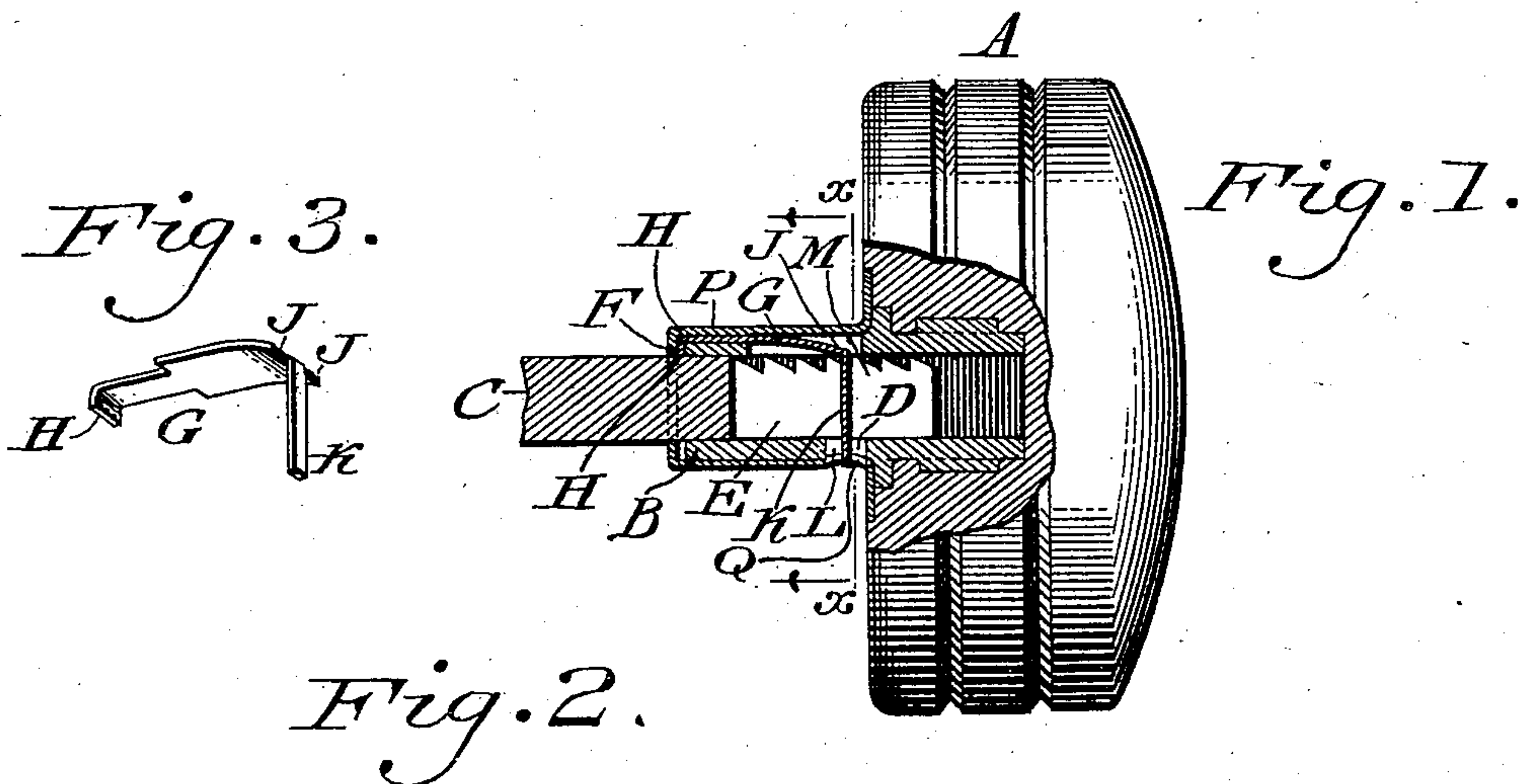


No. 730,705.

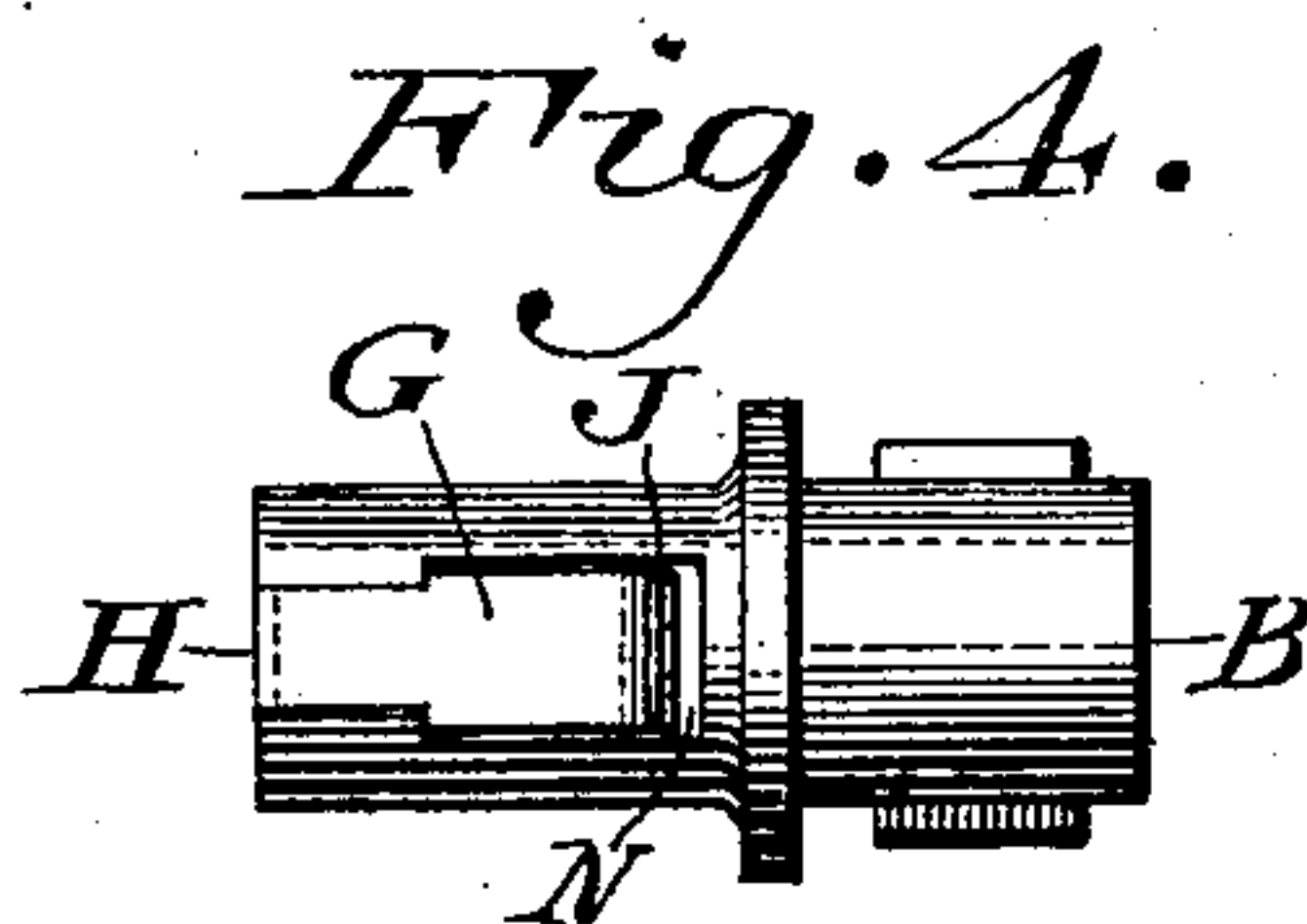
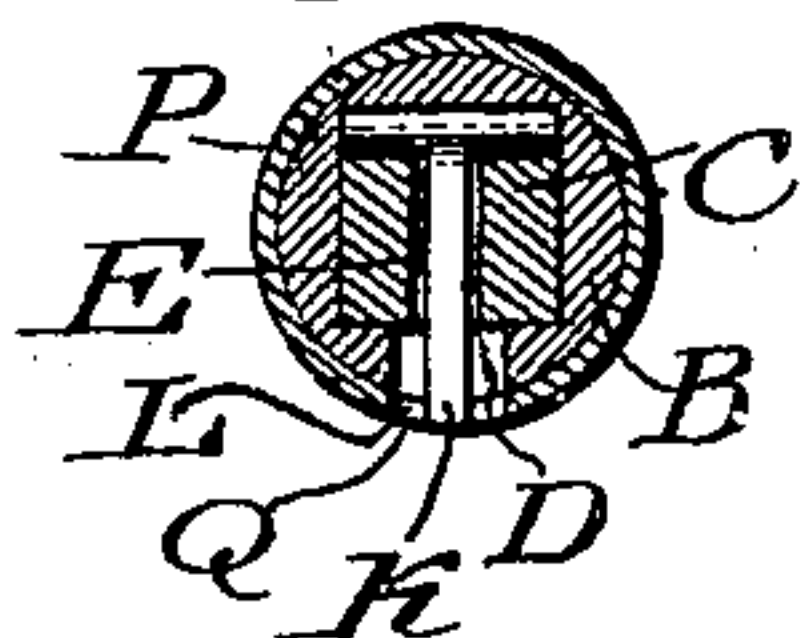
PATENTED JUNE 9, 1903.

G. W. ROBERTS.  
KNOB FASTENING.  
APPLICATION FILED SEPT. 3, 1902.

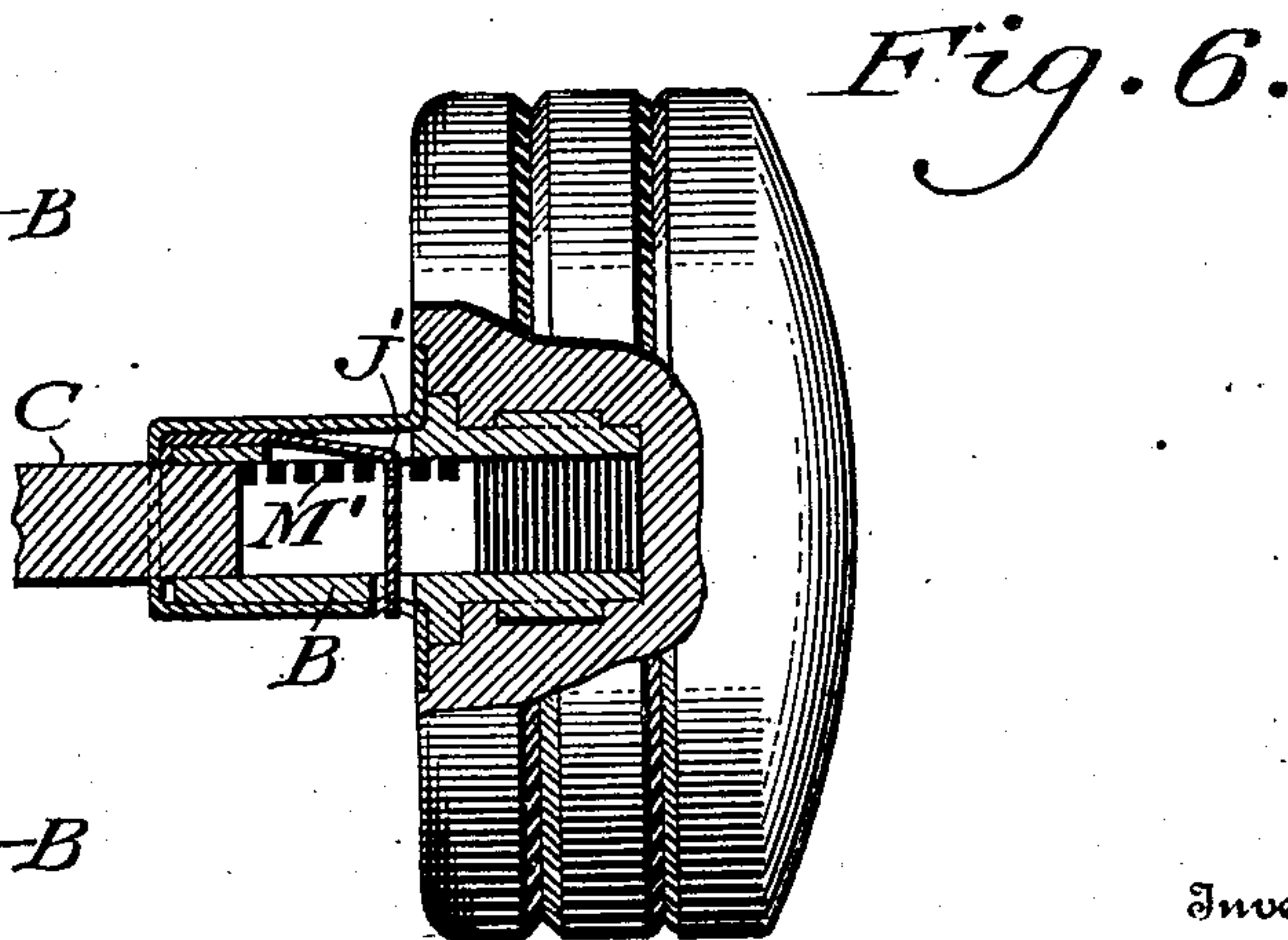
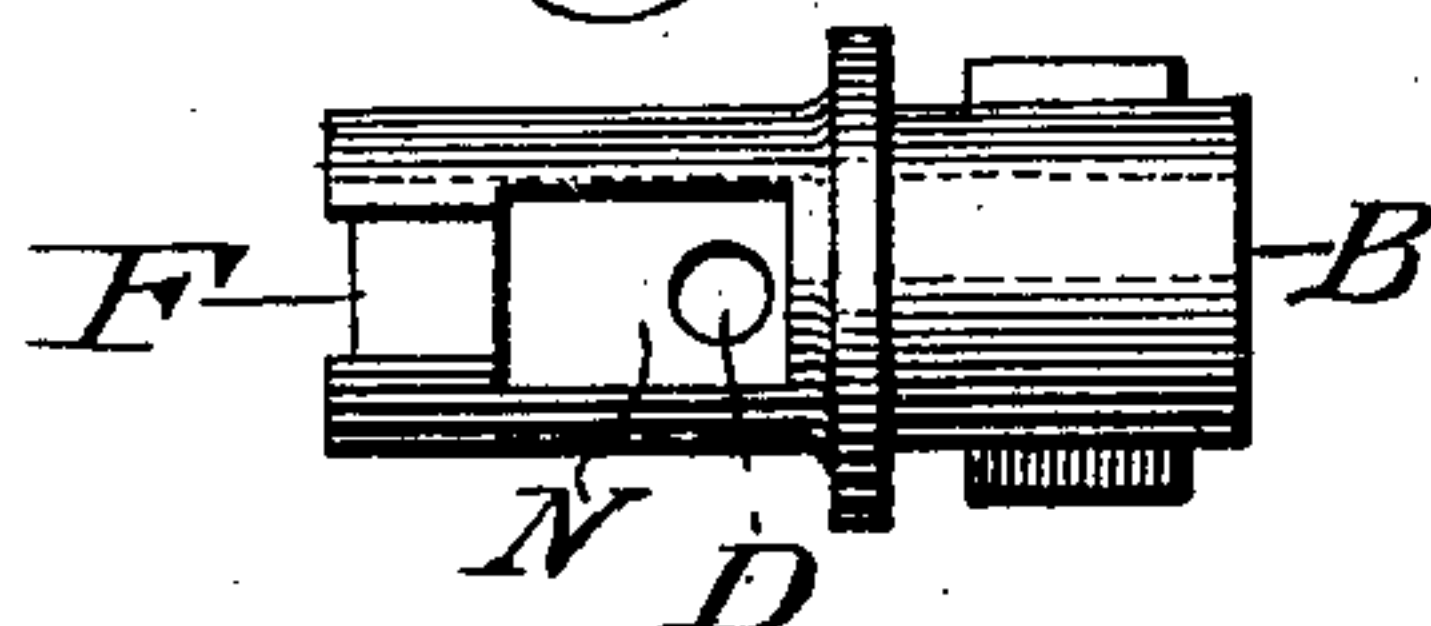
NO MODEL.



*Fig. 2.*



*Fig. 5.*



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# UNITED STATES PATENT OFFICE.

GEORGE W. ROBERTS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF  
ONE-HALF TO WINFRED W. NUSS, OF PHILADELPHIA, PENNSYLVANIA.

## KNOB-FASTENING.

SPECIFICATION forming part of Letters Patent No. 730,705, dated June 9, 1903.

Application filed September 3, 1902. Serial No. 121,940. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. ROBERTS, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented new and useful Improvements in Knob-Fastenings, of which the following is a specification.

My invention consists of a knob-fastening, the construction of the same being hereinafter described and the novel features thereof pointed out in the claims.

Figure 1 represents a partial side elevation of a knob and a longitudinal section of the fastening therefor embodying my invention. Fig. 2 represents a section thereof on line *xx*, Fig. 1. Fig. 3 represents a perspective view of a member of the fastening device. Fig. 4 represents a top or plan view of a portion thereof. Fig. 5 represents a similar view, certain features shown in Fig. 4 being omitted. Fig. 6 represents a side elevation of a modification.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates a knob, and B designates the neck thereof. C designates a spindle with which said knob is connected, the same having therein the longitudinally-extending channel E, said neck having therein the opening D and the slot F. G designates a detent consisting of a plate one end of which is formed with a lip H, which is adapted to enter said slot F, the other end of said detent being deflected inwardly, forming the tooth J. Continuous of the toothed end of said detent is the tongue or operating-piece K, which extends at or about a right angle to said plate and freely occupies the channel E, it being noticed that the free end of said tongue is accessible at the outer end L of the opening D.

On the end of the spindle C within the neck B is the ratchet M, with which the tooth J is adapted to engage, it being noticed that owing to the longitudinally-extending channel E when the spindle is inserted in the neck it may pass the tongue K and permit the latter to occupy said channel, it now being seen that the tooth J engages with the ratchet M, and thus prevents the disconnection of

the knob from the spindle, and vice versa. Should, however, it be desired to separate the parts, the tongue is accessible at the end L of the opening D, as has been stated, whereby any suitable implement may be pressed against said tongue, causing a motion of the detent in such manner that the tooth J is removed from the ratchet M, and thus the locking of the parts ceases, when the knob may be removed from the spindle or the spindle from the knob, as desired.

As the lip H occupies the slot F, the detent is accordingly connected with the neck B; but in order to prevent the detent from leaving its position a sleeve, such as P, is fitted over the neck B, and so encircles the fastening end of the detent and prevents the latter from leaving its position in the slot F, said sleeve being attached to the knob in any suitable manner and having an opening Q therein registering with the opening D at the end L thereof, so that the tongue K is also accessible through said sleeve.

In Fig. 6 I show a modification in which the ratchet M as such is dispensed with, and in lieu thereof depressions or openings M' are formed in the spindle, and the detent has a nose J' of angular form, the same being adapted to enter either of said depressions, without, however, producing different results from those hereinbefore stated.

The detent G, which is held at one end by its lip H occupying the slot F in the neck B, is resilient in its nature and is permitted to play in the recess N in the neck B, so that when the tongue K is pressed the tooth J leaves the ratchet M, and thus the spindle is unlocked. When said tongue is let go, the tooth J returns to its normal position, interlocking the adjacent tooth of the ratchet of the spindle C, as before stated.

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

1. In a knob-fastening, a neck connected with the knob, a spindle adapted to enter said neck, and having a longitudinally-extending channel therein and a detent connected with said neck and having a tooth adapted to lockingly engage with said spindle and an oper-



ating-piece which is integral with said detent and the tooth thereof and passing freely through said channel of said spindle.

2. In a knob-fastening, a knob-spindle, a neck on the knob, a detent adapted to engage with said spindle and having a lip adapted to enter an opening in said neck, and a sleeve which is secured to said knob and rotatable therewith and firmly embraces the exterior of said lip.

3. In a knob-fastening, a neck on the knob, a spindle adapted to enter said neck, a detent having a tooth at one end for engagement with said spindle, and a securing-lip on the other end thereof, entering a slot in said neck and adapted to be fastened therein, and a fixed sleeve on the knob adapted to embrace said lip and retain said detent in position.

4. In a knob-fastening, a detent consisting of a resilient plate, having at one end an attaching-lip and at the other end a tooth adapted to engage with the knob-spindle and a tongue at or near the toothed end integral with said detent and extending at an angle

therefrom, said tongue being adapted to pass freely through said spindle.

5. In a knob-fastening, a spindle having a longitudinally-extending channel therein, and a detent adapted to lockingly engage with said spindle and having a tooth, an operating-piece and a lip integral with said detent, said lip being adapted to enter said neck and a fixed sleeve adapted to embrace said lip and neck and retain said detent connected with said neck, said piece passing freely through said channel.

6. In a knob-fastening, a knob-spindle, a longitudinally-extending channel therein, a neck, a detent having a tooth adapted to engage said spindle, an operative piece passing freely through said channel and a lip entering said neck, and a sleeve fixed to the knob and firmly embracing said lip.

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