

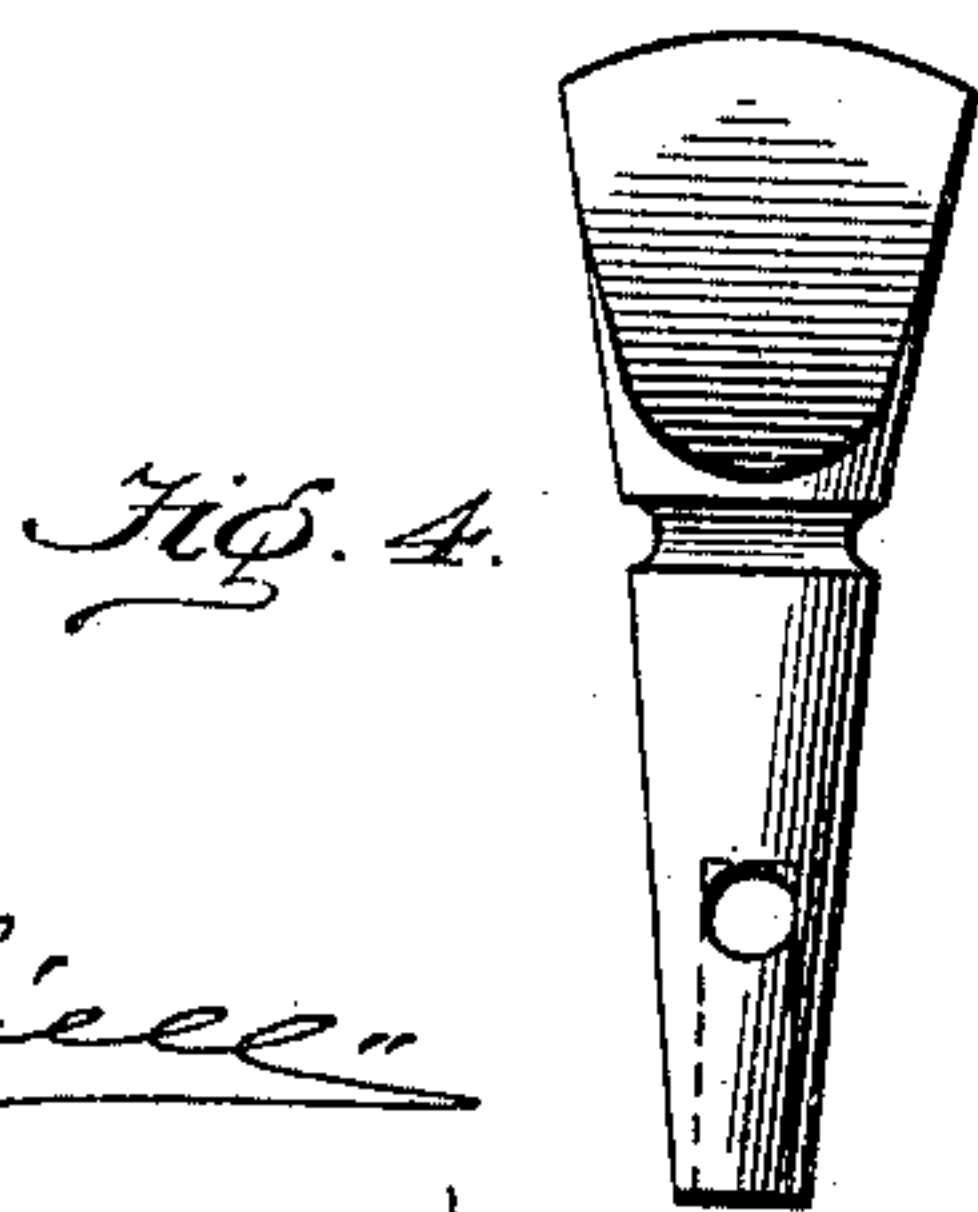
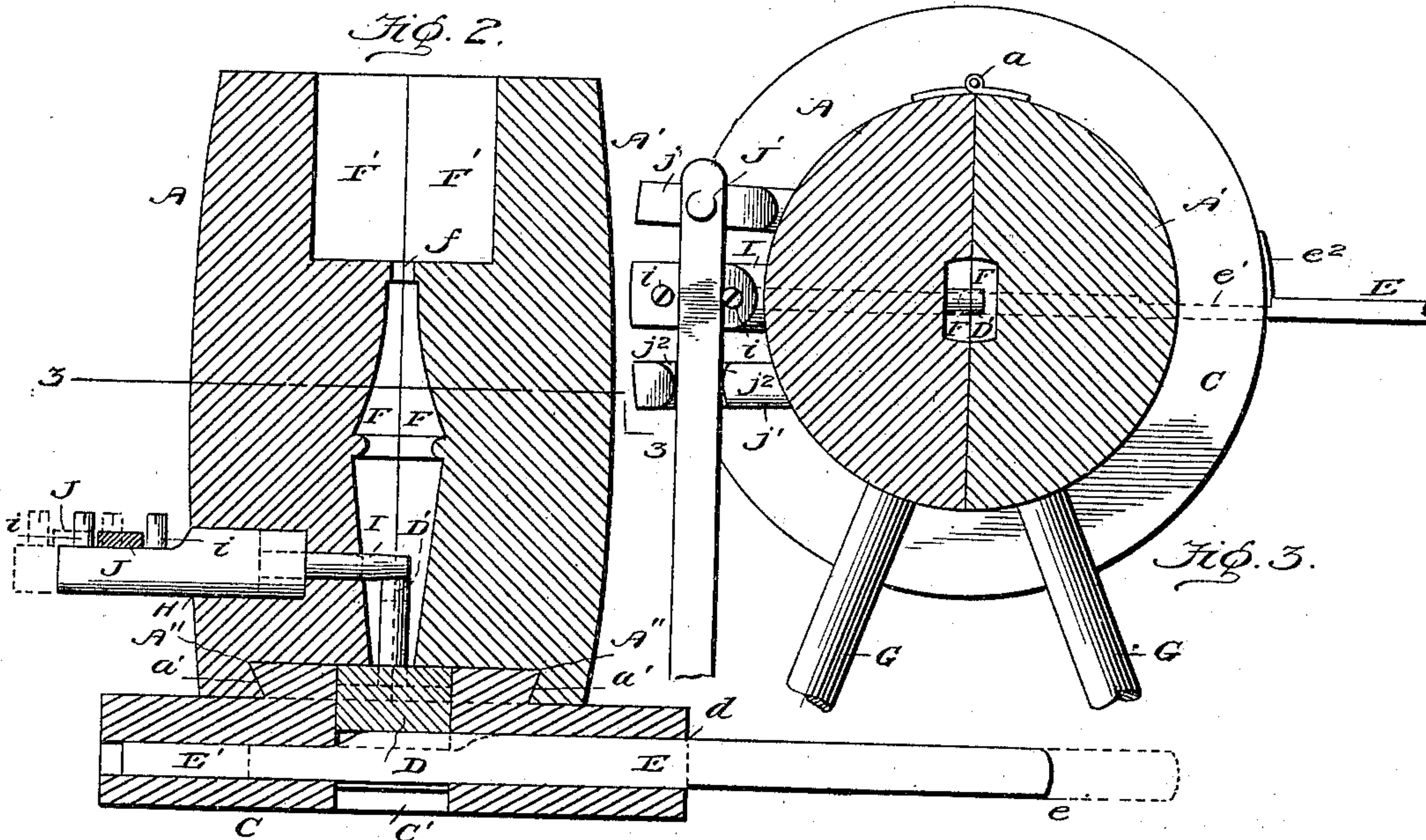
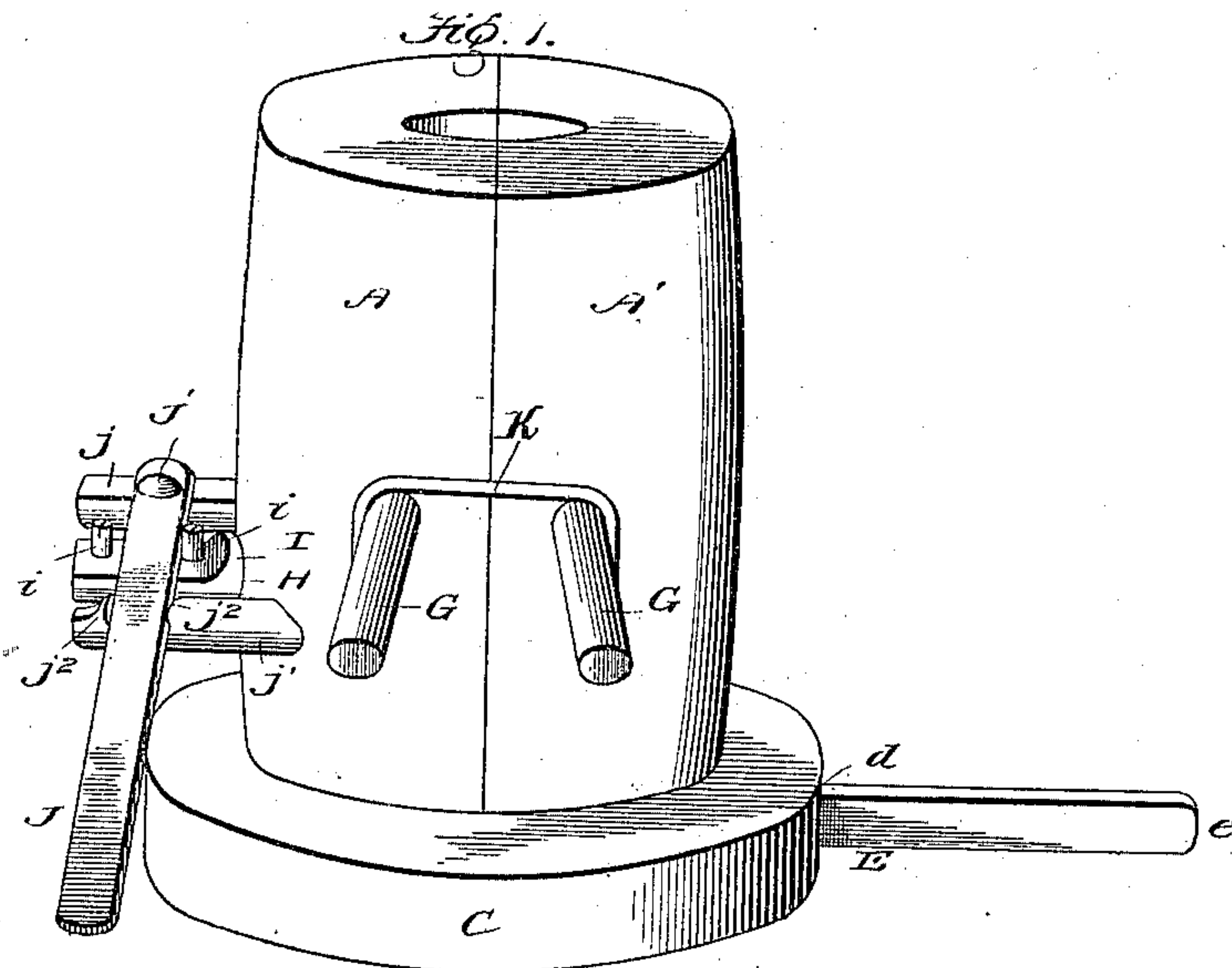
No. 628,816.

Patented July 11, 1899.

T. F. KELLER.
MOLD.

(Application filed Oct. 15, 1898.)

(No Model.)



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UNITED STATES PATENT OFFICE.

TOBIAS FOX KELLER, OF PHILADELPHIA, PENNSYLVANIA.

MOLD.

SPECIFICATION forming part of Letters Patent No. 628,816, dated July 11, 1899.

Application filed October 15, 1898. Serial No. 693,648. (No model.)

To all whom it may concern:

Be it known that I, TOBIAS FOX KELLER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Molds; 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.

This invention relates to an improvement in molds; and its object is to provide a mold of peculiar construction capable of forming objects having passages therethrough at different angles and especially adapted for use in manufacturing glass keys for faucets, &c.

To these ends the invention consists in providing the mold, which is of the ordinary construction, with pins projecting into and meeting at a point within the cavity of the mold and capable of being drawn therefrom prior to removing the formed object.

The invention also further consists in the details of construction and combination of parts hereinafter more fully described and claimed.

In the accompanying drawings I have shown the preferred form of my invention.

In said drawings, Figure 1 is a perspective view of the mold. Fig. 2 is a central vertical section therethrough, showing in dotted lines the pins withdrawn. Fig. 3 is a section on line 3 3, Fig. 2. Fig. 4 is a view of a key made by said mold.

Referring to said figures, in which like letters of reference represent corresponding parts, A A' are the blocks of the mold and are hinged together at one edge, as shown at *a*. Each of said blocks has a semicircular recess in its lower ends, the wall *a'* of which is equidistant at all points from the outer wall of the block and slants backward from the edge of said recess, being adapted to securely fix said blocks when closed to the outwardly-flared walls of the raised portion A'' in the center of the base C of the mold. The center of the base C is provided with a vertical cylindrical opening C', which extends upward through said portion A'' and contains a cylindrical plug D, slotted in its lower end, as at *d*, and provided at the center of the top with a vertical pin D' of sufficient length for the purpose hereinafter described. Said plug D is adapted

to ride on a slide E, which passes through the slot *d* and extends outward of the base, terminating in a handle *e*, whereby said slide may be readily moved back and forth within the base C. The slide E is of sufficient height when pressed inward to retain the upper surface of the plug D on a level with the portion A''. The rear portion of the slide, however, is reduced, as at E', thereby permitting the plug D and pin D' to drop below the level of portion A'' upon pulling said slide outward. The movement of this slide is limited in any suitable manner, as by cutting out one side, as at *e'*, for a desired distance and fixing a plate *e*² to the side of the base, adapted to project into the cut-out portion *e'*.

Blocks A A' are similar in form, each being provided in the center with recesses F F', respectively, the lower of which, F, is adapted to shape one-half of the object to be molded. Said recesses F are open at the lower end to embrace the pin D', while their upper ends are each provided with a small cut-out portion, the two when the blocks are closed forming a single passage-way *f* between the upper chamber formed by semicylindrical recesses F' and the cavity formed by the recesses F.

Projecting forward from each of the blocks A A' are one or more handles G for manipulating the mold. Block A is also provided with a perforation H at one side for the reception of a horizontal pin I, which is adapted to project into the recess F' of said block A a sufficient distance to permit said pin to overlap and bear upon the end of the lower vertical pin D'. The pin I is movable back and forth in the block and is operated, preferably, by a lever J, loosely pivoted, as at J', to a bracket *j* and resting between pins *i* upon the upper flattened surface of the rear outwardly-extending portion of the pin I. The pin is held in its inward position by slight shoulders *j*², formed on a second bracket or arm *j'*, between which said lever is adapted to rest. As the pivot J' permits the lever to be slightly raised at its opposite end it will be seen that the same can be readily disengaged from the shoulders *j*².

In operation the slide E is pushed inward, forcing the plug D to a level with the upper surface of portion A''. The blocks are then

clamped over said portion A'' and the arms securely bound together in any suitable manner, as by a wire K. Pin I is then forced inward, so as to overlap the end of pin D'.

5 Glass is then forced into cavity F F from the upper chamber F' F', preferably by means of a plunger through the opening f. Almost immediately after a sufficient quantity of glass has been admitted to the mold the lower and
10 side levers are drawn outward, causing the lower pin D' to drop and the side pin I to withdraw from the cavity F F. The mold is then opened on its hinges and the molded object removed. It will be seen that by this
15 process an object may be cast having a passage running therethrough from the side to the bottom, and the said object can be removed without cracking or other injury.

20 While in the foregoing description I have described the mold as used for the manufacture of glass faucet-keys, I do not limit myself thereto, as the same principle may be used in the molding of earthen or ceramic ware.

I am also aware that modifications may be made therein without departing from the 25 spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes as fairly fall within the scope of my invention.

What I claim as new is— 30

In a mold of the character described, the base, the slide therein, the movable plug astride said slide, a pin on said plug, hinged blocks binding upon said base, and embracing said pin, upper and lower recesses in said 35 blocks communicating as described, a horizontal pin in one of said blocks adapted to overlap the end of the lower pin when both are inward, and means as described for withdrawing said pins, substantially as described. 40

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

TOBIAS FOX KELLER.

Witnesses:

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