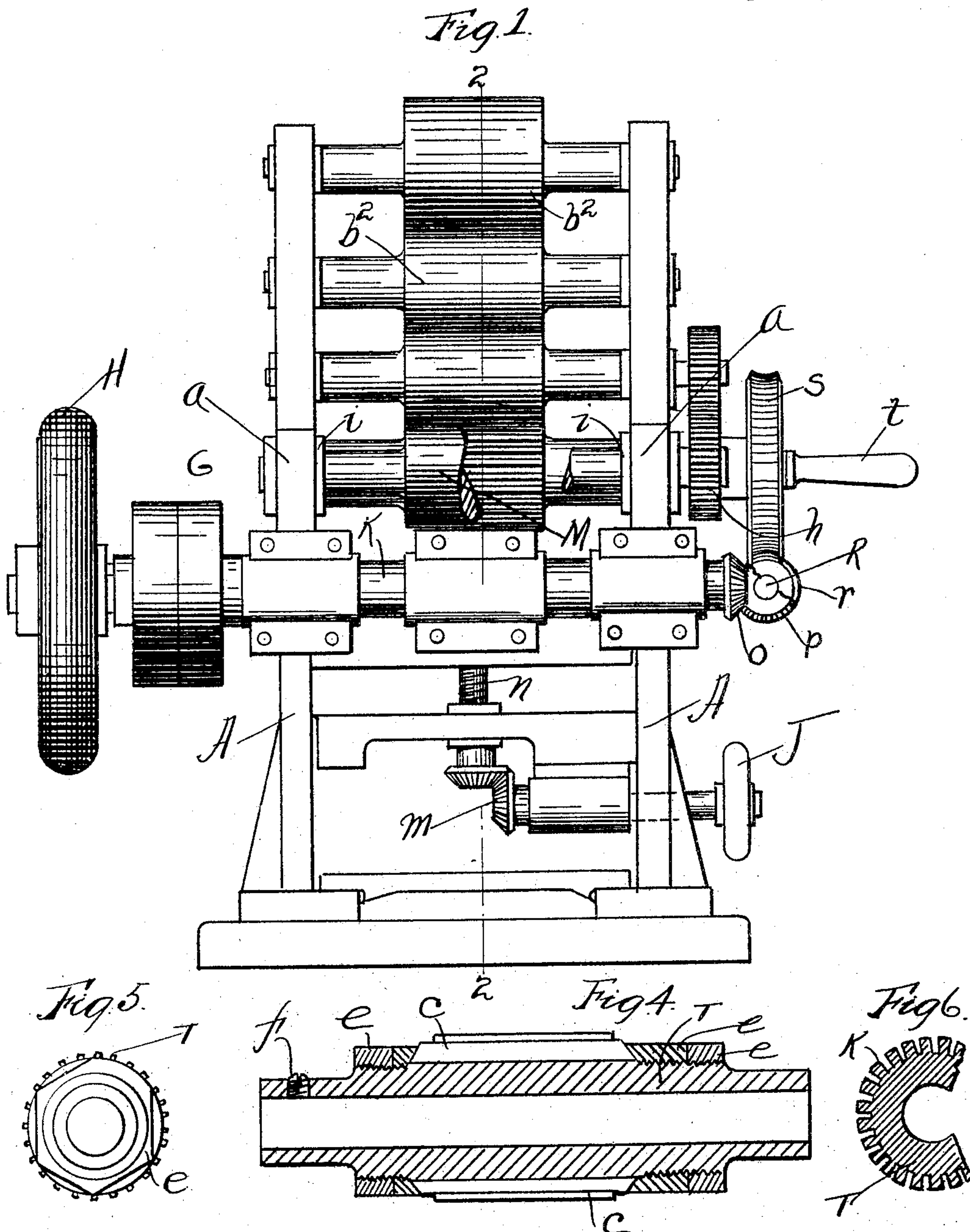


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APPLICATION FILED JUNE 20, 1905.

2 SHEETS—SHEET 1.

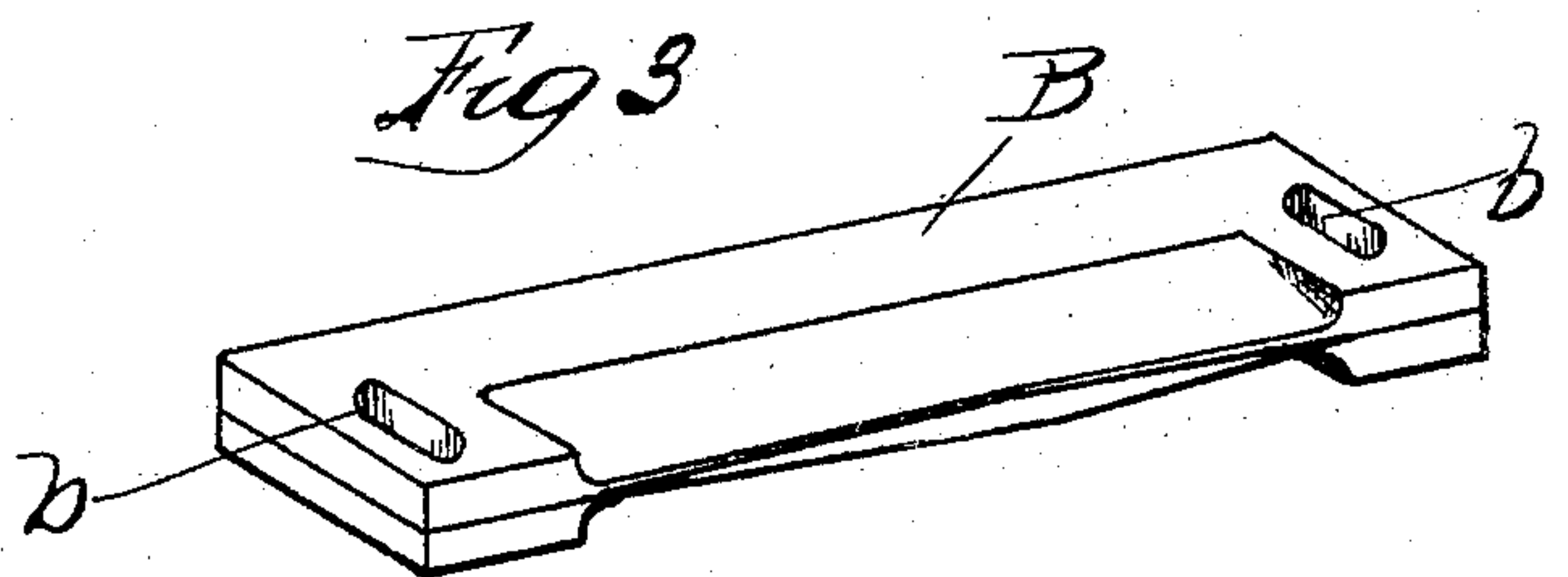
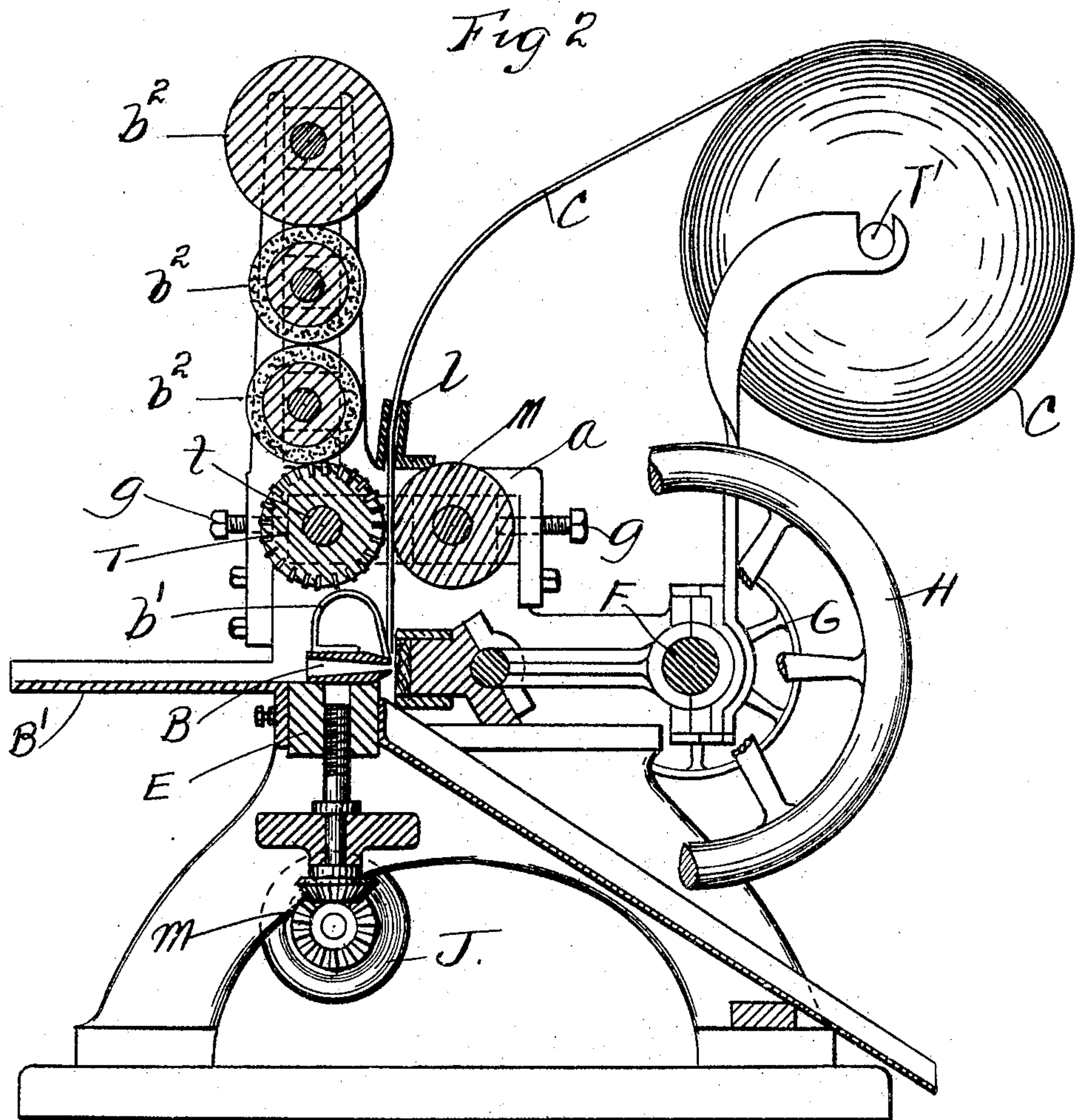


Witnesses  
Frank A. Foster  
E. S. Ogden

Inventor  
Howard E. Barlow.

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Inventor

*Howard E. Barlow*

Witnesses

*Frank A. Foster*  
*E. V. Ogden*



# UNITED STATES PATENT OFFICE.

HOWARD E. BARLOW, OF PROVIDENCE, RHODE ISLAND.

## TOOTHPICK-MACHINE.

No. 796,394

Specification of Letters Patent.

Patented Aug. 1, 1905.

Application filed June 20, 1905. Serial No. 266,111.

*To all whom it may concern:*

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

This invention pertains to machines for making and printing toothpicks, and has for its object to print by the use of a rotary type-roll on a ribbon of veneered wood and then force the wood through a hollow knife, producing printed toothpicks for advertising purposes.

This invention is fully described in this specification and illustrated in the accompanying drawings.

Figure 1 is an elevation of the machine from the right end. Fig. 2 is a sectional side elevation on line 2 2 of Fig. 1. Fig. 3 is a perspective view of the hollow knives. Fig. 4 is a longitudinal sectional view of the type-roll, illustrating the manner in which the type-bars are held in place. Fig. 5 is an end elevation of the type-roll. Fig. 6 is a sectional end view of the type-roll. Fig. 7 is a perspective view of one of the type-bars. Fig. 8 shows one of the finished picks printed, enlarged.

In the construction, A A are the side frames.

B is the hollow knife, through which the veneered wood C is forced by the reciprocating block and cross-head D. This hollow knife B is screwed to the vertically-adjustable block E by bolts which pass through the slots *b b* (see Fig. 3) and allow the knives to be set ahead or back on the block D, as desired.

*B'* is a spring which presses the ribbon of wood back from the edge of the knife, where it is forced by the forward movement of the reciprocating block.

At F is the rotating crank, which has a very short throw to actuate the reciprocating block and cross-head D.

At G and H are the driving-pulleys and balance-wheel, respectively.

J is a hand-wheel by which the hollow knife receives its vertical adjustment through the miter-gears *m* and the screw *n*. By this adjustment the knife may be raised or lowered at will and accurately set to register with the lines of printed matter on the veneer, so that when the pick is cut the said printed line of advertisement will appear on the center of each pick.

The printing portion of the mechanism is

actuated from the end of main shaft K through the miter-gear *o*, which meshes into a similar gear *p*, fixed to one end of a short side shaft R, to the opposite end of which is fixed a worm *r*, which meshes into and drives a worm-gear S. This worm-gear is located on the type-roll shaft *t* and from which the type-roll T receives its rotating motion.

At M is a feed-roll driven from the type-roll shaft by means of gears H. This feed-roll also forms the backing for the type-roll, and being geared to run together they jointly form the feed for the wood C into the machine. Both of these rolls are journaled in adjustable blocks *i i* and may be adjusted or set up by the set-screws *g g*, which are threaded through a removable portion of the frame *a*.

At *b<sup>2</sup> b<sup>2</sup>* are the inking-rolls, the upper two of which are driven by frictional contact from the lower one, which is geared to run with the type-roll.

A special feature of this machine is the construction of the type-roll. A hollow roll or arbor T is slotted on its periphery into the required number of grooves—say fifty—the distance between the slots being the width of a pick. Into these slots are set a line of type *c*, cast on the ordinary linotype-machine and reduced to the proper size and beveled on the ends by a special operation to fit the slots in the arbor T. Nuts or collars *e e* are then screwed onto the arbor and counterbored to fit the beveled end of the type-bars, binding them securely in place. This type-roll T is held to the arbor or shaft *t*, on which it is secured by the set-screws *f*.

The operation is as follows: The veneered wood C is made in a ribbon form, the width of which is just the length of a toothpick. A roll of this wood is mounted on the arbor T', supported above the machine, as shown in Fig. 2. The end of the ribbon is first passed down through the guide *l* and then between the feed and type rolls M and T, by which it is printed in lines that are just the width of a toothpick apart and fed along in front of the hollow knife B, where it is cut between the lines. Each stroke of the reciprocating block forces the wood through the knife and packs the picks up edgewise in the trough *B'*, extending out in front, from the end of which they are boxed automatically. By this means of arranging the printing-roll fifty or more different advertisements may be printed on each of as many picks, forming a very neat and novel means of advertising.

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

In a machine for cutting and printing tooth-picks, the combination of a printing-roll having a plurality of longitudinal slots on its periphery to receive lines of type, means for locking said lines of type into said roll, a feed-roll to back up the printing-roll and assist in feeding the stock, a hollow knife, a reciprocating block for forcing the veneered wood

through said hollow knife, and means whereby said knife may be adjusted with relation to the printing-roll to secure an accurate registering of the knife with the printed lines.

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

HOWARD E. BARLOW.

Witnesses:

FRANK A. FOSTER,  
E. I. OGDEN.