

No. 703,179.

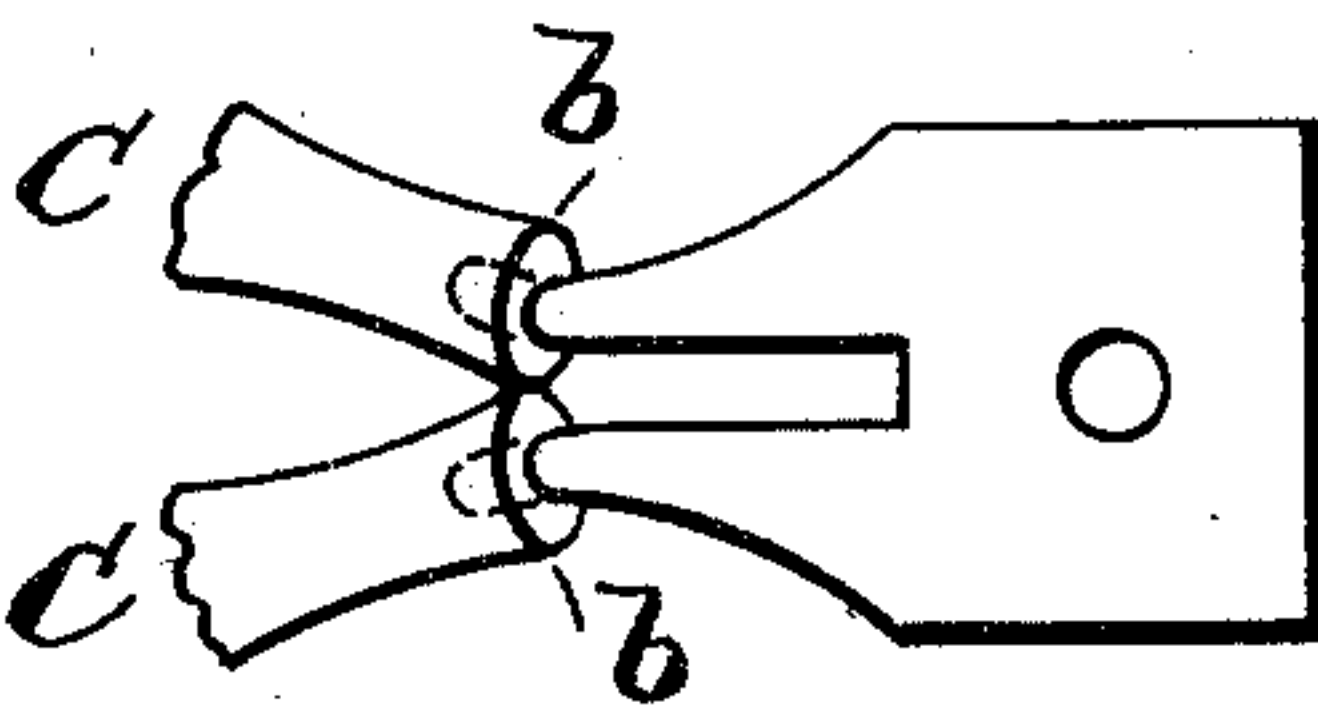
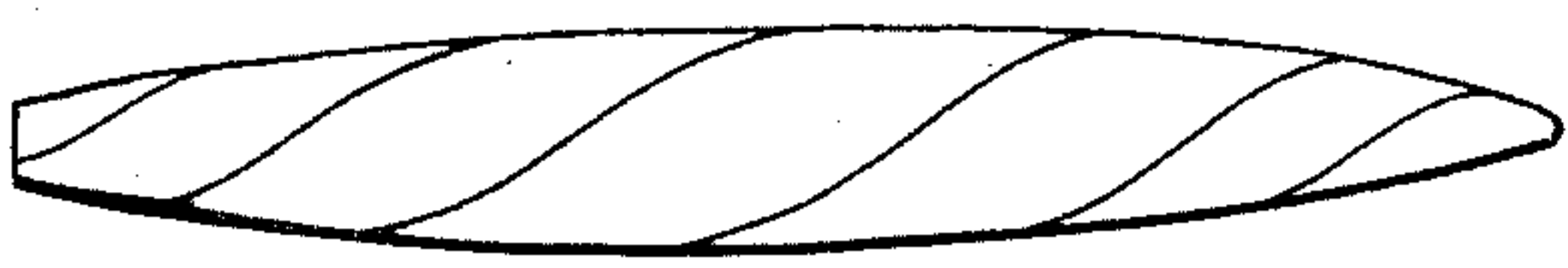
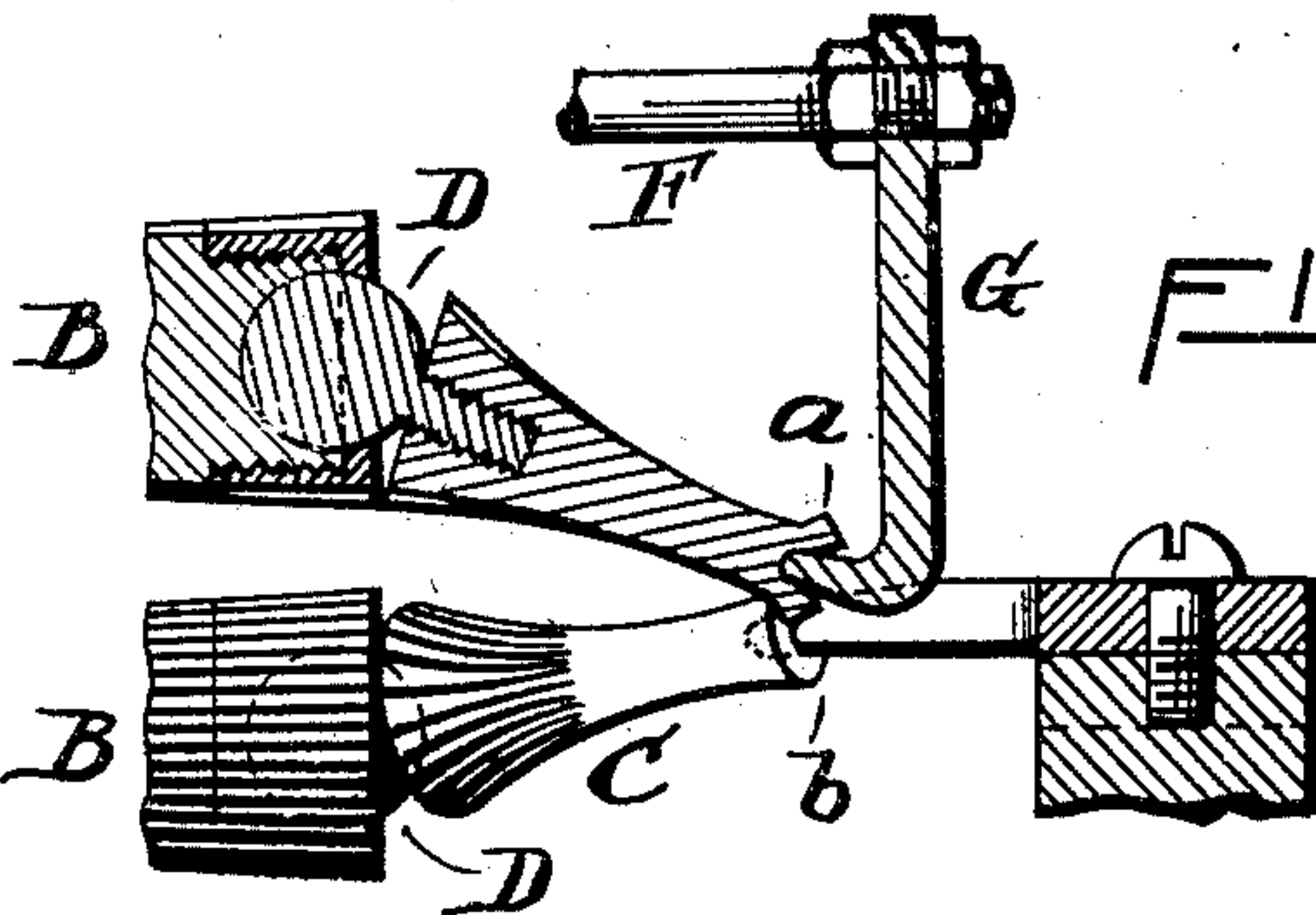
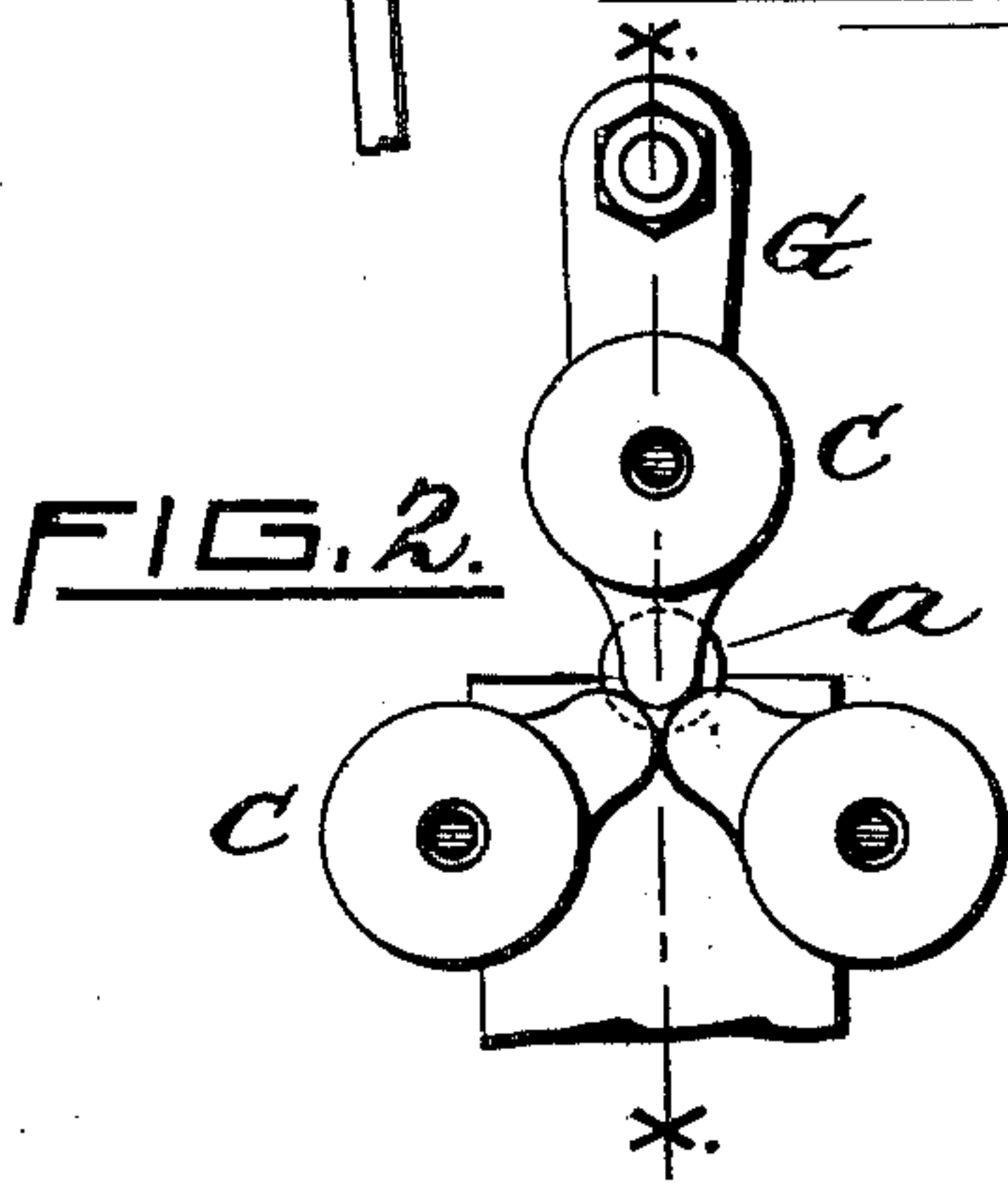
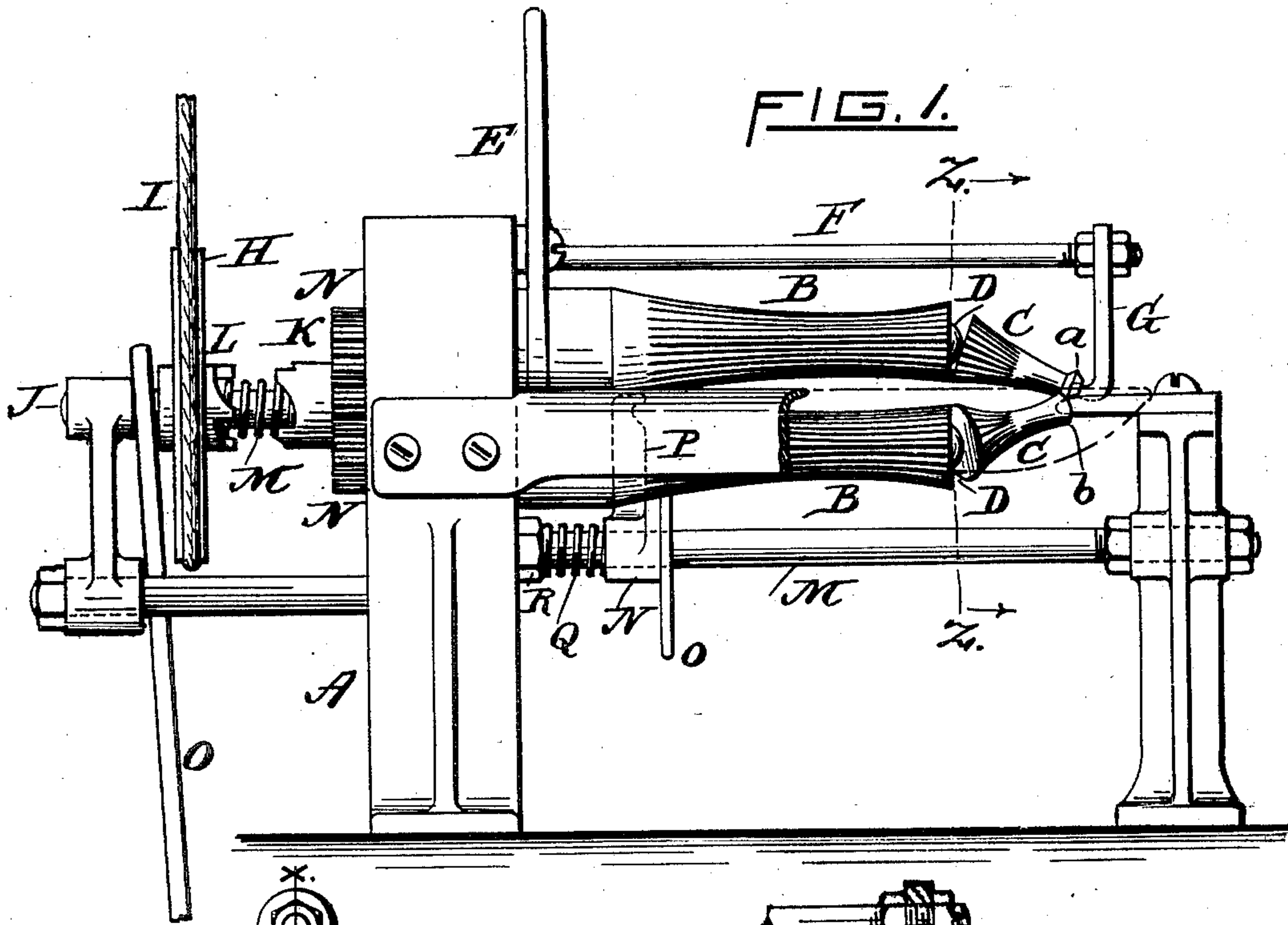
Patented June 24, 1902.

T. E. CARPENTER.

CIGAR MACHINE.

(Application filed June 8, 1901.)

(No Model.)



WITNESSES.

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UNITED STATES PATENT OFFICE.

THOMAS E. CARPENTER, OF PROVIDENCE, RHODE ISLAND.

CIGAR-MACHINE.

SPECIFICATION forming part of Letters Patent No. 703,179, dated June 24, 1902.

Application filed June 8, 1901. Serial No. 63,745. (No model.)

To all whom it may concern:

Be it known that I, THOMAS E. CARPENTER, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Cigar-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

Like letters indicate like parts.

Figure 1 is a front elevation of a cigar-machine having thereon my improved device for forming the head of a cigar. Fig. 2 is a view in elevation of the three conical rollers of said cigar-machine as seen on line *z z* of Fig. 1 in the direction of the arrows there. Fig. 3 is a view, partly in elevation and partly in section on line *x x* of Fig. 2, of two of the conical rollers and a portion of their companion main rollers, together with certain adjacent parts of the cigar-machine. Fig. 4 is a top plan view of the two lower conical rollers and the brackets on which their smaller ends are rotatably mounted. Fig. 5 shows in elevation a cigar whose pointed end or head has been formed and wrapped by said improved device.

My invention relates to a device for forming the pointed end or head of a cigar and covering the same with a tucked wrapper; and it consists of the novel construction and combination of the several parts, as hereinafter specified, and specifically set forth in the claim.

In Fig. 1 I show a cigar-machine to which my said invention is applicable, though it is obvious that said invention is also adapted to be used upon any cigar-machine for making or wrapping a cigar-bunch by means of several main rollers and companion conical rollers.

The machine shown in Fig. 1 is substantially the same as is described in Letters Patent of the United States No. 639,663, issued to me and dated December 19, 1898, and so far as is necessary for present purposes is briefly described as follows:

A is the standard affording support for several (preferably three) main rollers, which are concaved and longitudinally fluted, as shown. Each main roller B has at one end thereof a companion conical roller C, con-

nected rotatably therewith by a ball-and-socket joint D and longitudinally fluted, as shown.

E is a pivotally-mounted handle, from which a spring-rod F extends in a direction parallel with the upper main roller, and on the end of said spring-rod is a downwardly-extending finger G, whose lower end is bent and enters a central socket in the smaller end of the upper conical roller C to provide a support therefor. The smaller ends of the lower conical rollers C are similarly mounted, respectively, upon fixed projections or brackets.

H is the pulley, driven by the belt I and loose upon the driving-shaft J. On the shaft J is a fixed clutch member K. The pulley H has a clutch member L fastened thereon, and a spiral spring M, surrounding the shaft J, has one end bearing against the clutch member K and the other end bearing against the clutch member L. The shaft J has a gear fixed thereon which meshes with the gears N of the arbors or journals of the main rollers B, respectively.

When the pulley H and its connected clutch member L are slid inwardly along the shaft J by a handle or shipper O, the clutch members K L engage, whereupon the driving-shaft J is rotated by the power of the belt I and the rollers B C are revolved by reason of the engagement of the gear of the driving-shaft J with the gears N of the arbors or journals of the rollers B. When the handle or shipper is moved in the opposite direction, the spiral spring M separates the clutch members K and L and the machine stops its operation.

On the rod M, which is supported as shown in Fig. 1, is a tubular block N, having a downwardly-extending handle *o* and an upwardly-extending push-bar P, the latter provided with a conical recess or seat, as indicated by dotted lines in Fig. 1. This push-bar P extends up between the two lower main rollers B B. A spiral spring Q, surrounding the rod M, has one end bearing against the tubular block N and its opposite end bearing against a nut R, as shown.

The upper conical roller C is provided with an integral beveled annular lip *a*, as shown in Figs. 1, 2, and 3, while, as shown in Figs. 1, 3, and 4, the two lower conical rollers do

not have such annular lip, but are cylindrical at the smaller end, as shown at *b*. It is also shown in Figs. 1 and 3 that the upper conical roller is longer than the lower conical rollers, while the two lower conical rollers are of equal length as compared with each other. The excess of length of the upper conical roller is made up entirely of said annular lip *a*, which projects from the smaller end of the upper conical roller, as shown, and whereas if the upper conical roller had no annular lip *a* the smaller ends of the three conical rollers converging would leave a small triangular space between them, (as in my said former cigar-machine and as is apparent by an examination of Fig. 2,) the inward beveled surface of the annular lip *a*, shutting over or extending beyond the plane ends *b* of the lower conical rollers and in contact with the edges of said plane ends, completely closes said triangular space.

When the cigar-bunch has been made and shaped, as usual, and the wrapper is started at the tuck and rolled spirally thereon (see Fig. 5) by the conjoint action of the rollers B and C, the end or edge of the wrapper cannot, as heretofore, project into the usual triangular space between the smaller ends of the conical rollers C, and so leave the head of the cigar rough, but is turned over and folded in, and so is covered by the spiral winding of the wrapper, and thus forms practically a perfect head, and by the operation of the three conical rollers the head is shaped with no projecting or rough edges of the wrapper thereon, but is smooth and symmetrical, as illustrated in Fig. 5. The cigar-bunch, before the leaf-wrapper is wound thereon, being in position between said rollers is held longitudinally by the converging

conical rollers C at the head and by the push-bar P at the opposite end, the spring Q serving to press said bar P against the contiguous end of the cigar-bunch. When the leaf-wrapper is wound on, the pressure of the bar P seats the end of the cigar in the space between the converging rollers C, while the rotation of said rollers winds the wrapper, with the result already explained.

I claim as a novel and useful invention and desire to secure by Letters Patent—

In a cigar-machine, the combination of three main rollers properly mounted and arranged one above the other two and in a vertical plane midway between them, a companion conical roller rotatable with the upper main roller, supported thereby at its inner end and provided at its outer end with a beveled annular lip and having a suitable support at said outer end, a companion conical roller for each of the lower main rollers and rotatable therewith, respectively, and supported thereby, respectively, at the inner end, said lower conical rollers being shorter than the upper conical roller and each having a plane circular outer end with means of support at said outer end and said three conical rollers extending angularly from their respective companion main rollers and converging at their outer ends and so arranged that the annular lip of the upper conical roller projects over and is in contact with the plane small ends of the lower conical rollers, substantially as described.

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

THOMAS E. CARPENTER.

Witnesses:

WARREN R. PERCE,
HOWARD A. LAMPREY.