

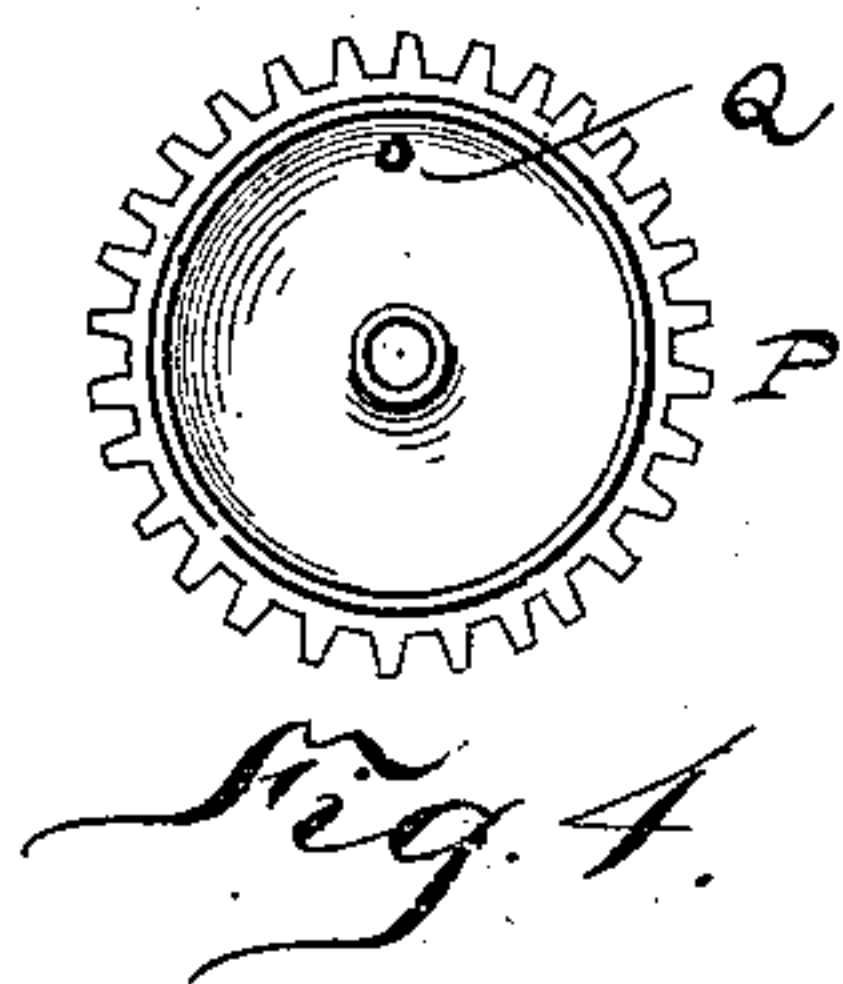
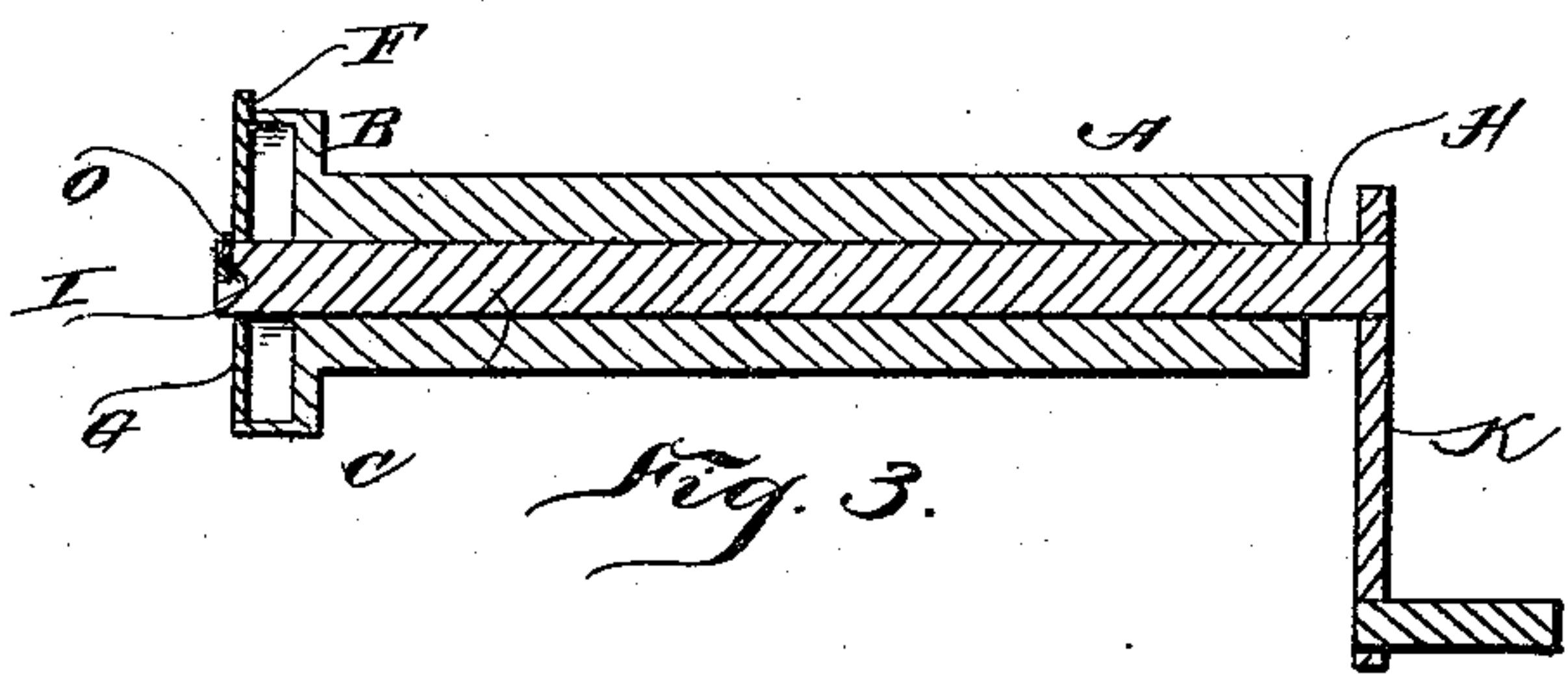
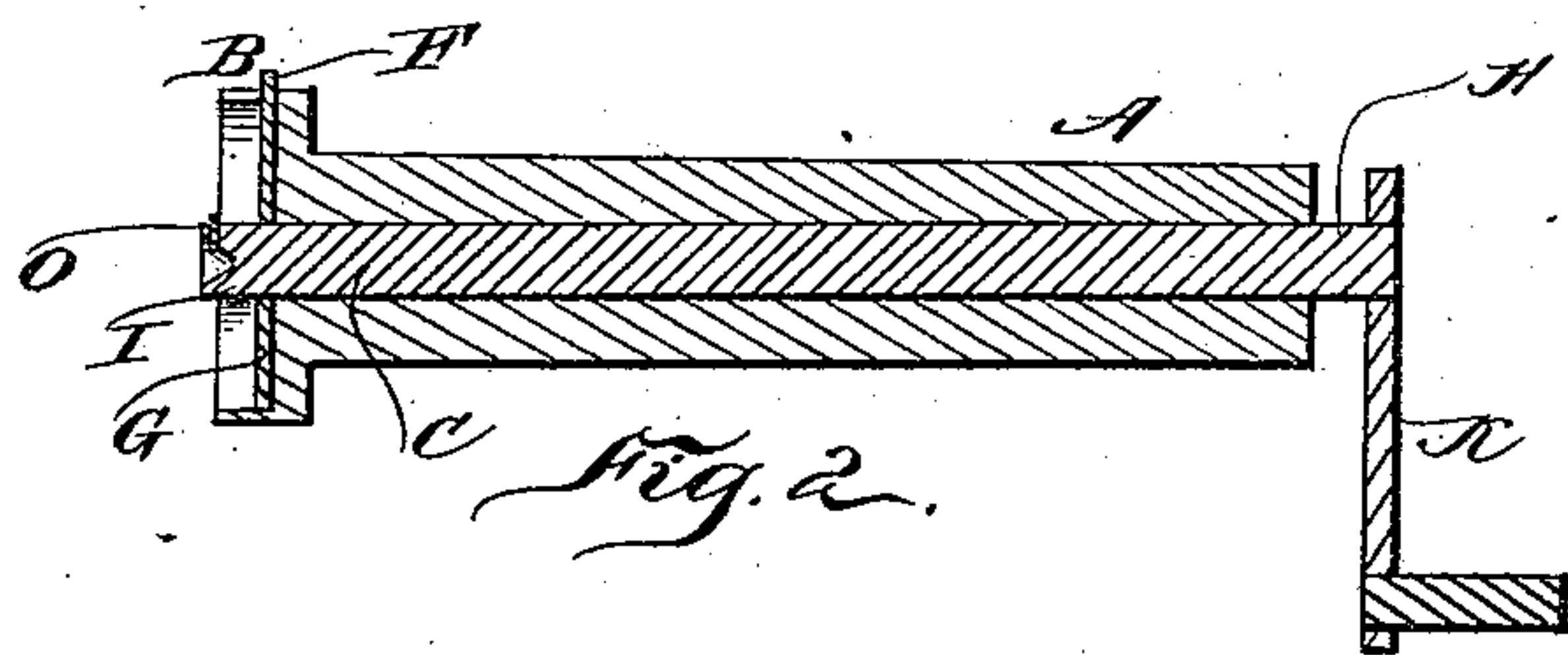
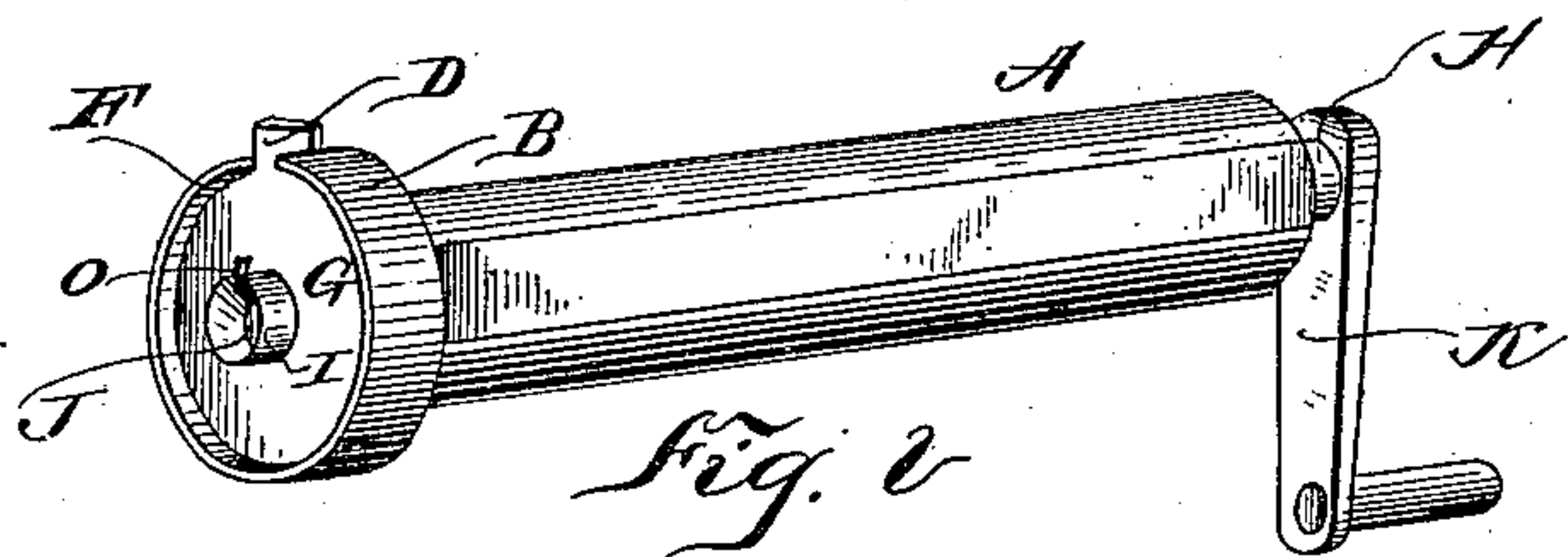
(Model.)

A. F. ROBBINS.

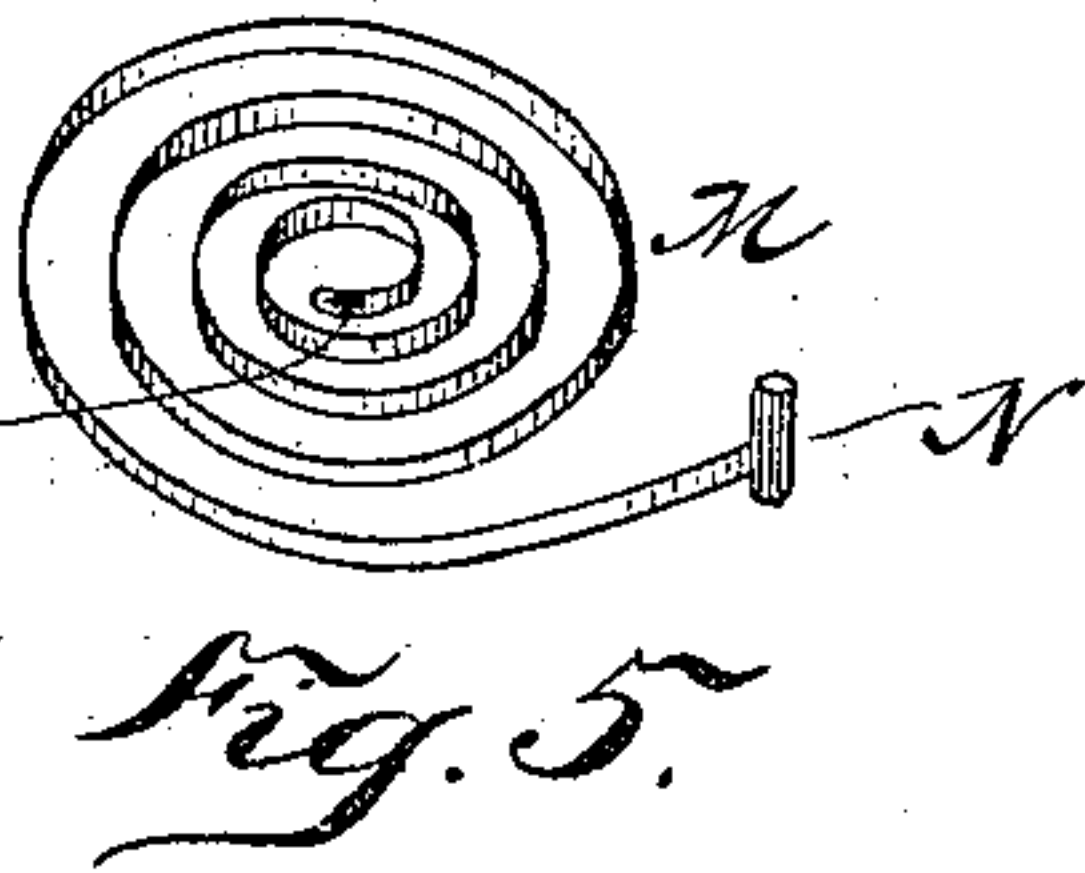
MAINSRING WINDER FOR WATCHES.

No. 308,096.

Patented Nov. 18, 1884.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

ALBERT F. ROBBINS, OF ORANGE, MASSACHUSETTS.

## MAINSRING-WINDER FOR WATCHES.

SPECIFICATION forming part of Letters Patent No. 308,096, dated November 18, 1884.

Application filed May 19, 1884. (Model.)

*To all whom it may concern:*

Be it known that I, ALBERT F. ROBBINS, a citizen of the United States, residing at Orange, in the county of Franklin and State of Massachusetts, have invented a new and useful Winder for Mainsprings of Watches, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention has relation to devices for winding the mainsprings of watches and putting them into the barrels of watches; and it consists in the construction and novel arrangement of parts, as will be hereinafter fully described, and particularly pointed out in the claims.

Figure 1 is a view in perspective of a winding device embodying my improvements. Fig. 2 is a vertical longitudinal sectional view showing the flanged disk in its normal position in the barrel of the winder. Fig. 3 is a vertical sectional view showing the disk moved forward in its barrel. Fig. 4 is a view of the barrel of a watch, and Fig. 5 is a view of the mainspring of a watch.

Referring by letter to the accompanying drawings, A designates the sleeve of the winder, which is provided at one end with a barrel, B, having a central opening, C, which aligns with the bore of the sleeve A. The sleeve A is provided with vertical sides, to adapt it to be held in the vise while the winder is being operated. The barrel B of the winder is provided in its upper side with a rectangular notch, D, in which a flange, F, projecting from the disk G, works forward and backward when the winder is operated. The shaft H passes through the sleeve A, and its end I projects through the disk G, and when the crank K is turned the shaft H revolves in both the sleeve and the disk. The end I of the shaft K is countersunk at J, and is provided near its end with a pin, O, which enters the slot L in the inner end of the mainspring M. The other end of the mainspring M is provided with a catch, N.

The operation of the winder is as follows: Place the winder in the vise and engage the pin O with the slot L of the spring M. Wind with the crank K until the catch N engages the flange F of the disk G. This is effected by coiling the spring M tightly on the end I of the shaft H, and when it has been wound to the proper tightness the pin N engages the flange F, and the spring, with the exception of the portion containing the pin or catch N, will be coiled in the barrel of the winder. Then place the barrel P of the watch over the barrel B of the winder so that the small hole Q of the barrel P fastens on the catch N. Wind one half-revolution and then press with the forefinger on the inner end of the crank K, which will move the disk G forward and with it the spring. Then turn backward until the spring expands within the barrel P, when the barrel P, containing the spring M, may be removed from the winder.

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

1. The combination, with the sleeve having the notched barrel B at one end, of the crank-shaft provided with the pin O at its projecting countersunk end, and the disk having the projecting flange F in the notch D in the wall of the winder-barrel, substantially as specified.

2. The combination, with the sleeve A, having the vertical sides, and the barrel B, provided with the notch D at one end, of the sliding shaft H, having crank K and countersunk end I, with pin O, and the disk G, with the flange F, projected into the notch D of the barrel B, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ALBERT F. ROBBINS.

Witnesses:

EDWARD C. FOWLER,  
THOMAS F. MCKENNA.