

(No Model.)

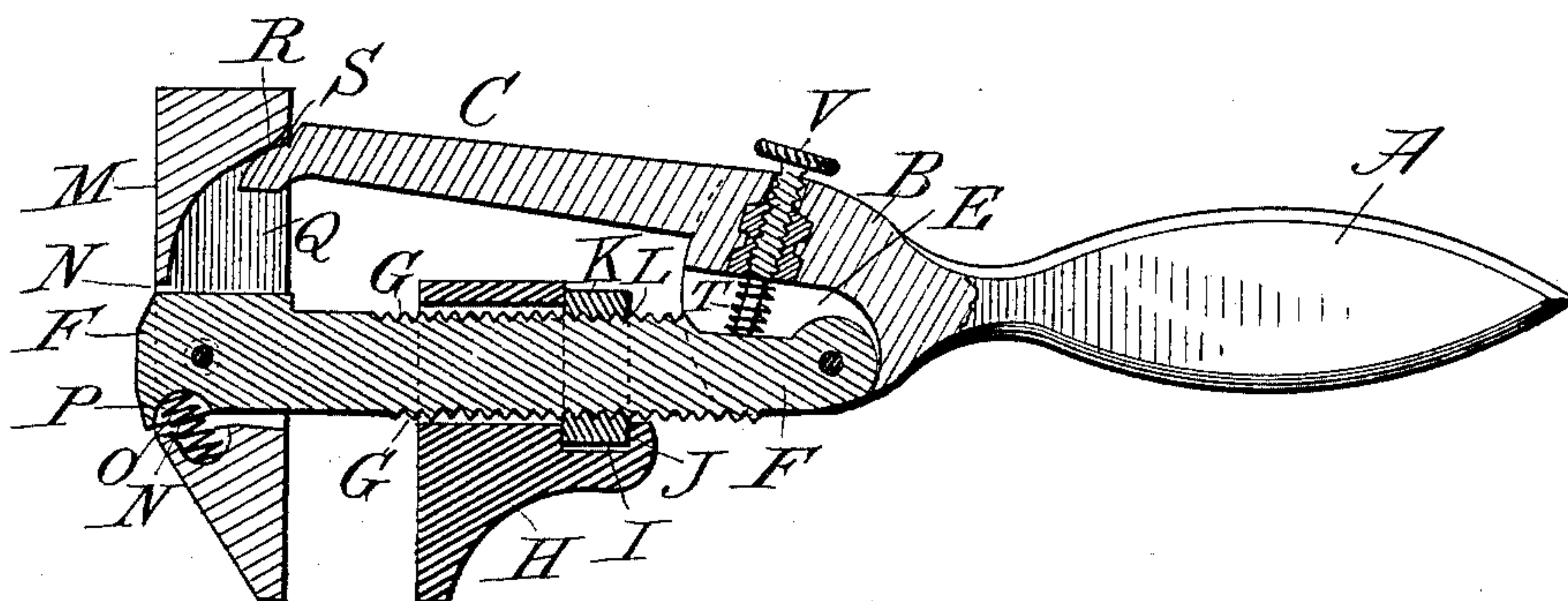
A. LANGSTROM.

WRENCH.

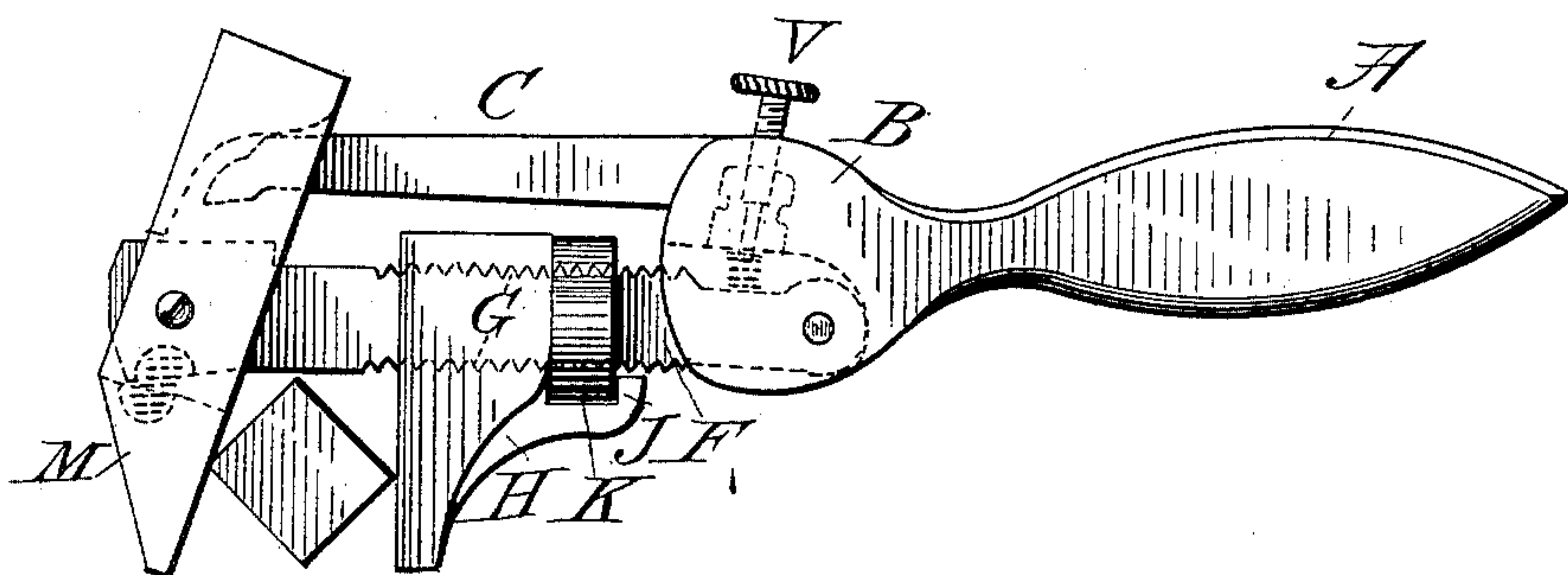
No. 327,559.

Patented Oct. 6, 1885.

*Fig. 1.*



*Fig. 2.*



*Attest:*

*H. H. Schott*

*W. A. Ruff*

*Inventor:*

*Albert Langstrom*

*By W. A. Smith*  
*att'y*

# UNITED STATES PATENT OFFICE.

ALBERT LANGSTROM, OF COUNCIL BLUFFS, IOWA.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 327,559, dated October 6, 1885.

Application filed July 7, 1885. Serial No. 170,903. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT LANGSTROM, of Council Bluffs, in the county of Pottawattamie and State of Iowa, have invented certain  
5 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  
10 use the same.

My invention relates to an improvement in wrenches; the object of the same being to provide a device of the above character by means of which nuts and other like devices  
15 when in such position relative to other objects as to prevent the wrench from receiving a continuous turn may be tightened without removing the wrench from contact therewith. A further object is to provide a wrench of the  
20 above character with devices whereby the automatic action may be detained and the jaw locked in rigid adjustment. A further object is to provide a wrench of the above character which shall be simple and economical  
25 in construction, and durable and efficient in use; and with these ends in view my invention consists in the certain features of construction and combinations of parts, as will be hereinafter fully described, and pointed out in the  
30 claims.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of my invention, and Fig. 2 is a view thereof in side elevation, showing the jaw in tilted adjustment on the  
35 nut.

A represents the wrench-handle, preferably shaped as shown, provided with the enlarged portion B, and the extended finger C, the same being formed integral therewith, or separate,  
40 if preferred, and secured thereto and adapted to serve the purpose of a lever. The enlarged portion B is provided with the open recess E, in which is pivoted or hinged one end of the rectangular bar F, the same being provided  
45 with the top and bottom threads, G. The bar F is provided with the sliding jaw H, the same being provided at its rear with the annular recess I and the shoulder J, adapted to receive the rim of the circular nut K, which  
50 is provided with the internal screw-threads L,

adapted to engage the threads G, whereby, when the nut K is actuated, the sliding jaw H is caused to move forward or recede, as may be desired. To the forward part of the bar F  
is pivoted the spring-actuated tilting jaw M. 55 The forward face of the jaw is provided with the rectangular opening N, formed slightly larger than the bar, the end of which passes through the said opening and is allowed suitable play therein. The bottom of the opening  
60 N is inclined inwardly and upwardly, forming an oblique surface, to which is secured one end of the spiral or other spring O, the opposite end of which is adapted to engage the recess P formed in the forward lower edge  
65 of the bar F. The said jaw M is provided on its inner face with the rectangular-shaped recess Q, the same being curved, as shown, and provided near its upper edge with the beveled shoulder R, against which is adapted  
70 to impinge the shoulder S formed on the end of the lever C, the shoulder S being partially beveled, whereby the shoulder R may be enabled to slide over the shoulder S on the lever, when a pressure is exerted on the lower  
75 end of the jaw M. The recess E is provided with the spiral or other spring T, one end of which rests against the bar F and the opposite end impinges against the upper edge of the recess. Through the enlarged portion B  
80 and the recess E passes the set-screw V, one end of which is adapted to impinge against the bar F, and when so impinging the lever C is locked against the jaw M, which is in consequence prevented from tilting. 85

Having fully described the construction of my invention, I will proceed to describe the operation of the same.

Supposing the set-screw V to be elevated, the sliding jaw is brought in contact with the  
90 nut. The wrench is then turned as far as it may be found convenient. If a fresh grip is desired for a new turn, the wrench-handle is elevated, whereby the lower end of the jaw M is caused to bear with sufficient force against  
95 the lower edge of the nut to cause the lower section of the jaw M to tilt outward and enable the shoulder R to slide over the shoulder S, and thus enable the jaws to obtain a new grip upon the nut, the tilting jaw M being 100



forced to its normal position by means of the spring O, actuating the said jaw. When it is convenient to use the wrench in such position that a continuous rotation thereof is possible, 5 or if from other reasons it is desired, the tilting jaw M may be locked against movement by means of the set-screw V being brought in contact with the bar F, whereby the lever C will be locked against motion, and thus cause 10 the shoulders R and S to impinge tightly against each other in such manner as to prevent the tilting of the jaw M regardless of the amount of strain brought against the same. I would have it understood that I do not limit 15 myself to the exact construction shown and described, but consider myself at liberty to make such changes and alterations as properly fall within the spirit and scope of my invention.

20 Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a wrench, the combination, with a bar having a sliding jaw secured thereon, of an 25 automatically tilting jaw pivoted thereto, substantially as set forth.

2. In a wrench, the combination, with a pivoted bar and a sliding jaw, of an automatically tilting jaw pivoted to said bar, substan- 30 tially as set forth.

3. In a wrench, the combination, with a

pivoted or hinged bar and sliding jaw, of an automatic tilting jaw pivoted to said bar, and devices for locking the said tilting jaw, substantially as set forth. 35

4. In a wrench, the combination, with a pivoted bar and a sliding jaw, of a tilting jaw pivoted to the bar, said jaw being recessed and provided with a spring adapted to impinge against the jaw and bar, substantially 40 as set forth.

5. In a wrench, the combination, with a pivoted bar and an adjustable jaw, of an automatic tilting jaw, a lever connected therewith, and a spring inserted between the bar 45 and lever, substantially as set forth.

6. In a wrench, the combination, with a recessed handle, a bar pivotally secured therein, and a sliding jaw secured on said bar, of an automatically tilting jaw pivoted or hinged to the 50 bar, a lever connected with the tilting jaw, and a set-screw connected with the lever and adapted to impinge against the bar and lock the tilting jaw against movement, substantially as 55 set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ALBERT LANGSTROM.

Witnesses:

L. Q. CLICKENGER,  
J. T. HENDERSON.