

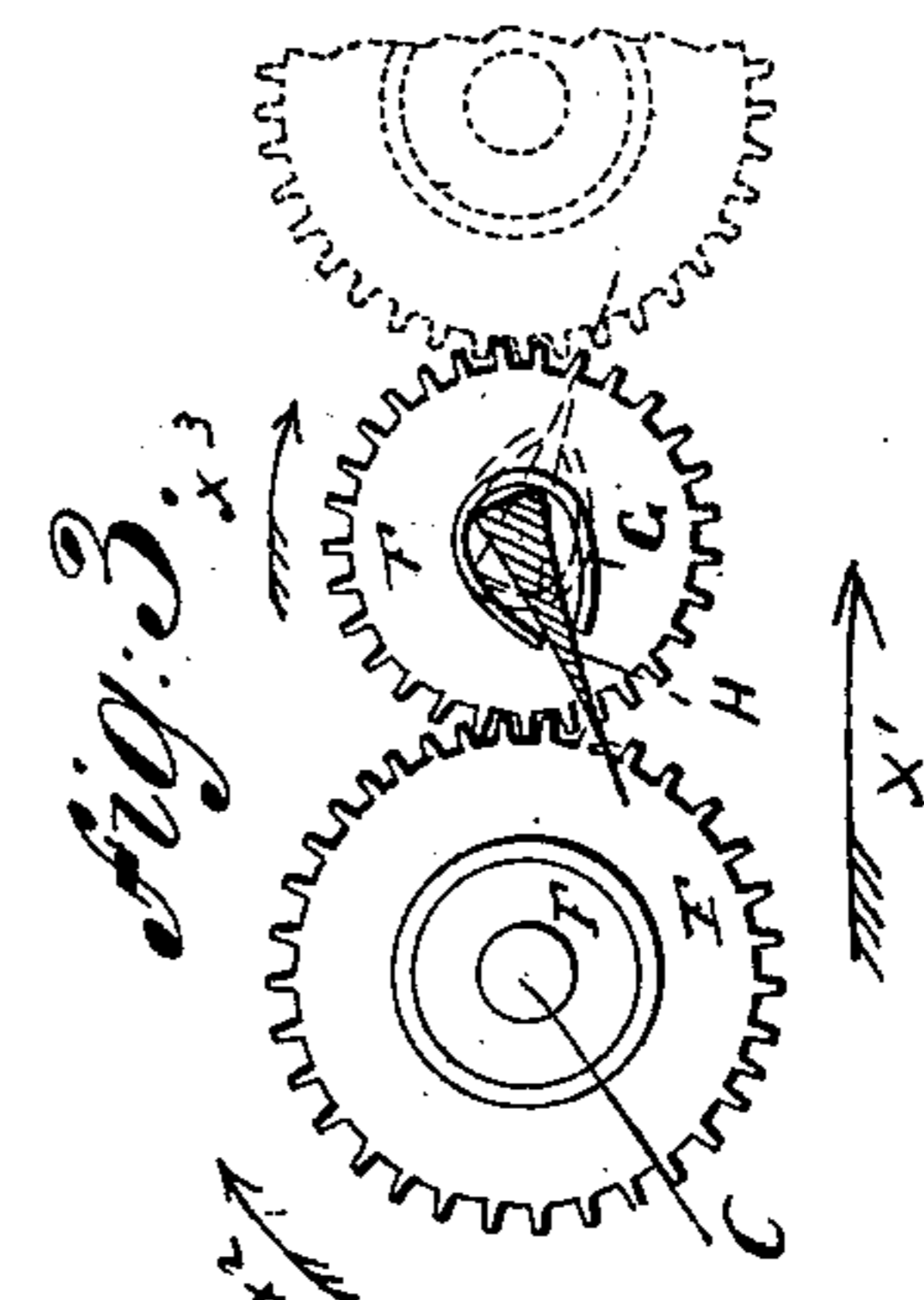
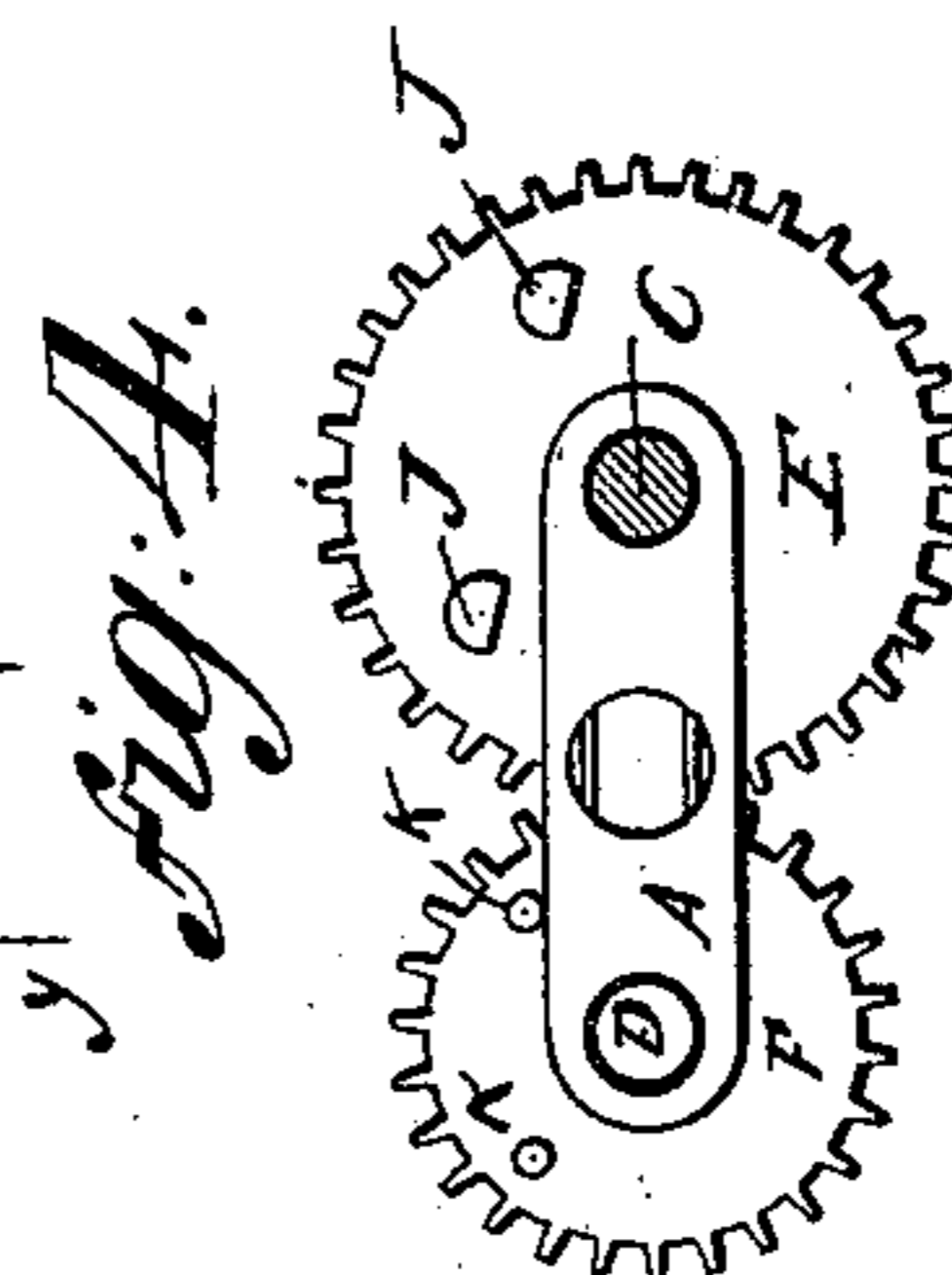
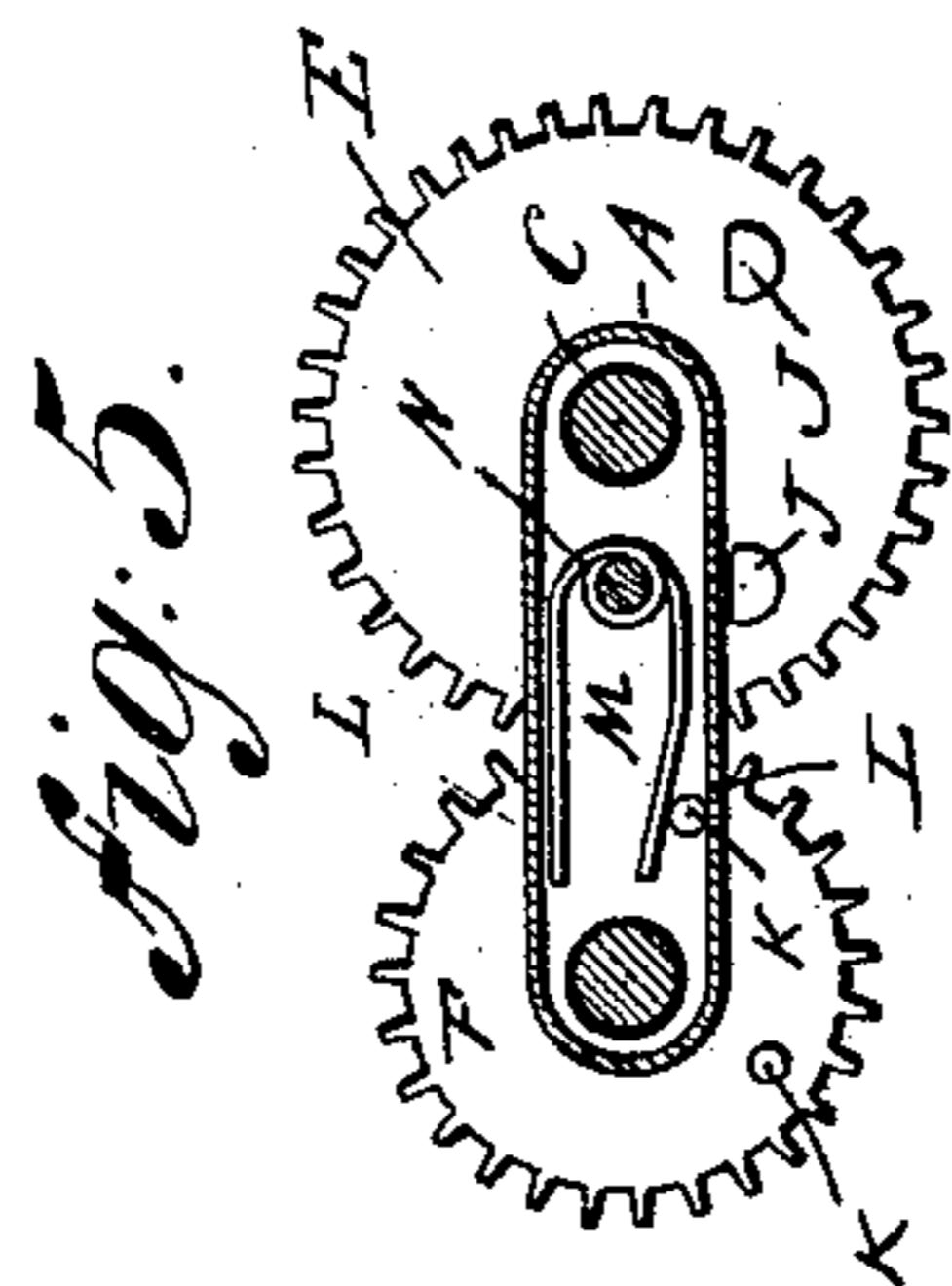
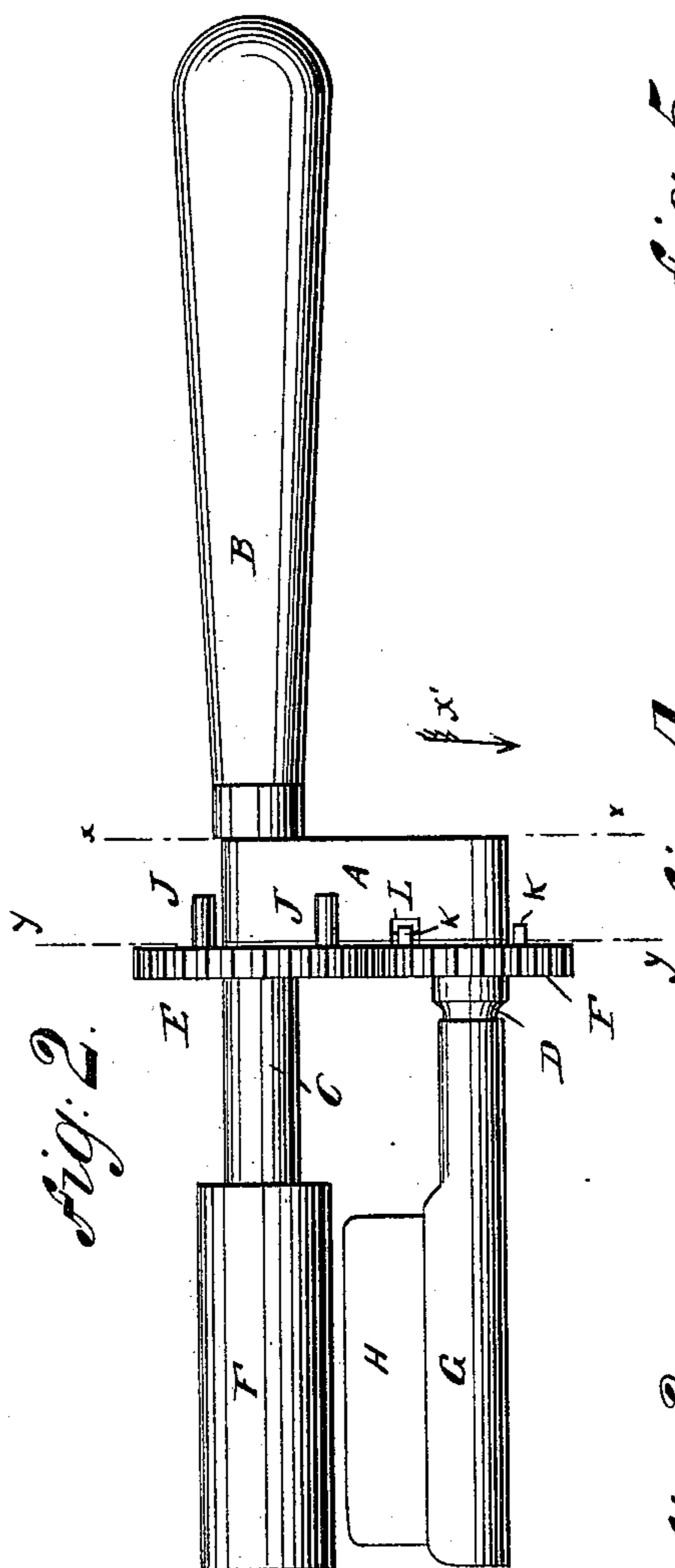
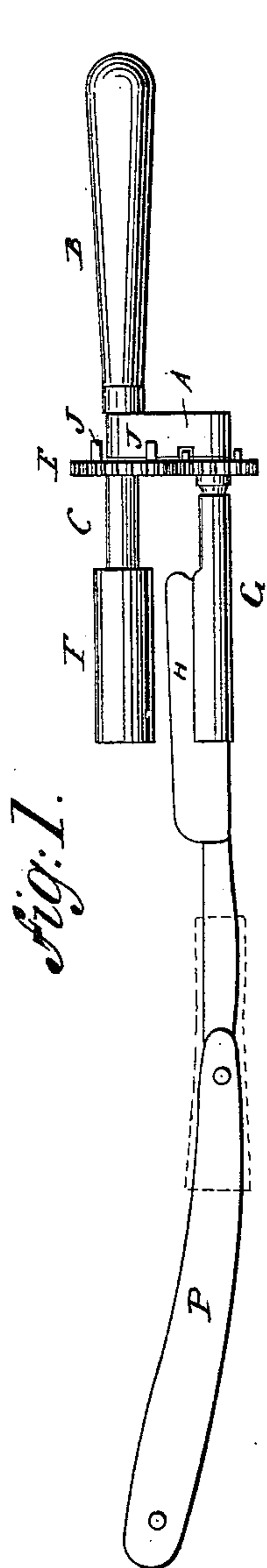
(No Model.)

2 Sheets—Sheet 1.

F., R. & O. KAMPFE.  
RAZOR STROPPING DEVICE.

No. 405,961.

Patented June 25, 1889.



WITNESSES:  
*A. Schehl.*  
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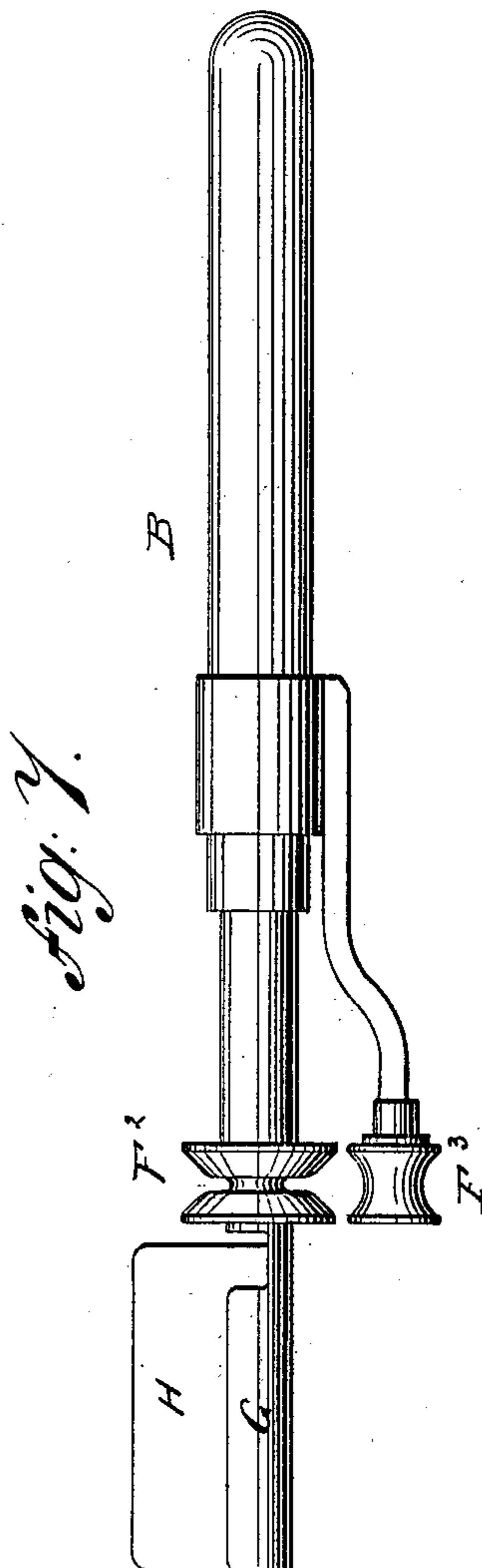
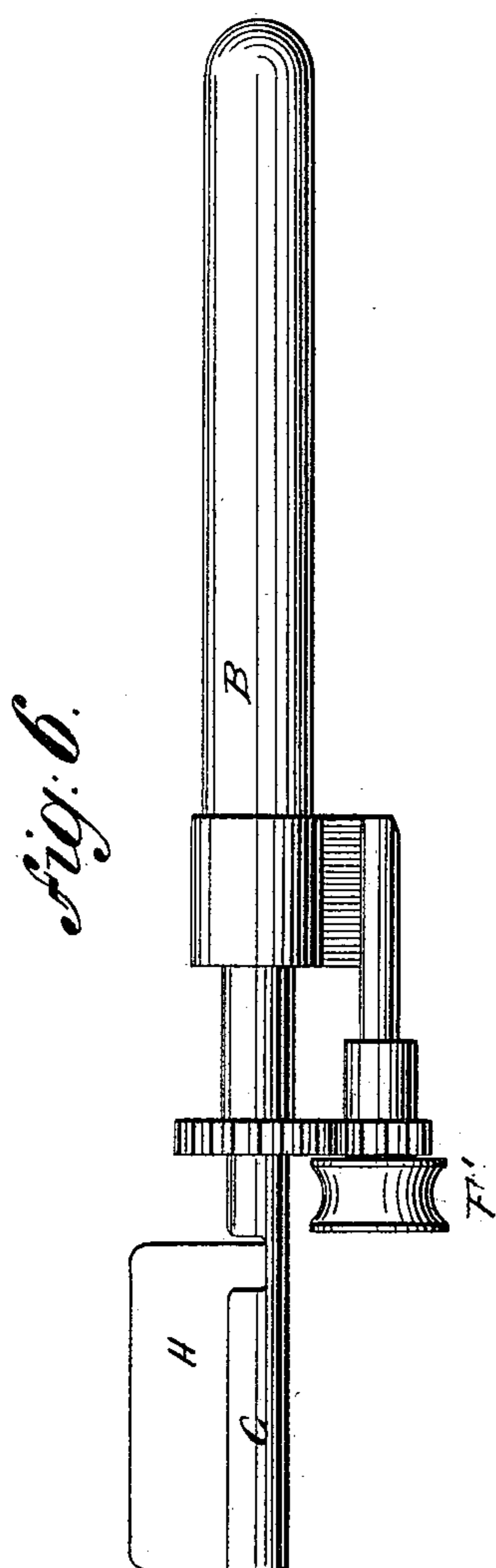
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# UNITED STATES PATENT OFFICE.

FREDERICK KAMPFE, RICHARD KAMPFE, AND OTTO KAMPFE, OF BROOKLYN,  
NEW YORK.

## RAZOR-STROPPING DEVICE.

SPECIFICATION forming part of Letters Patent No. 405,961, dated June 25, 1889.

Application filed March 12, 1889. Serial No. 303,003. (No model.)

*To all whom it may concern:*

Be it known that we, FREDERICK KAMPFE, RICHARD KAMPFE, and OTTO KAMPFE, of the city of Brooklyn, county of Kings, and State of New York, citizens of the United States, have invented certain new and useful Improvements in Razor-Stropping Devices, of which the following is a specification.

Persons that are not skilled in stropping razors usually make the great mistake of turning the razor-blade over the edge while stropping, instead of over the back, thereby ruining the cutting-edge of the razor and rendering the same absolutely worthless.

The object of our invention is to provide a new and improved device for holding razor-blades and automatically reversing the same over the back of the blade at the end of the stroke, thereby rendering turning on the edge impossible.

The invention consists in a razor-stropping device provided with a friction-roller for automatically reversing or turning the blade over its back at the end of each stroke.

The invention also consists in the construction and combination of parts and details, as will be fully described hereinafter, and finally be pointed out in the claims.

In the accompanying drawings, Figure 1 is a longitudinal view of our improved razor-stropping device, showing it as used for stropping an ordinary razor. Fig. 2 is an enlarged side view of our improved razor-stropping device. Fig. 3 is an end view of the same, the blade being in section. Fig. 4 is a vertical transverse sectional view on line  $x x$ , Fig. 2; and Fig. 5 is a similar view on line  $y y$ , Fig. 2. Figs. 6 and 7 are side views of further modifications.

Similar letters of reference indicate corresponding parts.

On a block A, provided with a handle B, the two parallel spindles C and D are mounted to turn, said spindles carrying the two cog-wheels E and F, respectively, which cog-wheels are engaged with each other. On the spindle C a friction-roller F, covered with leather, rubber, fabric, or any other suitable material that produces friction, is rigidly mounted, and on the spindle D a longitudinally-slotted blade-holder G is mounted, which is adapted

to receive the cutting-blade H. From the under side of the cog-wheel E two pins J J project, which can strike against the sides of the box or block A and serve for limiting the relative movements of said cog-wheel and spindle C. From the under side of the cog-wheel F two pins K project, which can pass through notches L in the sides of the block or box A at the top edge and can press against the shanks of a spring M, located in a recess in the top of the block A and held at one end by a pin N. The handle B is so fixed on the block A that its axis will form a continuation of the axis of the spindle C.

The blade H is placed in the blade-holder G and the instrument placed on a razor-strop in such a manner that the roller F rests truly upon said strop. The implement is then moved in the direction of the arrow  $x'$ , Figs. 1 and 2. The friction of the roller F on the strop causes said roller to turn in the direction of the arrow  $x^2$  until one of the pins J strikes against the side of the block A. The blade H is then in the position shown in Fig. 3 and is drawn over the strop. When the end of the strop is reached, the implement is moved in the inverse direction of the arrow  $x'$  and the friction of the roller on the belt rotates the roller in the inverse direction of the arrow  $x^2$ , and thereby the blade-holder G is rotated in the direction of the arrow  $x^3$  by the cog-wheels E and F. Thus the blade is reversed over the back, and when it arrives at the end of the stroke it is again moved in the direction of the arrow  $x'$ , and so on. There is thus no possibility of turning the blade on its cutting-edge. Every time the blade is reversed one of the pins K passes through one of the notches L and bears on one of the shanks of the spring M, slightly pressing the same inward. This spring is under tension as long as the roller F is pressed on the belt; but as soon as pressure on the roller is released said spring expands and throws the edge of the blade slightly from the face of the strop, thereby preventing the edge of the blade from cutting into the strop in case the blade is moved along the strop while not pressing on the roller F, so as to produce the necessary friction. In case more friction is desired two friction-rollers F may be provided, one at each

side of the blade-holder, as shown in dotted lines in Fig. 3.

In case an ordinary razor is to be stropped the handle P must be held in line with the blade, and this is accomplished by drawing a rubber tube over the joint, as shown in dotted lines in Fig. 1.

If desired, the friction-roller may be made smaller and grooved, as shown at F' in Fig. 6, in which case the friction-roller travels on a separate friction-piece at the side edge of the strop, so that when the direction in which the implement is moved is reversed the blade will also be reversed and turned on its back.

If desired, a grooved friction-roller F<sup>2</sup> may be applied on the blade-holder itself, as shown in Fig. 7, and over said pulley a cord is to be passed, which is arranged at the side of the strop, or the cord can be passed over the roller and an additional roller F<sup>3</sup> on an arm of the handle.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. In a razor-stropping device, the combination, with the blade-holder, of a spindle adjacent to the blade-holder and carrying a friction-roller, and gearing for transmitting motion from the spindle carrying the friction-

roller to the blade-holder, substantially as set forth.

2. In a razor-stropping device, the combination, with a block, of two parallel spindles, one carrying a blade-holder and the other a friction-roller, gearing for transmitting motion from the spindle carrying the friction-roller to the spindle carrying the blade-holder, and check-pins on the gear-wheel on the roller-spindle, substantially as set forth.

3. In a razor-stropping device, the combination, with the block, of two parallel spindles on the same, a friction-roller on one spindle, a blade-holder on the other spindle, cog-wheels on said spindle, check-pins on the cog-wheel of the roller-spindle, pins on the cog-wheel of the blade-holder spindle, and a spring against which the pins on the cog-wheel of the blade-holder spindle can press, substantially as set forth.

In testimony that we claim the foregoing as our invention we have signed our names in presence of two subscribing witnesses.

FREDERICK KAMPFE.  
RICHARD KAMPFE.  
OTTO KAMPFE.

Witnesses:

WILBUR RANKIN,  
JOHN A. STRALEY.