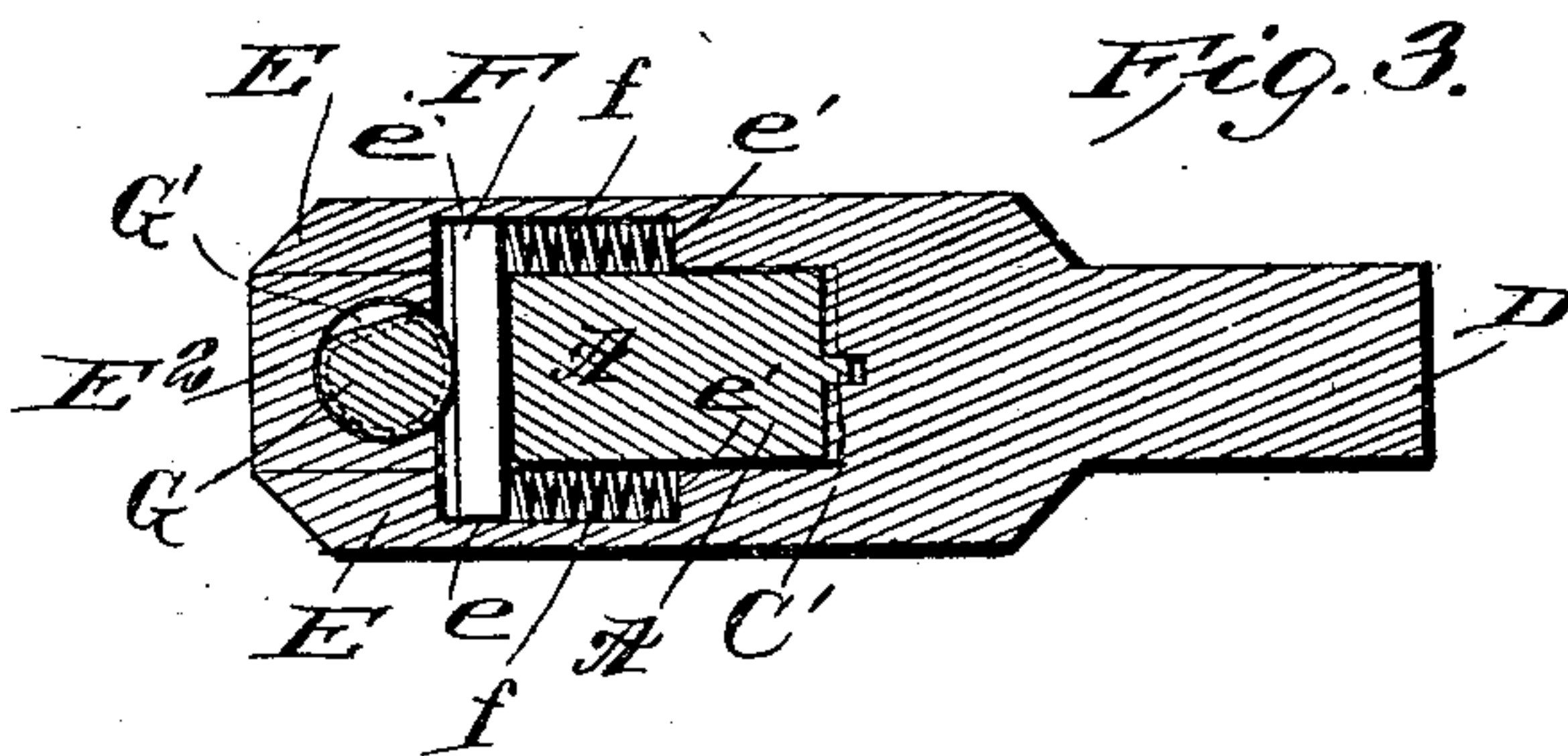
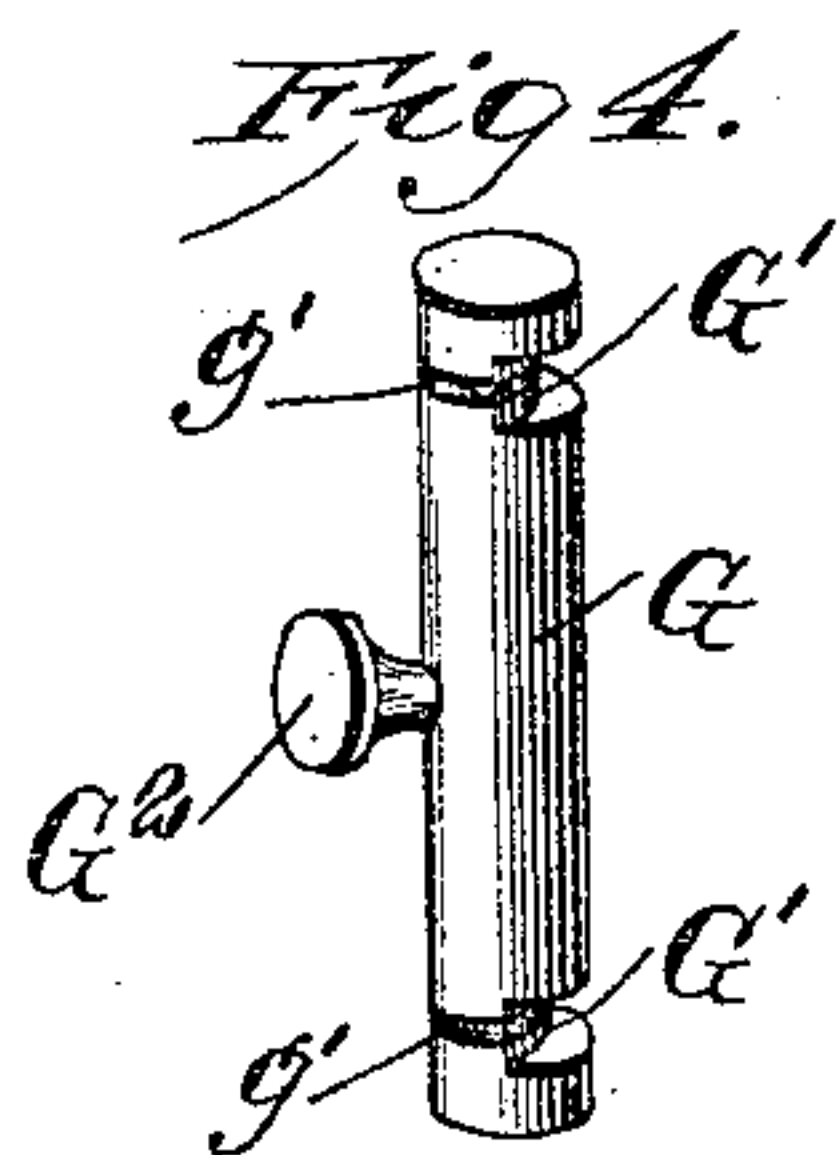
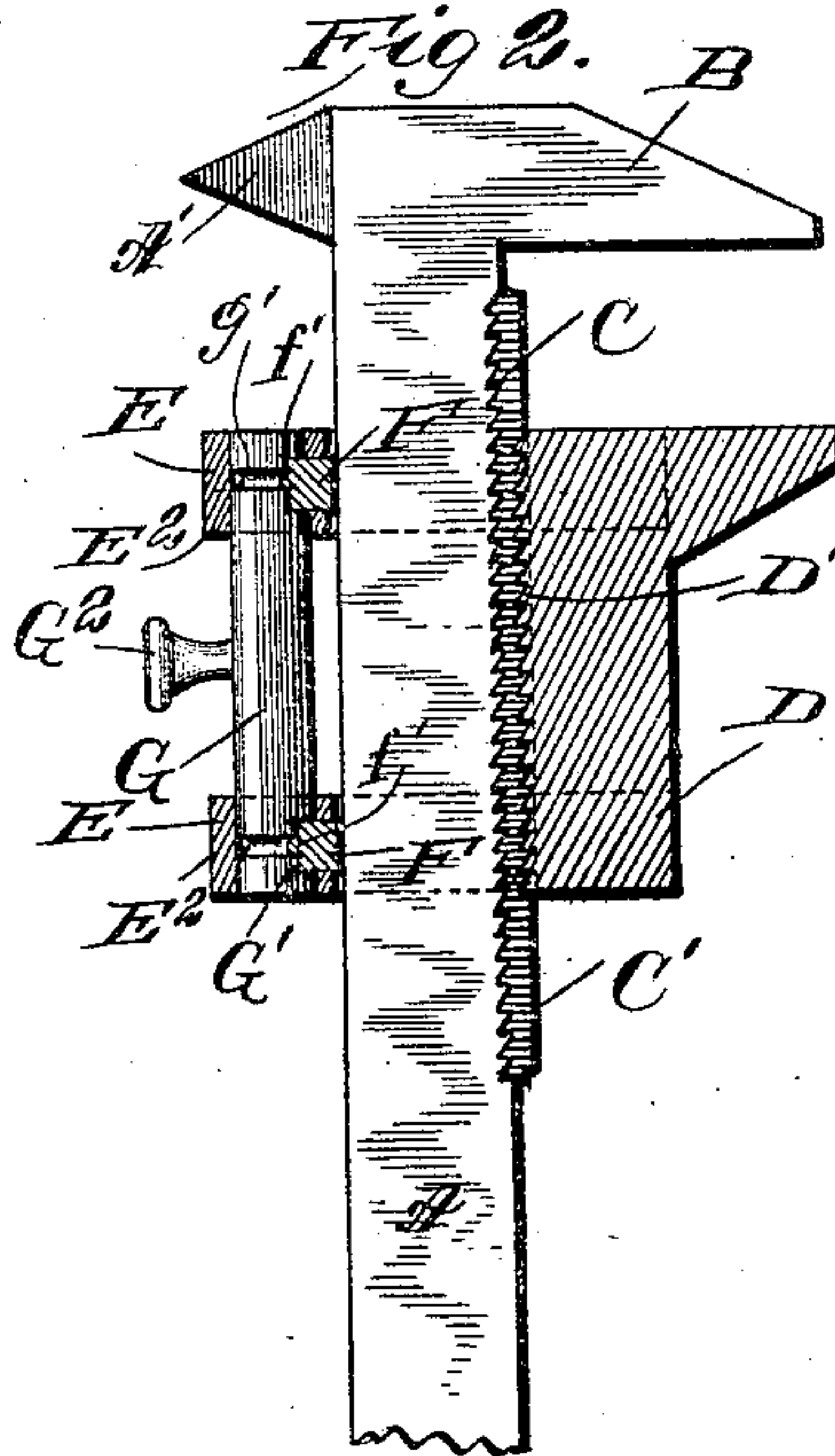
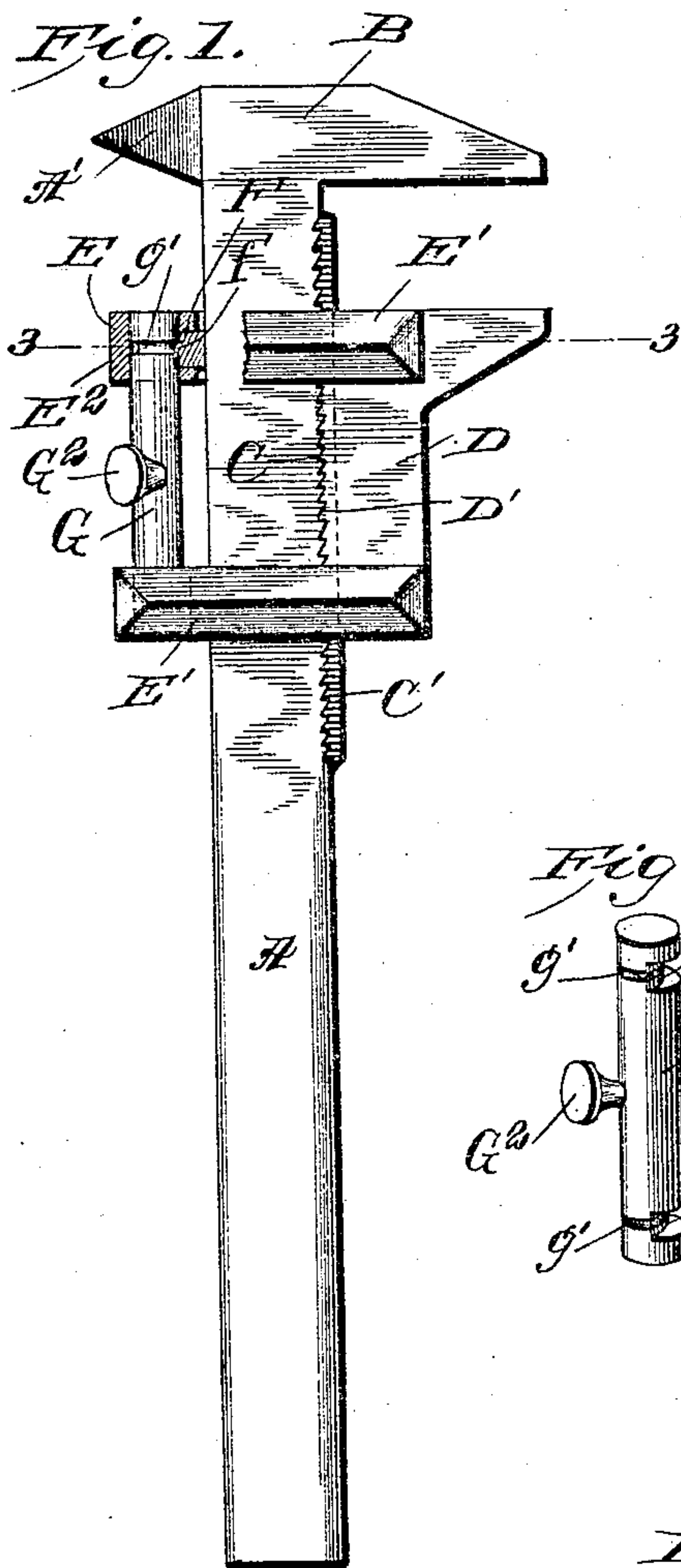


No. 856,169.

PATENTED JUNE 4, 1907.

F. C. MAGENHEIMER.
WRENCH.

APPLICATION FILED MAR. 5, 1907.



WITNESSES
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UNITED STATES PATENT OFFICE.

FRANKLIN C. MAGENHEIMER, OF EVANSVILLE, INDIANA.

WRENCH.

No. 856,169.

Specification of Letters Patent.

Patented June 4, 1907.

Application filed March 5, 1907. Serial No. 360,667.

To all whom it may concern:

Be it known that I, FRANKLIN CHRISTIAN MAGENHEIMER, a citizen of the United States, and a resident of Evansville, in the county of Vanderburg and State of Indiana, have invented an Improvement in Wrenches, of which the following is a specification.

My invention is an improvement in monkey wrenches, and consists in certain novel constructions and combinations of parts as will be hereinafter described and claimed.

In the drawing, Figure 1 is a side elevation partly in section of a wrench embodying my improvements showing the sliding jaw locked in position. Fig. 2 is a similar view showing the sliding jaw released, so it may be adjusted along the handle. Fig. 3 is a cross section on about line 3—3 of Fig. 1. Fig. 4 is a detail view of the operating shaft.

The handle A is provided with the fixed jaw B, and is provided on its front face below the said jaw B with serrations C, and midway between the opposite edges of said front face with a rib C' extending across and projecting beyond the serrations—see Fig. 2—to form a guide and brace for the sliding jaw D as the latter moves along the handle, and also to aid in securing the serrations D' on the inner face of the sliding jaw in engagement with the serrations C on the handle A, as will be understood from Figs. 1, 2 and 3. It will be noticed that when the sliding jaw is engaged with the serrations of the handle, as shown in Fig. 1, it will be locked in position, and that when free from such engagement, as shown in Fig. 2, it may be adjusted along the handle bar to any desired position.

In securing the sliding jaw in its different adjustments, I provide it at its upper and lower ends with upper and lower loop frames E, embracing the handle A and having their side bars E' extending along the opposite sides of the handle A, with their cross bars E² connecting the side bars E' in rear of the handle A, as will be understood from Figs. 1, 2 and 3. Spring actuated blocks F are arranged between the rear cross bars E² and the rear face of the handle A, and are spring actuated normally away from the handle A. In the construction shown in Fig. 3, these blocks F project at their ends into recesses e in the inner faces of the side bars E', and springs f operate in said recesses between abutments e' and the front faces of the blocks F—see Fig. 3—in such manner as to

press the blocks rearwardly when the said blocks are free to move in such direction. By this construction it will be noticed that when the blocks are in the position shown in Fig. 2, the serrations D' will be out of engagement with the serrations C of the handle, but if the blocks be adjusted to the position shown in Fig. 1, the serrations D' and C' will be engaged as shown in the said Fig. 1. For operating the blocks, I provide the shafts G journaled in the upper and lower cross bars E² and having eccentric portions G' operating upon the blocks F, said eccentric portions being preferably formed by grooving on side of a round or cylindrical pin or shaft as best shown in Fig. 4. I also prefer to groove the eccentric portions G' at g' to receive ribs f' on the blocks in such manner as to prevent longitudinal displacement of the operating shaft in all positions thereof.

In the operation of the described construction, it will be noticed that the shaft G may be partially rotated by its handle G² which projects from it at a point midway between the upper and lower loop frames, and as it is so turned it will operate upon the blocks F in such manner as to draw the serrations D' into engagement with the serrations C, and to free the said serrations from engagement as may be desired.

I claim:

1. The wrench herein described, comprising the handle bar having the jaw and provided on its front face with serrations and with a longitudinal rib or bead crossing the same, a sliding jaw having on its inner face serrations to engage with those on the handle bar, and a longitudinal groove to receive the rib on said handle bar, loop frames projecting rearwardly from said sliding jaw at its upper and lower ends, and embracing the handle bar, and provided with the side bars and with the rear cross bars, the latter having bearings for an operating shaft and the side bars being provided in their inner faces with longitudinal recesses, springs in said recesses and bearing against the front walls thereof, blocks in rear of the handle bar and projecting at their ends into the recesses in the side bars in rear of the springs in said recesses, such blocks being provided on their rear faces with beads or projections to enter grooves in an operating shaft, and an operating shaft journaled in the bearings of the upper and lower cross bars, and provided with eccentric portions operating upon the blocks and having circumferen-

tially extending grooves in said eccentric portions to receive the ribs or projections on the blocks, substantially as set forth.

2. A wrench comprising a handle bar, a jaw sliding thereon, and having rearwardly projecting loop frames embracing the handle bar, and provided in rear thereof with cross bars having bearings for an operating shaft, an operating shaft journaled in said bearings having eccentric portions, and blocks between said eccentric portions and the handle bar, substantially as and for the purposes set forth.

3. The combination of a handle bar, a jaw sliding thereon and having a rearwardly projecting loop frame, embracing the handle bar, an operating shaft journaled in the rear cross bar of said loop frame, and having a cam, a block operated by said cam and arranged between the same and the rear face of the handle bar, and a spring operating upon said block, substantially as set forth.

4. A wrench comprising a handle bar, a jaw sliding along the same, and provided with upper and lower loop frames embracing the handle bar, and having rear cross bars provided with bearings for an operating shaft, an operating shaft journaled in said bearings and having cam portions, and spring actuated blocks operating between said cam portions of the operating shaft and the rear face of the handle, substantially as set forth.

5. A wrench having a handle provided with serrations, and with a longitudinal bead or rib crossing the same, a sliding jaw having in its inner face serrations to engage with

those of the handle, and a groove to receive the bead or rib on the handle, and means for holding the sliding jaw with its serrations in engagement with those of the handle bar, substantially as set forth.

6. The combination in a wrench, of a handle bar, a jaw sliding along the same and having loop frames embracing the handle bar, and provided with cross bars having bearings for an operating shaft, an operating shaft journaled in said bearings in rear of the handle bar, and having eccentric portions and circumferentially extending grooves in said eccentric portions, and spring actuated blocks between said eccentric portions and the handle bar of the wrench, and provided with ribs or projections entering the circumferentially extending grooves of the said operating shaft, substantially as set forth.

7. A wrench comprising a handle bar, a jaw sliding along the same and having upper and lower loop frames embracing the handle bar and provided in rear thereof with cross bars having bearings for an operating shaft, an operating shaft journaled at its opposite ends in said bearings, and intermediate devices between the operating shaft and the handle bar, whereby the said shaft may be operated to draw the sliding jaw into engagement with the handle bar, substantially as set forth.

FRANKLIN C. MAGENHEIMER.

Witnesses:

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LILLIE GRAY.