

**No. 644,216.**

**Patented Feb. 27, 1900.**

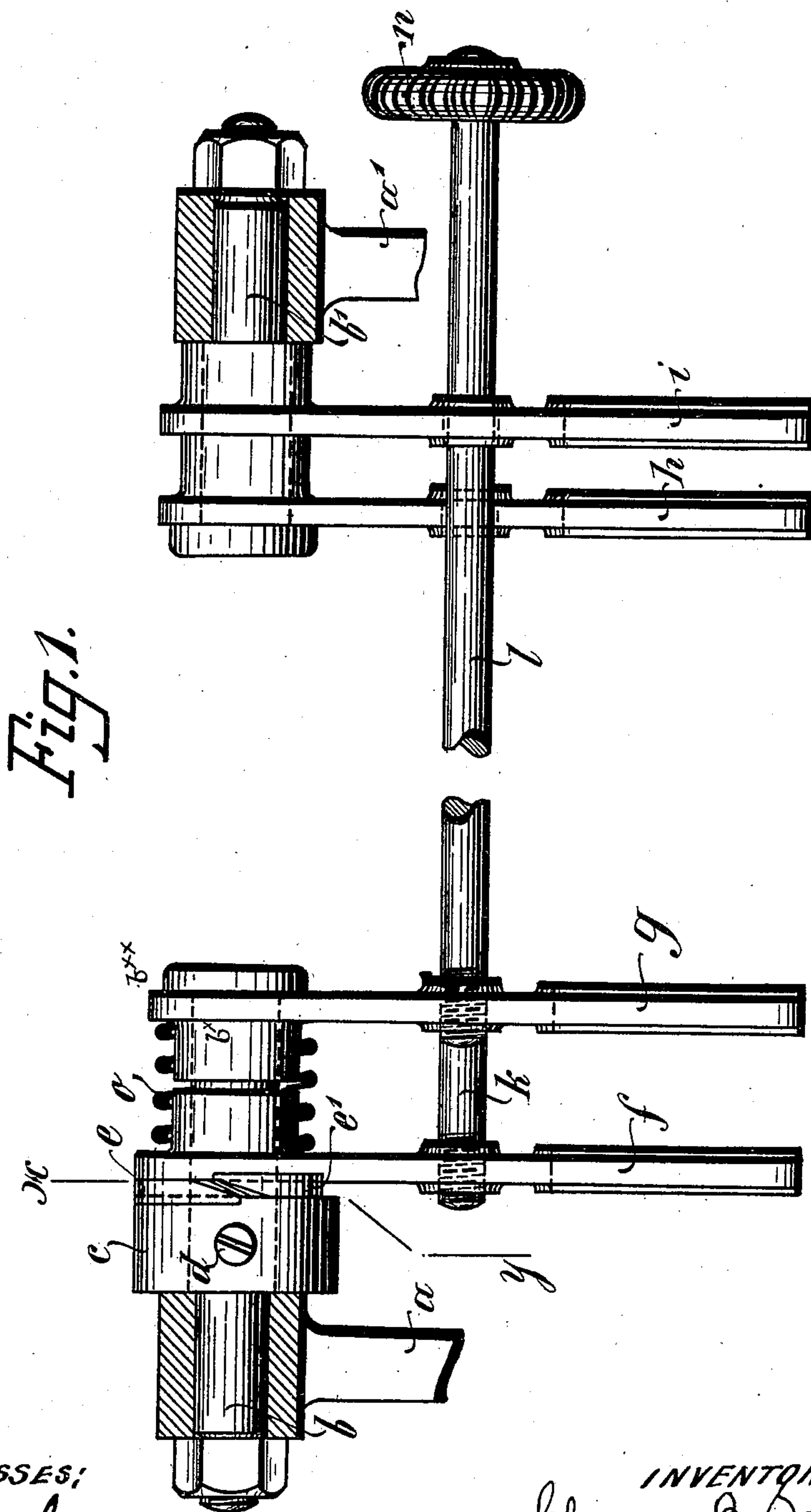
**C. B. SCHULTZ.**

**DEVICE FOR DRIVING BUNCHES TOWARD TIP SHAPERS IN CIGAR ROLLING MACHINES.**

(Application filed Dec. 14, 1896.)

(No Model.)

**6 Sheets—Sheet 1.**



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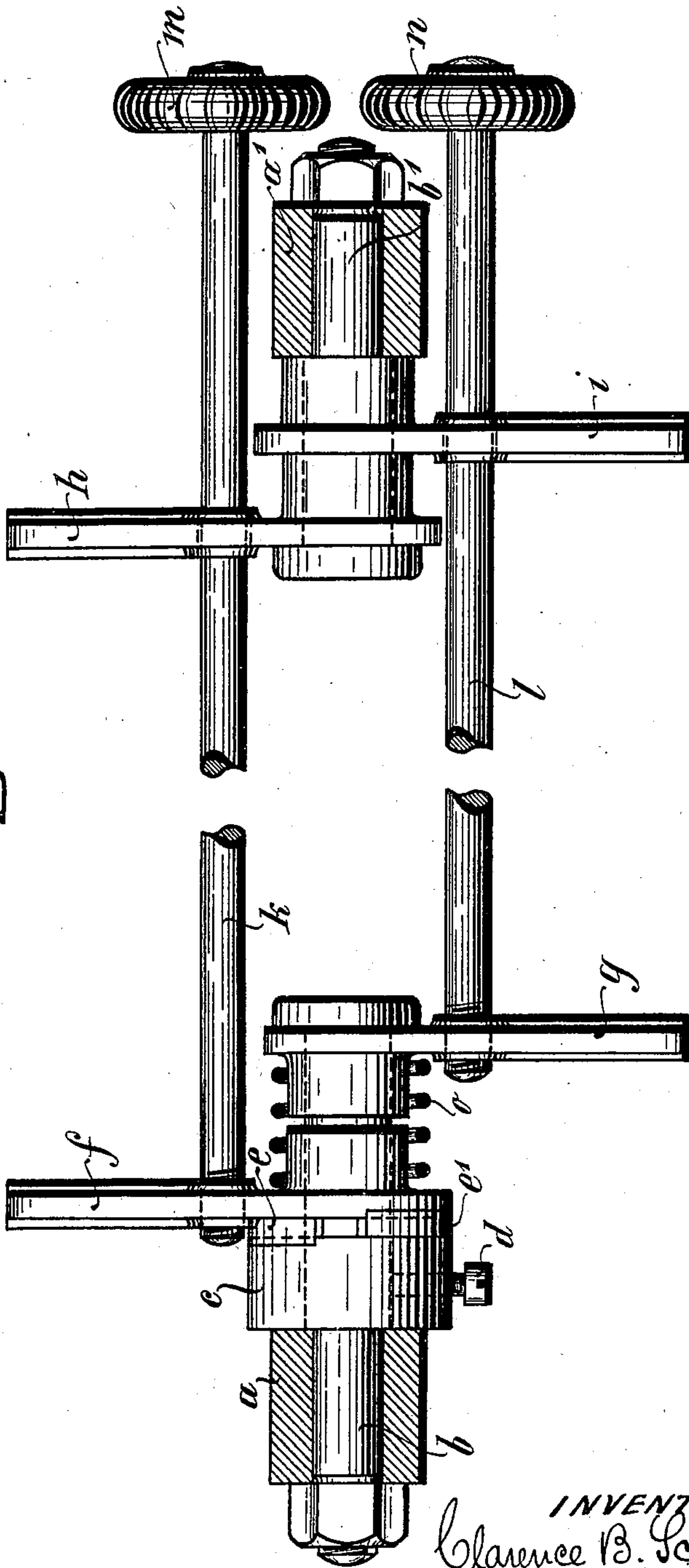
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6 Sheets—Sheet 2.

Fig. 2.



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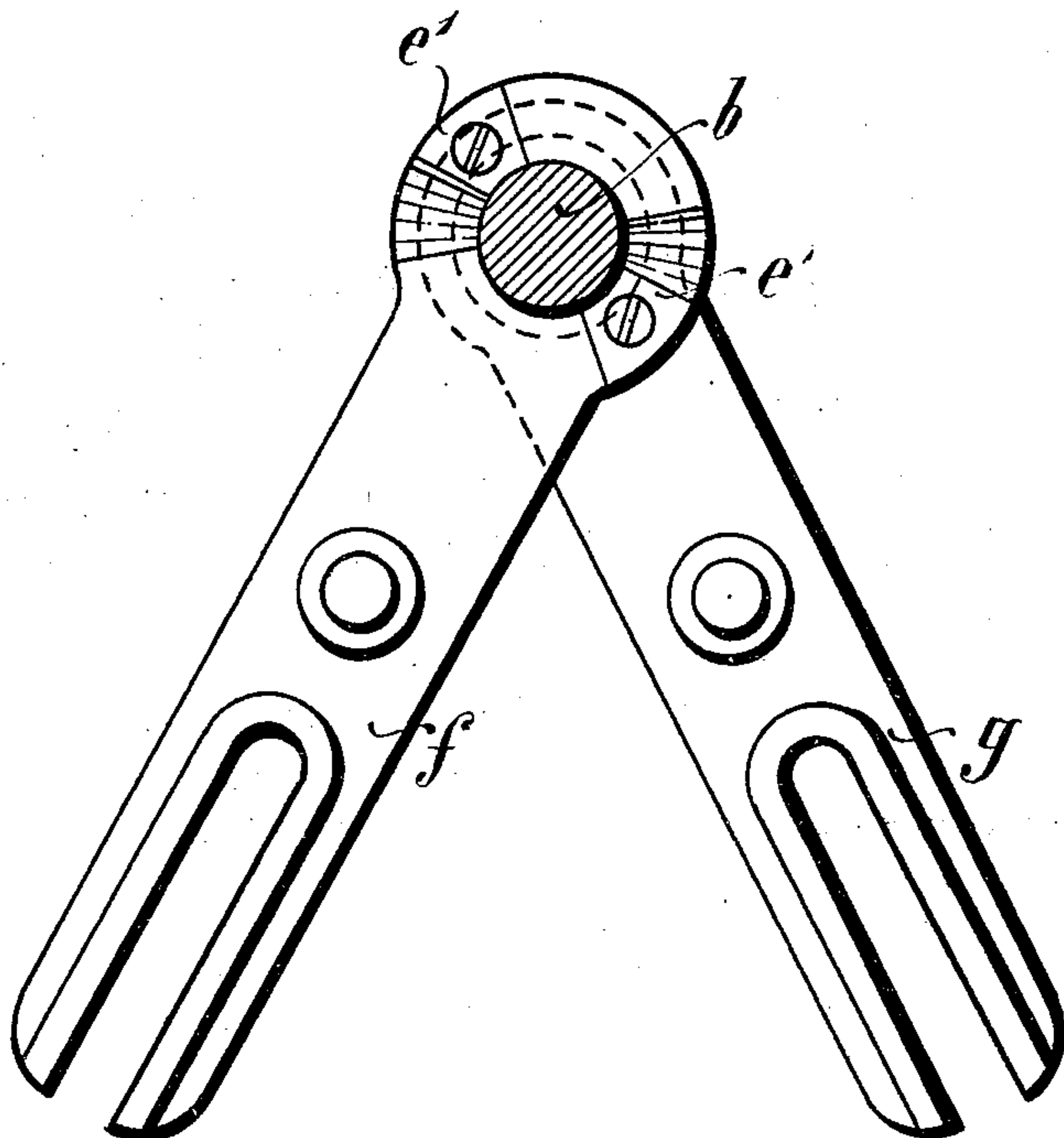
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*Fig. 3.*



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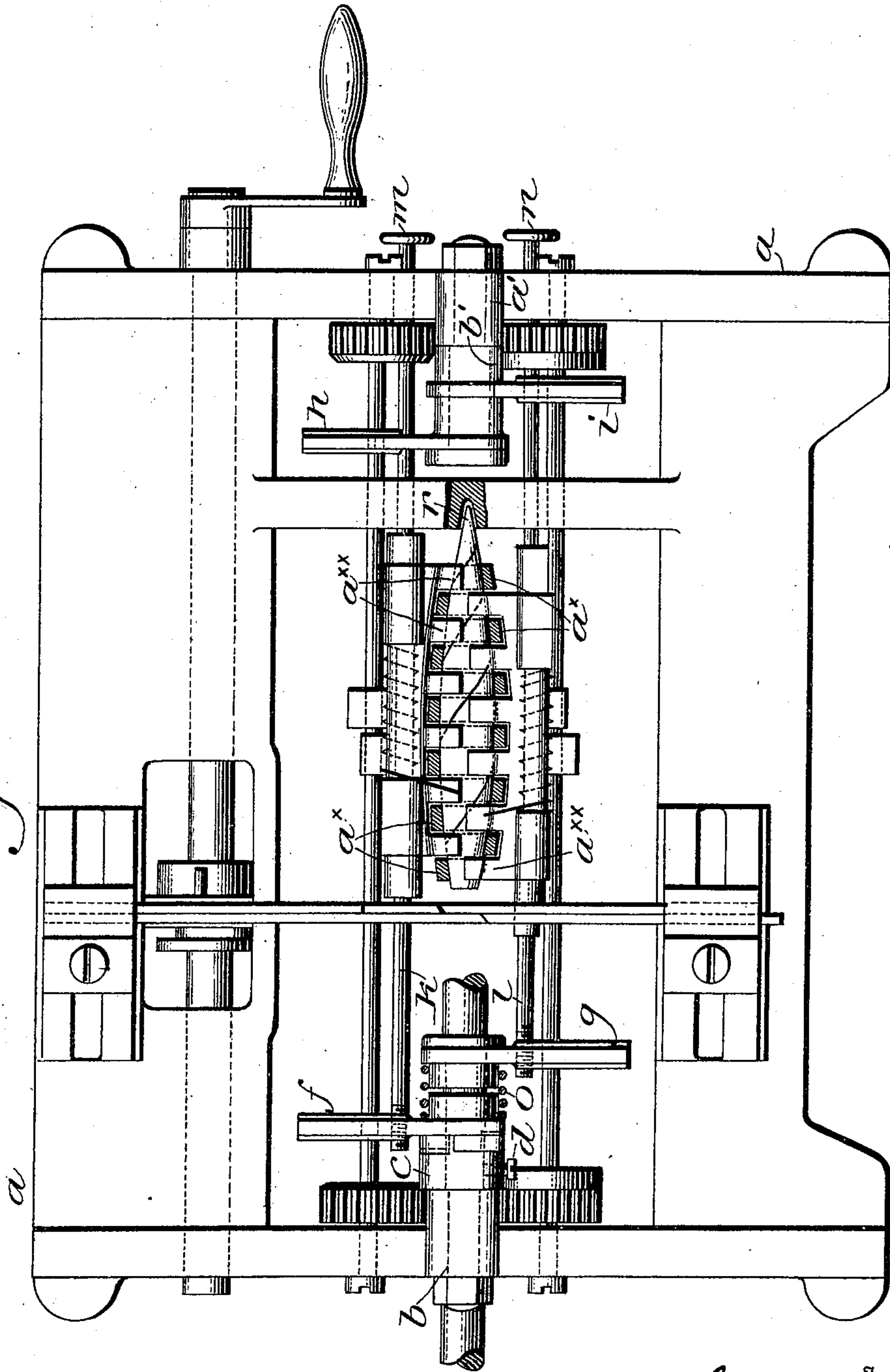
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(No Model.)

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Fig. 4.



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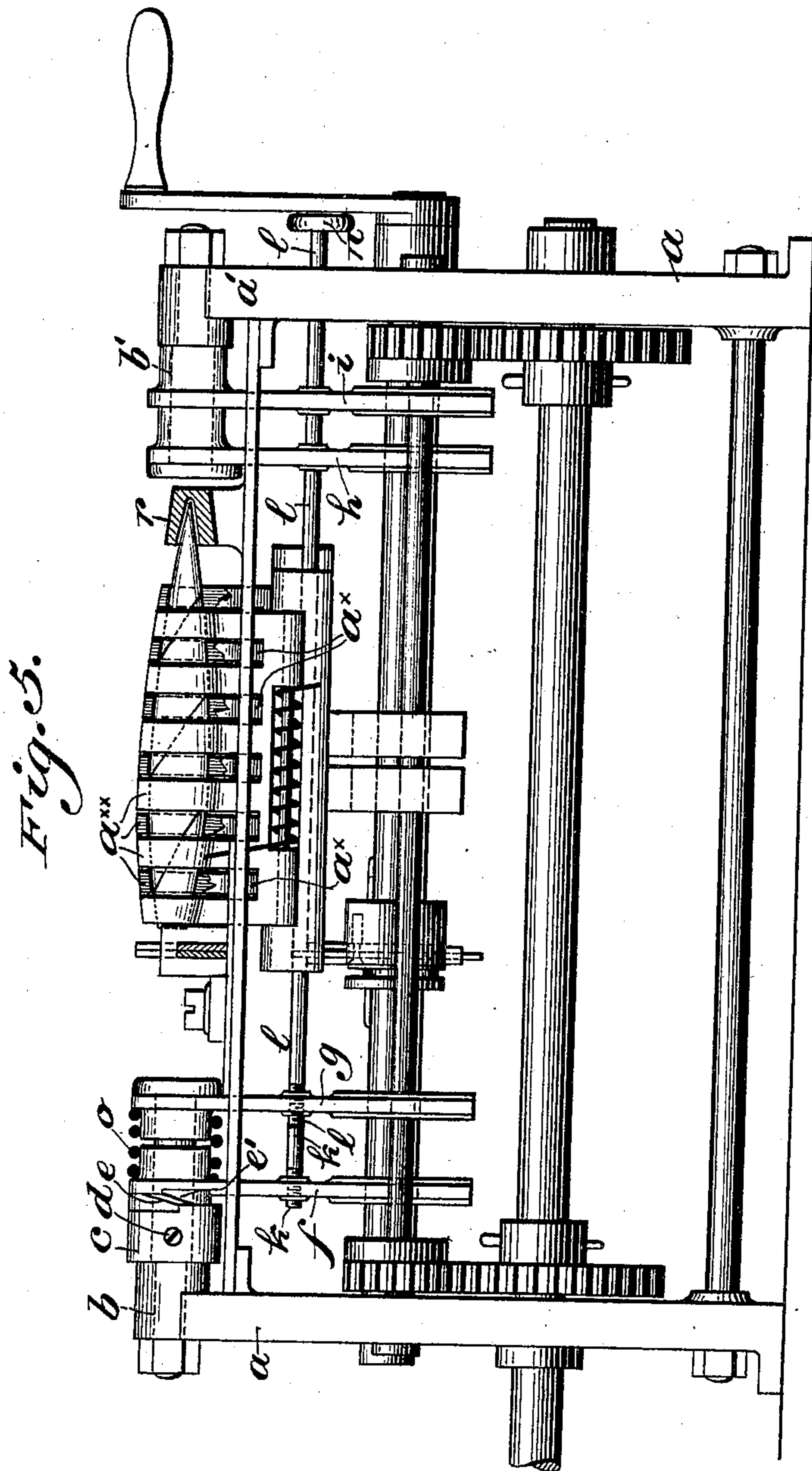
C. B. SCHULTZ.

DEVICE FOR DRIVING BUNCHES TOWARD TIP SHAPERS IN CIGAR ROLLING MACHINES.

(Application filed Dec. 14, 1898.)

(No Model.)

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**No. 644,216.**

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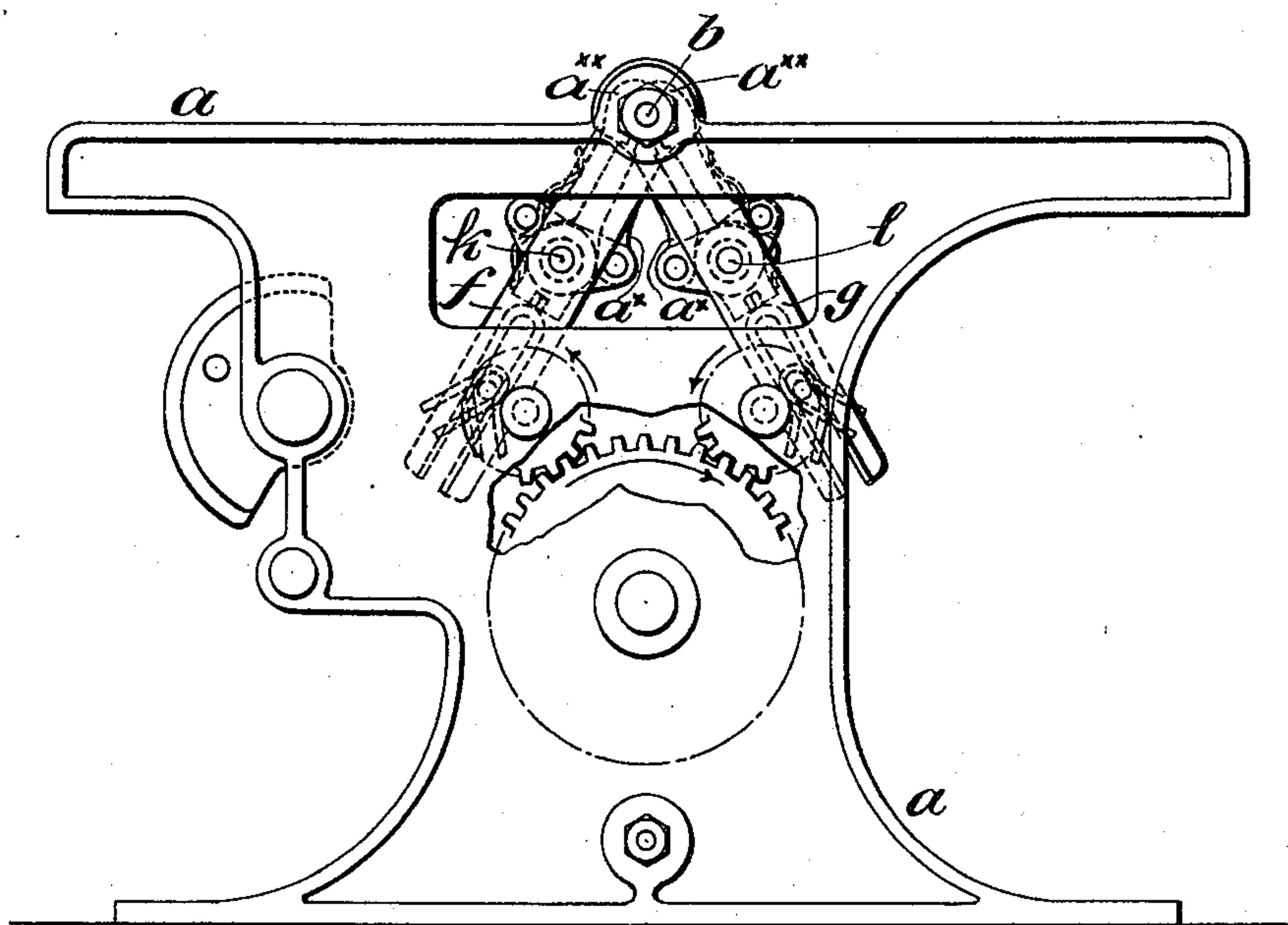
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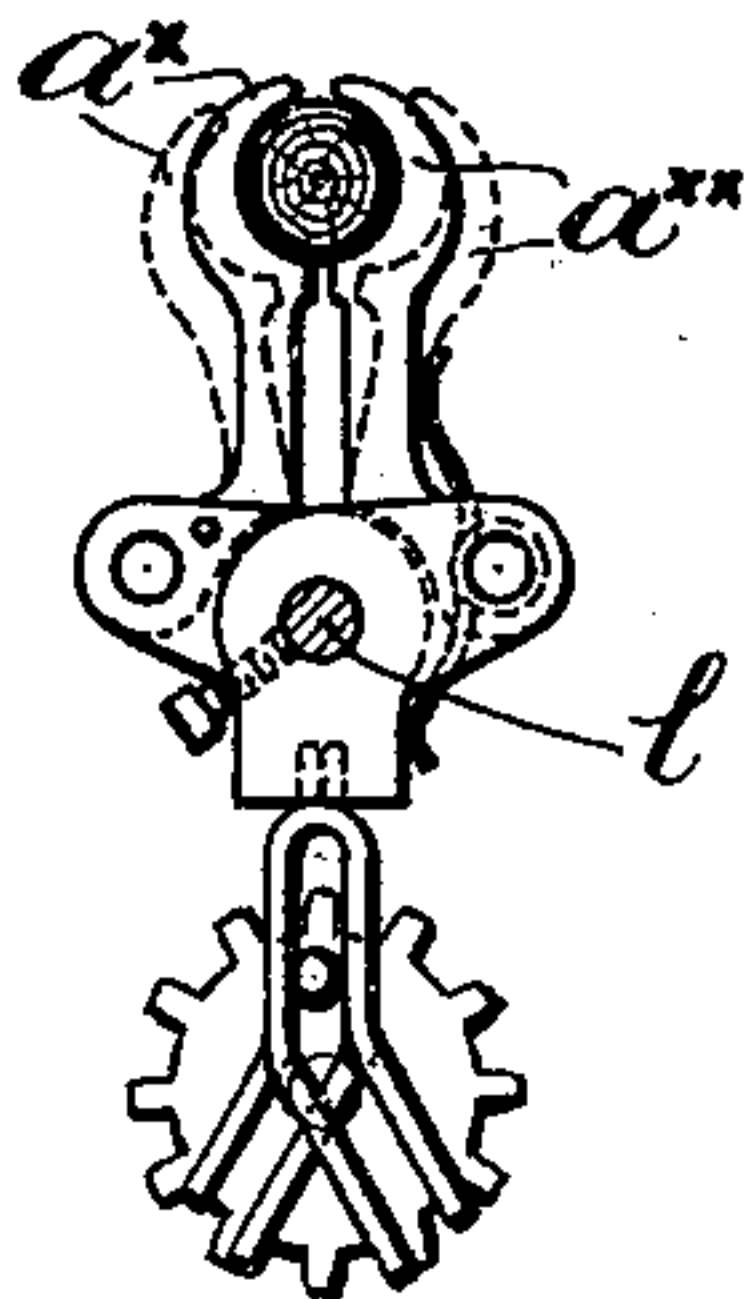
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*Fig. 6.*



*Fig. 7.*



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# UNITED STATES PATENT OFFICE.

CLARENCE B. SCHULTZ, OF CHARLOTTENBURG, GERMANY.

DEVICE FOR DRIVING BUNCHES TOWARD TIP-SHAPERS IN CIGAR-ROLLING MACHINES.

SPECIFICATION forming part of Letters Patent No. 644,216, dated February 27, 1900.

Application filed December 14, 1896. Serial No. 615,590. (No model.)

*To all whom it may concern:*

Be it known that I, CLARENCE B. SCHULTZ, engineer, a citizen of the United States, residing at Charlottenburg, in the Kingdom of Prussia, German Empire, have invented certain new and useful Improvements in Devices for Driving the Bunch Toward the Tip-Shaper in Cigar-Rolling Machines, (for which I have obtained Letters Patent in Germany, No. 94,938, dated November 6, 1896; in Great Britain, No. 27,177, dated November 30, 1896, and in Switzerland, No. 13,513, dated November 30, 1896;) 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.

My invention relates to cigar-making machines in which the cigar-bunch is rolled or formed by pairs of wrapping and shaping jaws, which alternately close and open to grasp and release the cigar to subject the same to pressure or to work the same, and which further rock or swing, preferably, about their axis of closure, so that said jaws grasp all sides of the cigar-bunch. In this class of machines it is desirable to press the tip of the cigar into the tip-shaper to form said tip; and this invention consists of means for moving the wrapping and shaping jaws longitudinally toward the tip-shaper when they are holding the cigar-bunch, whereby the tip is pressed therein and formed.

The invention is especially applicable for use in connection with the machine described and claimed in my application for Letters Patent filed of even date herewith, Serial No. 615,588, to which reference may be had.

The invention further consists of the structural features hereinafter described and claimed.

Figure 1 represents a side elevation of a bunch-driving device embodying my invention. Fig. 2 represents a top or plan view thereof, certain of the parts in said Figs. 1 and 2 being in section. Fig. 3 represents a vertical section on line *xx*, Fig. 1. Fig. 4 represents a partial plan view and partial horizontal section of certain portions of a cigar-rolling machine with my improved bunch-driving device applied thereto. Fig. 5 represents a side elevation of the machine shown

in Fig. 4. Fig. 6 represents an end elevation of certain of the parts shown in Figs. 4 and 5. Fig. 7 represents an end elevation of jaws employed in connection with my device.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, *a* designates the end frame-pieces of the machine, the same being provided at their upper ends with studs *b b'*, upon which the levers *f* and *g* and *h* and *i* are pivotally mounted. The rod *l* is mounted in the levers *g* and *i*, being rigidly connected with the former and having a sliding connection with the latter, and the rod *k* is mounted on the levers *f* and *h*, being rigidly connected with the former and slidingly connected with the latter. Said rods are provided at one end with heads *m* and *n*, by means of which they can be manipulated by hand when desired.

The wrapping and shaping jaws *a<sup>x</sup>* and *a<sup>xx</sup>* are mounted upon said rods, and while capable of swinging and opening and closing thereon are incapable of longitudinal movement relative thereto. The machine is provided with the usual gear for swinging the levers upon their pivotal connection upon the studs to rotate the jaws and with mechanism for opening said jaws.

*r* designates a tip-shaper mounted upon the frame of the machine at one end of the jaws, with its axis coincident with the axis of closure of said jaws and the axis of the pivot of said levers. The levers *g*, *h*, and *i* have only a swinging movement upon their pivots, while the lever *f* has in addition to this swinging movement a lateral movement or a movement toward and away from the tip-shaper, whereby the wrapping and shaping jaws carried thereby are moved toward and away from the tip-shaper to automatically press the tip of the cigar thereinto to correctly form the same. The mechanism for thus moving the lever *f* is constructed as follows: The hub of said lever *f* is provided with an inclined or cam face *e'*, which coacts with an inclined or cam face *e* of a sleeve *c*, mounted upon the stud *d*. Between the lever *f* and lever *g* is a spring *o*, that holds the lever *f* under tension against the sleeve *c*. The inclined or cam faces of the lever *f* and sleeve *c* are located so that they coact during the swinging of the lever *f* and when the jaws carried by the rod



$k$  are closed and are thus holding and pressing the cigar-bunch. Owing to the swinging movement of this lever  $f$  the inclined or cam faces  $e$  and  $e'$  ride over each other, and thus  
 5 separate the jaw  $f$  and sleeve  $c$ , moving the former toward the tip-shaper and with it the wrapping and shaping jaws. The cigar-bunch being held by the latter, it is obvious that the tip thereof is pressed into the tip-shaper, so  
 10 that by reason of a succession of insertions into the tip-shaper the tip is correctly formed. When the jaws carried by the rod  $k$  swing in the opposite direction, the spring  $o$  returns the lever  $f$  to its normal position, and thus  
 15 moves the jaws carried by the rod  $k$  away from the tip-shaper.

The sleeve  $c$  is adjustable upon the stud  $b$  by means of the set-screw  $d$ , that holds the same in adjusted position, it being noted that  
 20 by varying the relative location of the inclined or cam faces the throw of the lever  $f$ , and consequently the jaws carried by the rod  $k$ , is varied, if desired.

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

1. In a cigar-making machine, a tip-shaper, and opening and closing and swinging shaping and wrapping jaws movable longitudinally toward and away from the same.  
 30

2. In a cigar-making machine, a tip-shaper, opening and closing jaws mounted upon a swinging rod, and means for moving said rod longitudinally to move the jaws toward and  
 35 away from the tip-shaper.

3. In a cigar-making machine, a tip-shaper, opening and closing and swinging shaping or wrapping jaws, movable longitudinally to-

ward and away from the same, and means for adjusting the longitudinal movement of said  
 40 jaws.

4. In a cigar-making machine, a tip-shaper, swinging levers, a rod mounted upon said levers, said rod being rigidly connected with one of said levers and slidingly connected  
 45 with the other, opening and closing wrapping and shaping jaws mounted upon said rod, means for opening and closing said jaws, means for swinging said levers, and means for moving laterally the lever to which said  
 50 rod is rigidly connected.

5. In a cigar-making machine, a tip-shaper, opening and closing jaws carried by a swinging rod, levers upon which said rod is mounted, one of said levers being provided with an in-  
 55 clined or cam face, a sleeve provided with a coacting inclined or cam face, and a spring for holding said lever under tension against said sleeve.

6. In a cigar-making machine, a tip-shaper, opening and closing jaws carried by a swinging rod, levers upon which said rod is mounted, one of said levers being provided with an in-  
 60 clined or cam face, a sleeve provided with a coacting inclined or cam face, and a spring for holding said lever under tension against said sleeve, said sleeve being adjustable to vary the lateral movement of said lever.  
 65

In testimony whereof I have hereunto signed my name in the presence of two wit-  
 70 nesses.

CLARENCE B. SCHULTZ.

Witnesses:

CHAS. H. S. SCHULTZ,  
 M. PALMIÉ.