T. COLDWELL & G. L. CHADBORN.

LAWN MOWER.

No. 105,781. Patented July 26, 1870.

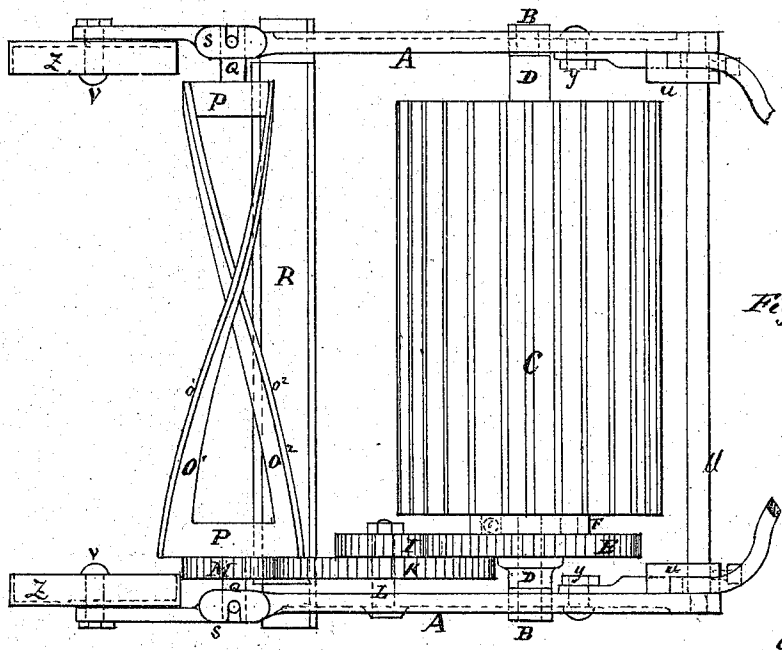


Fig. 1.

Witnesses:

Inventors:

Thomas Coldwell

George L Chadborn

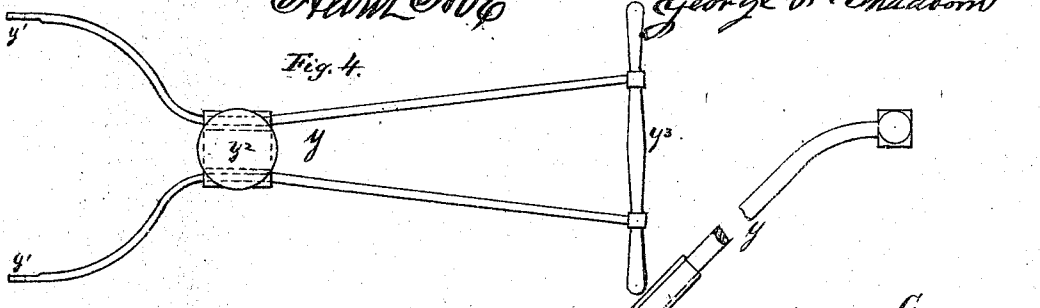


Fig. 4.

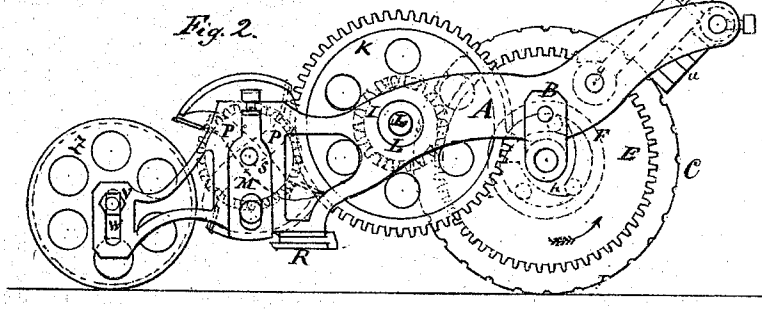


Fig. 2.

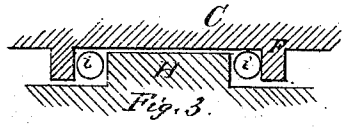
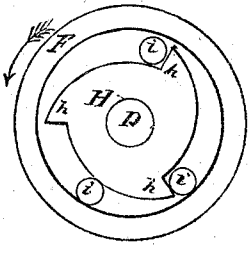


Fig. 3.



United States Patent Office.

THOMAS COLDWELL AND GEORGE L. CHADBORN, OF NEWBURG, NEW YORK.

Letters Patent No. 105,781, *dated July* 26, 1870.

IMPROVEMENT IN LAWN-MOWERS.

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

To all whom it may concern:

Be it known that we, THOMAS COLDWELL and GEORGE L. CHADBORN, of Newburg, in the county of Orange and State of New York, have invented a new and improved Lawn-Mower; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

Figure 1 represents a plan of the whole machine.

Figure 2 is a vertical side view of the same.

Figure 3 shows the friction-ratchet in larger scale.

Figure 4 is a plan of the handle in smaller scale.

The nature of our invention consists—

First, in the construction of the revolving drum or wiper, as hereinafter described; and,

Secondly, in the construction and combination of the handle, with its means of adjustment, as set forth.

Referring to the drawing—

A A are the side frames, which carry all the parts of the machine.

To them are fastened the bearings B B of the main drum C.

This drum C is grooved or ribbed on its surface, to increase friction on the ground.

On the same shaft D, with the drum C, is placed one large spur-gear, E, loose on the shaft, but to this gear is secured the ratchet H, on the side toward the drum C, which ratchet sets the gearing in motion when the machine is pushed forward, but leaves the gearing standing still when the machine is pulled backward.

F is the ring cast on the drum.

h h h are the cogs of the ratchet.

i i i, the balls or rollers, placed in the spaces between the ratchet and the ring, and, by their own gravity, the balls will always fall toward the lower part.

When the machine is pushed forward, the drum is revolving, as marked by an arrow, and the inner surface of the rim F has a tendency to move the balls or rollers toward the narrower part of the space, in this way wedging the balls or rollers *i i* close into the eccentric space, and moving the ratchet along with the gear.

These balls may be in any possible position. One of them, at least, will always be wedged in by its own weight, while the others may be loose; but, when the machine is started from any place, the gear will be started at the same time, and, with it, the wiper.

By turning the drum C the other way, the balls or rollers *i i* will be eased in their places, and the gear will not turn.

One pair of intermediate gears, I and K, is secured to one of the frames A by a stud, L, on which they revolve, the smaller one, I, gearing into the large spur-wheel E, and the larger one, K, gearing into the small pinion M, which sets the spiral cutters in motion.

O^1 O^2 are the two cast-iron bars, to which are bolted the steel cutters o^1 o^2.

The cross-bars P P connect the two bars O^1 O^2, and the journals Q Q are cast on these cross-bars.

R is the cutter-bar for the bottom knife. While this is stationary on the frame A A, the wiper O^1 O^2 is adjustable by means of its movable journals S S.

The height of the cutter-bar above the ground is adjustable by the front rollers Z Z, their centers being movable in the slot W at the front end of the frames A A.

The handle *y* is simply made of two separate bars of iron, united in the center by a cast-iron plate, y^2, with two cast-iron square sleeves cast on, which plate is placed over the bars before they are bent to their shape, when finished.

A wooden handle, y^3, connects the two bars at their upper ends.

This handle *y* is movable around the two bolts *y y*, which hold it to the frame A, and the other end can be lowered or raised, and held in a suitable position, by clamps *u u* on the brace-rod U, at the back end of the frame. These clamps are held by a set-screw, and have two arms, with slots, at different distances from the center, into which the legs of the handle are fitted. The height of the handle is adjusted by placing it in the suitable slot, and then fasten the clamps *u u* to the brace-rod U.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The revolving cutter-drum O^1 O^2, consisting of two cast-iron bars, o^1 o^2, connected, by cross-bars P P, with steel knives o^1 o^2, and shafts Q Q, without a center shaft running from one end to the other, for the purpose as specified.

2. The handle *y*, constructed as described, in combination with the adjustable arms *u u*, on the brace-rod U, as specified.

THOMAS COLDWELL.
GEORGE L. CHADBORN.

Witnesses:
JNO. C. NOE,
ALBERT NOE.