No. 803,496. PATENTED OCT. 31, 1905.

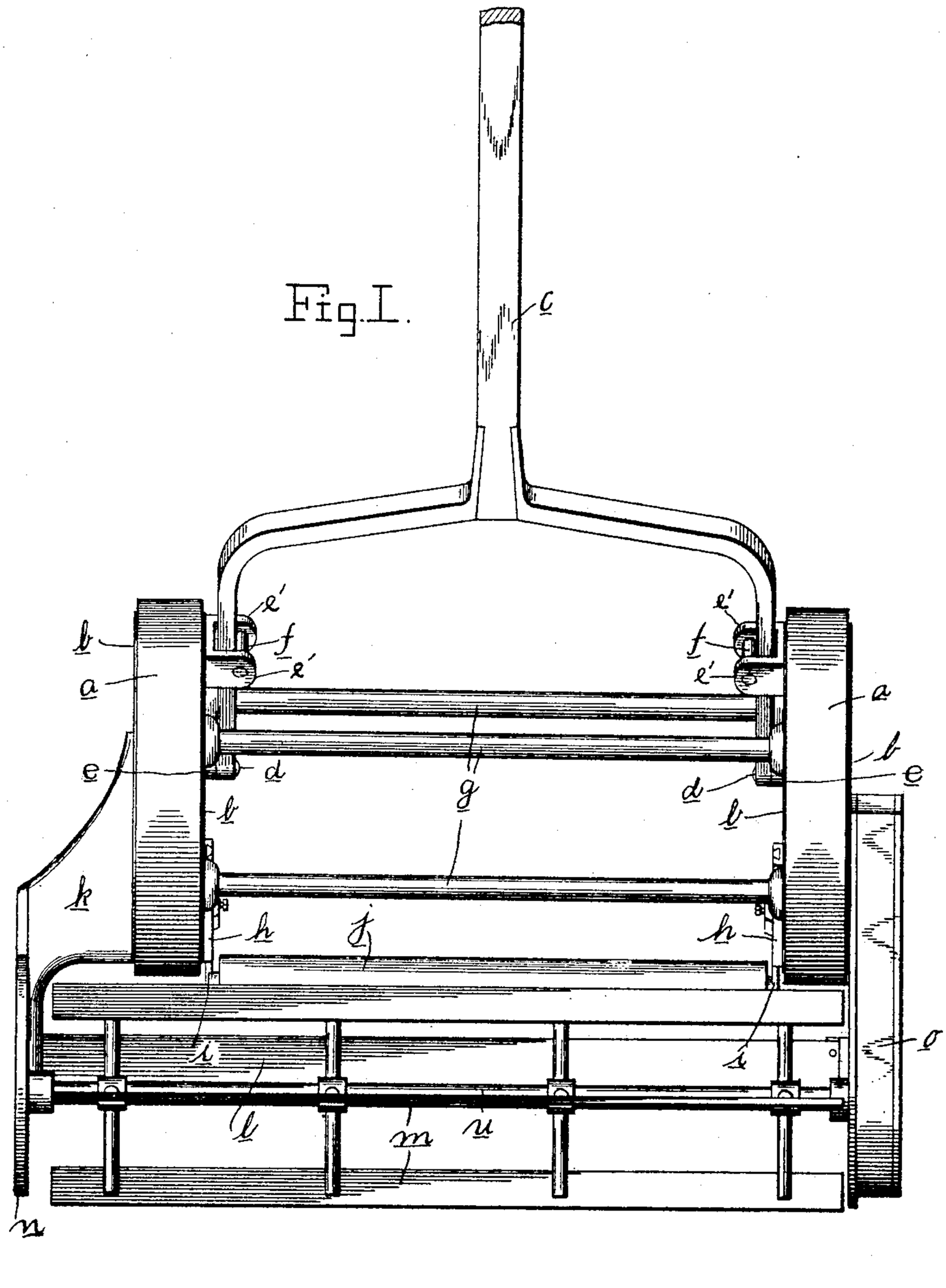
W. MARSHALL.

LAWN MOWER.

APPLICATION FILED AUG. 3, 1904.

3 SHEETS—SHEET 1.

Fig. I.



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3 SHEETS—SHEET 2.

Fig. 2.

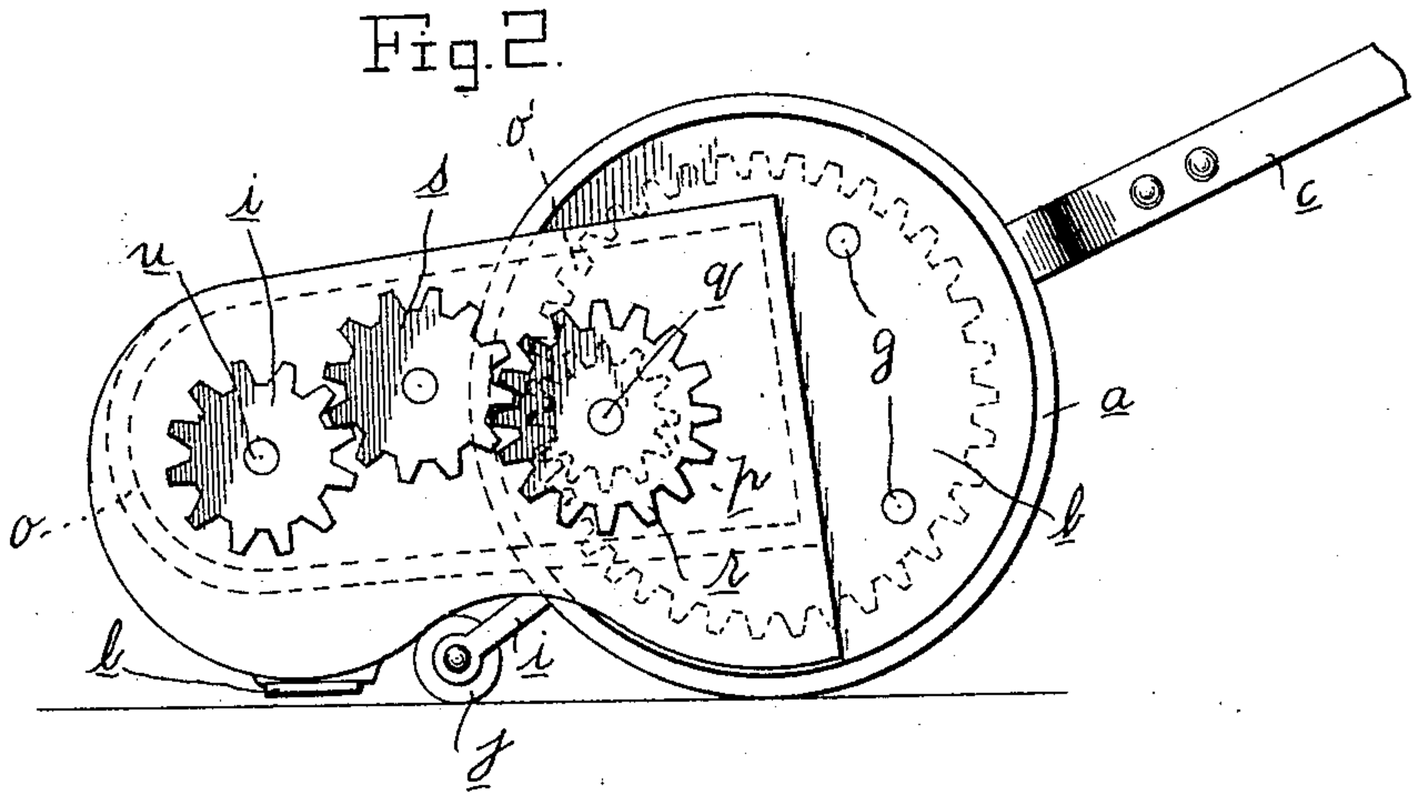
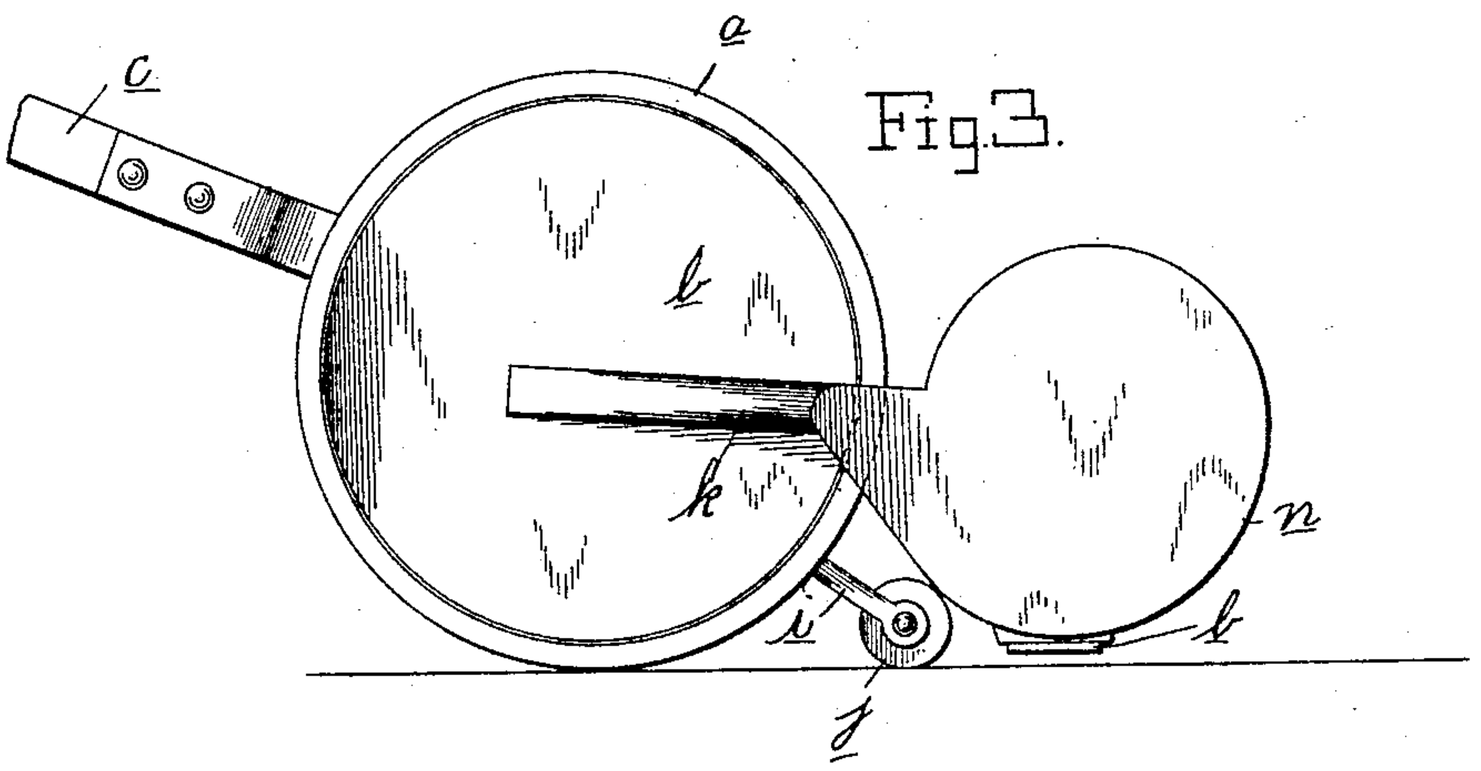


Fig. 3.



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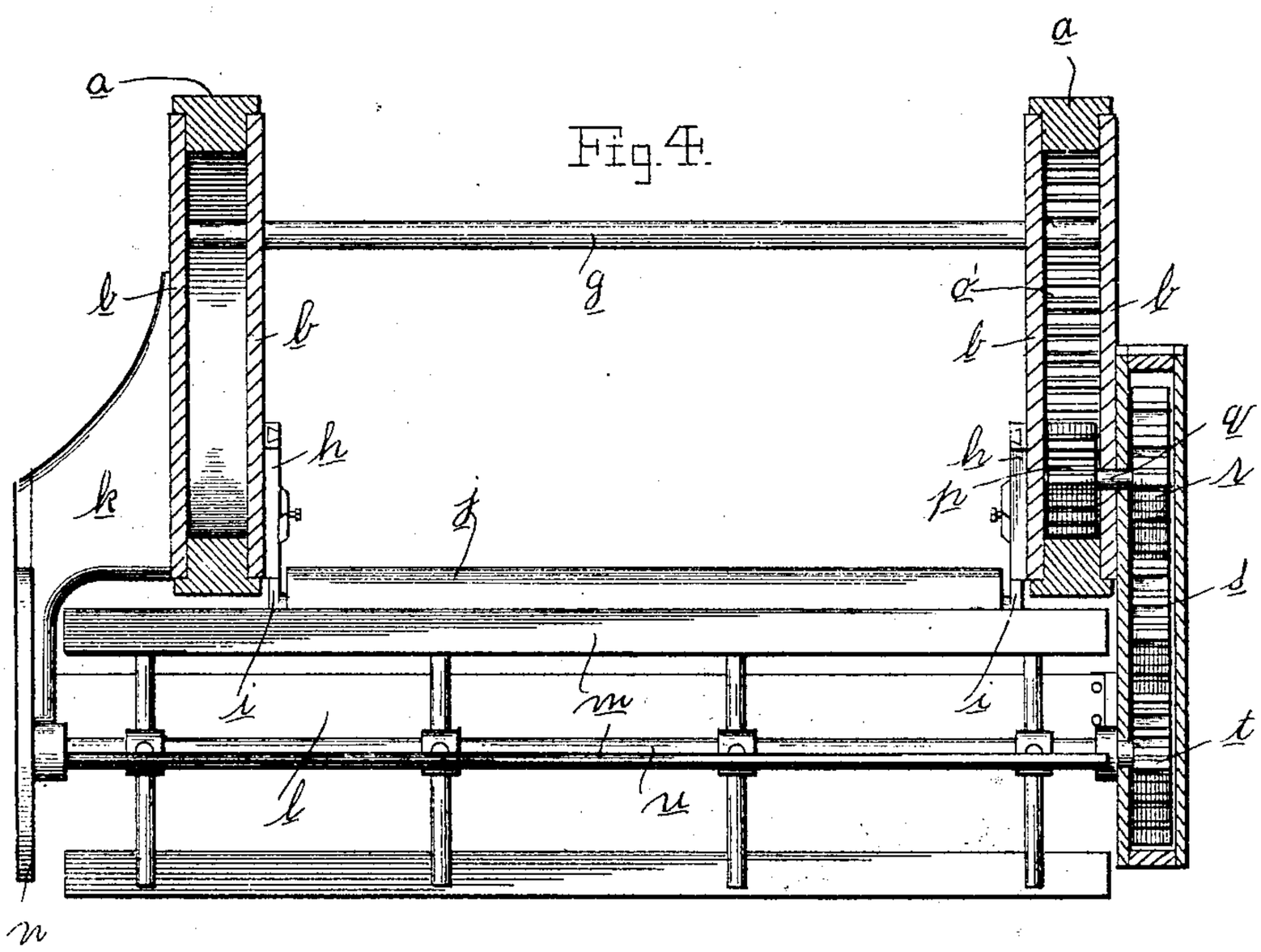
3 SHEETS—SHEET 3.

Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM MARSHALL, OF COSHOCTON, OHIO.

LAWN-MOWER.

No. 803,496. Specification of Letters Patent. Patented Oct. 31, 1905.

Application filed August 3, 1904. Serial No. 219,358.

To all whom it may concern:

Be it known that I, WILLIAM MARSHALL, a citizen of the United States, residing at Coshocton, in the county of Coshocton, State of Ohio, have invented certain new and useful Improvements in Lawn-Mowers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has relation to lawn-mowers of the class designed to have the cutting devices precede the traction or driving wheels, so that grass may be cut up closer to the fence or other thing which obstructs the further operation of mowing. In the provision of a lawn-mower of this general character I have provided various improvements, all tending to increase the efficiency of the machine and render it more simple in construction and operation than heretofore.

The accompanying drawings, and the letters of reference marked thereon, form a part of this specification and are referred to for a clearer understanding of the invention.

Of the said drawings, Figure 1 is a plan view as the machine will appear when in operation. Fig. 2 is an end view showing how motion is transmitted from one of the traction-wheels to the rotary cutting-knives, the ratchet-wheels, pawls, &c., and some other parts common to lawn-mowers which permit of their reverse movement without operating the rotary cutting-knives and which form no part of this invention are for the sake of clearness omitted. Fig. 3 is a view of the opposite end or side. Fig. 4 is a longitudinal central sectional view.

In the drawings, *a* represents the main or traction wheels by which the machine is borne and operated. The said wheels are substantial bands having their sides protected by guard-plates *b*, which extend to near their peripheries and keep grass, dirt, or other matter from getting into the wheels, and also afford means for applying necessary operating devices to the wheels. The handle *c* is formed at its forward end as usual, and the said forked or divided ends are applied or secured by the bolts *d* in the lugs *e*, as well as by the pins or bolts *f*, which pierce the corresponding pairs of lugs *e'* on the inner sides of each of the guard-disks, these pairs of lugs *e'* being arranged above the corresponding aforesaid lugs *e*. The wheels are kept in place and in proper relation one to the other by the rods *g*, extending between them and secured in the guard-plates. Brackets *h* are secured at proper points to the guard-plates and carry adjustable arms *i*, in which at their lower ends the ground-roller *j* is journaled. At one side to the outer guard-plate *b* is secured a substantial bracket *k*, which extends outward a considerable distance beyond its traction-wheel *a* and at its lower end carries one end of the stationary cutter-bar *l*, one of the bearings for the rotary cutter-knives *m*, and the substantially annular guard and grass-dividing plate *n*. At the opposite side or end there is a guard-box *o*, the sides of which are supported by the adjacent outside guard-disk *b* of its traction-wheel. The traction-wheels or one of them has a cogged wheel *o'* (shown in dotted lines) connected with it at an axial point, which gear *o'* engages a gear *p* on the shaft *q* inside of the guard-disk on the traction-wheel and turns said shaft, and consequently the gear *r* on the shaft outside of the disk. The last-mentioned gear meshes with the gear *s*, turning on a stub-shaft, and the latter engages and drives the gear *t* on the shaft *u*, carrying the cutter-knives *m*.

It is to be noted that the handle is secured on the inside of the traction-wheels, which gives the advantage in use of running the wheels as close to an object as they themselves will permit, the handles being entirely out of the way. Again, by connecting the cutting-blades to the bracket *k*, which extends a considerable distance laterally beyond its nearly-adjacent traction-wheel and its connections, the cutter can be made to run close to a wall, fence, or other object. This is a matter of much importance, as is well known to all acquainted with the use of lawn-mowers. The brackets whereby the ground-roller is made adjustable so as to secure a close or higher cut is also of importance in this invention.

As a whole the improvements made in my lawn-mower are of such value and importance as to render it very desirable, besides making it simpler in construction and much more convenient in use than those now generally employed.

What is claimed is—

A lawn-mower, comprising hollow traction-wheels, each having guard-disks inclosing its sides, the inner guard-disks each having a pair

of lugs and another lug therebeneath, a divided handle having its legs passed between corresponding pairs of lugs and secured to the lugs therebeneath, a ground-roller adjustably connected to the inner guard-disks of the guard-disks, a rotary cutter, connections between the guard-disks and the rotary cutter to support the latter, and means arranged between one of the traction-wheels and the rotary cutter for rotating the latter.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM MARSHALL.

Witnesses:

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