

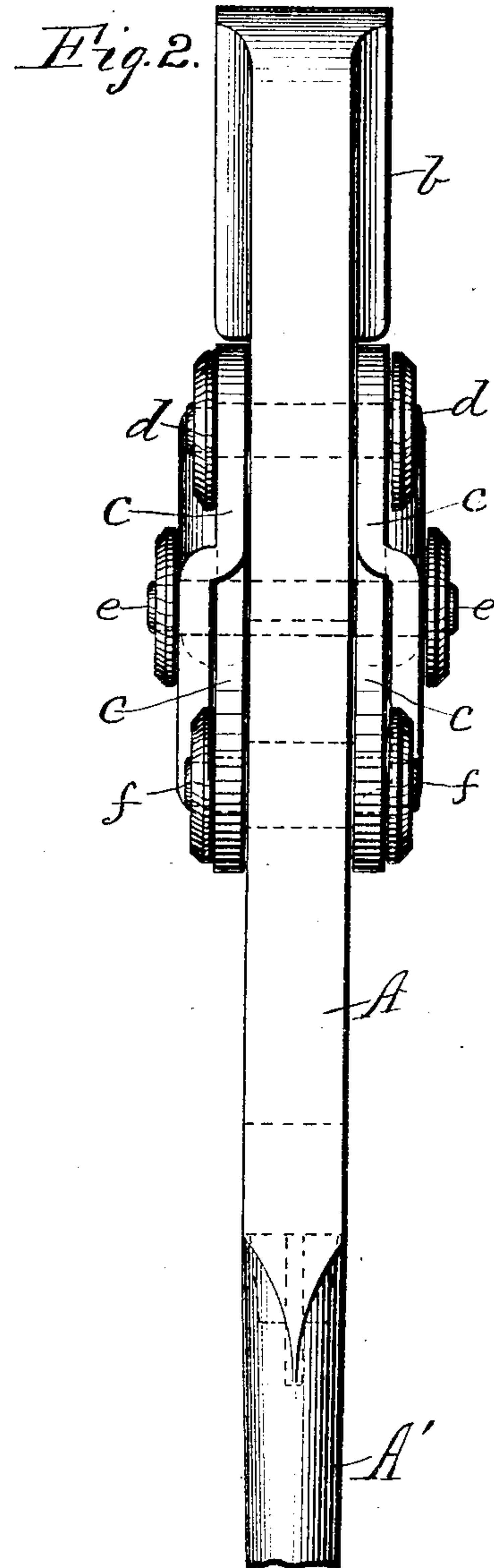
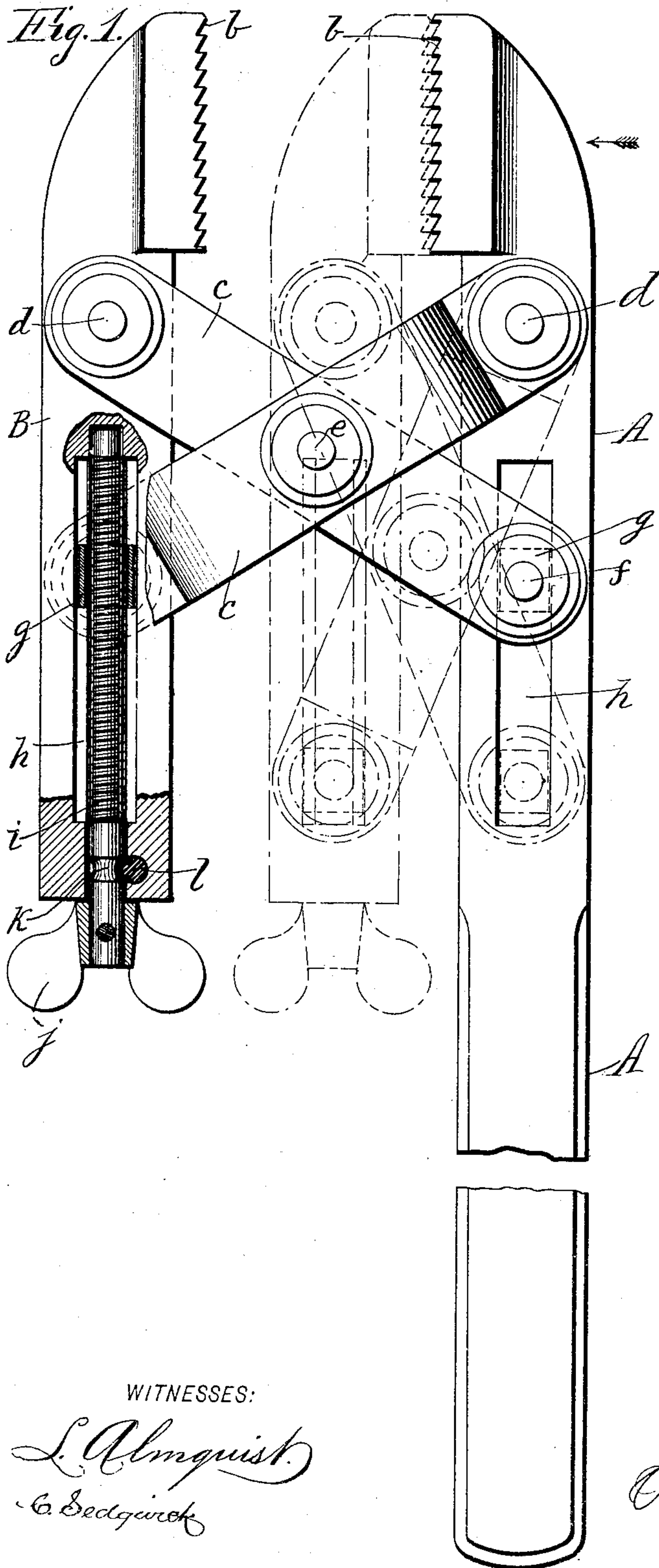
No. 771,248.

PATENTED OCT. 4, 1904.

J. P. HOLM.
WRENCH.

APPLICATION FILED DEC. 31, 1903.

NO MODEL.



WITNESSES:

L. Almquist.
C. Sedgwick

INVENTOR

John P. Holm
BY
A. O. Thayer,
ATTORNEY

UNITED STATES PATENT OFFICE.

JOHN P. HOLM, OF NEW YORK, N. Y.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 771,248, dated October 4, 1904.

Application filed December 31, 1903. Serial No. 187,261. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. HOLM, a subject of the King of Sweden and Norway, and a resident of the borough of Brooklyn, New York city, and State of New York, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

My invention consists of a pair of parallel jaw-bars having confronting jaws on one end and coupled by parallel-motion opening and closing links operated by an adjusting-screw fitted longitudinally on one of the jaw-bars, the length of which is limited to the requirements of the coupling-links and said screw, while the other jaw-bar is prolonged suitably for the wrench lever-handle, whereby a simple, efficient, positively adjusting, and substantial wrench is provided, as hereinafter described, reference being made to the accompanying drawings, in which—

Figure 1 is a side view of my improved wrench with some parts in section and with dotted lines indicating the operation. Fig. 2 is another side view as seen looking in the direction indicated by the arrow in Fig. 1.

A and B represent the parallel jaw-bars, each having a jaw portion *b* of one side near one end, said jaws facing each other suitably for gripping a nut, bar, or other object to be turned and being in this instance represented as serrated on their gripping-faces for "biting" to secure effective grip; but said faces may be plain, if desired. They may also be concaved lengthwise and convexed transversely or otherwise shaped, as preferred. These jaws are coupled on opposite sides by parallel-motion extension and contraction links *c*, each pivoted at one end to them at *d* and centrally

pivoted together at *e*. The other ends of these links are pivoted at *f* to sliding blocks *g*, fitted in longitudinal slideways *h* of the jaw-bars for allowing the necessary longitudinal traverse of pivots *f* to enable the parallel extension and contraction for opening and closing the jaws, as indicated by the dotted lines in Fig. 1. For so shifting these pivots an adjusting-screw *i* is fitted in the slideway *h* of one of the jaw-bars for rotation, but secured against lengthwise movement, and is screw-threaded in the slide *g*, so that by turning it with a thumb-nut *j* or other suitable means the opening and closing of the jaws *b* may be readily effected. In this case a groove *k* in the screw *i* and a pin *l* in the jaw B are provided to prevent lengthwise movement of the screw; but any other approved means may be employed.

The jaw-bar A has a lever-handle prolongation A' in excess of the length of the jaw-bar B of shorter length, as before stated.

What I claim as my invention is—

In a wrench, the combination of two parallel jaw-bars each having a confronting side jaw near one end, a longitudinal slideway and a pivot-carrying slide thereon, parallel-motion links pivoted at one end to said jaw-bars respectively, also centrally pivoted together, and at the other ends pivoted to said pivot-carrying slides, and the adjusting-screw fitted longitudinally in one of the jaw-bars and the pivot-carrying slide thereof.

Signed at New York this 16th day of December, 1903.

JOHN P. HOLM.

Witnesses:

C. SEDGWICK,
J. M. HOWARD.