

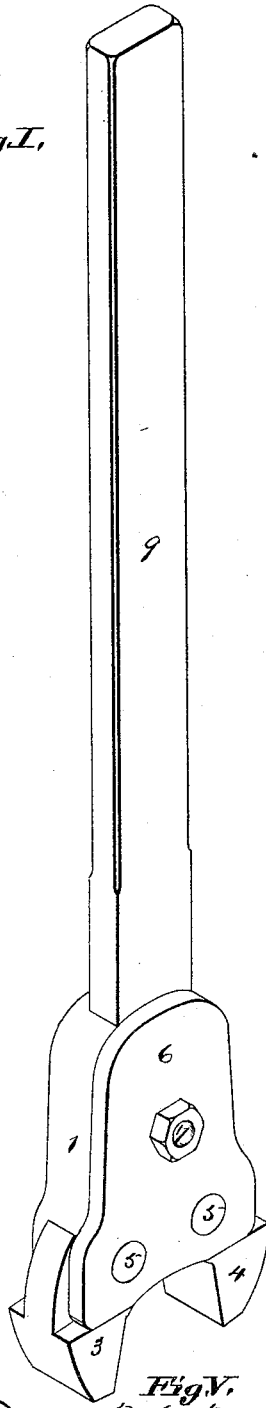
(No Model.)

R. DODSON.  
WRENCH.

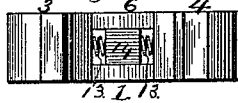
No. 420,867.

Patented Feb. 4, 1890.

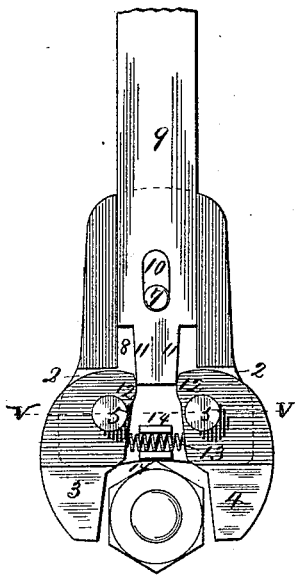
*Fig. I,*



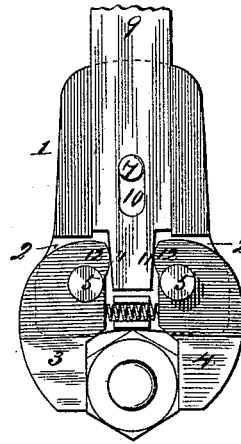
*Fig. II,*



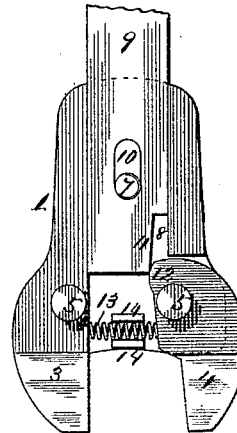
*Fig. III*



*Fig. IV,*



*Fig. VI,*

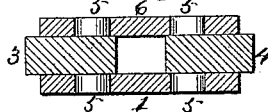


Attest,  
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*Fig. V,*



# UNITED STATES PATENT OFFICE.

ROY DODSON, OF ST. LOUIS, MISSOURI.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 420,867, dated February 4, 1890.

Application filed May 1, 1889. Serial No. 309,258. (No model.)

*To all whom it may concern:*

Be it known that I, ROY DODSON, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Wrenches, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a wrench having one or two movable jaws; and it consists in the pivoting of such jaw or jaws to the head and providing the jaw with an extension, against which acts an incline of the shank of the wrench, which is made to slide in the head to force the jaw inward or permit it to move outward. The jaw is pressed outward by a spring.

Figure I is a perspective view of the wrench. Fig. II is an end view of the wrench. Fig. III is a detail side view with side plate removed, showing the jaws expanded; and Fig. IV is a similar view showing the jaws contracted. Fig. V is a transverse section at V V, Fig. III. Fig. VI is a view showing a modification, the side plate being removed, as in Figs. III and IV.

1 is the head or jaw housing, being recessed at 2 to receive the jaws 3 and 4. The jaws have pivots 5, which may be made integral with the jaws or otherwise. The pivot on one side of the jaw has bearing in the main part of the head, while the pivot upon the other side of the jaw has bearing in the removable side plate 6, that is held in place by a bolt 7. The head has a recess 8, in which slides the shank or handle 9, the bolt 7 passing through a longitudinal slot 10 in the shank. The shank has at the end inclines 11, which act on the projections 12 of the jaws, so that when the shank slides inward in the head the inner ends 12 of the jaws are forced asunder and the jaws are contracted on the nut. When the shank is drawn outward in the head, the jaws are pushed asunder by a spring 13, which is inserted between them, the spring resting between the ribs 14.

In the use of the wrench it is applied to the nut while the jaws are expanded. Then the shank is allowed to slide inward in the head. This forces the jaws tight upon the nut, which is then turned with the wrench. The shank is then drawn outward, while the wrench is swung back for a fresh grip.

In the modification shown in Fig. VI one of the jaws 3 is integral with the head or rigidly attached thereto, while the other jaw has the construction hereinbefore described. The shank in the modified form has, of course, a single incline 11.

An invention somewhat similar to this is also shown and described in my application, Serial No. 309,259, filed even date with this.

I claim as my invention—

1. In a wrench, the combination, with the head having a recess 8 and the pivoted jaw, of the operating-handle having a beveled end formed integral therewith and arranged in the recess 8, and adapted to be forced against the end of said pivoted jaw, substantially as set forth.

2. The combination, in a wrench, of the head having the recess 8 and a pivoted jaw, the slotted shank having a beveled end arranged in said recess and adapted to be forced against the end of said pivoted jaw, and a pin projecting from said head into said slot, substantially as set forth.

3. The combination of the head having the recess 8 and a pivoted jaw, the ribs 14, a spring arranged between said ribs and holding said jaw open, and a movable shank having a beveled end arranged in said recess and adapted to engage the end of said pivoted jaw, substantially as set forth.

4. The combination of the head having the recess 8 and two pivoted jaws, a slotted shank arranged in said recess and having a beveled end adapted to be forced between said pivoted jaws, and a pin passing through said head and slotted shank, substantially as set forth.

5. The combination of the head having the recess 8 and two pivoted jaws, the ribs 14, a spring between said ribs holding the inner end of said jaws together, a slotted shank arranged in said recess and having a beveled end adapted to be forced between the inner ends of said jaws, the plate 6, and a pin projecting through said plate, head, and slotted shank and holding said plate in place, substantially as set forth.

ROY DODSON.

In presence of—

EDW. S. KNIGHT,  
THOMAS KNIGHT.