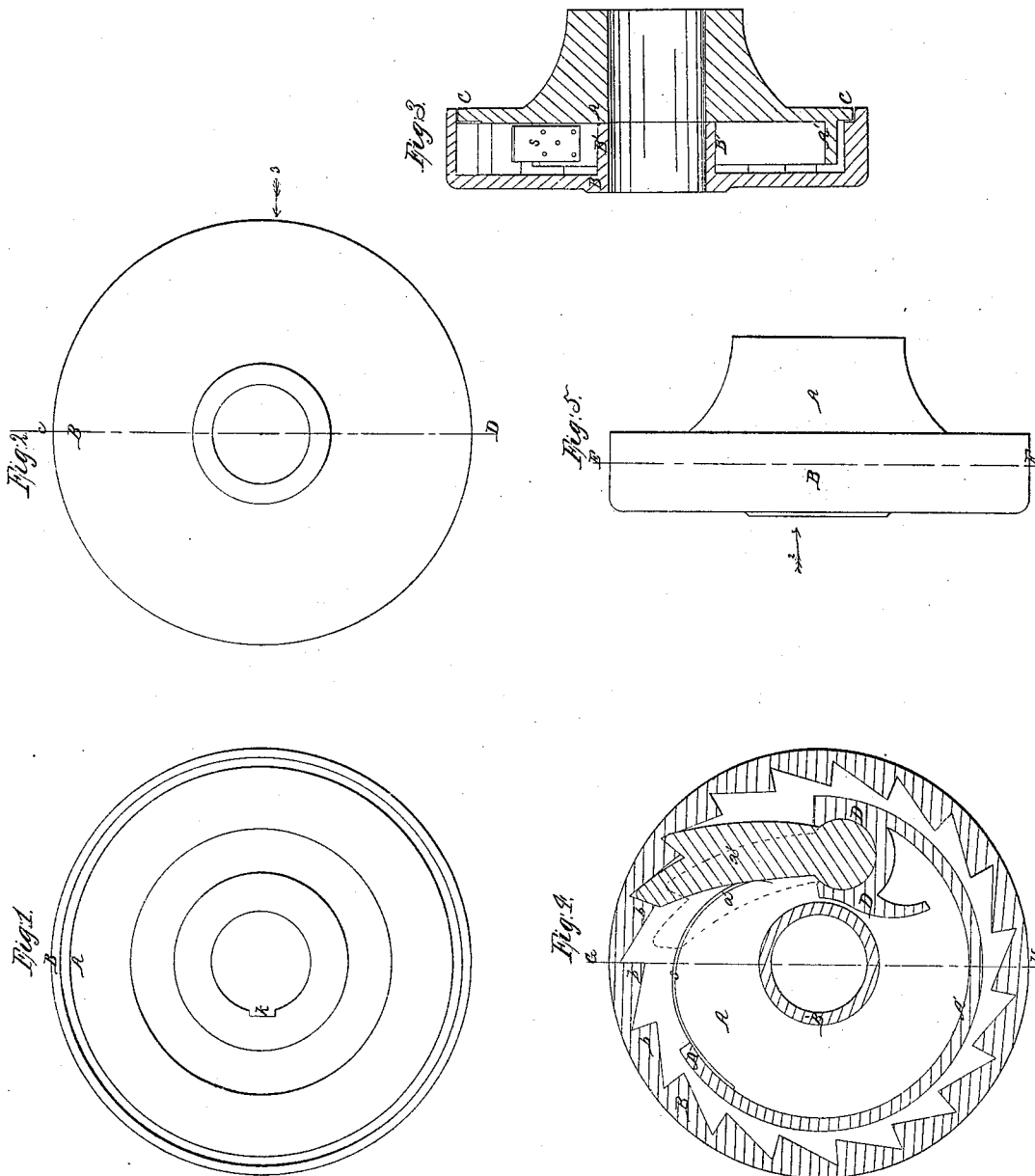


G. G. Taylor,

Paul and Ratchet.

N^o 40,086.

Patented Sep. 22, 1863.



Witnesses.
J. B. Cramin
John M. Giller

Inventor
George G. Taylor
By his Attorney
Chas. H. Dodge

UNITED STATES PATENT OFFICE.

GEORGE G. TAYLOR, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO A. BROWN AND L. G. KNIFFEN, OF SAME PLACE, AND THOMAS H. DODGE, OF NASHUA, NEW HAMPSHIRE.

IMPROVEMENT IN PAWL AND RATCHET.

Specification forming part of Letters Patent No. 40,086, dated September 22, 1863.

To all whom it may concern:

Be it known that I, GEORGE G. TAYLOR, of the city and county of Worcester, and State of Massachusetts, have invented certain new and useful Improvements in the Running-Gear of Reaping and Mowing Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 represents an end view looking in the direction of arrow 1, Fig. 5, of so much of the running-gear of a mowing and reaping machine as is necessary to illustrate my invention. Fig. 2 represents an end view of the same looking in the direction of arrow 2, Fig. 5. Fig. 3 represents a section on lines C D, Fig. 2, and G H, Fig. 4. Fig. 4 represents a section on line E F, Fig. 5; and Fig. 5 represents a view of the same looking in the direction of arrows 3 and 4, Figs. 1 and 2.

In that class of machines in which the power is communicated to the crank-shaft from gears on independent driving wheels, as seen in the "Ohio mower," "Wood machine," and "Union mower," a parallel shaft is arranged either in front or rear of the axis of the main drive-wheels, and parallel thereto, and upon the outer ends of said shaft small pinion-gears are placed, so as to turn loosely thereon, but gearing into the large gears on the drive-wheels. To the inner ends of said small pinion-gears are fastened ratchet devices, B. The part B and the gear are usually cast together. The part B is open on one side, and is provided with a series of ratchet-teeth *b b b*, and an internal hub, B', in this instance.

A is a hub, one of which is fastened to each end of said shaft, and so arranged that its flange C will fit into the open end of the part B. (See Fig. 3.)

Upon the inside of the flange C is cast a

circular flange, A', and a pawl supporting socket D.

To the inside of the flange A' is fastened one end of a spring, S, whose other end bears against the pawl *a'*, and keeps it up in the ratchet-teeth *b b*, as clearly indicated in Fig. 4. The rear end of the pawl *a'* is of circular form, and is made to fit the circular opening or socket D, whereby the pawl is kept in place without the use of pins passing through the same, which are liable to wear off, and thus disarrange the running-gear of the machine.

The rear end of pawl *a'* is raised up toward the ratchet-teeth, thereby bringing the pawl into such a position that the strain thereon is longitudinal, which renders it less liable to break than as arranged heretofore.

By casting the hub or flange B' upon the part B it turns with more steadiness upon the end of said parallel shaft, and is less liable to wear so as to wobble.

When the machine is backed, the part B only turns, the hub A and its pawl *a'* remaining stationary, with the exception of the yielding and reaction of the pawl as the ratchet-teeth are turned back by the motion of the part B.

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

1. The circular pawl supporting socket D, in combination with the rear end of the pawl *a'*, substantially as shown and described.
2. The combination of the pawl *a'*, socket D, flange A', and spring S, when constructed and arranged to operate in relation to each other, and the ratchet-teeth *b b*, as shown and described.
3. The combination of the internal flange or hub, B', with the parts B and A, as and for the purposes set forth.

Witnesses: GEORGE G. TAYLOR.

GEO. H. MILLER,

JOSIAH BUSH.