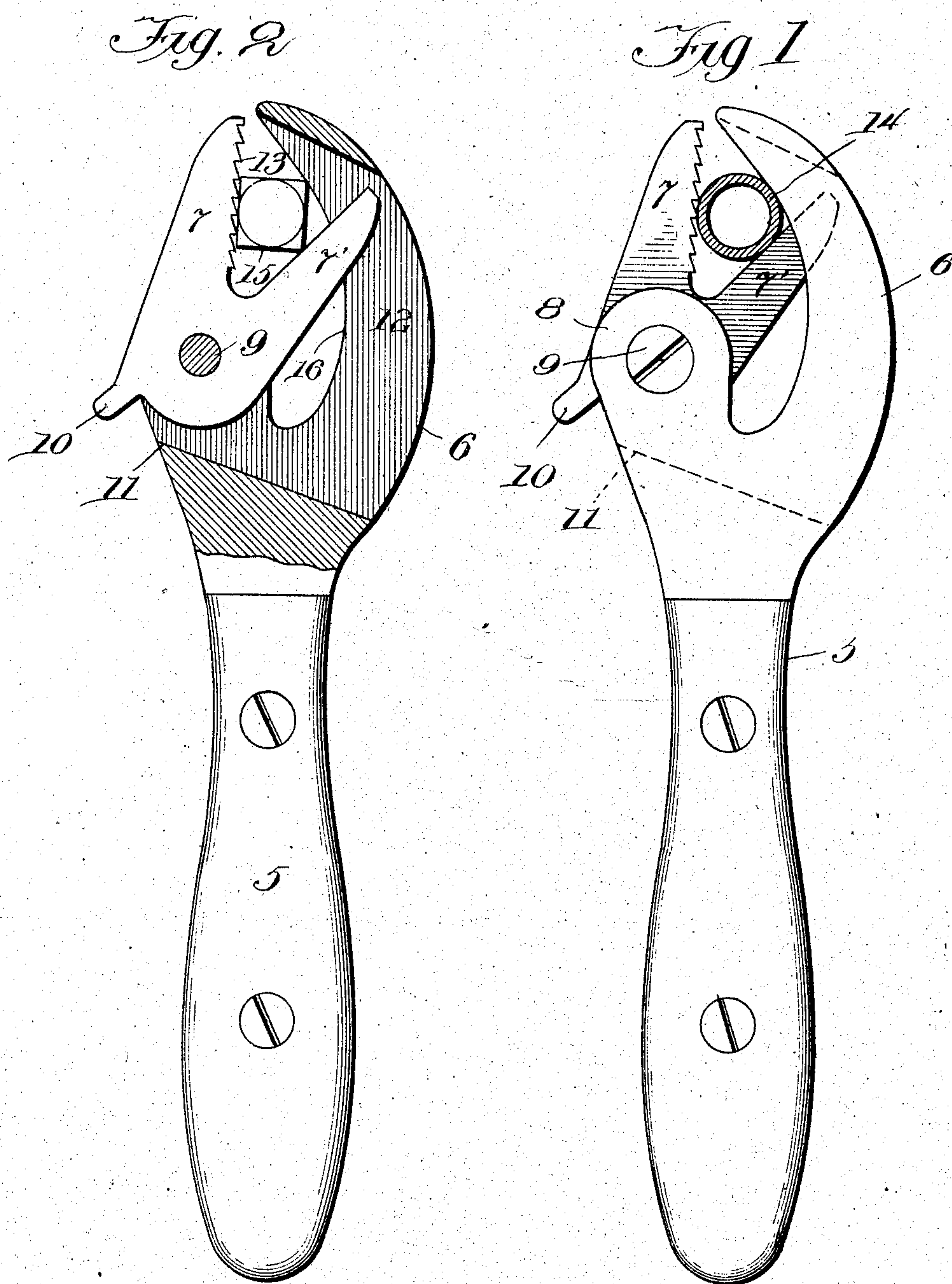


No. 786,818.

PATENTED APR. 11, 1905.

A. JOHNSON.  
WRENCH.

APPLICATION FILED APR. 11, 1904.



Witnesses:  
H. S. Gaither  
F. B. Allen.

Inventor:  
Alfred Johnson  
by Wm. D. Bell  
attorney



# UNITED STATES PATENT OFFICE.

ALFRED JOHNSON, OF CHICAGO, ILLINOIS.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 786,818, dated April 11, 1905.

Application filed April 11, 1904. Serial No. 202,549.

*To all whom it may concern:*

Be it known that I, ALFRED JOHNSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have  
5 invented certain new and useful Improvements in Wrenches, of which the following is a specification.

The object of this invention is to provide a wrench of simple and inexpensive construction which can be used for turning square or  
10 round articles and which is adapted to be quickly and easily adjusted for use.

In the accompanying drawings I have shown one embodiment of the invention, and, referring thereto—

Figure 1 is a plan view of a wrench, showing it applied to a round pipe, which appears in section. Fig. 2 is a part-sectional view showing the wrench applied to the square  
20 head of a bolt.

Referring to the drawings, the wrench consists of a handle 5, which carries a fixed curved jaw 6 and movable alligator-jaws 7 7'. The alligator-jaws are pivotally mounted between  
25 the ears of a slotted projection 8 on the handle by a transverse pin 9 and are provided with a thumb-piece 10, which is adapted to engage a shoulder 11 to prevent the alligator-jaws swinging too far outwardly and away  
30 from the fixed jaw. The fixed jaw is provided with a longitudinal slot 12 to receive the alligator-jaws, which are mounted in alinement therewith and adapted to swing therein. The fixed jaw is curved eccentrically to the  
35 pivot of the alligator-jaws, so that the size of the socket between the alligator-jaws to receive the article is decreased as the alligator-jaws swing downward and increased as they are swung upward. I provide the jaw 7 with  
40 a serrated engaging face 13 to rigidly hold the article.

My improved wrench is equally well adapted to be applied to round articles, such as the pipe 14, (shown in Fig. 1,) or square articles, such  
45 as the bolt-head shown in Fig. 2, and it will accommodate articles whose diameter varies considerably in size. In practice the alligator-jaws are caused to swing as far outward as possible by gravity or by pressing upon the  
50 thumb-piece 10, and the wrench is then en-

gaged with the article and turned. The article rests in the socket formed by the alligator-jaws, and when the wrench is turned the article is clamped between the jaw 7 and the eccentric face 16 of the rigid jaw 6. The  
55 greater the pressure on the wrench the tighter the article will be held. To release the wrench, the pressure is withdrawn and the wrench is simply pulled away from the article. It will  
60 thus be seen that in the application and removal of the wrench the operation is entirely automatic and requires no adjustment of parts whatsoever.

The wrench is very simple in construction and consists wholly of two parts, one part  
65 only being movable, and it can be manufactured inexpensively and used for a great variety of purposes.

Without limiting myself to the exact construction and arrangement of parts herein  
70 shown and described, what I claim, and desire to secure by Letters Patent, is—

1. A wrench comprising a handle, a fixed eccentrically-curved jaw extending from the handle and slotted therethrough to receive a  
75 pivoted jaw, projected bearing-ears formed integral with the base of the curved fixed jaw and adjacent thereto, and alligator-jaws projecting rigidly from their base and pivotally  
80 mounted between said bearing-ears in alinement with the slot in the fixed jaw to swing therein.

2. A wrench comprising a handle, a fixed curved jaw, extending from the handle and slotted therethrough to receive a pivoted jaw, projected bearing-ears formed integral with the  
85 base of the curved fixed jaw and adjacent thereto, alligator-jaws projecting rigidly from their base and pivotally mounted between said bearing-ears in alinement with the slot in the fixed  
90 jaw to swing therein, and eccentrically mounted to the working face of the fixed jaw, and formed with a stop extension projected outwardly from the pivotal point and adapted to lodge against the shoulder formed by the  
95 lower wall of the said slot.

ALFRED JOHNSON.

Witnesses:

WM. O. BELT,

P. L. SCHMECHEL.