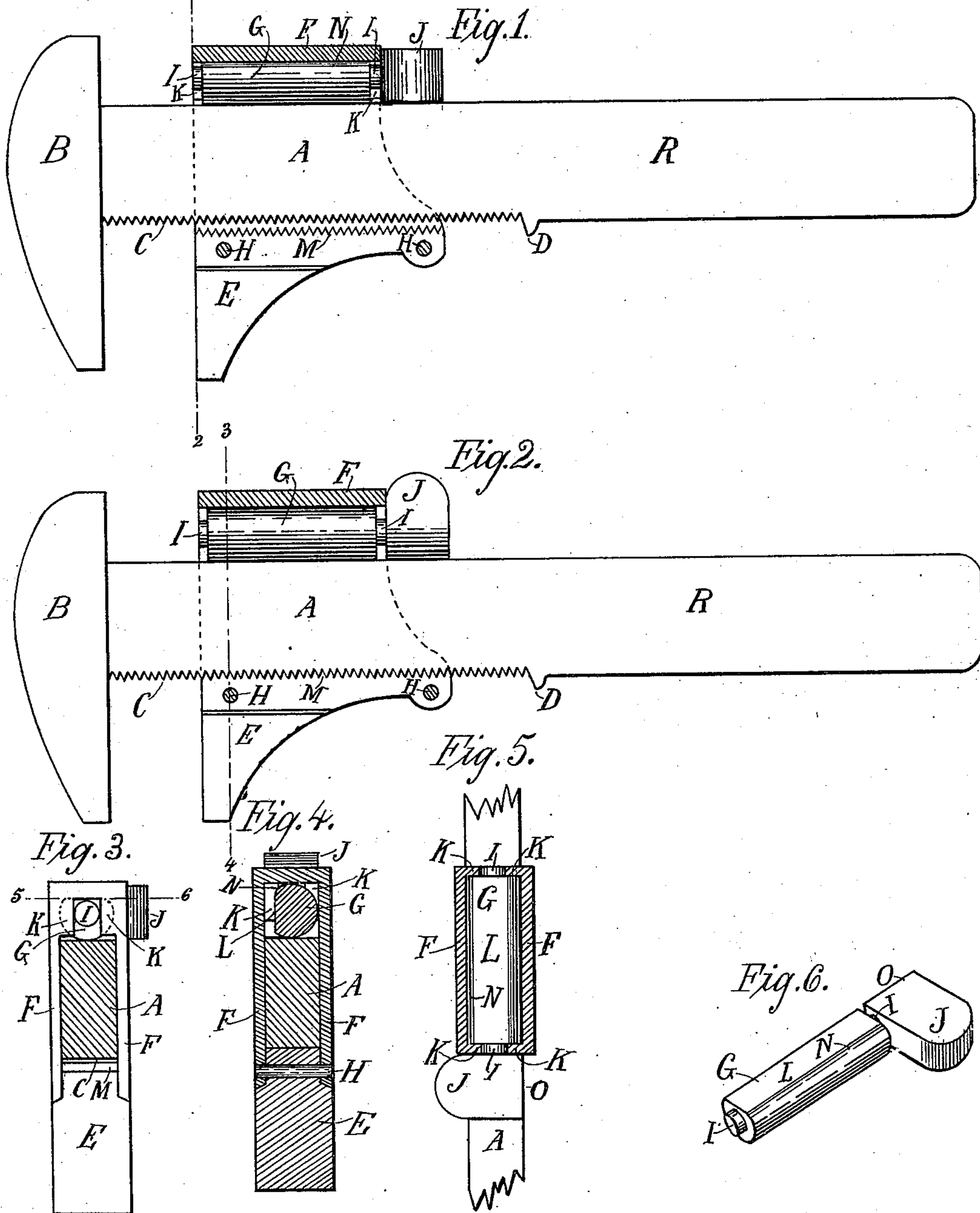


(No Model.)

C. C. ENGLISH & W. C. STRANAHAN.
WRENCH.

No. 599,895.

Patented Mar. 1, 1898.



Witnesses

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UNITED STATES PATENT OFFICE.

CLARENCE C. ENGLISH, OF PORTLAND, AND WILLIAM C. STRANAHAN, OF
HOOD RIVER, OREGON.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 599,895, dated March 1, 1898.

Application filed March 3, 1897. Serial No. 625,844. (No model.)

To all whom it may concern:

Be it known that we, CLARENCE C. ENGLISH, residing at Portland, in the county of Multnomah, and WILLIAM C. STRANAHAN, residing at Hood River, in the county of Wasco, State of Oregon, citizens of the United States, have invented a new and useful Wrench, of which the following is a specification.

Our invention relates to wrenches with a movable jaw locking by means of teeth on the under side of the shank engaging with similar teeth in the sliding jaw; and the objects of our improvement are, first, to afford facilities for locking the sliding jaw firmly in place, and second, to provide a simple adjustment by which the sliding jaw can be quickly and easily locked or unlocked with one hand. We attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation, with the sliding jaw shown in longitudinal section, through the journals of the locking-cam and along the inner surface of one of the side plates, showing the wrench unlocked. Fig. 2 is side elevation, with the sliding jaw shown in longitudinal section, through the journals of the locking-cam and along the inner surface of one of the side plates, showing the wrench locked. Fig. 3 is a vertical section of a part of the wrench on the lines 1 2, Fig. 1. Fig. 4 is a vertical section of a part of the wrench on the lines 3 4 of Fig. 2. Fig. 5 is a sectional top view of a part of the wrench on the lines 5 6 of Fig. 3. Fig. 6 is a view in perspective of the adjusting-roller.

Similar letters refer to similar parts throughout the several views.

The bar A, with its teeth C, constitutes the shank on which the adjustable jaw E slides, and, with its head B and projection D, constitutes the body of the wrench and extends out beyond the projection D and forms a handle R. The said projection serves as a stop to keep the movable jaw from sliding too far back. The jaw E is provided with teeth M and a sleeve F, which fits down over the shank A and is fastened to the jaw E with the rivets H H. Between the back of the shank A and sleeve F is an adjusting-roller G, which is provided with axles I I and a thumb-lever J.

The sleeve F is provided with guides K K at each end above the back of the shank A, between which the axles I I turn. (See Figs. 3 and 5.)

The roller G is not a complete cylinder, as it has a flat side L, which is flattened off enough to allow the sleeve F and jaw E to drop sufficiently to disengage the teeth on the shank A and the teeth in the jaw E when the said flat side L is turned up against the inside of the top of the sleeve F.

The sleeve F and jaw E, with the teeth M, are raised into place and locked to the shank A by turning the roller G to the right far enough to bring the thickest part of said roller between the center of the back of the shank A and the center of the top of the sleeve F. The corner N of the said roller is rounded off enough to allow it to tighten gradually as it is turned to the right. The said roller is made thick enough to fit tightly when turned to the right position and cramps against the back of the shank A and the inside of the top of the sleeve F enough to hold itself firmly in place.

The roller G is turned by means of the thumb-lever J, which is connected to one of the axles I and rests against the back end of the sleeve F and on the back of shank A, and when turned down at right angles with the side of the shank A the flat part of the roller G is up and the wrench is unlocked, and when the said lever is turned up in line with the sides of the shank A the thickest part of the said roller is directly under the center of the top of the sleeve F and the wrench is locked. The said lever has a square corner O, which comes in contact with the back of shank A when the said lever is turned up in line with the sides of shank A and prevents the roller G from being turned too far to the right. Therefore to change or adjust the wrench from one size to another it is only necessary to turn the said lever down, push the sliding jaw E to the desired point, and turn said lever up.

The roller G may be made flat on the opposite side from the one shown in the drawings, and, being down against the back of shank A when lever J is down, works equally as well and permits the sleeve F to be rounded across the top instead of square.

We are aware that prior to our invention
wrenches were made with a sliding jaw and
locked by teeth on the shank engaging with
teeth in the sliding jaw in various ways.
5 We therefore do not claim the combination
broadly; but

What we do claim as our invention, and de-
sire to secure by Letters Patent, is—

10 In a wrench the combination of a rigid jaw
having a shank toothed along one edge, with
a sliding jaw provided with teeth adapted to

engage the teeth of said shank, a roller-cam
seated between the back of the sliding jaw
and the upper edge of the shank of the rigid
jaw, and extending longitudinally along the 15
back of said shank, substantially as described.

CLARENCE C. ENGLISH.
WILLIAM C. STRANAHAN.

Witnesses:

CHARLES T. JENKINS,
OSCAR C. SCHLATTS.