

No. 677,407.

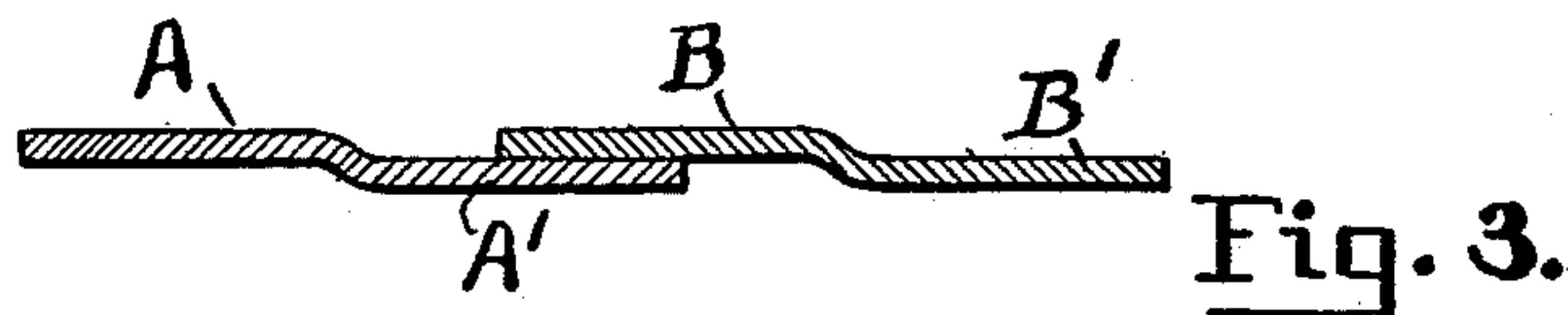
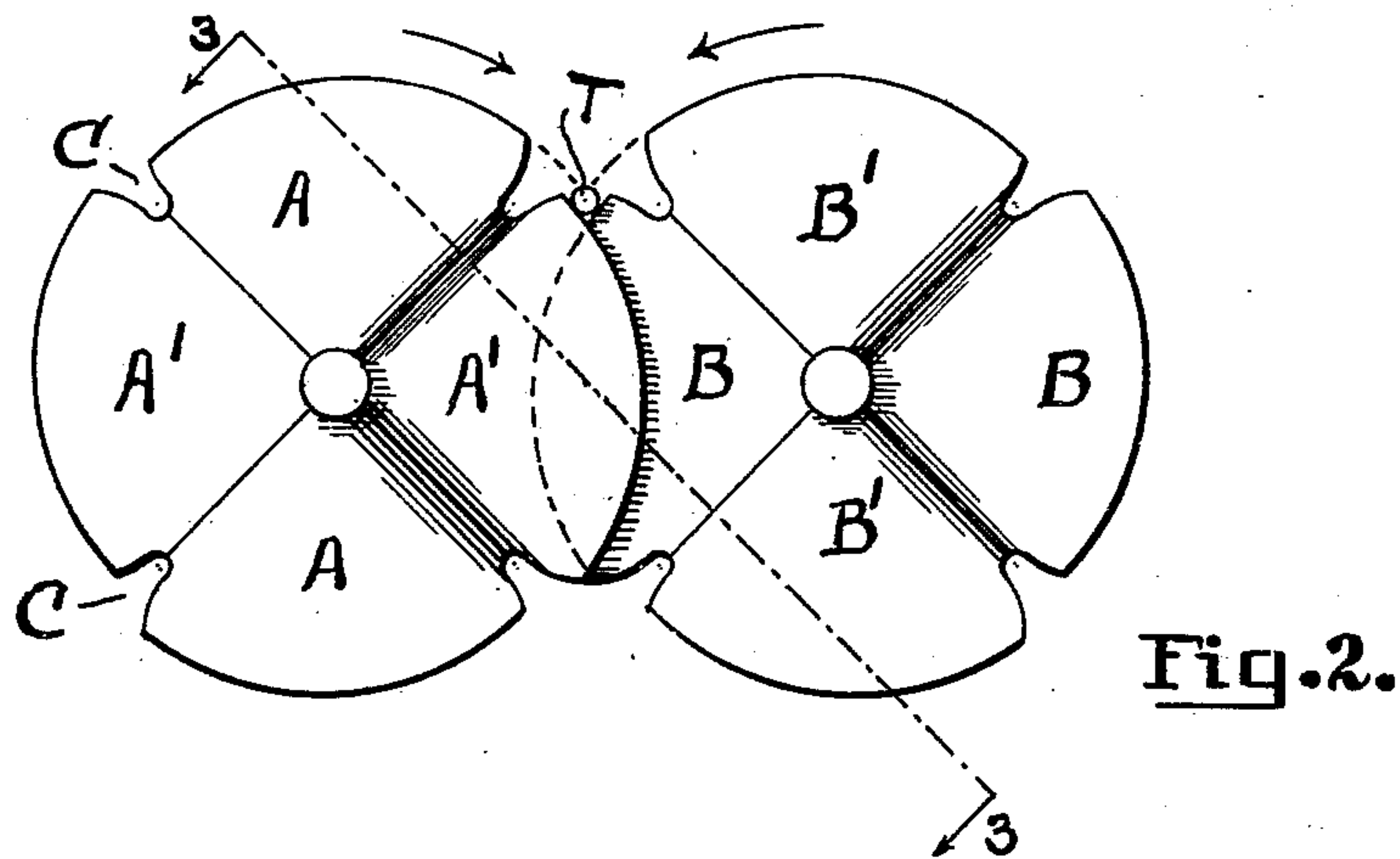
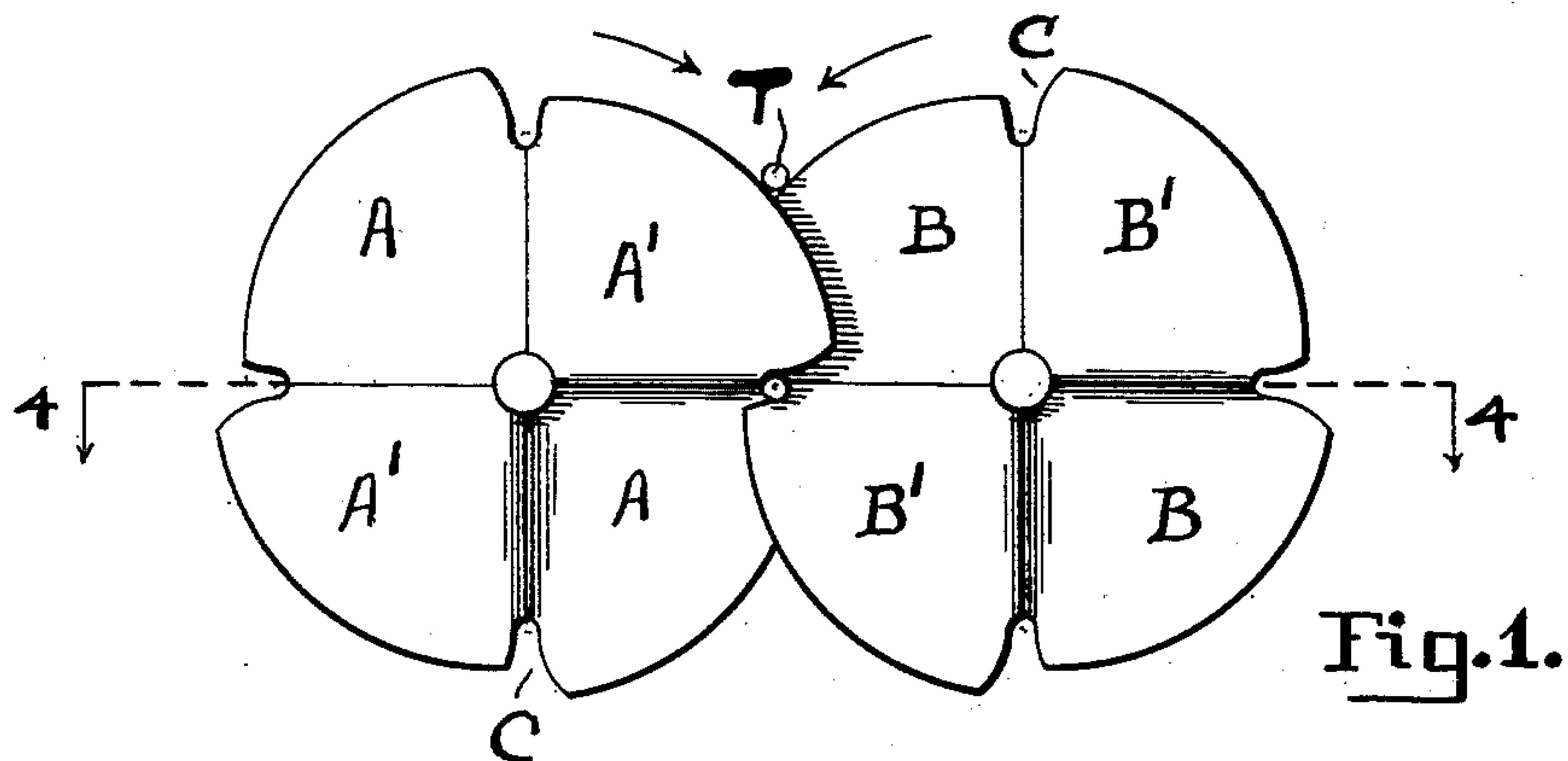
Patented July 2, 1901.

F. G. FRANKENBERG.  
TOBACCO STRIPPING MACHINE.

(Application filed Aug. 21, 1900.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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Carlos Escobar

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2 Sheets—Sheet 2.

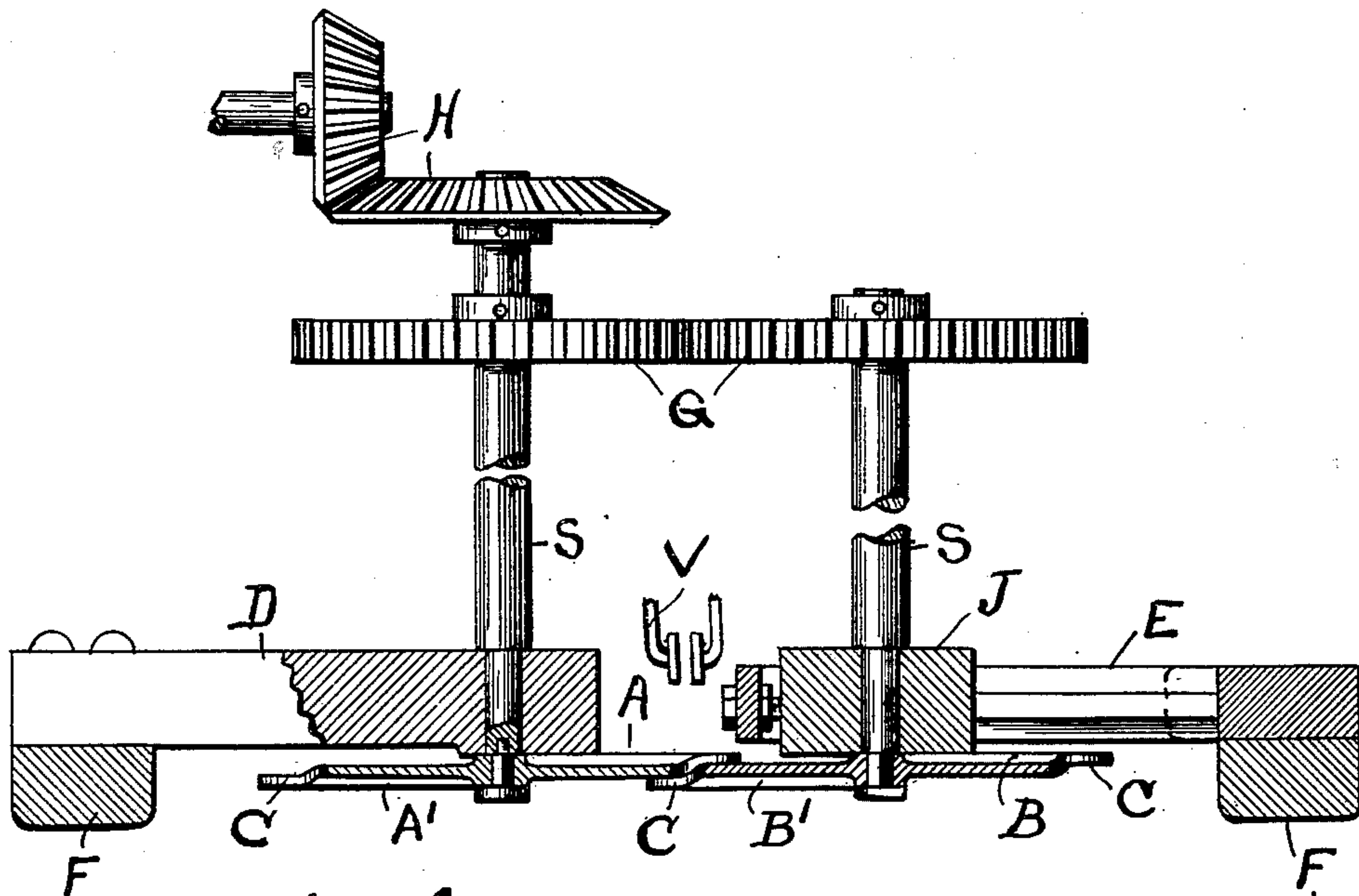


Fig. 4.

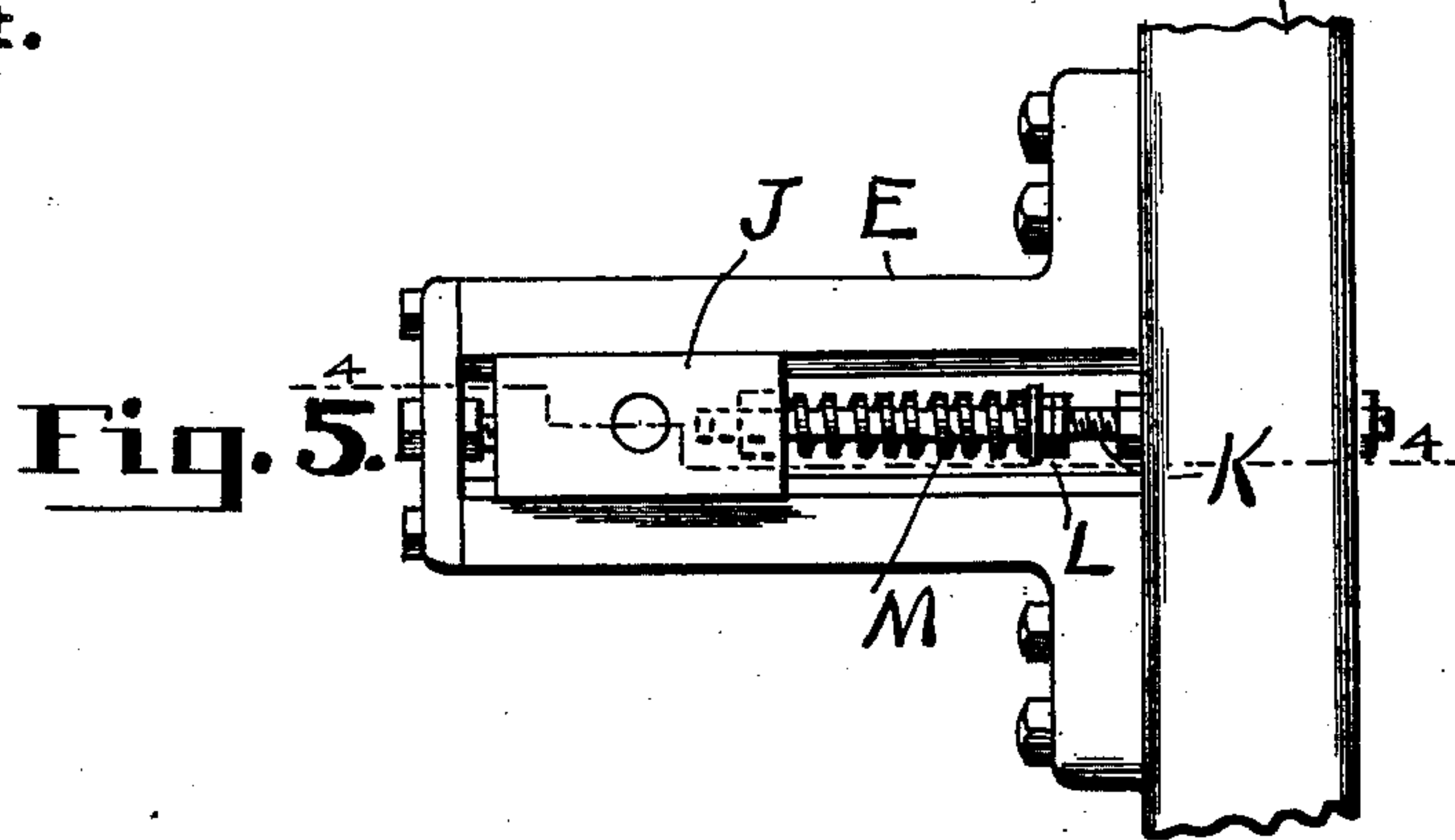


Fig. 5.

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# UNITED STATES PATENT OFFICE.

FREDERICK G. FRANKENBERG, OF CHICAGO, ILLINOIS.

## TOBACCO-STRIPPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 677,407, dated July 2, 1901.

Application filed August 21, 1900. Serial No. 27,529. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK G. FRANKENBERG, a citizen of the United States of America, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Tobacco-Stripping Machines, of which the following is a specification.

My invention relates to tobacco-stripping machines, and more particularly to the knives used for stripping the tobacco from the stems of the leaves.

In an application heretofore filed by me on February 23, 1900, and given Serial No. 6,181, I have illustrated a tobacco-stripping machine in which the stripping-blades are pivoted and moved to and from each other like the blades of a pair of shears. It is the object of my present invention to supply a new kind of blade for a machine of this character.

In the accompanying drawings, Figure 1 is a front elevation of a pair of rotary knives. Fig. 2 is a similar elevation with the knives in a different position. Fig. 3 is a section on line 3 3 of Fig. 2. Fig. 4 is a section on line 4 4 of Figs. 1 and 5, together with the operating mechanism attached directly to the knives; and Fig. 5 is a front elevation of a bracket supporting the shaft of one of the knives.

In the said drawings I provide two rotary knives A and B, which knives are preferably made of sheet metal and which have portions offset in opposite directions from a medial line running through them. As illustrated in Figs. 1 to 4, the parts marked A and B are represented as being pushed backward and the parts A' and B' as being pushed forward from the medial line. In the peripheries of the disks at the junctions between A and A' and B and B' there are cut notches C, and from these notches one portion of the periphery of the disk is cut back or relieved, so as to be at a less distance from the center than the other side. The knives are mounted on a pair of parallel shafts S, which are geared together by the gears G and which may be driven in any convenient manner, as by the bevel-gears H. The disks are so related to each other that in their revolution a notch of each disk will be directly opposite the notch in the adjacent disk, the parts A and A' and

B and B' crossing each other at the center of the notches, as shown in Fig. 1. One of the disks has its shaft S supported in a movable bearing J, which bearing is pressed toward the other disk by means of a spring M on a stud K. Adjusting-nuts L serve as a means for varying the tension of the spring M. An adjusting-screw N serves as a limiting-stop to prevent the movement of the bearing J toward the opposite disk.

The disks are driven in a direction illustrated by the arrows in Figs. 1 and 2, and in operation the stem of a tobacco-leaf T is placed upon the peripheries of the disks, and as the disks revolve the said stem is forced in between the two disks and embraced by the notches therein. The cutting away or relief of the forward edge of the notches C permits the stem to drop down low enough so as to insure that the rear edges of said notches will positively engage the stem of the tobacco-leaf and force it within the notches when they come together. If the stem T happens to be large, the bearing J will be pushed backward against the tension of the spring M, thereby causing the opening formed by the interlocking notches to correspond with the size of the stem engaged or embraced thereby. A further movement of the notches C as the disks revolve results in discharging the leaf from engagement with the knives or disks.

In machines of this character when the stem is engaged by the knives or notches there is a gripping device (represented by the fingers V in Fig. 4) which grasps the stem of the leaf and draws it through the knives while they are being moved downward. Preferably the drawing action begins a little before the interlocking notches reach their central position and will be finished at about the time of reaching the central position or a little thereafter. The fingers V, which grasp the stem, may be moved to and from the stripping-knives in any desired manner. In the application hereinbefore referred to they are mounted upon the end of a lever that vibrates to and from the knives.

What I claim is—

1. A pair of disks provided with a registering series of notches in their edges and having the metal adjacent to said notches offset



substantially as described, and means for rotating said disks so as to cause said notches to engage the stems of leaves.

2. A pair of disks provided with a registering series of notches in their edges and having the metal adjacent to said notches offset, and also having portions of their peripheries cut away adjacent to the forward edges of said notches, substantially as described.

3. In a tobacco-stemming machine, a pair of stem-stripping blades formed of a pair of rotary disks having a registering series of notches in their edges, means for embracing the stem of a leaf within two such notches by the movement of said disks, means for drawing the stem through the opening formed by such notches, and means for discharging the stripped leaf by a further movement of said disks.

4. In a tobacco-stemming machine, a pair of rotary disks having a registering series of stem-gripping notches in their edges and having their peripheries cut away adjacent to the

forward edges of the slots, substantially as described.

5. In a tobacco-stripping machine, a pair of stem-stripping knives arranged to embrace the stems of leaves by the movement of said knives, devices for drawing a stem through said knives when it is embraced by them, and means for discharging the leaf by a further movement of said knives.

6. A pair of disks provided with notches in their edges and having the metal adjacent to said notches offset in opposite directions, means for rotating said disks so as to cause the notches of opposite disks to register with each other, and a yielding support for one of said disks.

Signed at Chicago, Illinois, this 6th day of August, 1900.

FREDERICK G. FRANKENBERG.

Witnesses:

R. E. SMALE,

CASPER L. REDFIELD.