

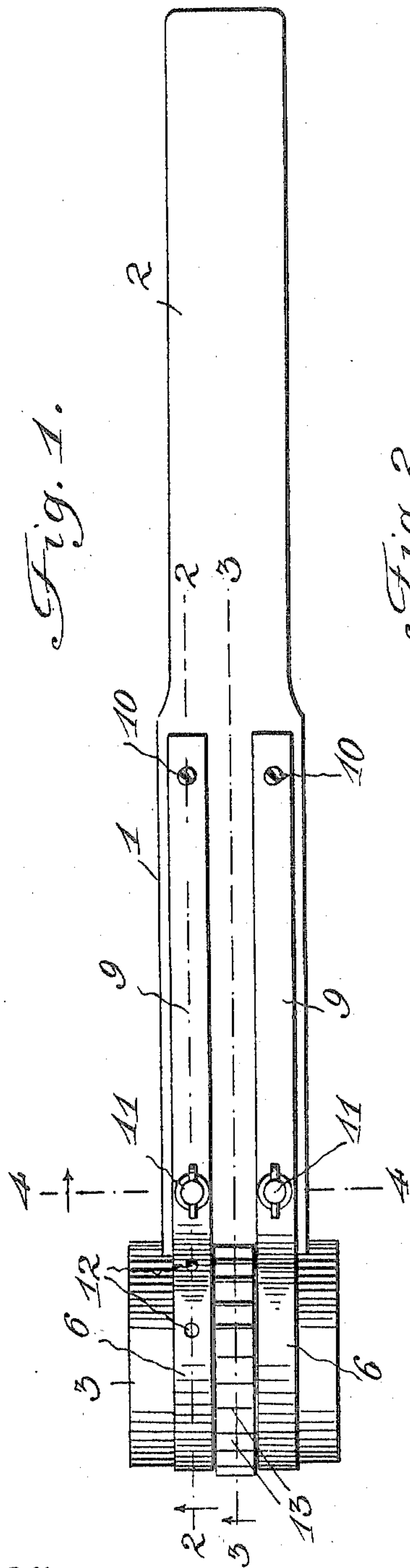
No. 811,741.

PATENTED FEB. 6, 1906.

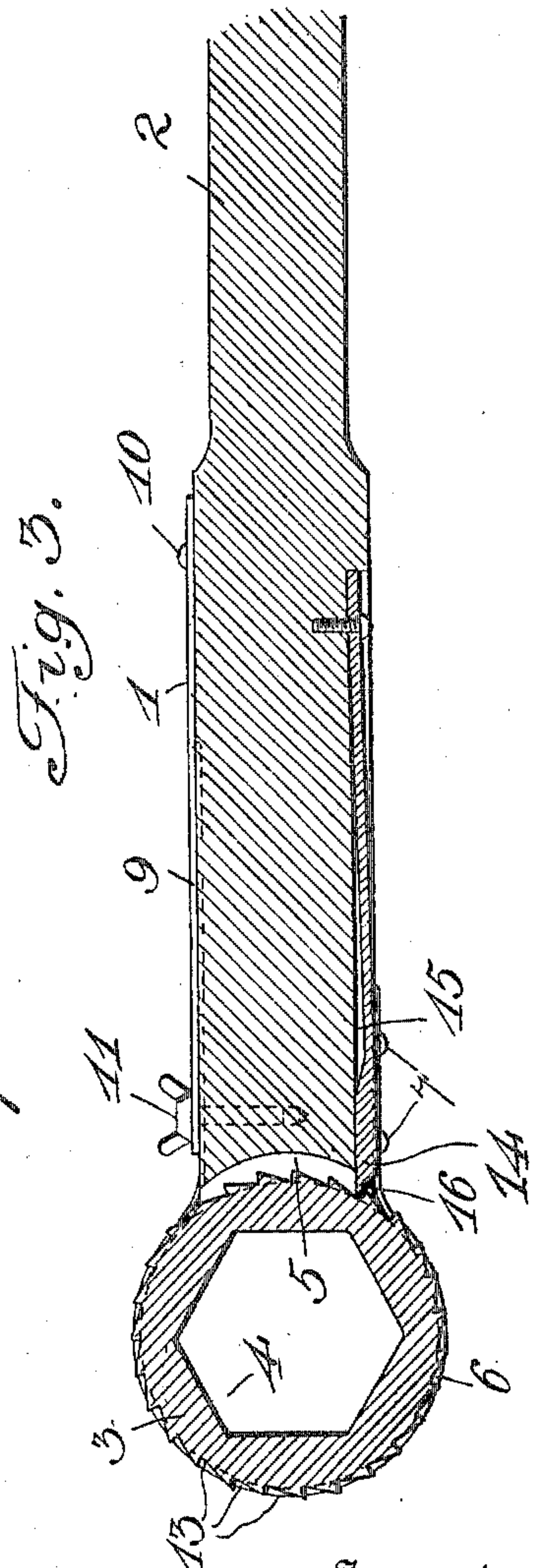
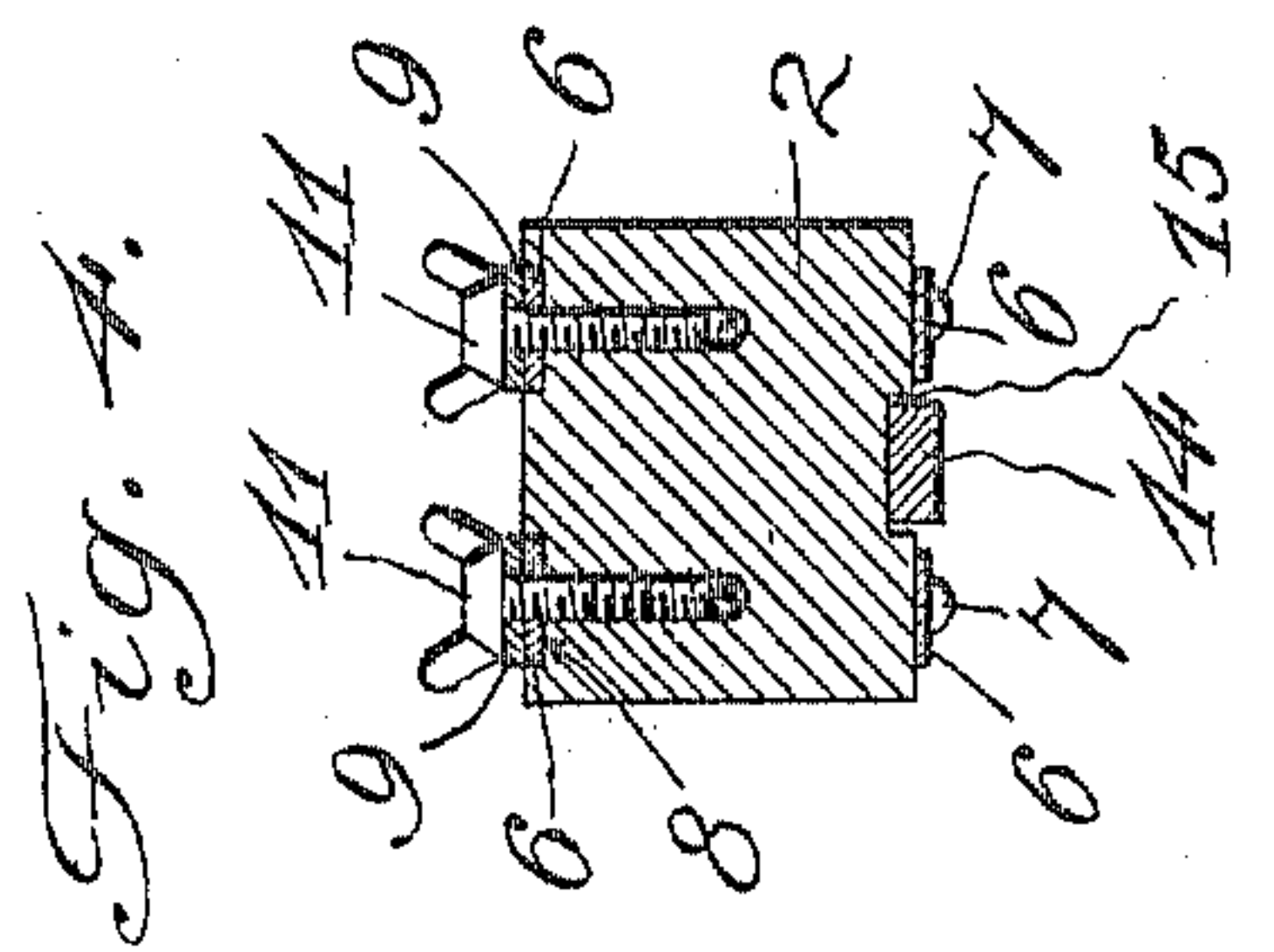
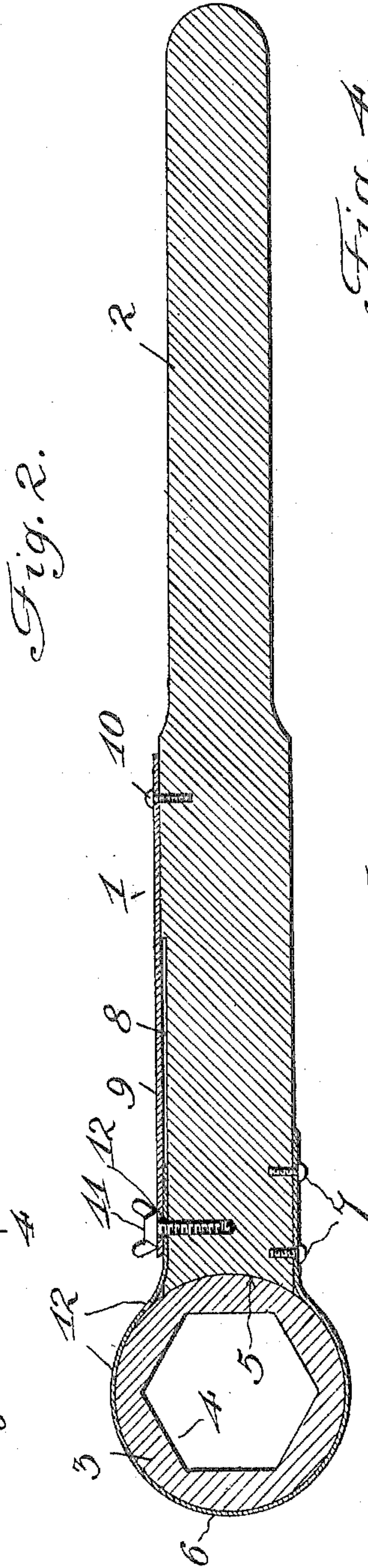
P. T. PETERSSON.

WRENCH.

APPLICATION FILED MAY 29, 1905.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## WRENCH.

No. 811,741.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed May 29, 1905. Serial No. 262,868.

*To all whom it may concern:*

Be it known that I, PETER THEODORE PETERSSON, a citizen of the United States, residing at Spatten, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Wrenches; and I do 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 use the same.

My invention relates to improvements in wrenches of the rotary clutch-head type.

The object of the invention is to provide a simple, inexpensive, durable, and efficient device of this character which may be conveniently used at close quarters.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a wrench constructed in accordance with my invention. Figs. 2 and 3 are longitudinal sectional views taken, respectively, on the lines 2-2 and 3-3 in Fig. 1; and Fig. 4 is a transverse vertical sectional view taken on the line 4-4 in Fig. 1.

Referring to the drawings by numeral, 1 denotes my improved wrench, which comprises a shank or handle 2, a rotary nut-engaging head 3, and means for mounting the latter upon the former. The rotary head 3 is substantially cylindrical in form and is provided with a socket to engage a nut, the head of a bolt, or the like. This socket 4 corresponds in size and shape to the nut and preferably extends through said head from end to end, as shown. The head is seated in a recessed portion 5 at one end of the handle or shank 2 and is retained and permitted to rotate therein by bands or straps 6, which surround it and are secured to said shank or handle. Each of said bands, which are preferably of resilient metal, such as steel, has one of its ends secured, as shown at 7, upon one face of the shank or handle 2 and its other end adjustably clamped upon the opposite face of said shank or handle. This adjustable connection is effected by providing recesses 8, as shown in Fig. 4 of the drawings, upon one face of said shank for the purpose of receiving the free ends of said bands and by providing clamping-plates or strips 9, which are adapted to clamp said bands in

said recesses. These clamping-strips are of spring metal and have their lower ends secured, as at 10, upon the shank or handle 2 and their opposite ends formed with openings to receive clamping-screws 11, which are adapted to pass through openings 12, formed in said bands, and into screw-threaded openings in the shank or handle 2. Any desired number of the openings 12 may be formed in the bands 6, so that the latter may clamp heads 3 of any size, this construction thus permitting of the application of heads having different sizes and shapes of nut-engaging sockets. In order to lock the head to turn with the handle in one direction, so as to rotate the nut engaged with said head, and to permit the handle to turn independent of said head in the opposite direction, I provide centrally upon the outer surface or periphery of the head 3 an annular series of ratchet-teeth 13, which coact with a pawl 14, provided in a recessed portion 15 of the shank or handle 2. This pawl 14 is in the form of a heavy spring which has a beveled upper end 16, adapted to engage the teeth 13.

The construction, operation, and advantages of the invention will be readily understood from the foregoing description, taken in connection with the accompanying drawings. It will be seen that the device is much quicker in operation than wrenches now in use and that it may be conveniently used in close places where there is little room to swing the handle or shank of the ordinary wrench. By making the bands 6 adjustable sockets of any size may be applied to the shank or handle, so that the wrench may be adapted for use upon nuts of any size and form.

While I have shown and described the preferred embodiment of my invention, it will be understood that I do not wish to be limited to the precise construction herein set forth, since various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

A wrench comprising a handle having a curved recess in one of its ends and longitudinally-extending recesses in one of its faces, a rotary head of cylindrical form seated in said

curved recess and formed with a nut-engag-  
ing socket, clamping-bands surrounding said  
head and having one of their ends secured  
upon said handle and their opposite ends  
5 seated in said longitudinal recesses, clamping-  
strips for retaining said bands in said recesses,  
clamping-screws passed through said bands  
and strips and into said handle, an annular  
series of ratchet-teeth upon said head, and a

spring-pawl upon said handle to engage said 10  
teeth.

In testimony whereof I have hereunto set  
my hand in presence of two subscribing wit-  
nesses.

PETER THEODORE PETERSSON.

Witnesses:

THOMAS F. BRADY,  
ANDREW A. HOGMAN.