N. Rowe.

Mower.

No 60427

Patented Dec. 11, 1866.

Fig 2.

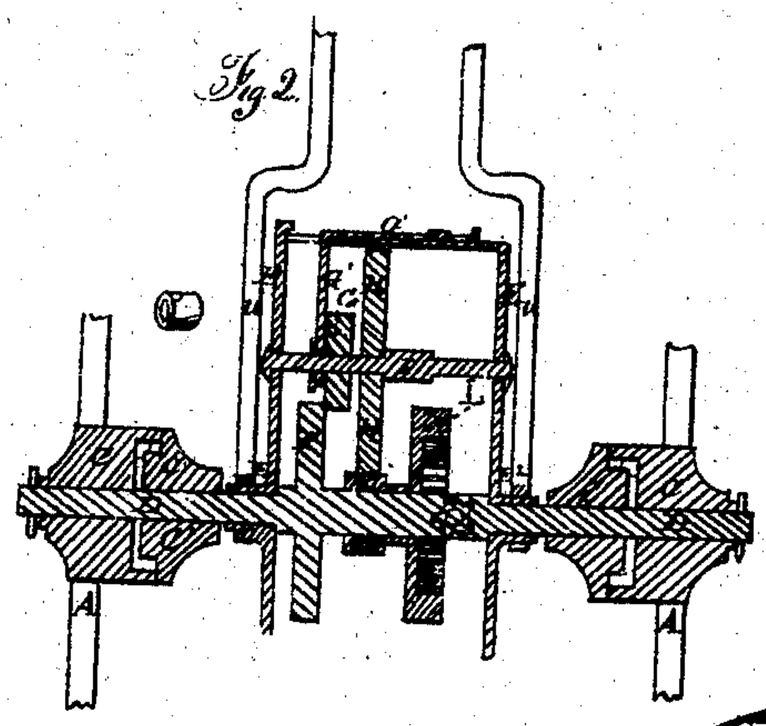


Fig 5.

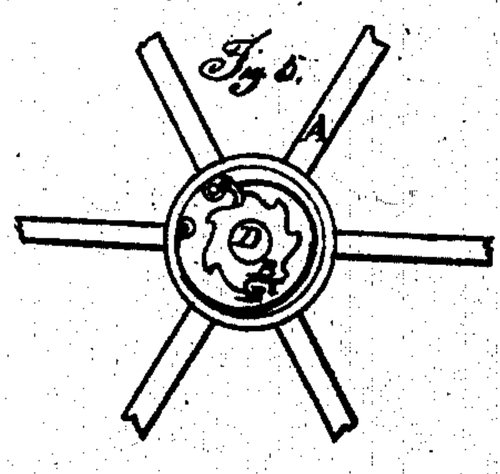
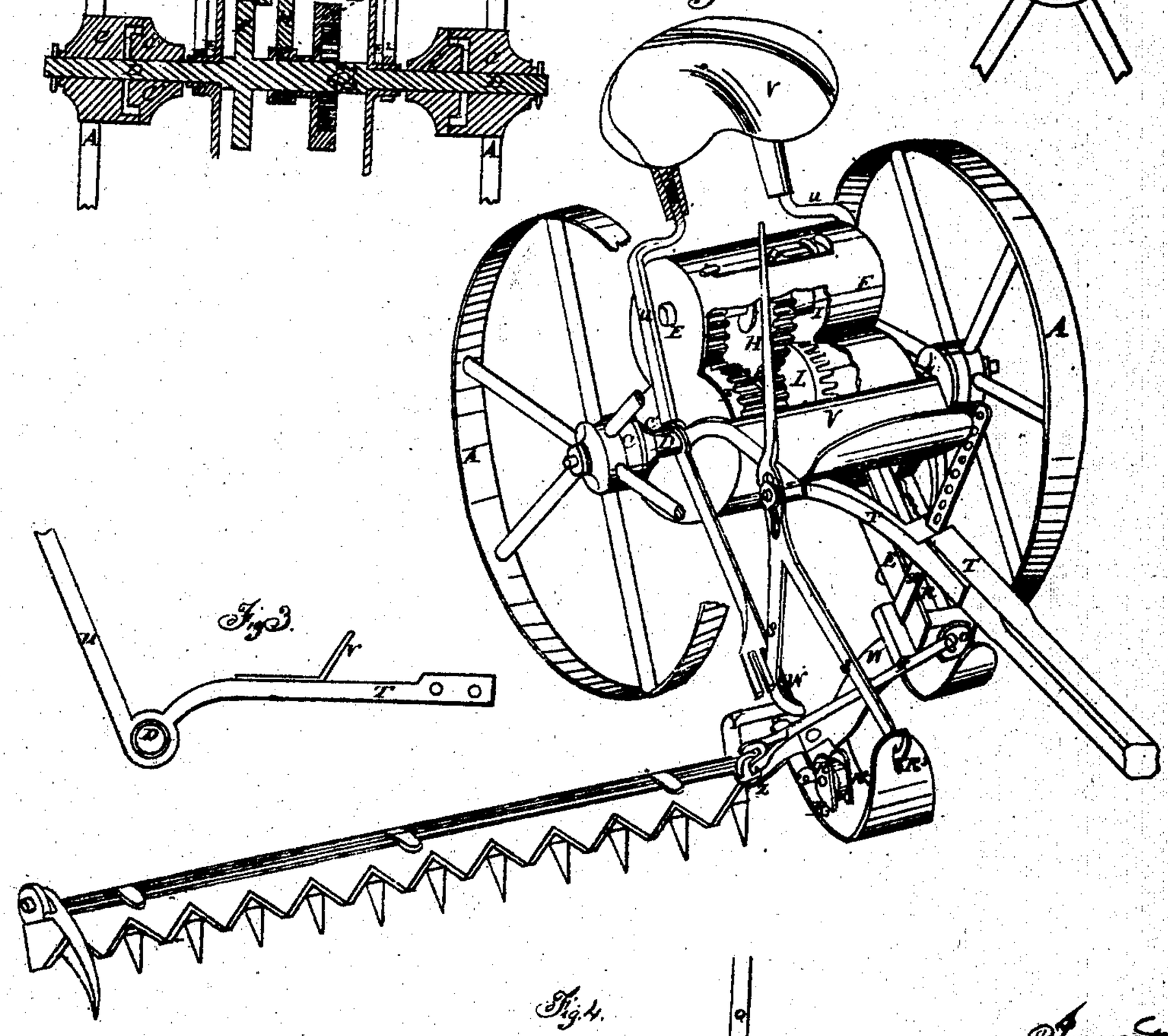


Fig 1.



Witnesses
C. F. Draper
J. A. Connolly

Inventor
Nathaniel Rowe
by
D. F. Pellengrew
his attys

The drawing is not in print.

United States Patent Office.

IMPROVEMENT IN HARVESTERS.

NATHANIEL ROWE, OF EMMITTSBURGH, MARYLAND.

Letters Patent No. 60,427, *dated December* 11, 1866; *antedated December* 4. 1866.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, NATHANIEL ROWE, of Emmittsburgh, in the county of Frederick, and State of Maryland, have invented certain new and useful Improvements in Harvesters; 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, made part of this specification.

Figure 1 is a perspective view, part of the casing being represented as broken away, so as to show the internal arrangement of the machinery.

Figure 2 is a vertical section through the centre of the axle.

Figure 3 is a side elevation of the brace of the tongue and the support of the seat.

Figure 4 is a vertical longitudinal section, showing the pitman and the mode of its arrangement.

Figure 5 is a section of one of the wheels.

In the different figures the same letters refer to identical parts.

My improvement relates to the kind of machine known as a two-wheeled mower.

A A are the ground wheels, the hub of which, C, is constructed with a recess in its inner face, containing the ratchet-wheel B, the detent B^1, and coiled spring B^2. This face of the wheel fits snugly against the flange C′, attached to the axle. The ratchet is so arranged that the wheel will turn on the axle when the wheel is revolving backward, and with the axle when revolving forward. On the axle D is keyed the spur-wheel F, working into the teeth of the pinion G. This pinion communicates motion to the countershaft I, upon which it moves, in a groove, so as to be thrown in or out of gear, as desired, by the lever G′. To this counter-shaft is keyed the spur-wheel H, the teeth of which communicate motion to the pinion K, which turns freely upon the main axle D, and carries with it the face-wheel L, working into the bevelled pinion M, keyed on to the shaft N, the other end of which carries the crank-wheel O, connected with its pitman Q, which gives motion to the knives in the ordinary manner. This gearing is compactly disposed at the middle of the axle D, and immediately under the driver. It is entirely enclosed in the case E, which sustains the journals of the counter-shaft, and also extends along the entire length of the shaft N. Within this casing E, at the part marked E′, is placed the piece P, which fits snugly within the case, and has two bearings—one at either end—carrying the shaft N. It is secured by a projection passing through the lower side of the casing, at E′, having a slot, P′, for receiving a key which will retain it firmly in place. By removing this key, and detaching the pitman, the piece P can be removed, together with the shaft N, bevel-wheel M, and crank-wheel O. The cutter-bar is hinged to the lower end of the brace W, which is supported by the brace W′, which is attached to the axle D by a collar, which permits it to turn freely in front of the lower extremity of the brace W, projects the curved shoe R through a slot in which passes the wheel R^2. This wheel is adjustable, supported by the lugs R^1. The shoe R turns up in front, and has a slot near its upper extremity, R^3. S is a lever, shaped substantially as shown. It is suspended by a wrist T′, projecting from the brace of the shaft N. The portion of the lever containing this slot is bent, as shown in the drawings. The leg S^1 of this lever projects to the front, and terminates in a hook passing through the slot R^3. The leg S^2, passing directly down, is bent at the foot at nearly or quite a right angle to the front, and this foot rests upon the L shaped heel of the cutter-bar Y. This foot prevents any torsion of the cutter-bar and its support W. By drawing back the upper end of the lever S, the entire cutter-bar and its attachments may be raised for passing any obstacle, the casing turning on the axle, the adjustable bar *x* rising through a slot in the end of the tongue T. When the machine is to be transported without cutting, the cutter-bar and its attachments are raised by the lever S, and secured by a pin inserted in the bar *x*, below the tongue; the pitman being disconnected, and the lever S detached, the cutter-bar may be raised, turning upon its hinge, and rested against the brace of the tongue; the lever S, replaced, will prevent its falling outwards. The casing E, when it rests on the axle, has a bearing, with an outwardly-projecting flange, E^2, on which rest the ends of the braces of the tongue. These braces have a collar, to which is permanently attached the end of the standards U, as shown in fig. 3, the whole being in one piece. These standards are bent over the ends of the casing, and turned up so as to receive the seat V. The seat rests upon two pipes, one of which is shown in section, in fig. 1. These pipes contain spiral springs V^2, which, resting upon the upper

ends of the standards, which give elasticity to the seat. The seat is secured by a chain or other device. V^x is the foot-board, resting upon the braces of the tongue. The detached drawing I^1 represents a tubular bearing, inserted in the side of the casing E, on each side, for the purpose of receiving the journals of the counter-shaft I. It will be observed that the entire machine is so joined that not a bolt enters into the entire construction. That portion of the casing represented as broken, is made separate, so as to be readily detachable, to give access to the gearing and shaft N.

1. I claim arranging the entire gearing at the centre of the machine and surrounding it with a casing E, the gearing and casing being constructed and arranged substantially as set forth.

2. I claim the detachable piece P, in combination with the shaft N, and casing E, when the latter is constructed with a movable cap that covers the gearing on the axle, and the piece P, substantially as and for the purpose set forth.

3. I claim attaching the braces of the tongue T, by a collar, to a flange E^2, projecting from and being a part of the casing E, substantially in the manner set forth.

4. I claim the combination of the driver's seat V, and springs V^2, with the standards U, when the same are permanently attached to, and on the opposite side of the axle from, the braces of the tongue.

5. I claim the slotted and bifurcated lever S, when connected with the cutter-bar in front and rear, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses.

NATHANIEL ROWE.

Witnesses:

ELI SMITH,

JOSHUA MOTTER.

60,427