

(No Model.)

D. C. KENYON.

EDGE TRIMMING LAWN MOWER.

No. 362,516.

Patented May 10, 1887.

FIG. 2.

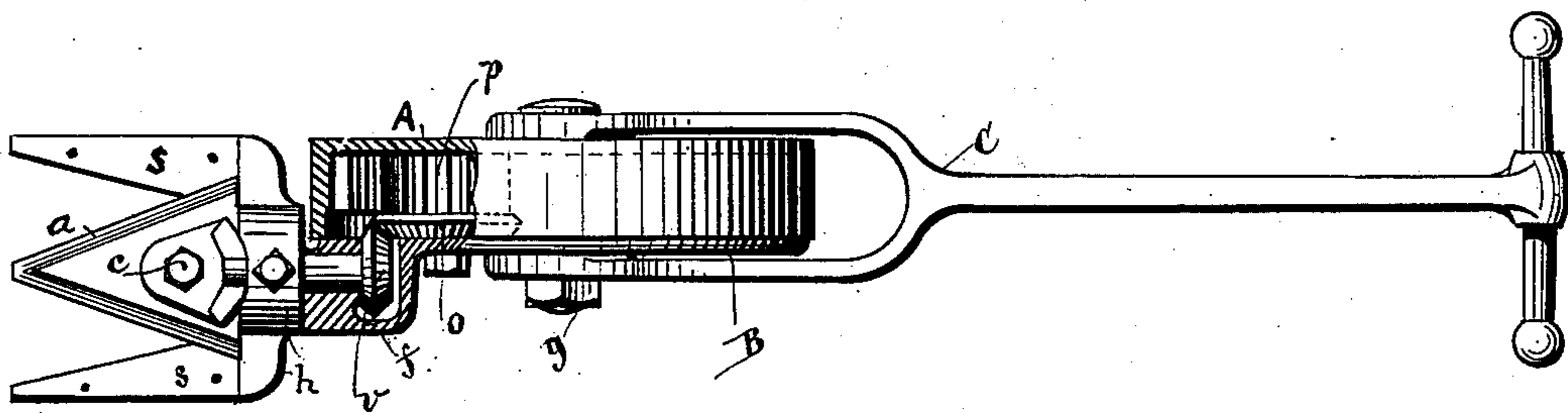


FIG. 1.

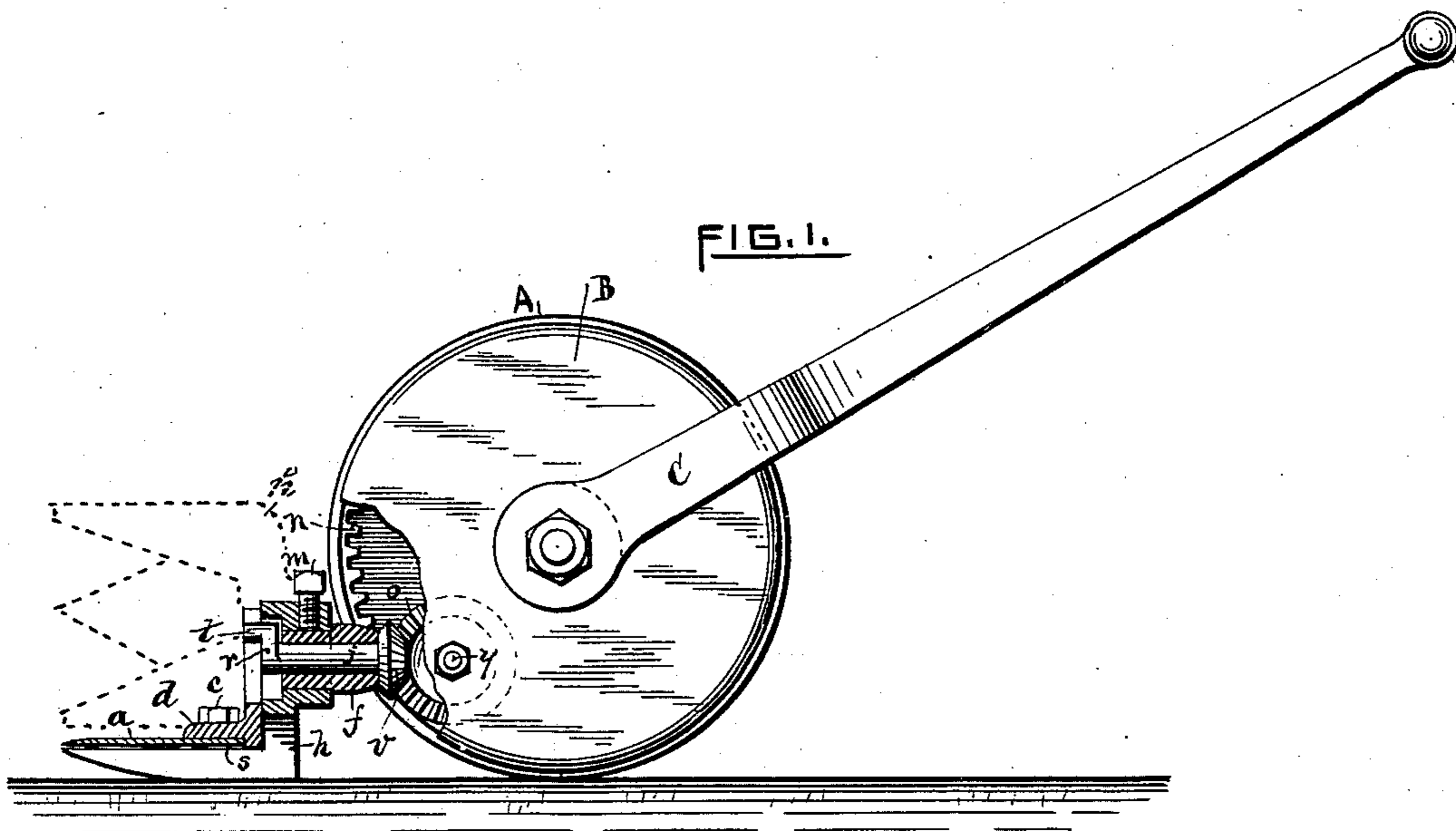
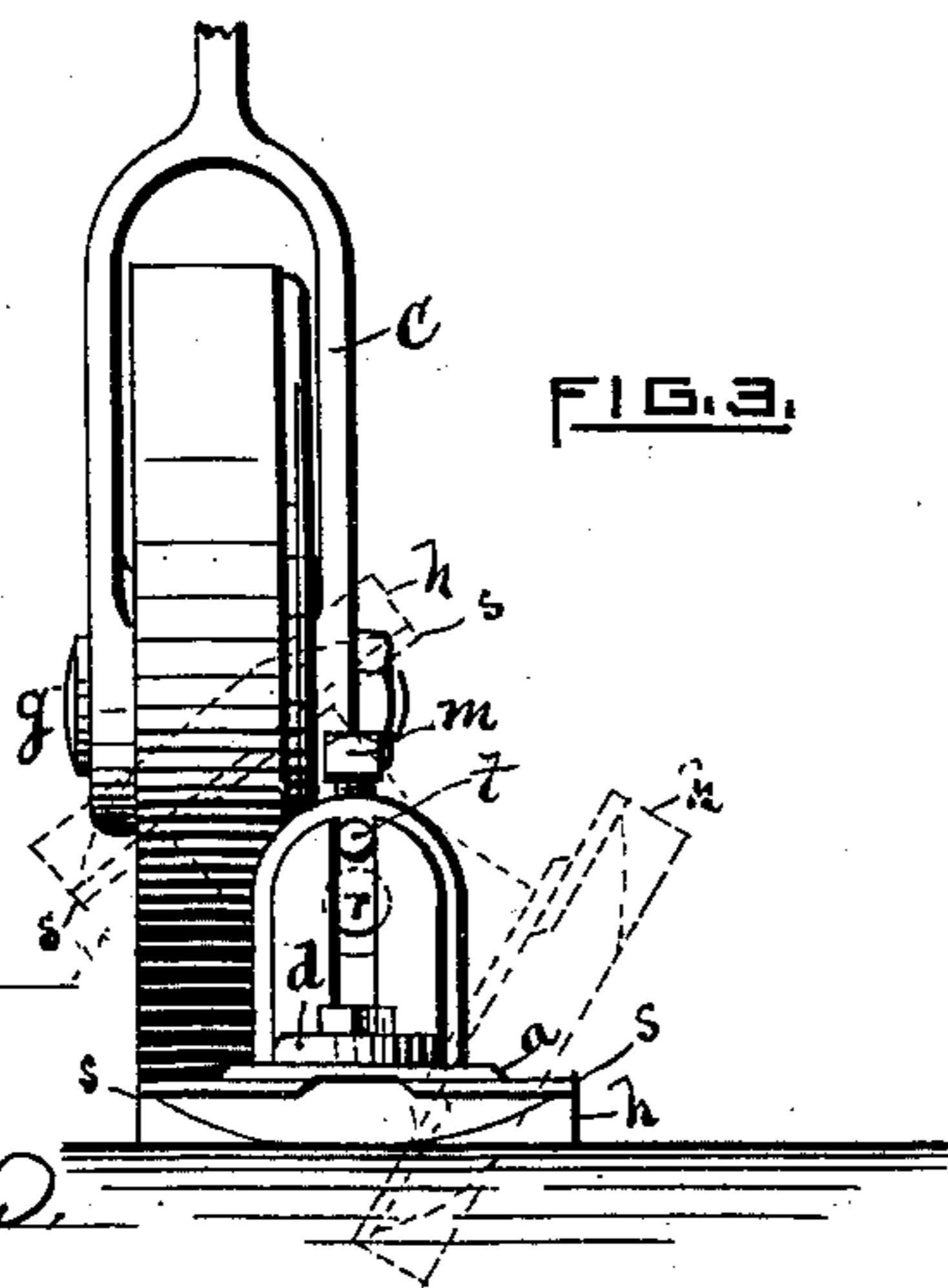


FIG. 3.



WITNESSES.

Benj. Arnold

Mrs. J. C. Kenyon

INVENTOR.

Daniel C. Kenyon

UNITED STATES PATENT OFFICE.

DANIEL C. KENYON, OF WYOMING, RHODE ISLAND.

EDGE-TRIMMING LAWN-MOWER.

SPECIFICATION forming part of Letters Patent No. 362,516, dated May 10, 1887.

Application filed January 6, 1886. Serial No. 187,763. (No model.)

To all whom it may concern:

Be it known that I, DANIEL C. KENYON, of Wyoming, in the county of Washington and State of Rhode Island, have invented certain new and useful Improvements in Edge-Trimming Lawn-Mowers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The object of this invention is to construct a lawn-mower for trimming the edges of grass-plots along the walks and close around walls, buildings, &c., and at the same time capable of being used in the usual way in narrow places between plants, &c., where there is not sufficient room for the ordinary lawn-mower to be used. It is fully illustrated in the accompanying drawings.

Figure 1 shows a side elevation of the lawn-mower with a part removed to show the gearing inside. Fig. 2 is a top view of the same. Fig. 3 shows a front elevation of the lawn-mower.

The machine consists of a driving-wheel, A, on the inside of the rim of which internal gear-teeth, *n*, are made in the usual way in lawn-mowers. This driving-wheel A turns on a stud, *g*, fastened to the plate B, that covers the open side of the driving-wheel A. The plate B is extended out on its lower front edge to form a sleeve, *f*, to hold the guard-finger block *h*, which is fitted to turn freely on the outside of the sleeve *f*, and is provided with a set-screw, *m*, to hold the block *h* in any desired position.

A short shaft, *j*, is fitted to turn in the sleeve *f*, and has a crank, *r*, made on its outer end, and on its inner end a small bevel gear-wheel, *v*, is secured, the teeth of which engage a larger bevel-gear, *o*, held on a stud, *y*, made fast to the plate B. On the inner side of the bevel-gear *o* a pinion-gear, *p*, is made fast, (see Fig. 2,) the teeth of which engage the internal gear-teeth, *n*, on the driving-wheel A. Through these gear-wheels *p o v* motion is communicated from the driving-wheel A to the crank *r*, that operates the knife *a*, which is secured to the bottom of the block *d*, which is

held in position so as to swing freely on a stud, *c*, made fast in the guard-block *h*.

The back part of the knife-block *d* is carried upward and has a slot made in it to receive the crank-pin *t*, so that as the crank revolves the block and knife *a* are swung from one side to the other. The back part of the guard-block *h* is also extended upward and has a hub on the back which is fitted to turn on the sleeve *f*. A ledger-plate, *s*, is so secured on the top of each finger of the block *h* as to be capable of adjustment, and these plates are set so that the knife *a* will just swing over them and cut the grass that comes between the ledger-plates *s* and the blade *a*.

As the guard-block *h* turns around the sleeve *f* on the same center as the shaft *j*, it follows that the crank *r* will operate the block *d* and knife *a* in the same manner, at whatever angle the block *h* may be set. The handle C is made in a forked shape, the two arms being held on the ends of the stud *g*, that passes through the center of the driving-wheel A, and the upper end has an eye, through which a cross-bar is placed. The bevel gear *o* may be connected to the pinion-gear *p* by means of a ratchet and pawl to operate only when going forward, if desired.

To use the machine the set-screw *m* is loosened and the guard-block *h* set at any angle, according to the use intended, and then secured by screwing up the set-screw. If it is intended to cut the grass left by the ordinary lawn-mower around buildings, walls, trees, or other objects, or for use in narrow places between objects not accessible to the usual lawn-mower, the block *h* is set at the lowest position, Fig. 1, where it will operate as an ordinary lawn-mower. When it is to be used to trim the sides of the walks or flower-beds, the block *h* can be set at any angle from the lowest point up to one in which the knife *a* will be in a vertical position, (see dotted lines in Fig. 1,) and at any point from that position up to the top of the circle it will be in proper position to trim the lower branches from the under sides of plants, shrubbery, &c.

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

1. In an edge-trimming lawn-mower, the block *h*, for holding the cutting apparatus, made capable of adjustment to any part of the circle, so as to cut at any angle desired, substantially as set forth, in combination with a cutting apparatus and mechanism for operating the same, substantially as described.

2. The combination of the wheel A, pinion-

gear *p*, bevel-gears *o v*, crank-shaft *j*, block *d*, knife *a*, adjustable block *h*, and ledger-plates *io s s*, substantially as and for the purpose set forth.

DANIEL C. KENYON.

Witnesses:

BENJ. ARNOLD,

Mrs. J. E. KENYON.