

No. 630,534.

Patented Aug. 8, 1899.

A. FORNANDER.  
CIGAR TIP CUTTER.

(Application filed Apr. 11, 1898.)

(No Model.)

2 Sheets—Sheet 1.

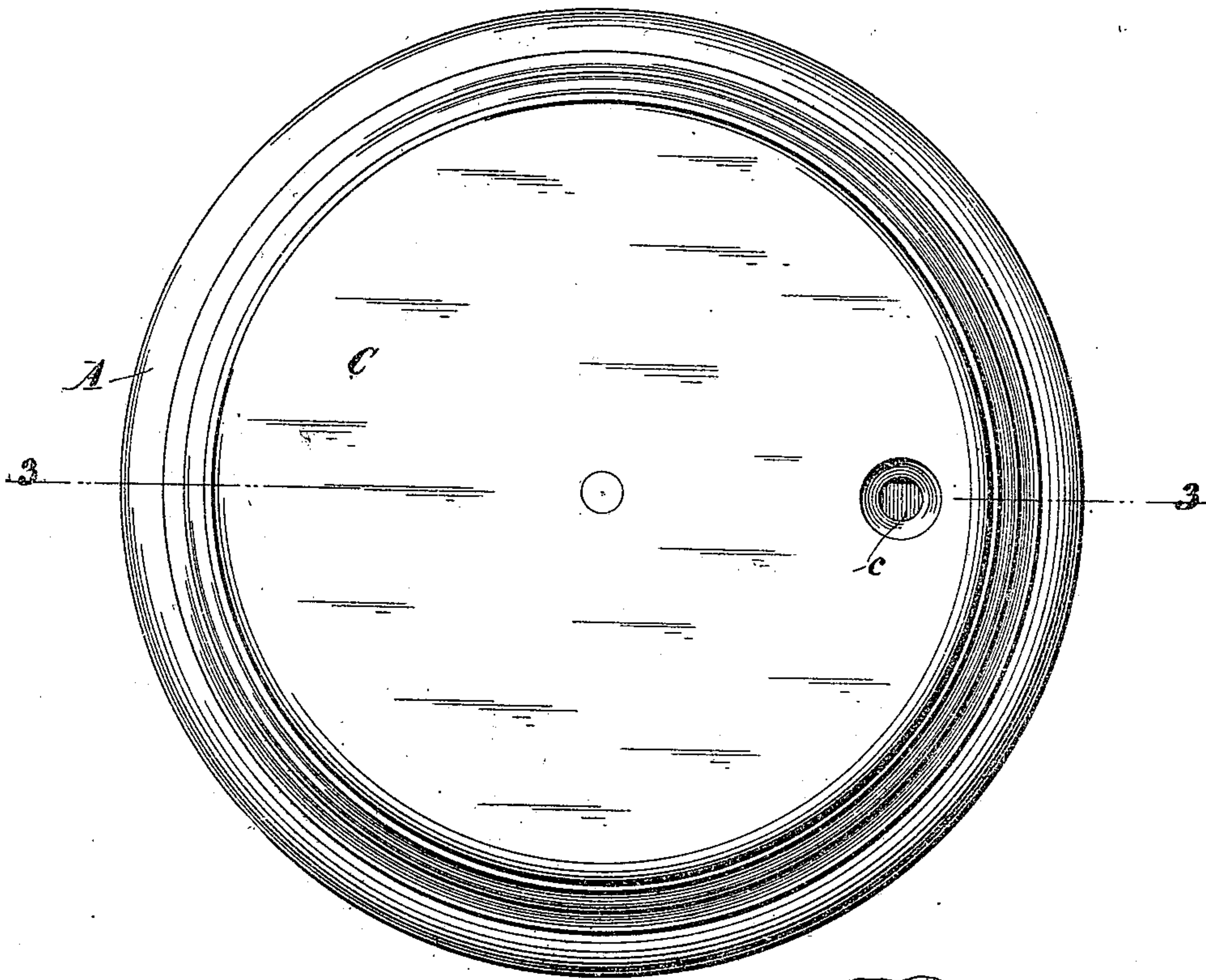


Fig: 1.

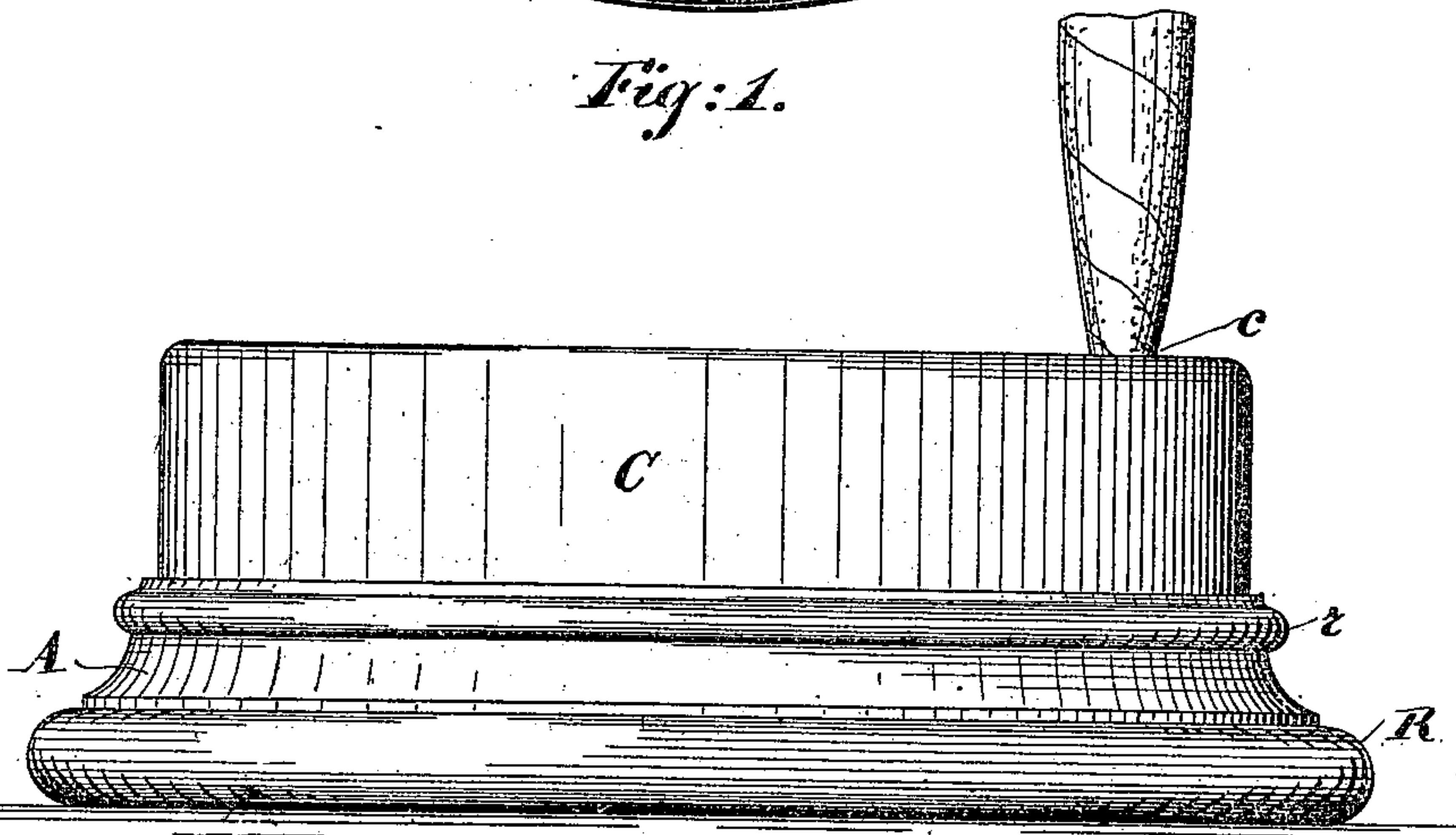


Fig: 2.

Witnesses  
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Alfred Fornander: Inventor  
By his Attorney L. C. Böhm.

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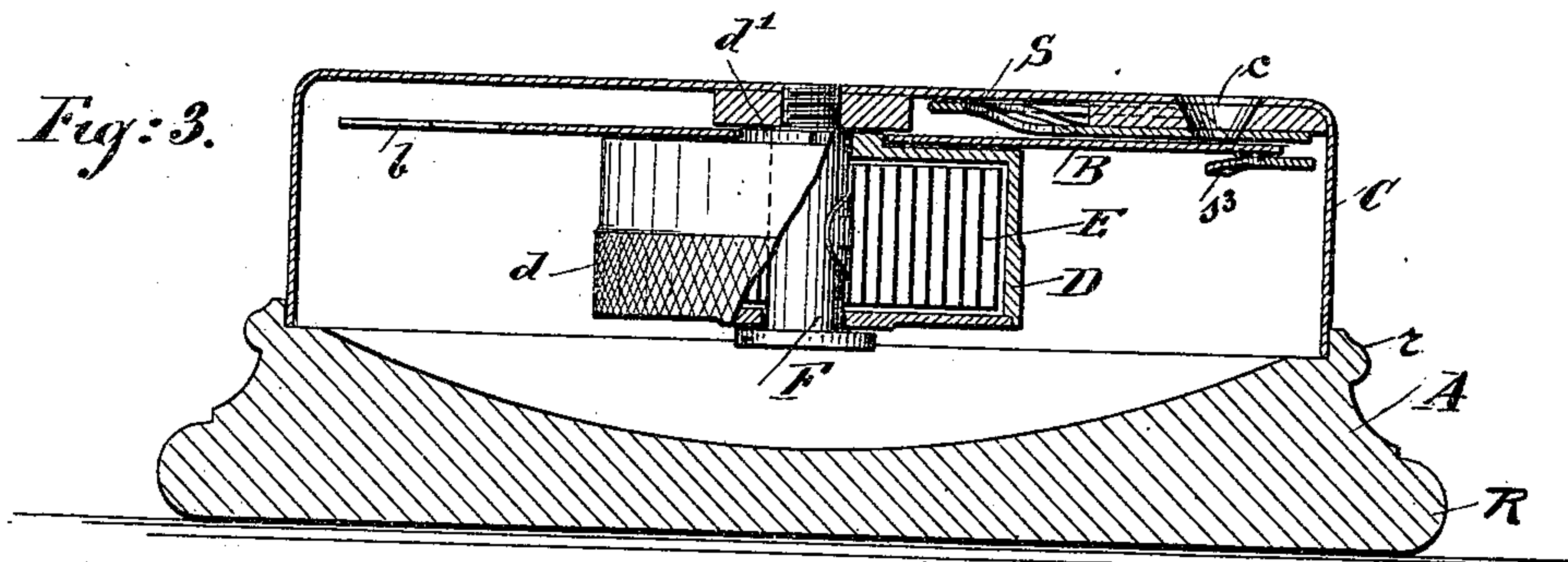
**A. FORNANDER.**  
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**2 Sheets—Sheet 2.**

*Fig: 3.*



*Fig: 4.*

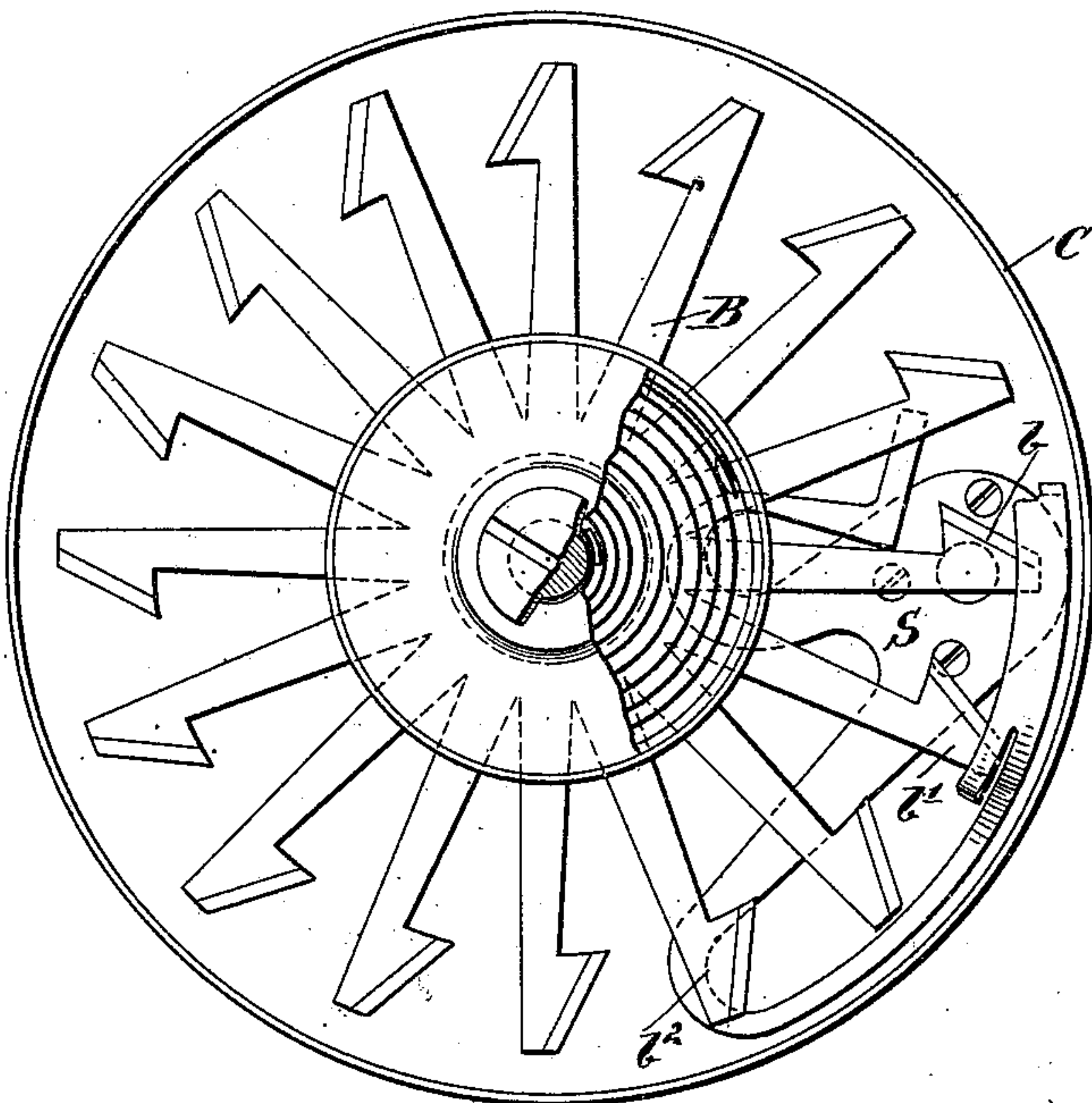
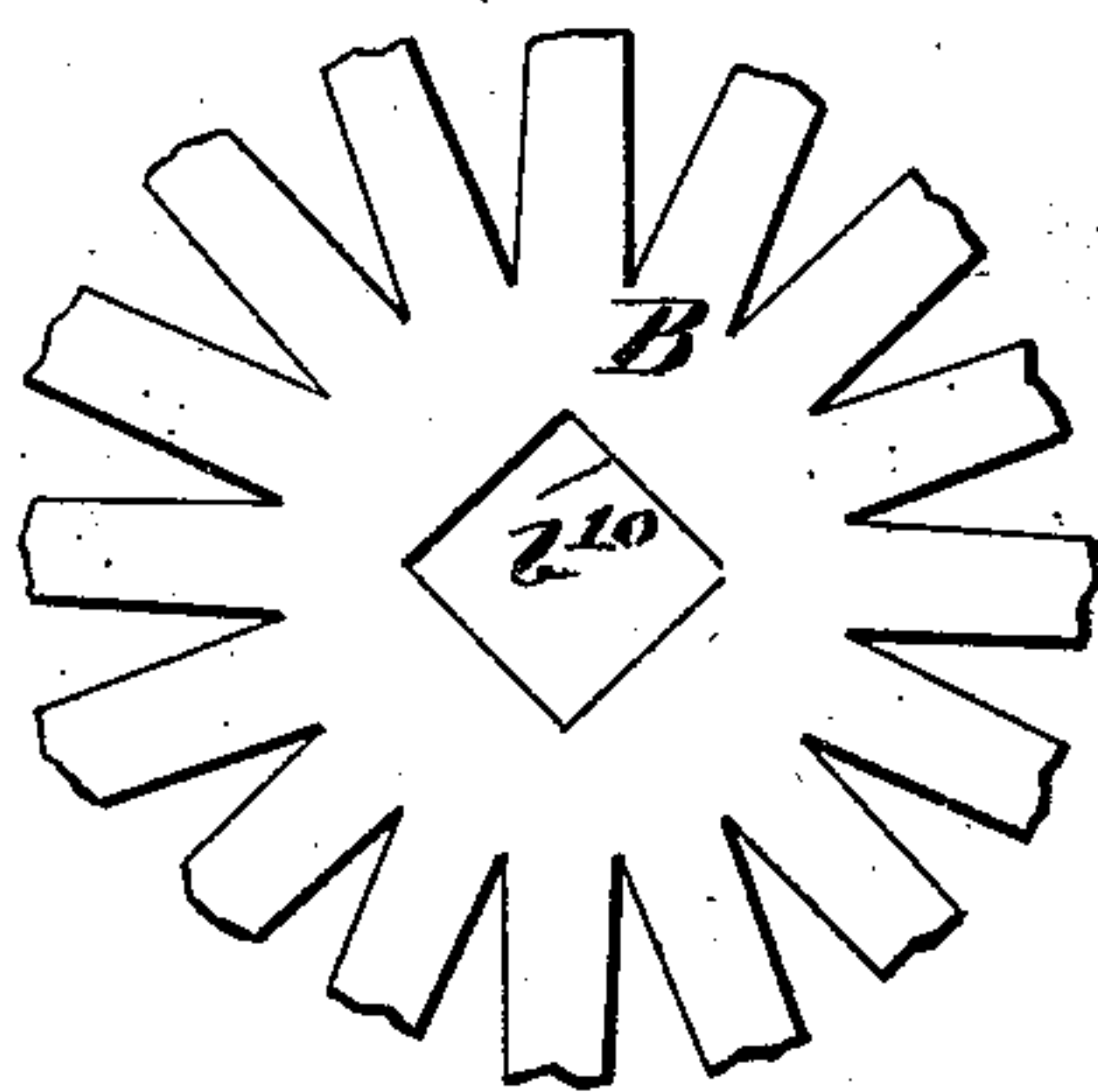
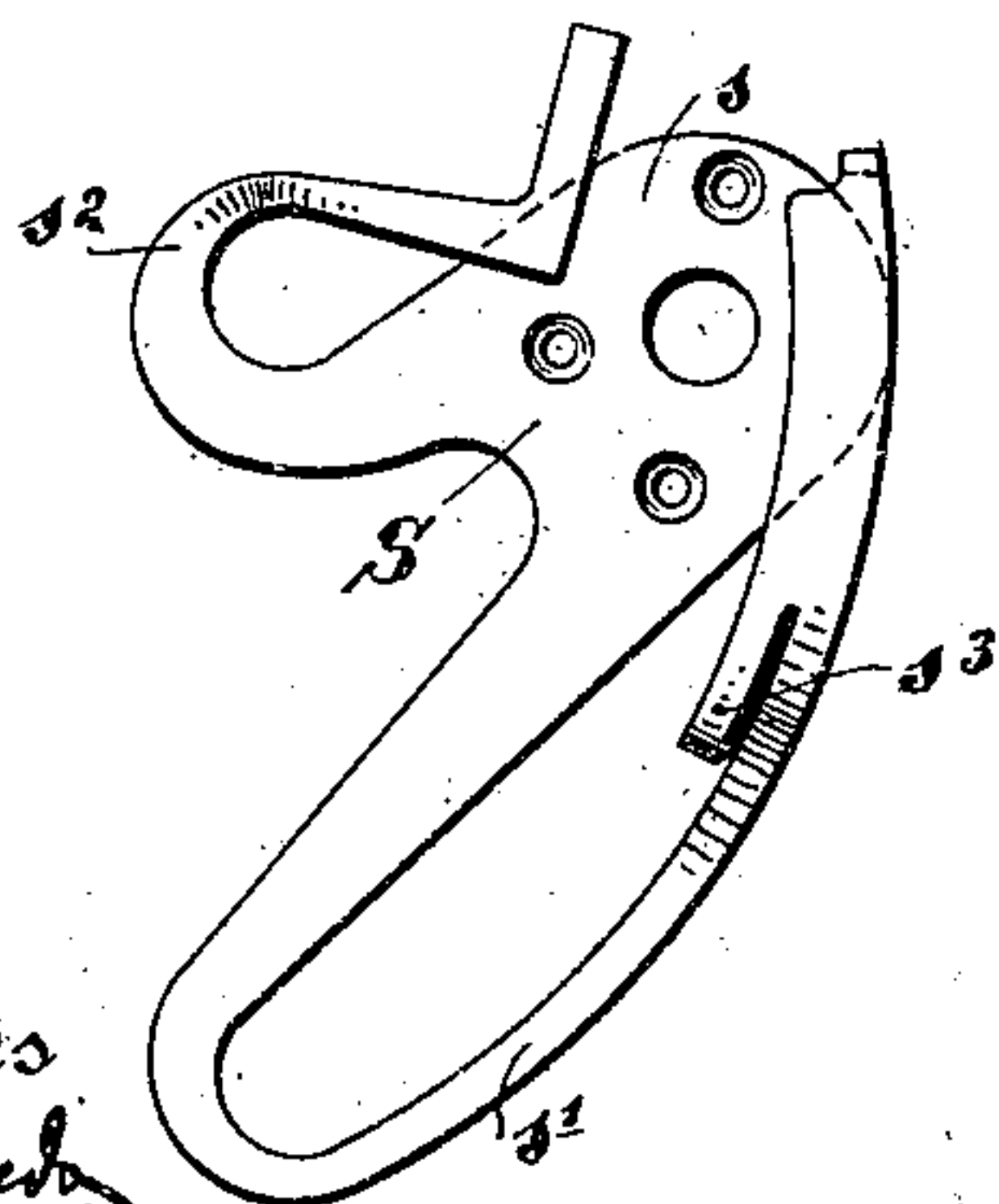


Fig: 6.



*Fig: 5.*



Witnesses  
D. P. Palmer  
Frank. Host

Alfred Fernandez: Inventor  
By his Attorney L. K. Böhm.



# UNITED STATES PATENT OFFICE.

ALFRED FORNANDER, OF NEW YORK, N. Y., ASSIGNOR TO GEORGE M. HAYNER, OF SAME PLACE.

## CIGAR-TIP CUTTER.

SPECIFICATION forming part of Letters Patent No. 630,534, dated August 8, 1899.

Application filed April 11, 1893. Serial No. 677,115. (No model.)

*To all whom it may concern:*

Be it known that I, ALFRED FORNANDER, a subject of the King of Sweden and Norway, and a resident of New York, in the county of New York, State of New York, have invented certain new and useful Improvements in Cigar-Tip Cutters, of which the following is a specification.

My invention relates to improvements in automatic spring-operated cigar-tip cutters provided with a multiple cutter all the cutting blades or knives of which are integral with a common center. The spring-winding device is contained within the casing of the cutter, invisible to the eye, dispensing thus with the crank or key heretofore employed for winding the spring, whereby an automatic cigar-tip cutter is produced devoid of any separate or accessory parts liable to be lost.

An essential feature of my improved cutter is a peculiarly-shaped cutting-blade locking and guiding spring, as fully described farther down.

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

Figure 1 is a top view of the whole cutter. Fig. 2 is a side view of the same. Fig. 3 represents a vertical central section on lines 3 3 of Fig. 1. Fig. 4 is a bottom view, the base-plate being removed and a portion of the spring-plate being broken away. Fig. 5 is a detail view of the spring S, and Fig. 6 is a detail view of the center portion of the multiple cutter.

In Fig. 1, A is the base of the cutter, and C the casing containing the mechanism. On the top of the casing C there is provided an opening c for inserting the cigar-tip. This opening being near the circumference, the top of the casing presents a large unbroken surface for advertisements. The top portion of the base A is hollowed out, as shown in Fig. 3, for the purpose of receiving conveniently quite a quantity of cigar-tips.

Fig. 2 represents in side view the cutter with a portion of a cigar inserted in opening c. The base A is provided with ornamental rims R.

The improved cutter, as shown in section in Fig. 3, comprises, essentially, the base and casing, a stationary stud F, located in the

center of the casing, a driving-spring E in spring-casing D, the multiple cutter B, and the locking-spring S. The driving-spring is secured at one end to the stationary stud F and at the other to the spring-casing D, which moves freely on the stud F and is provided with a knurled rim d in order to facilitate the winding of the driving-spring E. The movable spring-casing has on its upper portion a square projection d' for the purpose of receiving the multiple cutter B, which is provided in its center with a square hole b<sup>10</sup>, fitting exactly the projection d', Fig. 6.

The multiple cutter, Fig. 4, consists of any suitable number of cutting blades or knives b b' b<sup>2</sup>, &c. Sixteen blades are, for instance, shown in Fig. 4. The multiple cutter is made of one piece of iron or steel sheeting. It is composed of a common center portion having a square center opening for the purpose of fastening it securely to the square projection d' of the movable spring-casing and a multiple of arms or branches extending radially from the center portion, which arms have each an enlarged end on which a sharp angular cutting edge is formed, as is plainly seen in Fig. 4.

For stopping the driving-spring E when wound up no special device is necessary. This is effected by one branch of the peculiarly-shaped locking-spring S, which is shown in detail in Fig. 5. The locking-spring is made in one piece and consists of the main spring-body s and branches s' s<sup>2</sup>. The locking-spring is secured to the under side of the cutter-casing C, Fig. 3. Both branches are bent backward, so as to lie below the spring-body. The branch s<sup>2</sup> of the spring is placed at such a distance below the body s that it is directly in the path of the cutting-blades. Supposing now that the blade b is right below the opening c and is pressed down by the tip of a cigar; then this blade will be under the stopping-branch s<sup>2</sup>, permitting blade b' to yield to the force of the driving-spring E, being thereby moved forward and cutting off the tip of the cigar. At this moment b' comes to rest against branch s<sup>2</sup> of the locking-spring S.

In order that the impact between the blades and branch s<sup>2</sup> be not so violent as to cause the hardened blades to break off, branch s<sup>2</sup> is



gradually made narrower from the spring-body along the bent portion for the purpose of rendering same elastic. Branch  $s'$  is placed at such distance below the spring-body  $s$  as to allow the blades to pass underneath and to be guided thereby during their cutting action. In order to insure that the blades enter properly, branch  $s'$  is split a little, forming a downward projection  $s^3$ , Fig. 5. Branch  $s'$  is also gradually reduced in width to impart elasticity.

As above described, the knives or blades are rotated directly by the driving-spring E. Therefore gearing is unnecessary. If one blade be used, then the same would have to make a complete revolution for each cut and gearing would have to be employed in order to prevent the spring from running down too quickly. Another advantage of the multiple cutter is that the blades keep sharp for practically an unlimited period of time, because each blade is relatively but little used.

My improved cutter is preferably made of metal with a wooden base; but any other suitable material may be employed.

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

1. In an automatic multiple cigar-tip cutter a cutter-casing having the opening for inserting the cigar-tip near its circumference in combination with a cutting-blade locking and guiding spring secured to the inside of the casing near this opening and composed of the

main spring-body  $s$  branching out into two narrow extended branches  $s'$  and  $s^2$ , bent backward so as to return on the spring-body, branch  $s'$  being made gradually thinner to impart elasticity and split forming a downward projection  $s^3$ , branch  $s^2$  having a short rectangularly-bent projection, substantially as described and for the purpose specified.

2. In an automatic cigar-tip cutter a multiple cutting device made in one piece of steel or iron sheeting and composed of a common center portion having a square center opening, a multiple of arms or branches extending radially from the center portion and having each an enlarged sharp angular end on which the cutting edge is formed in combination with a cutter-blade locking and guiding spring composed of a main body  $s$  branching out into two narrow extended branches  $s'$  and  $s^2$  and bent backward so as to return on the spring-body, branch  $s'$  being made gradually thinner to impart elasticity and split near the spring-body forming a downward projection  $s^3$  for insuring a safe entering of the cutting-blade, branch  $s^2$  having a short rectangularly-bent projection which is directly in the path of the blades, the blade being forced below branch  $s^2$  by inserting the cigar-tip, as specified.

Signed by me, at New York, county and State of New York, this 9th day of April, 1898.

ALFRED KORNANDER.

Witnesses:

FRANK THOST,  
LAURENCE F. MCGLYNN.