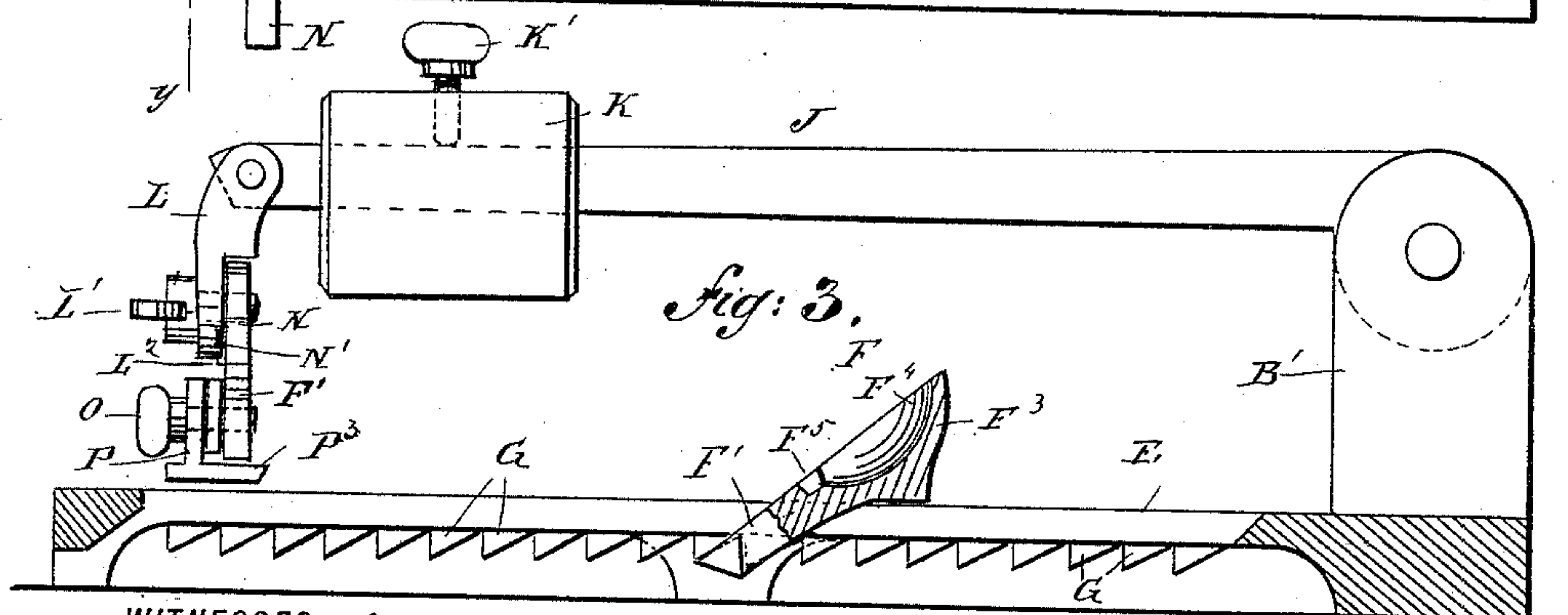
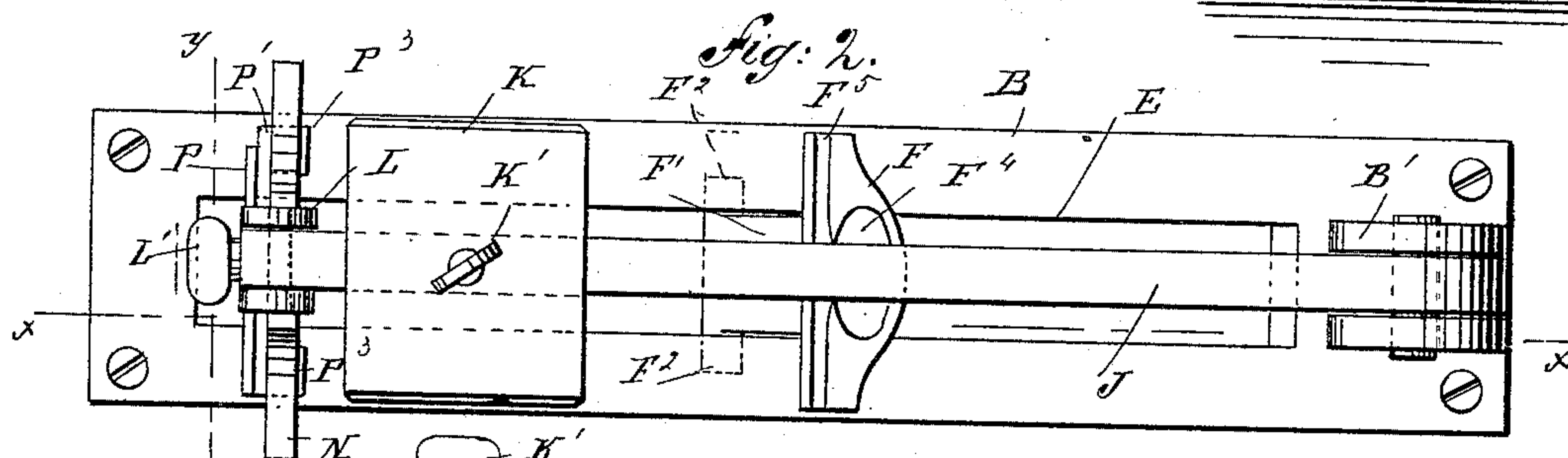
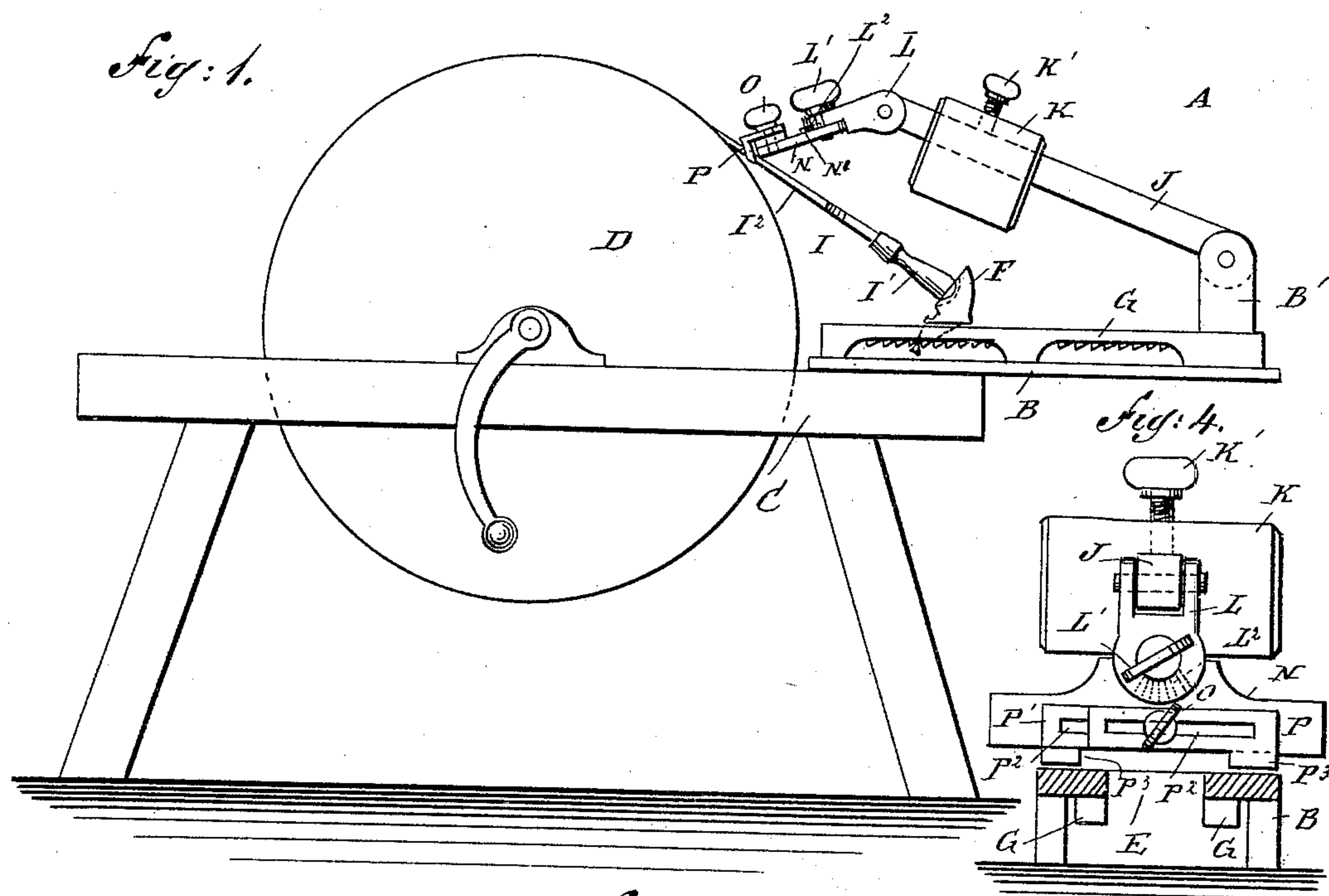


(No Model.)

A. H. DICK.  
GRINDSTONE TOOL HOLDER.

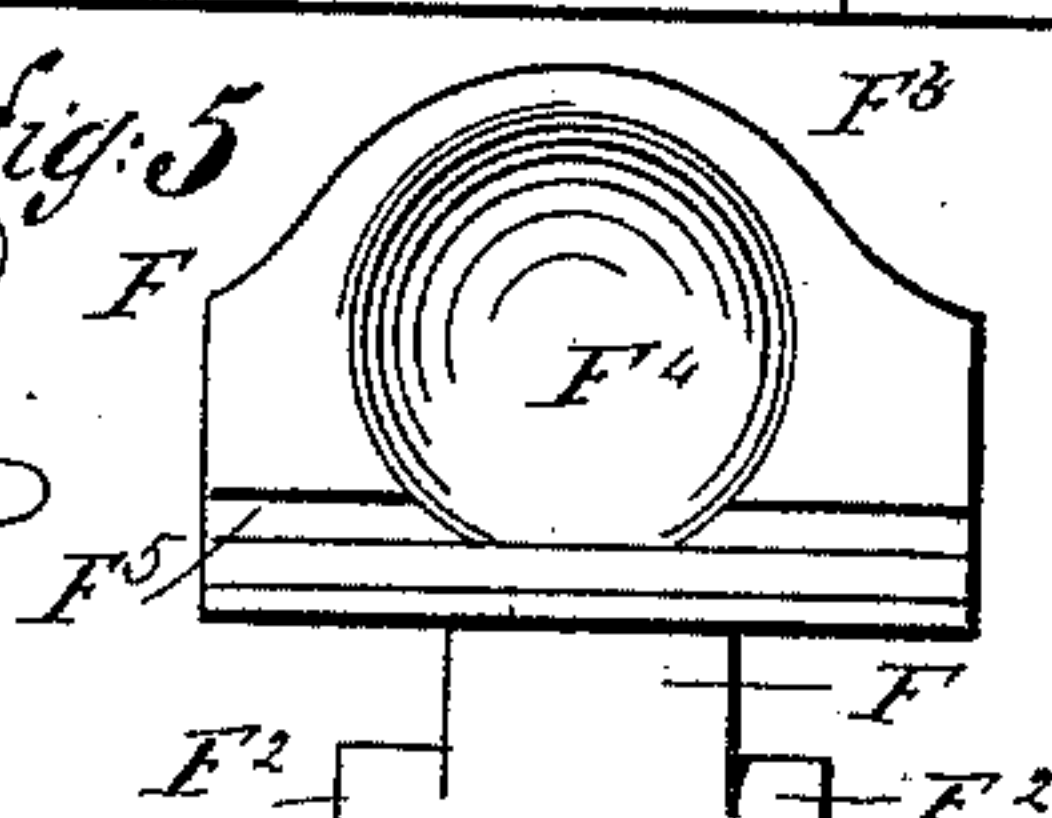
No. 411,217.

Patented Sept. 17, 1889..

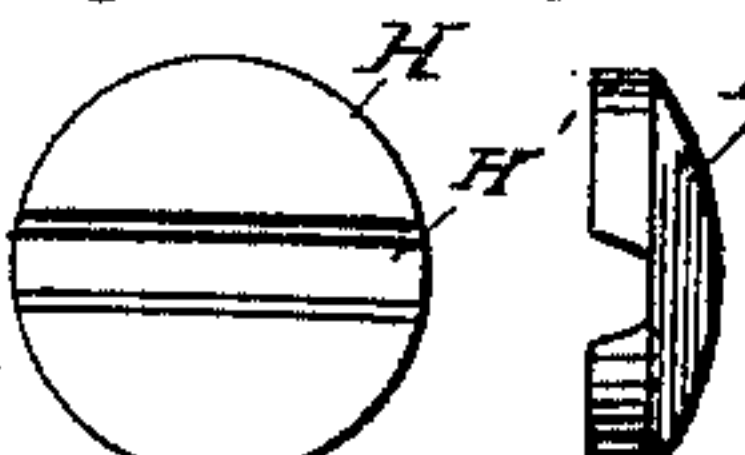


**WITNESSES:**

WITNESSES: *Geo. A. Nida*  
*C. Sedgwick*



*Fig: 6. Fig: 7.*



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**INVENTOR:**

A. A. Dick  
Munn & Co

**ATTORNEYS.**



# UNITED STATES PATENT OFFICE.

ALEXANDER H. DICK, OF CRAMER'S HILL, NEW JERSEY.

## GRINDSTONE TOOL-HOLDER.

SPECIFICATION forming part of Letters Patent No. 411,217, dated September 17, 1889.

Application filed March 19, 1889. Serial No. 303,839. (No model.)

*To all whom it may concern:*

Be it known that I, ALEXANDER H. DICK, of Cramer's Hill, in the county of Camden and State of New Jersey, have invented a new and Improved Grindstone Tool-Holder, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved tool-holder which is simple and durable in construction, very effective in operation, and specially designed for automatically holding the tool in any desired position on the grindstone.

The invention consists of a bed-plate supporting the handle end of the tool, and of a weighted arm pivoted on the bed-plate and provided with a clamp engaging the tool-blade.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement as applied. Fig. 2 is an enlarged plan view of the improvement. Fig. 3 is a sectional side elevation of the same on the line  $xx$  of Fig. 2. Fig. 4 is a transverse section of the same on the line  $yy$  of Fig. 2. Fig. 5 is a face view of the tool-handle support. Fig. 6 is a face view of the attachment for the handle-support, and Fig. 7 is an end view of the same.

The improved tool-holder A is provided with a bed-plate B, adapted to rest on one end of the grindstone-frame C, supporting in the usual manner the grindstone D. In the bed-plate B of the holder A is formed a longitudinally-extending slot E, through which passes the shank  $F'$  of the tool-handle support F. On the lower end of the shank  $F'$  of the tool-handle support F are formed the sidewise-extending projections or lugs  $F^2$ , preferably made triangular in shape and adapted to engage the teeth G, formed on the under side of the bed-plate B.

The body part  $F^3$  of the tool-holder support F rests on top of the bed-plate on each side

of the slot E, and in the front and slightly-inclined surface is formed a spherical depression  $F^4$ , directly below which extends a transverse slot  $F^5$ . Into this depression  $F^4$  is set the end of the handle  $I'$  of the tool I, so as to hold the tool in place while the grinding takes place. The handle-support F can be moved forward or backward on the bed-plate B and locked in position at any desired point by the lugs  $F^2$  engaging the corresponding teeth G on the under side of the bed-plate. The groove  $F^5$  is adapted to receive plane-bits or tools of that kind, and the spherical recess  $F^4$  is adapted to receive handles of chisels or any tools with small or blunt ends. A button H, having a transversely-extending groove  $H'$ , may be placed in the depression  $F^4$ , and serves to hold rabbit-plane bits or any kind of a tool that is to be ground beveling, the button readily seating itself at the desired angle to which the tool is to be ground.

On the rear end of the bed-plate B is formed a lug  $B'$ , on which is pivoted one end of an arm J, carrying a weight K, mounted to slide on the said arm J and adapted to be locked in place at any desired point on the said arm J by a set-screw  $K'$ . On the free end of the arm J is hinged a plate L, limited in its upward movement by abutting against the square end of the arm J. In the plate L is held a set-screw  $L'$ , on which is pivoted an arm N, mounted to swing horizontally and adapted to be locked in place on the plate L by the set-screw  $L'$ .

The outer end of the arm N extends transversely, and in the middle of it screws a screw O, passing through slots  $P^2$ , formed in the transversely-extending clamping-arms P and  $P'$ , each having on its outer end a downwardly-projecting lug  $P^3$ , between which lugs the blade  $I^2$  of the tool I is passed, as is plainly shown in Fig. 1.

On the arm N are arranged a number of radial teeth  $N'$ , adapted to engage correspondingly-shaped notches  $L^2$ , formed on the under side of the pivoted plate L, so that the arm N, when the screw  $L'$  is loosened, can be swung to any desired position horizontally and locked in place by screwing up the screw  $L'$ , so that the teeth  $N'$  engage the notches  $L^2$  on the under side of the plate L.



The device is used as follows: The tool-holder support F is adjusted on the bed-plate according to the length of the tool I, which has its handle end I' placed on the said support, as before described, and shown in Fig. 1. The blade I<sup>2</sup> of the tool I extends toward the grindstone D and is passed between the lugs P<sup>3</sup> of the clamping-arms P P', which latter are moved toward each other until the lugs firmly engage the sides of the tool-blade. The set-screw O is then screwed up, so as to lock the clamping-arms in place on the arm N. The latter is locked in place on the hinged plate L by the set-screw L', and then the operator adjusts the weight K according to the desired pressure with which the tool-blade I<sup>2</sup> is to be held in contact with the grindstone D. It will be seen that when the tool I is thus adjusted and held by the tool-holder the latter automatically presses the blade I in contact with the periphery of the grindstone, so that all the operator has to do is to turn the grindstone and the tool will be ground. The arm N is made to swing horizontally, so as to place the tool-blade I<sup>2</sup> in any desired position in order to grind a bevel on the blade.

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

1. A tool-holder comprising a bed-plate, a weighted arm pivoted on the said bed-plate and carrying a clamp for clamping the tool-blade, and a support held adjustably on the said bed-plate and adapted to receive the handle end of the tool, substantially as shown and described.

2. A tool-holder comprising a longitudinally-adjustable support adapted to receive the handle end of the tool, a pivoted arm carrying an adjustable weight, and a clamp pivoted on the said arm and adapted to clamp the tool-blade, substantially as shown and described.

3. In a tool-holder, the combination, with a bed-plate, of a support held longitudinally adjustable on the said bed-plate and adapted to support the handle end of the tool, an arm pivoted on the said bed-plate, an adjustable clamp pivoted on the said arm, and a weight held adjustably on the said pivoted arm, substantially as shown and described.

4. In a tool-holder, the combination, with a pivoted arm, a weight held adjustably on the said arm, a plate pivoted on the free end of the said pivoted arm, a second arm pivoted on the plate and adapted to be locked in place on the same, a clamp held on the second pivoted arm and adapted to receive the tool-blade, and a longitudinally-adjustable support adapted to receive the handle end of the tool, substantially as shown and described.

5. In a tool-holder, the combination, with a bed-plate having a longitudinal slot and provided with teeth on its under side, of a tool-handle support comprising a recessed body, a shank held on the said body and projecting through the said longitudinal slot, lugs held on the said shank and adapted to engage the said teeth on the bed-plate, and a button having a transverse slot and adapted to rest in the said recessed body, substantially as shown and described.

6. In a tool-holder, the combination, with a pivoted arm, of a weight held to slide thereon, a set-screw for fastening the said weight in place on the said arm, a plate hinged on the said arm and provided with notches, a second arm pivoted on the said plate and provided with teeth adapted to mesh into the said notches, and an adjustable clamp held on the said second arm and adapted to clamp the tool-blade, substantially as shown and described.

ALEXANDER H. DICK.

Witnesses:

J. W. JULIEN,  
ABSALOM ROSE.