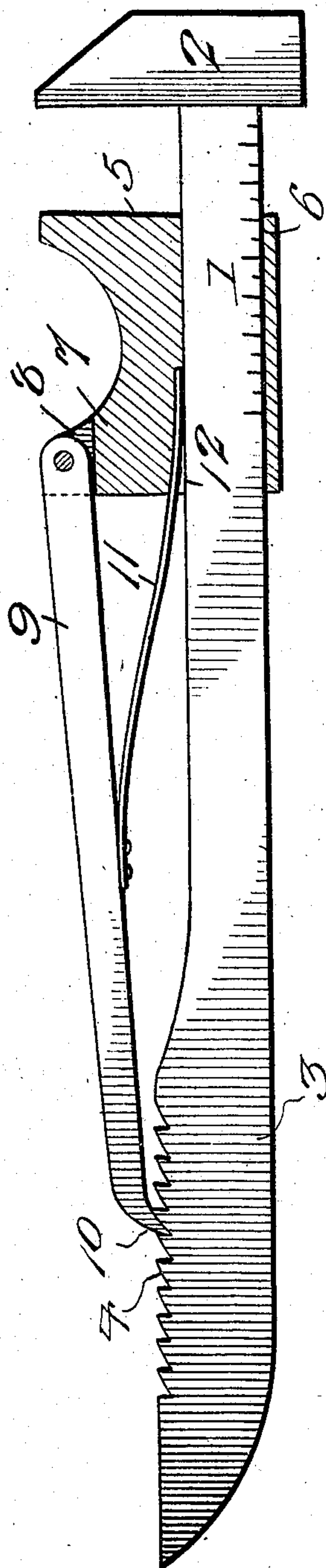


No. 847,916.

PATENTED MAR. 19, 1907.

J. D. DANIEL.
WRENCH.

APPLICATION FILED JUNE 27, 1905.



Witnesses

Wm. A. North,
Geo. Hickman

Inventor

J. D. Daniel,

By

Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

JEFFERSON D. DANIEL, OF PLEASANTHILL, GEORGIA.

WRENCH.

No. 847,916.

Specification of Letters Patent.

Patented March 19, 1907.

Application filed June 27, 1905. Serial No. 267,254.

To all whom it may concern:

Be it known that I, JEFFERSON D. DANIEL, a citizen of the United States, residing at Pleasanthill, in the county of Talbot and State of Georgia, have invented new and useful Improvements in Wrenches, of which the following is a specification.

The invention relates to an improvement in wrenches, and particularly to a wrench having a sliding jaw which is manually adjustable for coöperation with a fixed jaw.

The main object of the present invention is the production of means to permit the manual adjustment of the sliding jaw arranged and constructed to provide for speedy and accurate adjustment in a minimum of time.

The preferred details of structure of the invention will be described in the following specification, reference being had to the accompanying drawings, wherein is illustrated a view in side elevation, partially in section, of my improved wrench.

Referring to the drawings, my improved wrench comprises a shank 1, formed at one end with a fixed jaw 2 and enlarged at the lower end, as at 3, the face of said enlargement being formed with a series of serrations or teeth 4. The teeth may be in any desired number and may, if preferred, extend the entire length of said enlarged portion.

5 represents the sliding jaw, of suitable sectional dimensions and formed with the usual longitudinal opening 6 to slidably receive the shank 1. The sliding jaw is preferably formed with an extending portion 7 practically in alinement with the extreme free edge of the operative face of said jaw, which projection is bifurcated to provide ears 8, between which is pivotally mounted one end of an operating-lever 9. The opposite end of the lever is turned at an angle to its longitudinal plane and terminates in a point 10, designed to engage in the teeth 4 on the shank 1.

The lever 9 is maintained in normal engagement with the teeth 4 through the medium of a leaf-spring 11, which is terminally secured at one end to the lever 9 and which has its free end disposed in the direction of the sliding jaw 5. The free end of the spring 11 enters into a recess 12 when the lever 9 is swung to position its point 10 in engagement with the teeth 4. The recess 12 is formed in the upper wall of the shank-receiving opening 6 and opens out through

the lower end of the sliding jaw 5. The top wall of the recess 12 is outwardly and rearwardly inclined relatively to the shank to provide a flaring entrance, which guides the free end of the spring 11 into the recess when the lever 9 is operated to position its point 10 in engagement with the teeth 4. The location of the recess 12 permits the free end of the spring 11 to directly bear upon the shank and serves, in conjunction with the lever 9, to prevent looseness or rattling of the sliding jaw.

It will be noted that the extension 7 of the sliding jaw causes the lever 9 when in engagement with the teeth 4 to lie at an angle to the shank 1, in which position the effective resisting strain of said lever is practically the maximum, considering it is necessarily angular in position to properly engage the teeth 4.

In operation the lever 9 is manually disengaged from the teeth 4 and the sliding jaw adjusted to embrace the nut or other article between it and the fixed jaw, after which the lever is released and through the operation of spring 11 is forced into engagement with the teeth 4, locking the jaw in adjusted position and permitting the operator by simultaneously grasping the shank 4 and lever 9 to insure maintenance of the adjusted position in the operation of the wrench.

The wrench produced by my invention is of simple construction, comprising but two parts, the essential features being the angular relation of the lever to the shank when in normal position and the dual function of the spring in normally holding the lever in engagement with the teeth and preventing a loose engagement of the sliding jaw and shank.

Having thus described my invention, what I claim as new is—

A wrench comprising a shank having a fixed jaw, the lower end of the shank being formed with teeth, a sliding jaw provided with a shank-receiving opening and with a recess formed in the upper wall of the opening, said recess opening out through the lower end of the sliding jaw and having its upper wall outwardly and rearwardly inclined relatively to the shank to provide a flaring entrance, a lever pivotally secured to the sliding jaw and arranged to coöperate

with the teeth and a leaf-spring secured at one end to the lever and having its free end disposed in the direction of the sliding jaw for entrance into the recess when the lever is
5 swung into engagement with the teeth, the flaring entrance of the recess guiding the free end of the spring thereinto.

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

JEFF. D. DANIEL.

Witnesses:

J. H. COLLIER,
P. F. MAHONE.