

No. 743,482.

PATENTED NOV. 10, 1903.

R. H. A. GEISTERT.

WRENCH.

APPLICATION FILED APR. 8, 1903.

NO MODEL.

FIG. 1.

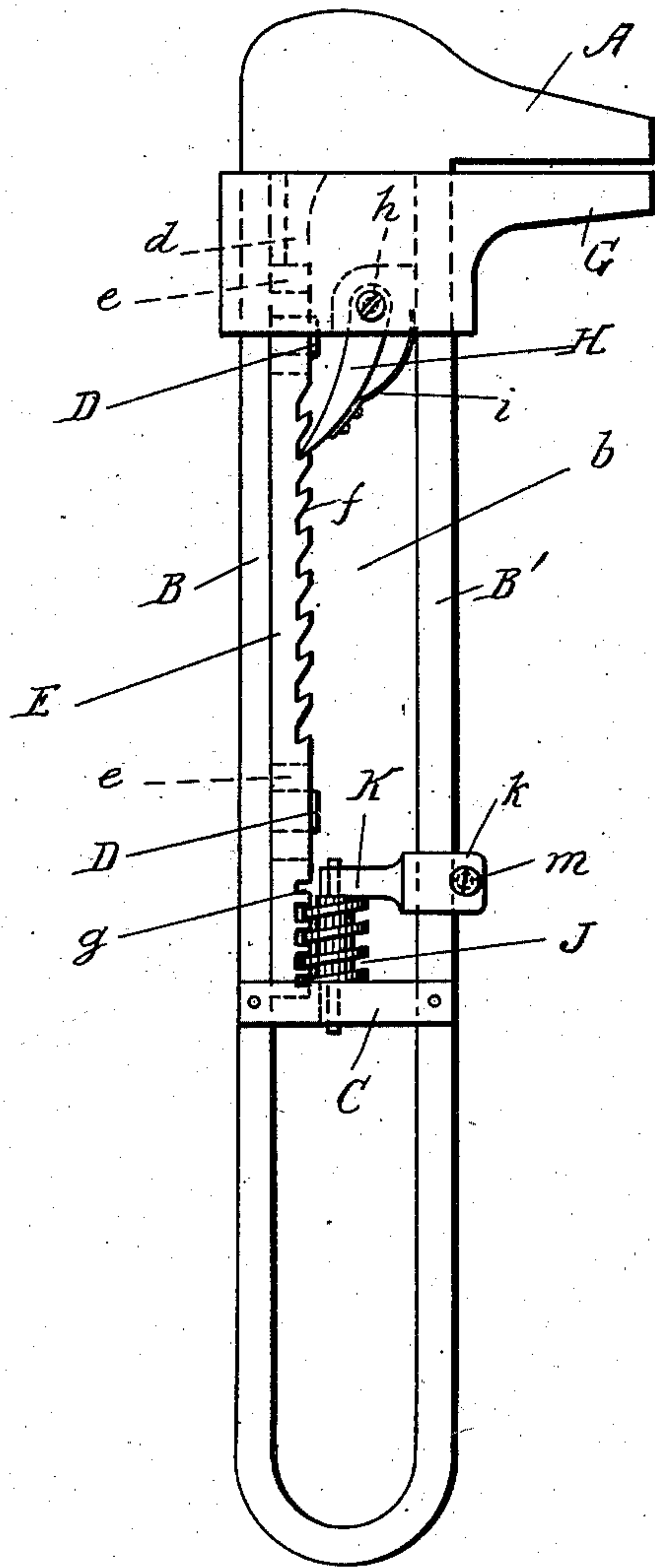
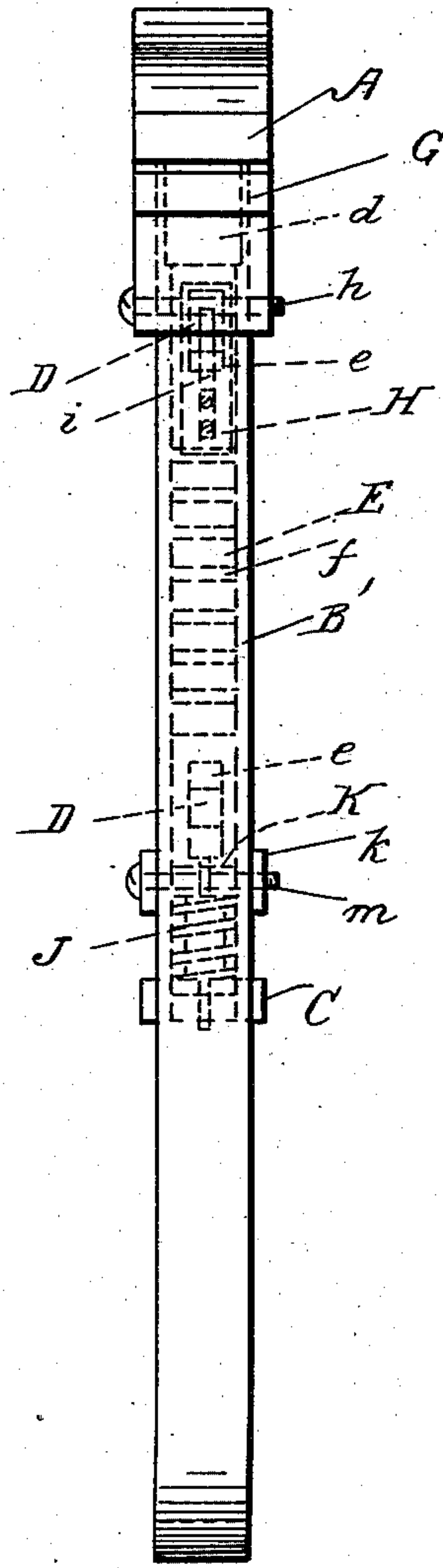


FIG. 2.



WITNESSES

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WRENCH.

SPECIFICATION forming part of Letters Patent No. 743,482, dated November 10, 1903.

Application filed April 8, 1903. Serial No. 151,642. (No model.)

To all whom it may concern:

Be it known that I, RUDOLPH H. A. GEISTERT, residing at Camden, Camden county, New Jersey, have invented certain new and useful Improvements in Wrenches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to wrenches; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a front view of the wrench, partly in section. Fig. 2 is a side view of the wrench.

A is a stationary wrench-jaw provided with a shank which is formed of two parallel bars B and B', having an open space *b* between them.

C is a bridge-piece between the two bars. This bridge-piece is arranged in the lower part of the space *b* at the upper part of the handle portion of the wrench, and it may be formed integral with the said bars or it may be rigidly secured to them by any approved fastening devices.

D represents two guide-blocks which project from the bar B inside the space *b*, and *d* is a stop at the upper part of the bar B.

E is a slidable rack-bar provided with slots *e*, which engage with the guide-blocks D. The rack-bar has inclined teeth *f* for the stop-pawl and teeth *g* for engaging with the adjusting worm or screw.

G is a slidable jaw which is slidable upon the bars B and B', and H is the stop-pawl, which is pivoted to the jaw G between the bars B and B' by a screw or pin *h* and which is pressed into engagement with the rack-teeth *f* by means of a spring *i*, which bears constantly against the bar B' and which also holds the rack-bar in position.

J is a revoluble worm or screw which engages with the teeth *g*. This worm is journaled in the bridge-piece C and in a bracket K. The bracket K is provided with a forked end portion *k*, which engages with the bar B', and *m* is a clamping-screw which contracts the forked end portion *k* upon the said bar and secures the bracket rigidly in position.

The wrench is specially adapted for quick action and fine adjustment. The slidable jaw is slid upon the shank, so as to adapt the jaws approximately to the nut or pipe to be operated on, and the worm is then revolved to adjust the slidable jaw with greater accuracy and within the space between any two of the teeth *f*.

This wrench is formed wholly of metal and is very simple in construction and is easily taken apart to be oiled or repaired.

What I claim is—

1. In a wrench, the combination, with a stationary jaw provided with a shank, of a rack-bar slidable against the said shank and provided with teeth, an adjusting-worm supported by the said shank and engaging with certain of the teeth of the said rack, a slidable jaw on the said shank, and a spring-pressed pawl pivoted to the said slidable jaw and engaging with certain other of the teeth of the said rack.

2. In a wrench, the combination, with a stationary jaw provided with a shank formed of two parallel bars one of which has projecting guides, of a slidable jaw mounted on the said shank, a toothed rack provided with slots which slide over the said guides, adjusting devices for moving the said rack longitudinally, a pawl pivoted to the said slidable jaw between the said bars, and a spring arranged between the said pawl and the other said bar and holding both the said rack and the said pawl in their operative positions.

3. In a wrench, the combination, with a stationary jaw provided with a shank formed of two parallel bars, and a bridge-piece between the said bars; of a rack-bar slidable against one of the said bars and provided with teeth *f* and *g*, a bracket secured to the other said bar, an adjusting-worm journaled in the said bridge-piece and bracket and engaging with the teeth *g*, and a spring-pressed pawl pivoted to the said slidable jaw and engaging with the teeth *f*.

In testimony whereof I affix my signature in presence of two witnesses.

RUDOLPH H. A. GEISTERT.

Witnesses:

ARTHUR COLSEY,
ANNA C. SMITH.