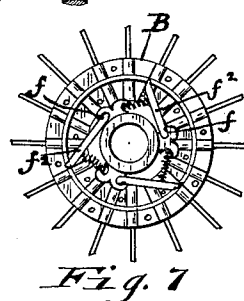
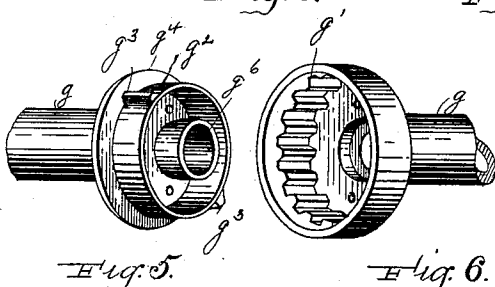
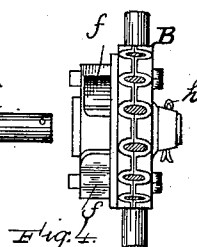
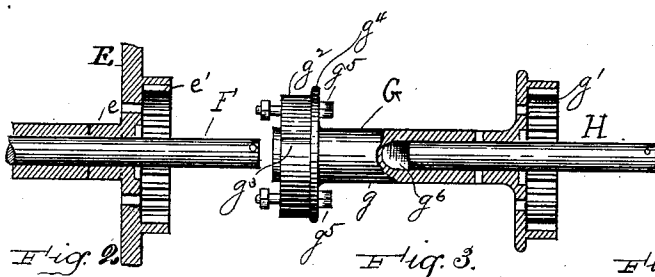
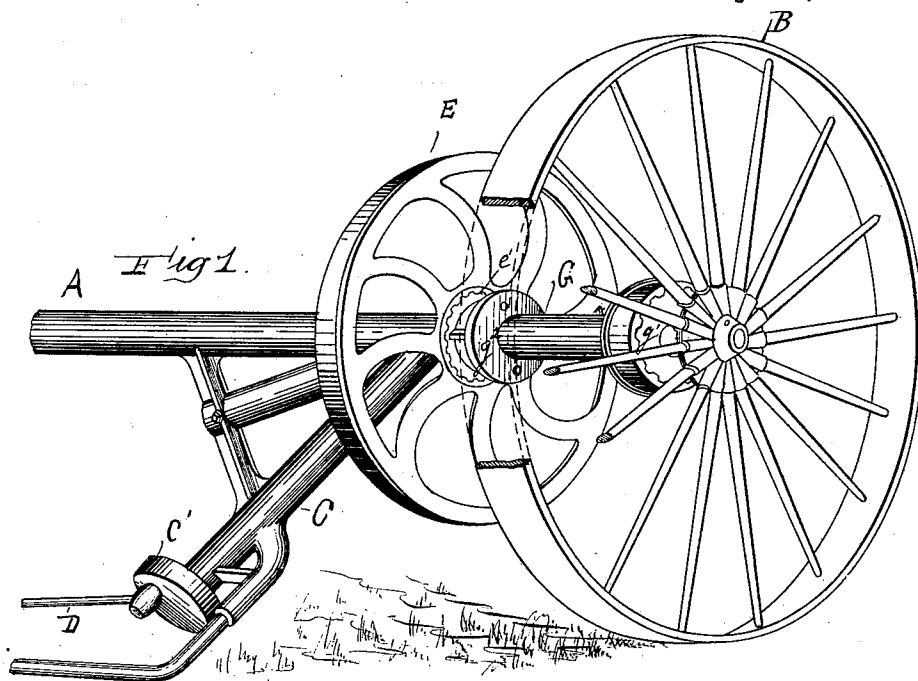


(No Model.)

W. SCOTT.
MOWING MACHINE.

No. 475,472.

Patented May 24, 1892.



WITNESSES:

Chas. H. Platts.
Edward Richmond.

INVENTOR

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UNITED STATES PATENT OFFICE.

WALTER SCOTT, OF HOOSICK FALLS, NEW YORK.

MOWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 475,472, dated May 24, 1892.

Application filed October 14, 1891. Serial No. 408,691. (No model.)

To all whom it may concern:

Be it known that I, WALTER SCOTT, a citizen of the United States, residing at Hoosick Falls, county of Rensselaer, and State of New York, have invented certain new and useful Improvements in Mowing-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

The invention consists in an attachment to the driving shaft or axle of mowing-machines to increase the distance between or the breadth of the wheels, so that the machine may be adapted for either a short or a long bar or cutting apparatus.

It is well known to those familiar with the art that a mowing-machine carrying a four-foot bar is not well adapted to carry a longer bar. It is necessary when a longer bar is put on the machine that the wheels should be wider apart in order to straddle the swath of grass cut in the previous round, and also that a sufficient traction may be provided to drive the machine. It is highly advantageous in manufacturing mowers that one-sized frame should be used, which frame shall be adapted for both a long and short cut. By my improvement, in which an extension is removably attached to the axle, it will be readily seen that a machine may be used with either a long or short bar.

Referring to the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a perspective view embodying my invention, only so much of the machine being shown as is necessary to illustrate the invention. Figs. 2 and 3 are views partly in section and partly in elevation. Fig. 4 is a side view of a hub-wheel. Figs. 2, 3, and 4 show the parts in juxtaposition prior to being put in place. Figs. 5 and 6 are views in perspective of a portion of the attachment and of the clutch by which motion is communicated to the operative parts from the driving-wheel. Fig. 7 is a front view of the inner side of the hub of the driving-wheel.

A is an axle-bearing; B, the driving-wheel; C, the crank-shaft bearing; C', the crank-wheel, to which is pivoted the pitman D.

E is a driving-gear provided with an internal gear to communicate motion in any well

known way to the crank-shaft. The gear-wheel E has a stem *e* pinned securely to axle F, and on its outer end is provided with an internal ratchet-box *e'*, into which gravity-pawls *f*², well known in the art, take. These gravity-pawls fit within the recesses *f* in the wheel-hub, which extends within the internal ratchet-box *e'*, and when the driving-wheel advances the pawls engage the ratchet-teeth in the box *e'*; but when the wheel recedes the pawls slip by the teeth in the ratchet-box.

When it is desired to use the machine with a short bar, the wheel B is slipped on the axle F. When a longer bar is to be used, the extension G of the axle is attached. The extension G consists of a casting *g*, provided on its outer end with a ratchet-box *g'*, similar to the ratchet-box *e'*. A short stud H is secured in the casting G, and upon this stud the wheel B is slipped, being thereon held by a cotter *h*. The hub of the driving-wheel carrying the driving-gravity-pawls fits within the ratchet-box *g'* in the same way as in the ratchet-box *e'*. The inner end of the extension G has a hub *g*², provided with two or more teeth *g*³ *g*³, which take into the teeth of the internal ratchet-box *e'* and cause the driving-gear to revolve with the driving-wheels. The hub *g*² has a flange *g*⁴, which effectually shields the internal ratchet-box *e'*. Securing-bolts *g*⁵ *g*⁵, passing through the hub *g*² and the driving-gear, prevent the displacement and longitudinal movement of the extension G. The casting G is further provided with a hole *g*⁶, taking over the driving-axle, and the axle and its extension are thereby better adapted to sustain the weight of the machine.

It will be noticed from the previous description, taken in connection with the drawings, that when it is desired to extend the axle for adapting the machine to a longer bar the ratchet-box is not removed, but is left in place, and the inner end or hub of the extension G is secured in the internal ratchet. Under this arrangement, therefore, the torsional strain of driving the machine is transmitted to the axle of the machine through the means of the extension G and not solely through the supplementary axle or stud mounted in the extension G.

It is evident that this invention might be advantageously employed in that type or class

of mowing-machine in which the various parts forming the driving connection between the wheel and axle were reversed or in which the ratchet-teeth were on the wheel-hub and the
5 pawls on the axle.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

10 1. The combination, in a mowing-machine, of the axle and an extension for the axle removably secured thereto, substantially as and for the purpose specified.

15 2. The combination, in a mowing-machine, of the axle, a driving-gear on the axle, an extension for the axle removably secured thereto, the driving-wheel carried on the extension, and clutching mechanism connecting the driving-wheel with the extension, substantially as and for the purpose specified.

20 3. The combination, in a mowing-machine, of its axle, an internal ratchet secured thereto,

an extension for the axle fitting over the latter and provided with a toothed hub taking into the internal ratchet, the driving-wheel carrier on the extension, and clutching mechanism connecting the wheel and extension, substantially as and for the purpose specified. 25

4. In a mowing-machine, an extension for the axle removably secured thereto intermediate the two parts of the ratchet mechanism for communicating motion from the wheel to the axle, and clutching mechanism on the extension adapted to engage with clutching mechanism on the drive-wheel, substantially as and for the purpose specified. 30

In witness whereof I have hereunto set my hand this 9th day of October, 1891. 35

WALTER SCOTT.

Attest:

EDWARD RICHMOND,
GEO. B. DAY.