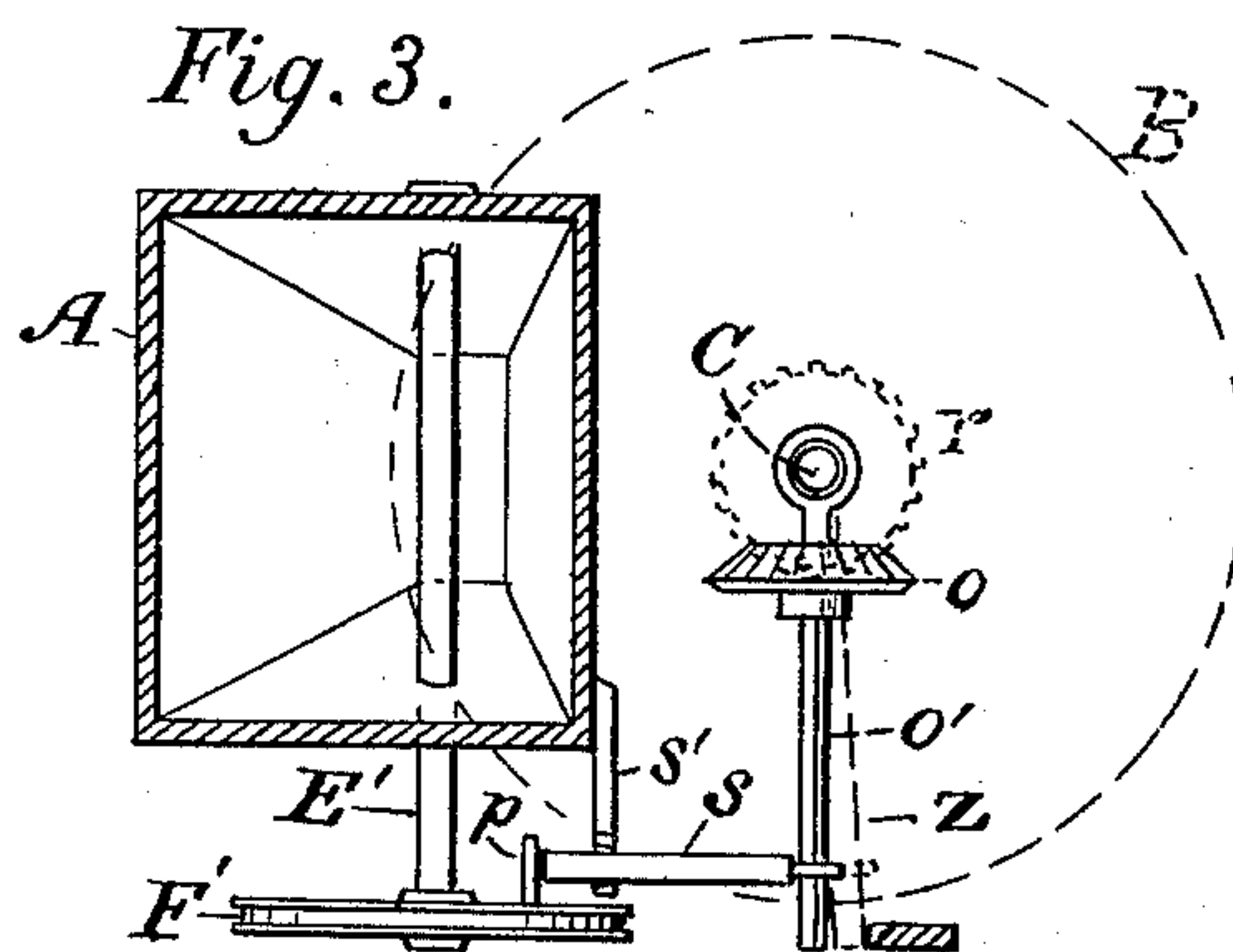
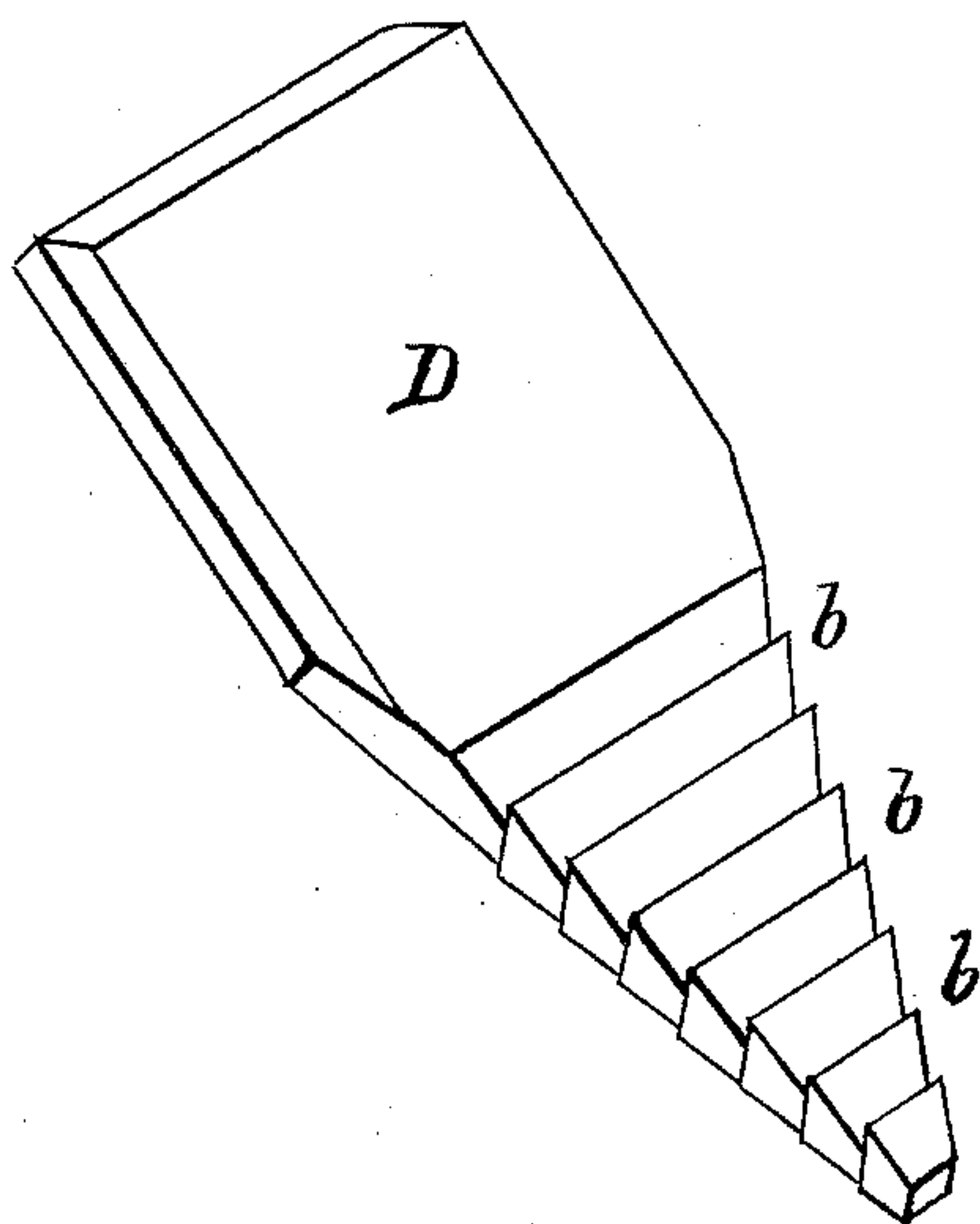
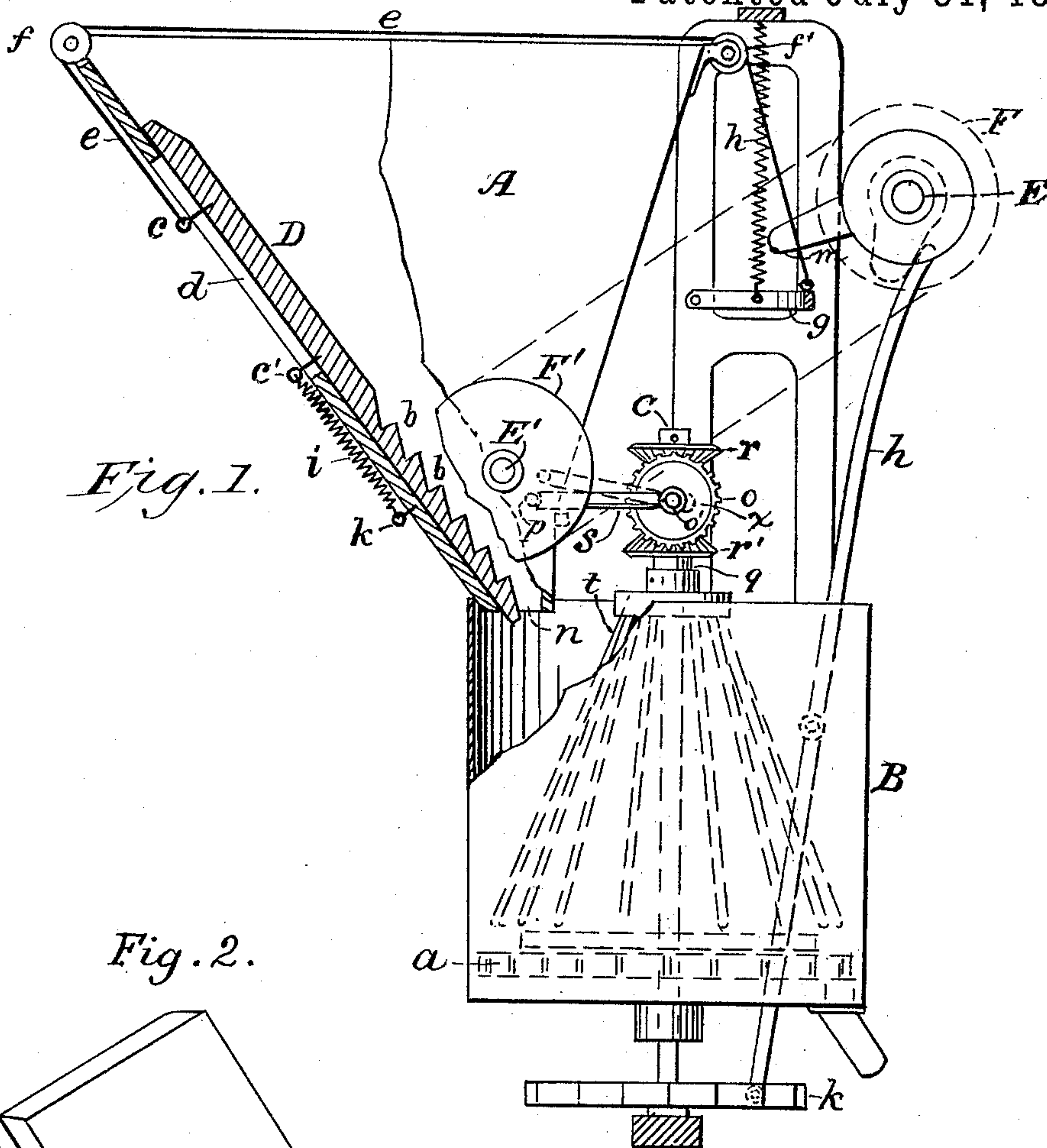


(No Model.)

J. M. MONTGOMERY.  
CIGAR BUNCHING MACHINE.

No. 387,098.

Patented July 31, 1888.



Witnesses  
G. B. Towles.  
A. Ruppert.

Inventor ;  
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Attorney.



# UNITED STATES PATENT OFFICE.

JAMES M. MONTGOMERY, OF KINGSTON, NEW YORK.

## CIGAR-BUNCHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 387,098, dated July 31, 1888.

Application filed June 9, 1888. Serial No. 276,549. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES M. MONTGOMERY, a citizen of the United States, residing at Kingston, in the county of Ulster and State of New York, have invented certain new and useful Improvements in Cigar-Bunching Machines; 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 relates to that class of cigar-machines which are used for bunching or forming the fillers of cigars, the object being to improve the feeding mechanism, so that the discharge of tobacco from the hopper to the drum below and from the drum shall be regular and in uniform quantities, and all clogging or hanging of tobacco-scrap will be avoided.

The improvements are applicable to machines such as that for which Letters Patent No. 345,614 were issued July 13, 1886, to which Letters Patent reference is made.

In the accompanying drawings, Figure 1 is a sectional side elevation, partly in section, showing my improvements applied to a cigar-bunching machine. Fig. 2 is a detached view of the pushing device, which is placed within the hopper. Fig. 3 is a plan illustrating certain details.

A designates the hopper, from which the tobacco passes into the drum B, within which is an intermittently-rotative feeding-disk (indicated by *a* in Fig. 1) on a vertical shaft, C. Within the hopper, and resting loosely against the rear side thereof, is placed a pusher, D, which is constructed, preferably, in the form shown, conforming somewhat to the hopper and tapering downward, with its lower end extending a short distance through the passage from the hopper to the drum B. The lower part of the pusher is provided with angular ribs *b* to lift up any surplus of scraps that may accumulate at the narrow passage from the hopper to the drum, letting it fall of its own gravity, thus keeping a uniform quantity in the drum and rendering the passage thereto regular and uninterrupted.

The pusher D is connected with the operating mechanism of the machine, so as to give it a slight sliding movement up and down, for the purpose above mentioned. The back of

the pusher board or plate is provided with loops or eyes *c* and *c'*, which project through a slot, *d*, in the casing of the hopper. A cord, *e*, is attached to the upper loop, *c*, and is passed upward over pulleys *f* and *f'* and secured to a curved bar, *g*, which is pivoted to the frame of the machine, and is sustained by springs *h*. To the lower loop, *c'*, is secured an elastic piece or spring, *i*, the lower end of which is connected with the casing at *k*.

On the driving-shaft E is fixed an arm, *m*, which, as the shaft rotates, impinges against the pivoted bar *g*, causing at intervals a depressing movement of said bar, which slightly raises the pusher D, which is then returned downward by the contraction of the spring *i*. The movement of the pusher, with its lower end working in the passage *n* from the hopper to the drum, prevents the accumulation of scraps or particles of tobacco at that point and keeps the passage open.

On the driving-shaft E is a pulley-wheel, F, from which motion is imparted, by means of an endless belt, chain, or otherwise, to a shaft, E', or to a wheel, F', thereon, said wheel F' having a fixed pin, *p*, extending from its inner side, as shown.

The vertical shaft C has secured thereto, at or near its upper extremity, a beveled gear-wheel, *r*. Another beveled gear, *r'*, is connected with a tube, *q*, which carries the stirrers *t*, the shaft C passing through said tube. Motion is imparted to the gear-wheel *r'* from wheel *r* by means of a beveled gear, *o*, which engages with both of said wheels, as shown. The gear-wheel *o* is loose on a shaft, *o'*, the inner end of which is loosely connected with the shaft C, the outer end of the shaft *o'* being free, but being prevented from moving too far laterally during operation by a post or standard of the frame of the machine.

A rod, *s*, is loosely connected at one end with the shaft *o'*, the other end of the rod resting on a support, *s'*, projecting from the hopper. The free end of rod *s* is thus held in position to be caught by the fixed pin *p*, which projects from the inner side of the wheel F', the said pin coming in contact with the end of the rod as the said wheel revolves.

When the pin *p* comes in contact with the end of rod *s*, the end of the rod is lifted, and the rod is pushed lengthwise, pressing shaft *o'*



from its usual position, as indicated at  $x$  in Fig. 1 and at  $z$  in Fig. 3, the effect of which is to cause, by friction between the beveled wheels on the shafts C and  $o'$ , a slight check on the movement of shaft C and a slight backward movement of the feeding-disk, by which any scraps or particles which may accumulate about the discharge-opening of the drum are dislodged and removed therefrom, and said opening is kept free from obstruction. The rod  $s$ , being released from the pin  $p$  as the wheel  $F'$  revolves, falls to its rest  $s'$ , and the shaft  $o'$  automatically resumes its former position.

15 I claim—

1. In a cigar-bunching machine, the combination, with the hopper having a slot,  $d$ , and provided with pulleys  $f f'$ , of a pusher, D, provided with a retracting spring,  $i$ , a bar or rod

pivoted to the frame of the machine and connected by a cord with the pusher, and a rotary shaft provided with an arm,  $m$ , substantially as and for the purposes described. 20

2. In a cigar-bunching machine, the combination, with vertical shaft C, provided with beveled wheel  $r$ , and wheel  $r'$ , connected with stirring devices, of the shaft  $o'$ , with beveled wheel  $o$ , rod  $s$ , loosely connected with shaft  $o'$ , a fixed support for said rod, wheel  $F'$ , provided with a pin,  $p$ , and a rotary shaft having connection with the shaft of wheel  $F'$ , substantially as and for the purposes described. 25 30

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

JAMES M. MONTGOMERY.

Witnesses:

J. M. SCHAEFFER,  
F. A. WATERS.