M. L. WOOD.
Mowing-Machine.

No. 197,921. Patented Dec. 4, 1877.

Fig. 1.

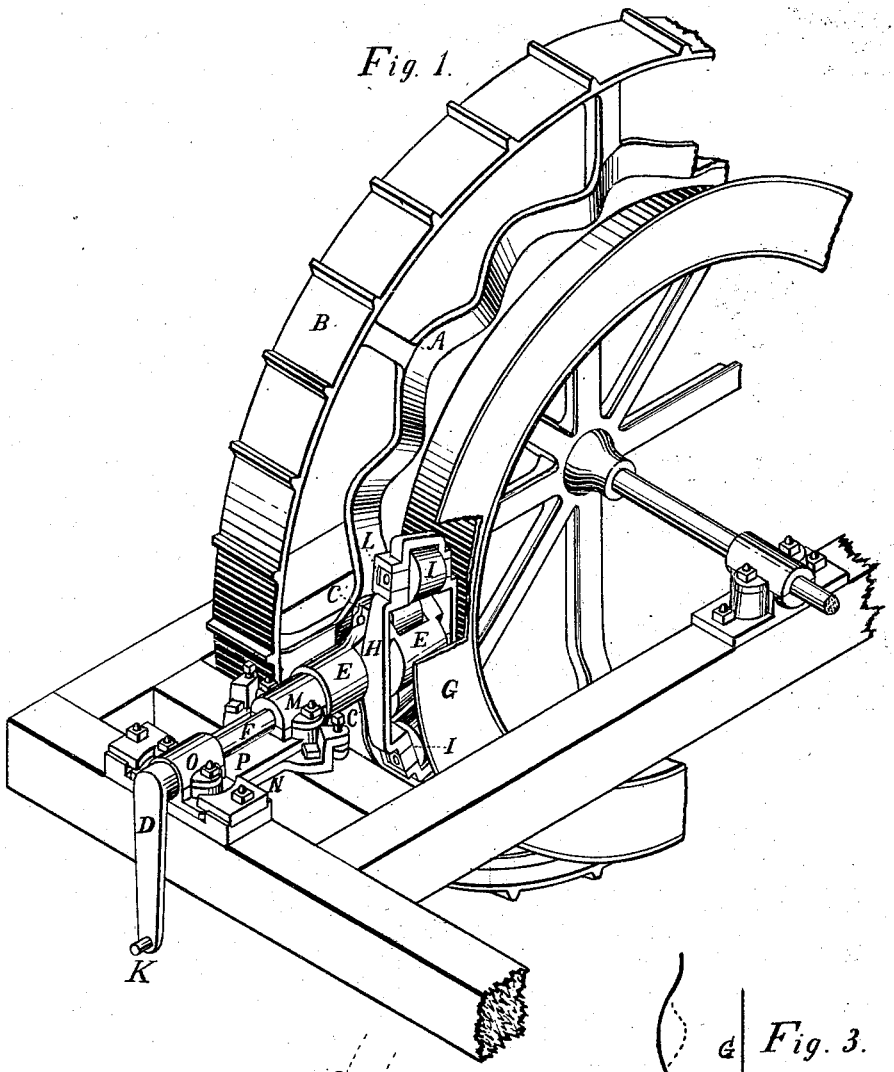


Fig. 2.

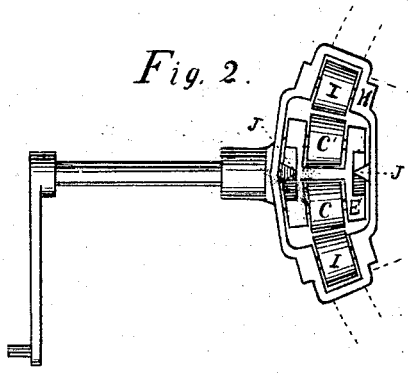
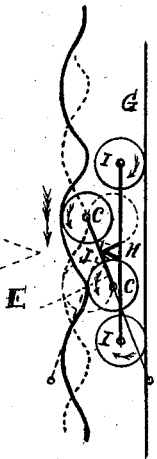


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

MERRITT L. WOOD, OF VALLEY SPRINGS, DAKOTA TERRITORY.

IMPROVEMENT IN MOWING-MACHINES.

Specification forming part of Letters Patent No. **197,921**, dated December 4, 1877; application filed November 14, 1877.

To all whom it may concern:

Be it known that I, MERRITT L. WOOD, of Valley Springs, in the Territory of Dakota, have invented certain new and useful Improvements in Mowing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Similar letters indicate corresponding parts.

My invention has for its object an improvement in the mode of producing reciprocating motion in mowing-machines, harvesters, and other mechanism wherein such motion is desirable, without gearing; and consists in imparting an oscillating motion to a shaft by means of a waved or undulating circular track or cam formed around the axis of a wheel, as hereinafter more specifically set forth.

In the drawings, Figure 1 is a section of a mowing-machine, showing my improvement. Fig. 2 is a plan view of the shaft and its connections. Fig. 3 is a vertical section of cam-flange and anti-friction rollers, showing their points of contact with each.

B represents the drive-wheel of a mowing-machine, provided with a circular waved track or cam, A, whose diameter is somewhat less than the wheel. It has also a circular flange, G, of corresponding diameter, which projects over the cam and forms with it a double track, one surface of which is undulating, the other plane.

E is a frame or truck, provided with anti-friction-rollers *c*, in contact with and made to traverse the undulating track A. These rollers are arranged at such distance apart that when one is raised upon the track by contact with a projecting portion, the other contacts with a depressed portion, and is correspondingly lowered, as shown in Fig. 3. This truck is rigidly attached to a shaft, F, extending in a line horizontal with the anti-friction rollers *c*.

H is a truck of similar construction, which is interposed between the main truck E and flange G, but whose position is reversed, so that its anti-friction rollers I bear upon the plane surface of the flange. It connects with truck E by points or pivots J in its center, made to bear upon it in a line with the axis of shaft F, so that while the rollers of truck E are forced to maintain a close contact with track A, it is permitted to oscillate freely in conformity with the undulations of the track, and all lateral strain upon the shaft is obviated.

The shaft F is provided with bearings M O, in which it operates; and in order to compensate for any unusual thrusts or irregularities of track A, these bearings are located upon and connected by plate P, which is pivoted to the main frame, at its outer end, beneath bearing O, permitting its opposite end, upon which is bearing M, to move or swing from side to side, and thus adjust itself to irregularities. In order to more fully secure this result the journals of rollers I are supported on elastic bearings L, which permits a sufficient yielding to overcome obstructions that may interpose between the trucks and track.

The machine is operated by revolving the drive-wheel B, which causes the truck E to traverse the undulating surface of the cam A, its contact being maintained by the pressure of truck H against resisting flange G. The oscillating motion thus produced by the passage of truck E over this undulating surface is communicated, through shaft F and its arm D and wrist-pin K, to the sickle-bar or other device connected therewith.

I am aware that communicating motion to a sickle-bar by means of a cam attached to a drive-wheel is not new, and I do not claim it, broadly; but

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

1. The drive-wheel having the double track, consisting of the cam A and flange G, in combination with the trucks E H and shaft F, constructed substantially as described, and for the purpose specified.

2. The pivoted plate P, bearings M O, and shaft F, all arranged and combined substantially as described, and for the purpose specified.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

MERRITT L. WOOD.

Witnesses:
WM. HALL,
ALF. LARSON.