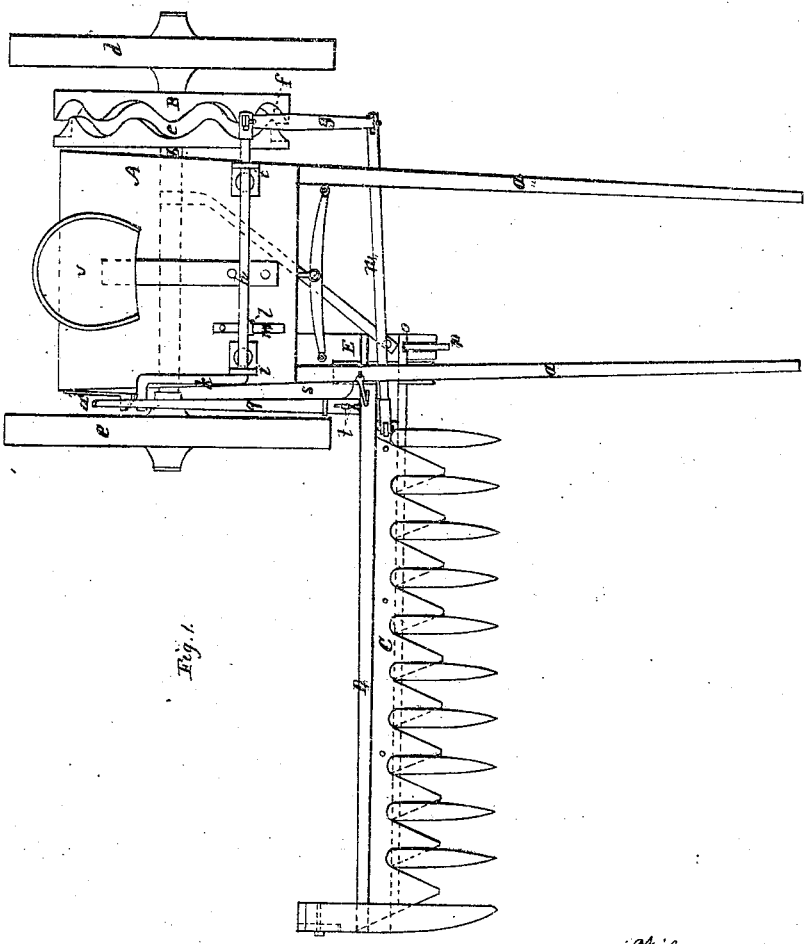

Fig. 1.

Witnesses.
D. P. Hale Jr
G. H. Washburn

W. Whitney and F. M. Hardison
by their Attorney
R. H. Eddy

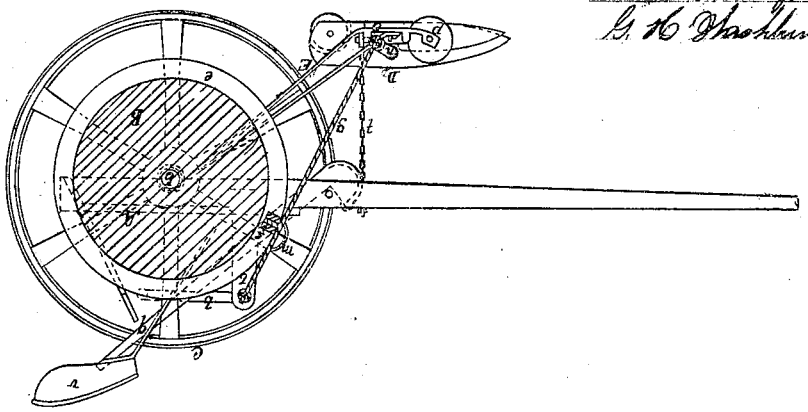

Fig 2

# UNITED STATES PATENT OFFICE.

RUEL W. WHITNEY AND F. M. HARDISON, OF SOUTH BERWICK, MAINE, ASSIGNORS TO THEMSELVES AND ABNER C. STOCKIN, OF SAME PLACE.

## IMPROVEMENT IN MOWING-MACHINES.

Specification forming part of Letters Patent No. **51,396,** dated December 5, 1865.

*To all whom it may concern:*

Be it known that we, RUEL W. WHITNEY and FREEMAN M. HARDISON, of South Berwick, in the county of York and State of Maine, have invented an Improved Mowing-Machine; and we do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure is a top view, and Fig. 2 a vertical and longitudinal section of it.

In such drawings, A denotes the carriage or platform of the machine as provided with thills *a a* and mounted on an axle, *b*. The said axle carries two wheels, *c d*, one of which—viz., *c*—revolves freely on the axle and independently of the other, which is fixed to the axle, which also carries a rotary cam-wheel, B, on whose periphery, and extending entirely around it, is a serpentine groove, *e*. This groove is to receive a friction-roller, *f*, arranged on a stud projecting from the rear side of an inclined lever, *g*, such lever at its upper end being jointed to a rocker-shaft, *h*. The said shaft *h* is not only supported horizontally over the platform A by means of two standards, *i i*, projecting upward therefrom, but has a bent arm, *k*, extending from it and formed as shown in the drawings. The said shaft has an auxiliary arm, *l*, projecting down from it and resting against the free end of a curved spring, *m*, such spring being fastened to the platform A, and arranged thereon, as shown in Figs. 1 and 2. By moving the arm *k* downward the rocker-shaft will be turned in its bearing, and will so move the lever *g* as to raise its friction-roller out of the cam-groove *e*, the spring *m* on the lever, on being again elevated, serving to reverse the motion of the shafts so as to engage the lever *g* with the groove of the cam B.

A rod, *n*, jointed to the lower end of the lever *g*, connects such lever with a reciprocating serrated cutter or knife, C, which is placed and works in the usual manner in a toothed rake-head, D, hinged to the foot part *o* of a leg, E, which extends downward from this platform in manner as exhibited in Fig. 2. The rake-head is so hinged to the said foot as to be capable of being turned a little downward from a horizontal position, as well as up into a vertical position or thereabout.

The foot *o* carries a small wheel, *p*, to rest and run on the ground and aid in supporting the machine thereon.

A hand-lever, *q*, having the sector *r* of a pulley extending from its lesser arm, is applied to a fulcrum, *s*, projecting from the carriage, such hand-levers being arranged with respect to the bent arm *k* in manner as shown in the drawings. A chain, *t*, depending from the upper terminus of the arc of the sector, is attached to the rake-head D. On laying hold of the longer arm of the lever *q*, and pressing it downward, we can raise the rake-head more or less. By forcing the said arm farther down, so as to depress the bent arm *k*, we may effect the disengagement of the inclined lever *g* or its friction-roller with the cam B, a spring-latch, *u*, serving to catch the lever *q* and hold it downward so as to retain the inclined lever out of engagement with the cam. When the inclined lever is out of action with the cam the two wheels *c d* of the machine will be free to revolve, and the cam will turn with their shaft and produce no movement of the inclined lever. As a consequence there will be under such circumstance no reciprocating longitudinal movements of the serrated cutter or knife within the rake-head.

In the construction of our machine we have endeavored to dispense with gears or cogged wheels, which are generally attended with much noise and friction while in operation. We have also endeavored to produce a simple and effective machine, one easily managed by a person while on the seat *v* of its platform.

We claim—

The combination and arrangement of parts by which the vertical movements of the knife-head and the reciprocating movements of the knife are effected, and the mechanism for operating the knife is thrown into or out of action as circumstances may require, such parts being the cam B, with its serpentine groove *e*, the inclined lever *g*, with its stud, roller *f*, and connecting-rod *n*, the rocker-shaft *h*, with its arms *k l* and spring *m*, and the lever *q* and its chain *t*, the whole being arranged with respect to the wheels, platform, and rake-head, and applied thereto substantially in manner and so as to operate as hereinbefore specified.

RUEL W. WHITNEY.
FREEMAN M. HARDISON.

Witnesses:
HIRAM H. HOBBS,
CHARLES C. HOBBS.