

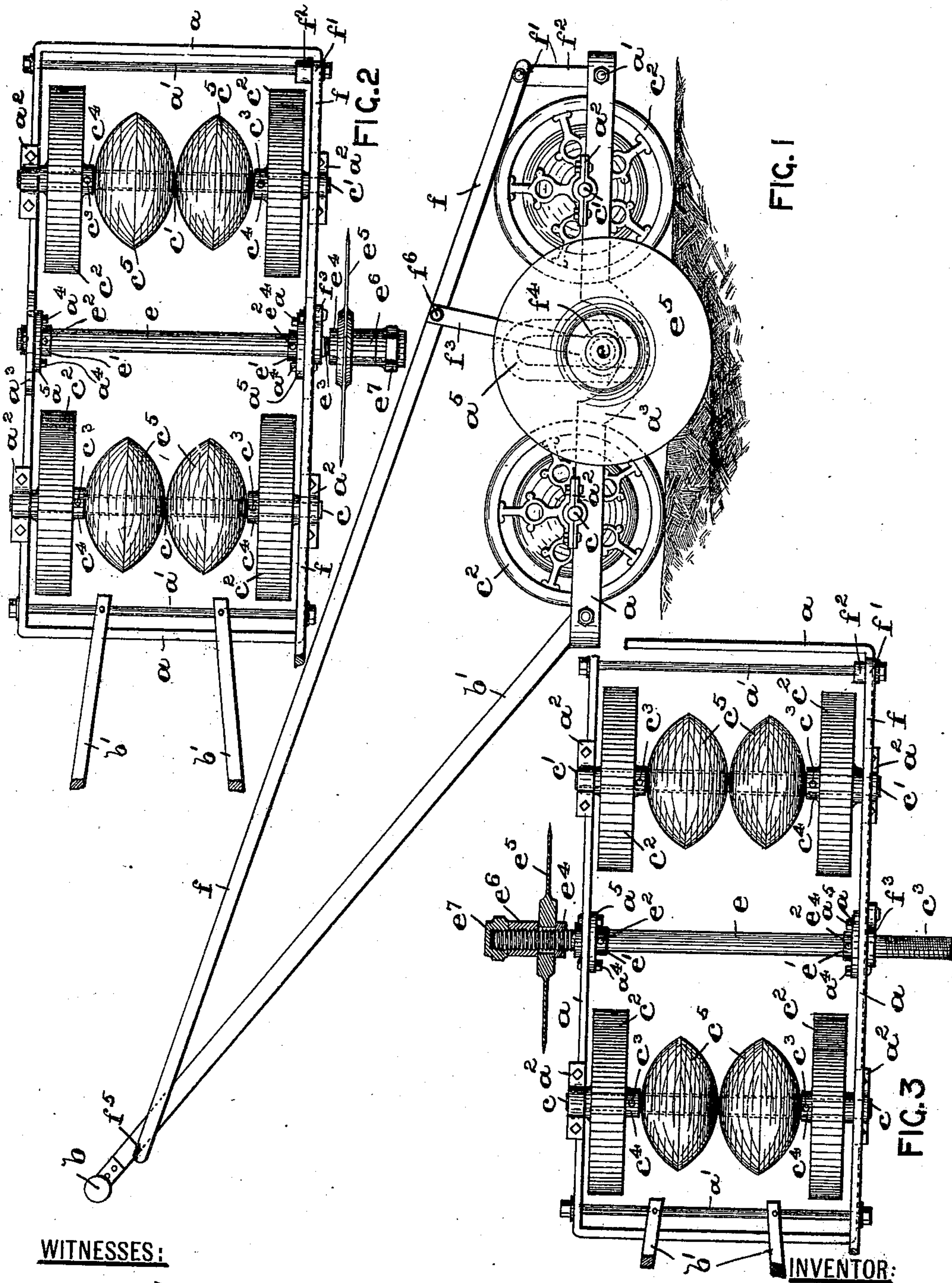
(No Model.)

2 Sheets—Sheet 1.

W. A. BODE.  
SOD CUTTER.

No. 549,100.

Patented Nov. 5, 1895.



WITNESSES:

*Nancy J. Tinsdell*

*Wm. H. Campfield, Jr.*

INVENTOR:  
WILLIAM A. BODE.

BY  
*Fred C. Fraentzel,*  
ATTORNEY

W. A. BODE.  
SOD CUTTER.

No. 549,100.

Patented Nov. 5, 1895.

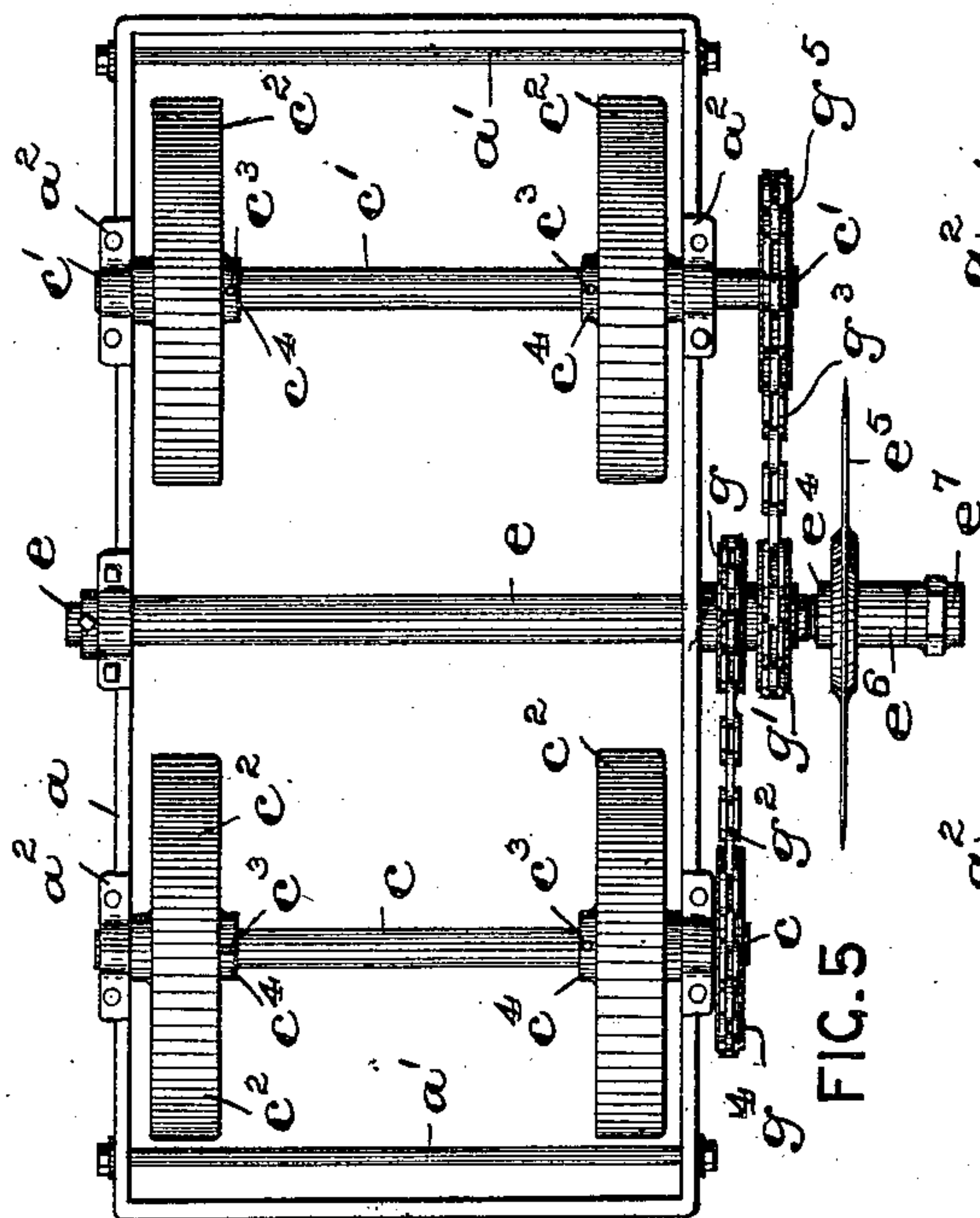


FIG. 5

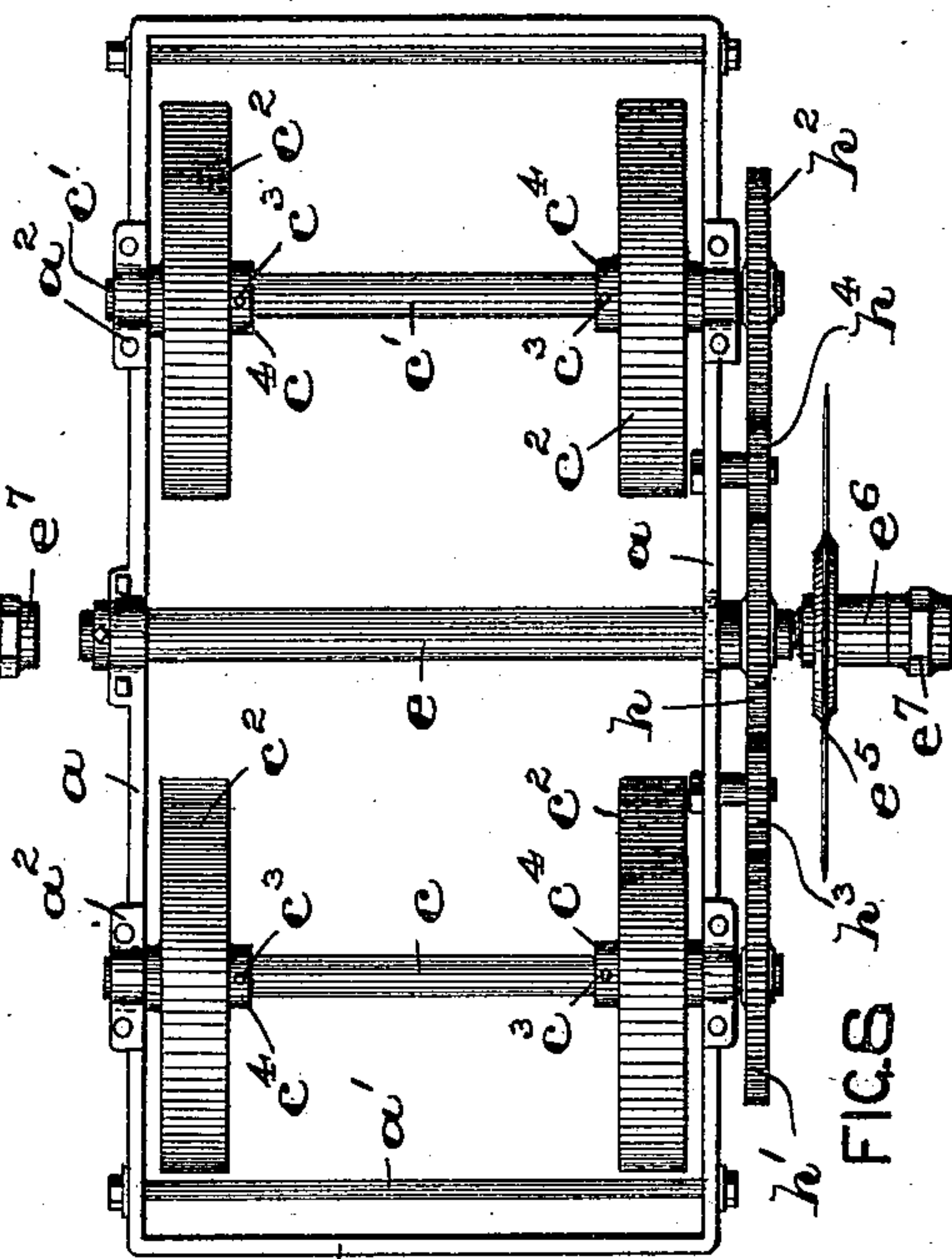


FIG. 6

FIG. 4

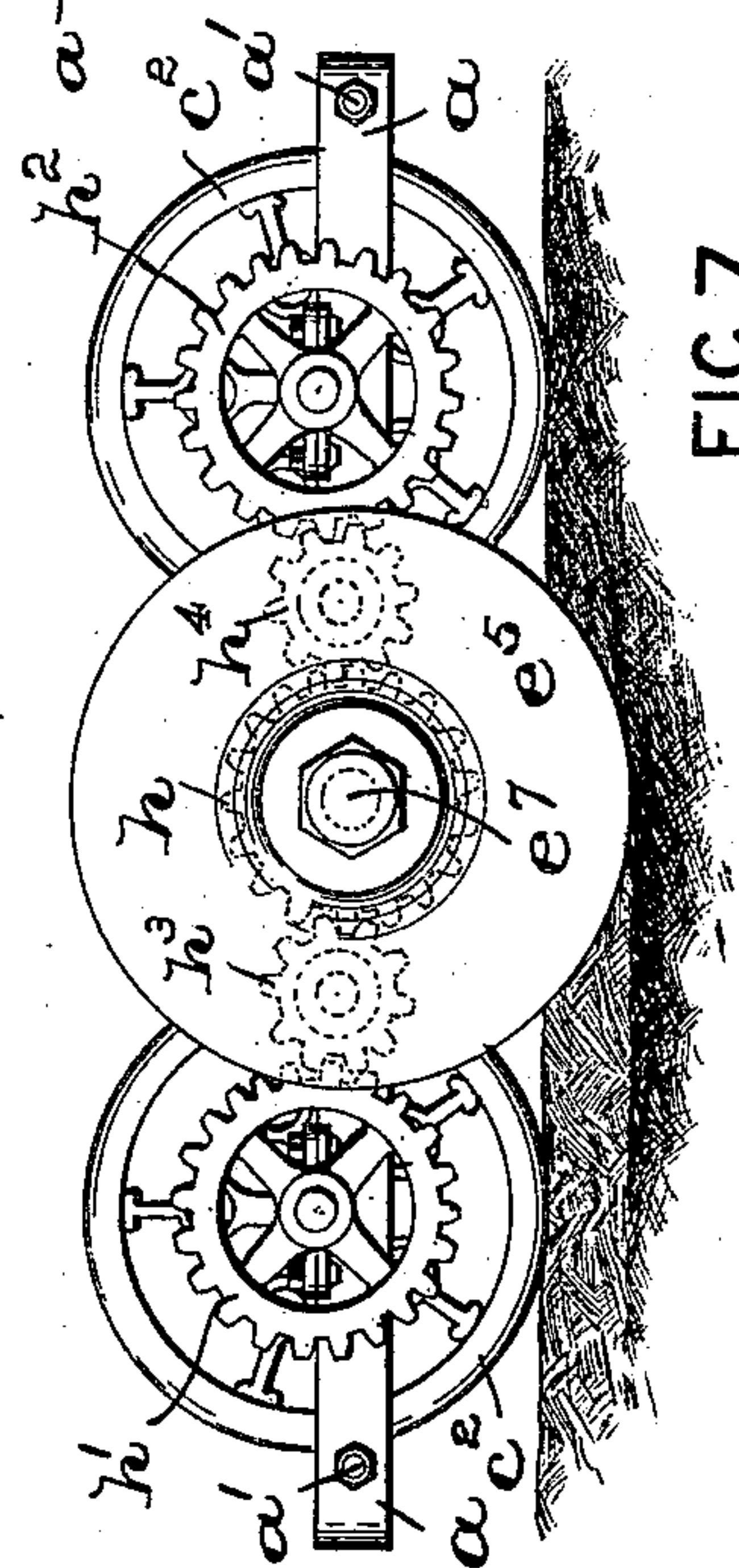
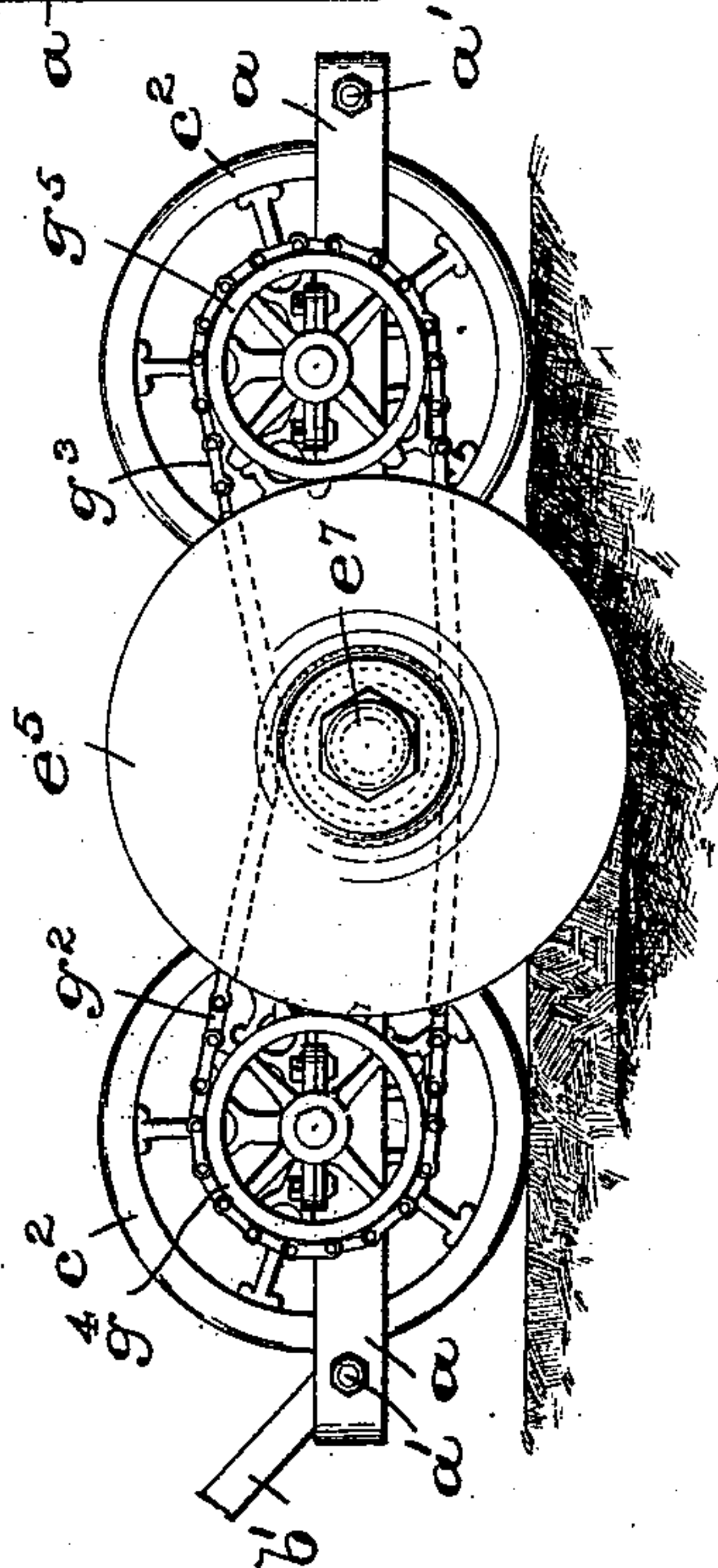


FIG. 7

WITNESSES:

*Mary J. Trusdell*

*Wm. D. Camfield, Jr.*

INVENTOR:

WILLIAM A. BODE.

BY

*Fred C. Fraentzel*  
ATTORNEY



# UNITED STATES PATENT OFFICE.

WILLIAM A. BODE, OF ORANGE, NEW JERSEY.

## SOD-CUTTER.

SPECIFICATION forming part of Letters Patent No. 549,100, dated November 5, 1895.

Application filed July 8, 1895. Serial No. 555,342. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM A. BODE, a citizen of the United States, residing at Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Machines for Cutting and Trimming the Edges of Lawns; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention has reference to a novel construction of machine for cutting or trimming the edges of lawns along pathways or carriage-drives, &c.; and the novelty consists in the construction, various adjustments, and arrangements of parts such as will be hereinafter fully set forth, and finally embodied in the clauses of the claim.

The object of the invention therefore is to produce a simple and operative machine for the purposes stated which can be readily manipulated and in which a rotary cutter can be quickly adjusted to the depth of the cut desired while operating the machine.

The invention is illustrated in the accompanying sheets of drawings, in which—

Figure 1 is a side elevation, and Fig. 2 a plan or top view, of the machine embodying the principles of my invention. Fig. 3 is a plan view of the machine, but illustrating a modified construction of cutter-carrying spindle on which the cutter can be arranged on either end of the spindle instead of at one end, as in Fig. 2. Figs. 4 and 5 are a side and top view, respectively, of the machine in which the cutter-spindle is operatively connected with the wheel-axles by means of link chains and sprocket-wheels; and Figs. 6 and 7 are a plan and side view, respectively, of the machine, but in which the cutter-spindle is operatively connected with the wheel-axles of the machine by means of suitable gear-wheels.

Similar letters of reference are employed in each of the above described views to indicate like parts.

In the said views, *a* indicates a suitable wrought-iron or other like frame, provided with tie-bolts *a'* and bearings *a''*. Pivotal-

connected with one of said bolts *a'* or with any other suitable part of the machine are a pair of arms *b'*, having at the top thereof a handle-bar *b*, for pushing the machine along the ground. Rotatively arranged in said bearings *a''* are suitable axles *c* and *c'*, to which are secured the wheels *c''* of the machine by means of suitable pins *c'''* passed through the hubs *c''* of the wheels and the said axles *c* and *c'*, substantially as shown in Figs. 2 and 3, whereby said wheels will rotate with their axles in said bearings; but of course it will be understood that said axles may be fixed in perforations in the sides of the frame *a* and the wheels *c''* made to rotate directly on the axles. Upon said axles are slipped certain iron pieces *c'''*, forming weights, the purpose of which will be fully described hereinafter.

The two longitudinal sides of the frame *a*, near the middle, are made with slightly downwardly-curved parts *a'''*, to which are secured by means of screws or bolts *a''''* or in any other well-known manner certain upwardly-extending plates *a''''*, each plate being slotted, as clearly indicated in dotted outline in Fig. 1. Loosely arranged to slide up and down in said slotted plates or guides *a''''* is a spindle *e*, provided with suitable collars or sleeves *e'* and pins *e''* or other suitable means for retaining said spindle in its operative position in said plates or guides, as will be clearly evident from an inspection of Figs. 2 and 3. Said spindle *e* is screw-threaded at its one end, as at *e'''*, and has a collar *e''''* screwed thereon against which I place a rotary cutter *e''''*, which is firmly held in position against said collar or nut *e''''* by a sleeve *e''''* and a second nut *e''''*. Owing to the fact that the end of the spindle and the nuts *e'''* and *e''''* are all screw-threaded, it will be seen that the cutter can be adjusted sidewise, if desirable.

In Fig. 3 I have illustrated the spindle *e* with both its ends screw-threaded, to permit the cutter *e''''* to be used on either end of the spindle or to use two cutters, if desired. In order to cause the upward or downward movement of the spindle *e* in said slotted plates or guides *a''''*, I have pivoted a handle *f'* at *f''* to a post *f'''*, said post being secured to the frame *a* of the machine, as will be seen from Fig. 1. Pivotaly connected by means of a



pin or bolt  $f^6$  to said handle  $f$  is a link  $f^3$ , which is provided at the bottom with an eye  $f^4$ , for securing said end of the link to the spindle  $e$ . Thus it will be seen that when  
 5 the end  $f^5$  of the handle is pushed down pressure is exerted by means of said link  $f^3$  upon the spindle  $e$ , and the result will be that the sharp cutting-edge of the cutter  $e^5$  is readily forced through the grass and into the  
 10 earth beneath the same to the depth desired.

To work the machine, the cutter is forced through the grass bordering on the side of a pathway, carriage-drive, or the like, and the machine is propelled by pushing with the left  
 15 hand upon the handle-bar  $b$  and its arms  $b'$  and holding the end of the handle or lever  $f$  in the right hand. As the machine moves forwardly, the friction between the earth and the sides of the cutter will cause the latter to  
 20 rotate on its spindle and thereby readily and neatly trim off the rough edges of lawns, &c., while at the same time the operator can easily control the cutting-depth by the handle or lever  $f$ . The weights on the axles  $c$  and  $c'$ ,  
 25 heretofore mentioned, are for the purpose of giving additional weight to prevent the lifting at the front or back of the machine, and also to cause the cutter  $e^5$  to be more easily retained in the ground during its cutting operation; but said weights may be dispensed  
 30 with, if desired.

When the machine is in operation, the wheels  $c^2$  are run in the pathway, while the cutter is directly in the grass near the edge,  
 35 and the machine can be easily worked, being simple in its construction and readily handled and operated with a great saving of time and labor.

If desired, the cutter-spindle  $e$  can be made  
 40 to rotate in fixed bearings in the frame  $a$  of the machine, being provided with sprocket-wheels  $g$  and  $g'$  and link-chains  $g^2$  and  $g^3$ , which are passed over sprocket-wheels  $g^4$  and  $g^5$  on the axles  $c$  and  $c'$ , respectively, as will  
 45 be clearly seen from an inspection of Figs. 4 and 5. On the other hand, the spindle  $e$  may be provided with a gear-wheel  $h$ , and the

axles  $c$  and  $c'$ , respectively, with gear-wheels  $h'$  and  $h^2$  and the idlers  $h^3$  and  $h^4$  on the side of the frame  $a$  in mesh with the other gear-  
 50 wheels, as clearly illustrated in Figs. 6 and 7. In this manner the spindle  $e$  can be operatively connected with the wheel-axles of the machine to rotate the cutter  $e^5$ .

Of course it will be understood that I do  
 55 not restrict my invention to the exact arrangements and details of construction of the parts herein shown, as I am fully aware that they can be considerably varied without departing from the scope of my invention. 60

Having thus described my invention, what I claim is—

1. A lawn-trimming machine, comprising therein, a frame, a propelling means, guide-plates on said frame, a cutter-spindle rota-  
 65 tively arranged and vertically adjustable in said guide-plates, and a cutter on said spindle, substantially as and for the purposes set forth.

2. A lawn-trimming machine, comprising 70 therein, a frame, a propelling means, a handle  $f$  pivotally connected with said frame, guide-plates on said frame, a cutter-spindle rotatively arranged in said guide-plates, a link connecting said spindle and handle  $f$ ,  
 75 for raising and lowering said cutter-spindle, and a cutter on said spindle, substantially as and for the purposes set forth.

3. A lawn-trimming machine, comprising therein, a frame, a propelling means, a cut-  
 80 ter-spindle rotatively arranged in bearings in said frame, a cutter on said spindle, and gear-mechanism operatively connecting said propelling means of the machine with said cutter-spindle, substantially as and for the  
 85 purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this  
 3d day of July, 1895.

WILLIAM A. BODE.

Witnesses:

FREDK. C. FRAENTZEL,  
 WM. H. CAMFIELD, Jr.