

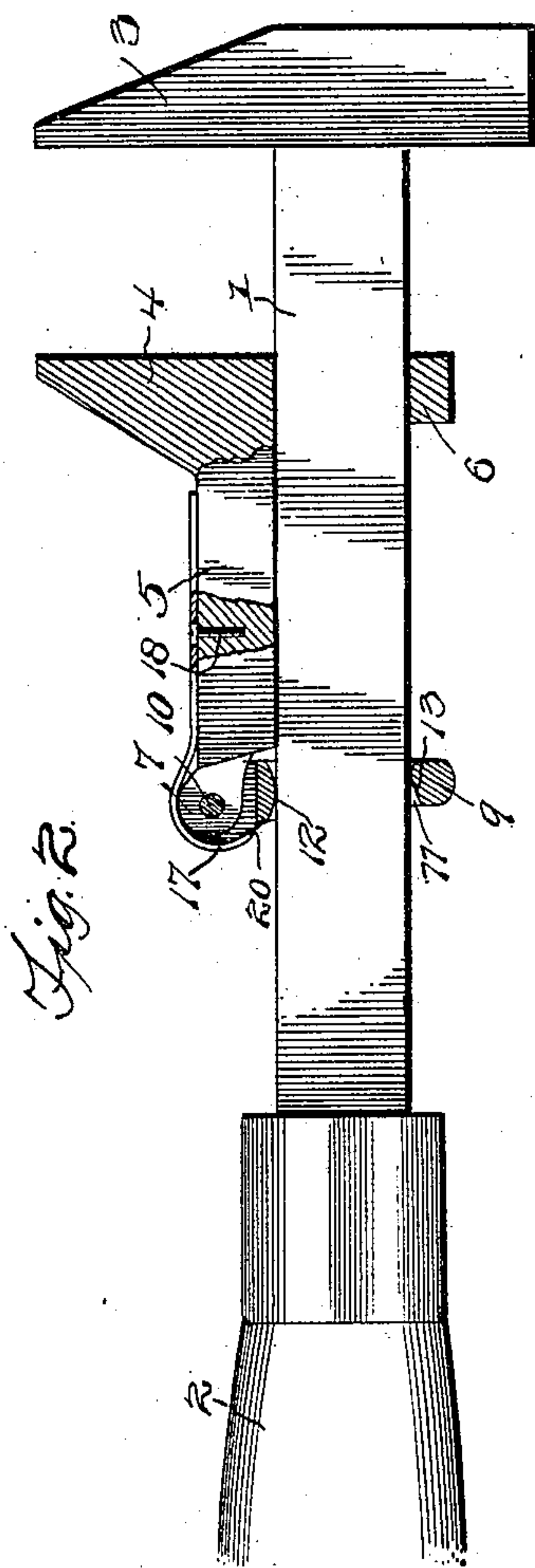
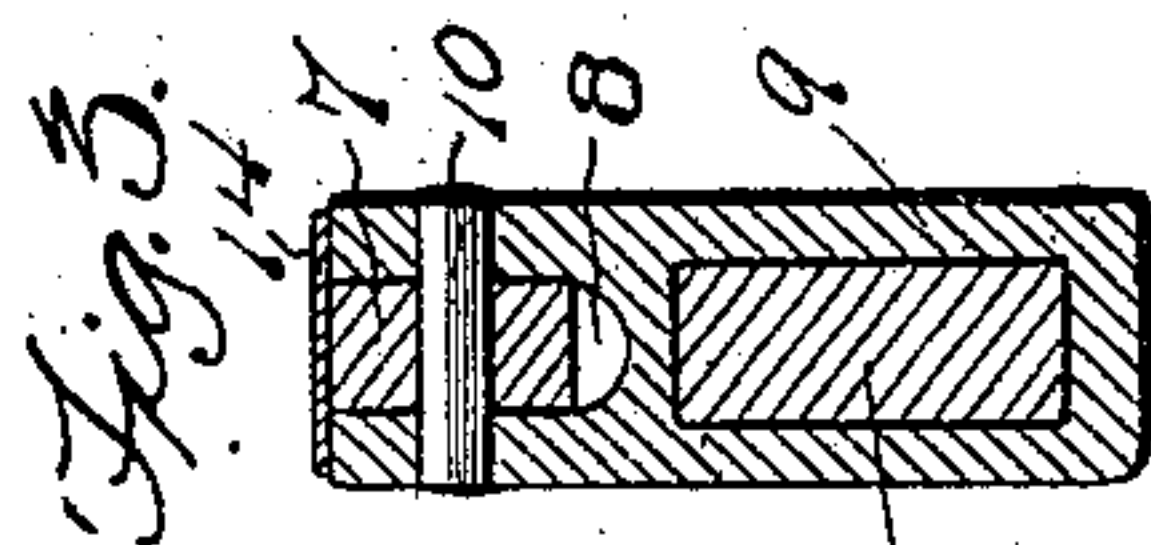
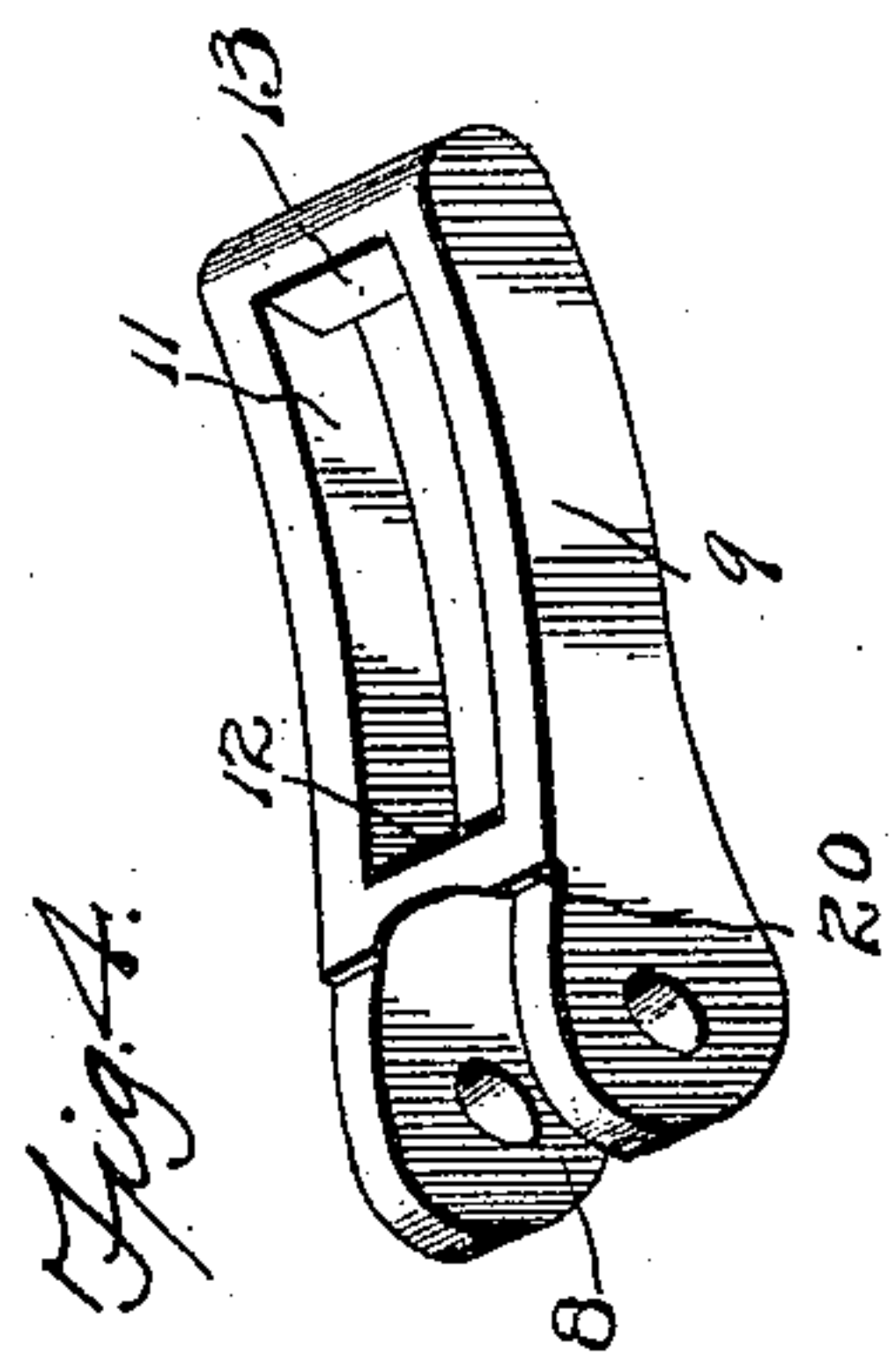
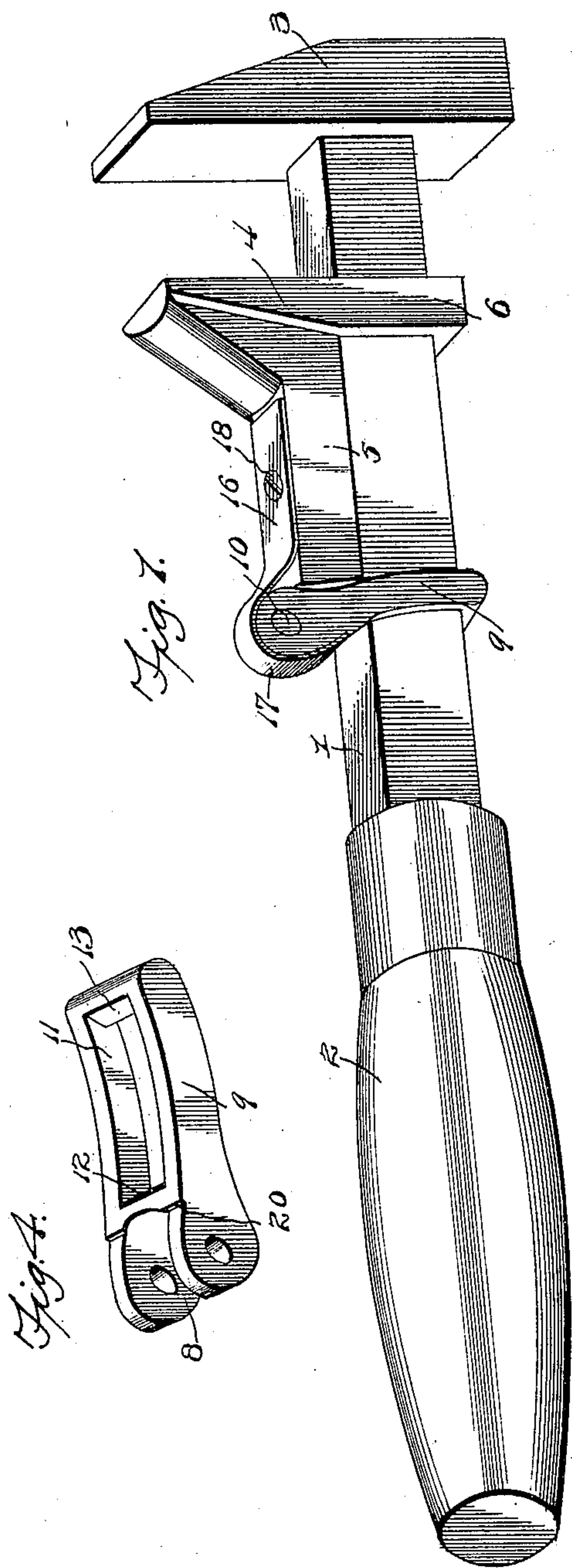
No. 641,451.

Patented Jan. 16, 1900.

W. T. HATTEN.  
WRENCH.

(Application filed May 18, 1899.)

(No Model.)



Witnesses  
Ralph A. Shepard.  
J. F. Riley

By his Attorney,

W. T. Hatten Inventor  
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# UNITED STATES PATENT OFFICE.

WILLIAM T. HATTEN, OF CANYON CITY, OREGON.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 641,451, dated January 16, 1900.

Application filed May 18, 1899. Serial No. 717,310. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM T. HATTEN, a citizen of the United States, residing at Canyon City, in the county of Grant and State of Oregon, have invented a new and useful Wrench, of which the following is a specification.

The invention relates to improvements in wrenches.

10 The object of the present invention is to improve the construction of wrenches, more especially the locking mechanism for retaining the movable jaw at the desired adjustment, and to provide a simple, inexpensive, 15 and efficient device designed for both pipe and nut wrenches and capable of firmly holding the movable jaw at any point on the main crank or bar and of permitting the same to be quickly adjusted thereon.

20 A further object of the invention is to increase the strength, durability, and efficiency of such devices and to arrange the spring so that it may be readily renewed if broken or otherwise injured.

25 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

30 In the drawings, Figure 1 is a perspective view of a wrench constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a transverse sectional view. Fig. 4 is a detail per- 35 spective view of the clamping-yoke.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a main shank or bar provided 40 at one end with a suitable handle or grip 2 and having a fixed or stationary jaw 3 at its other end to cooperate with a movable jaw 4, which is capable of adjustment longitudinally of the shank or bar 1 to separate the jaws 45 and to bring the same together and in contact with the object to be operated on, and although the engaging faces of the jaws are shown smooth in the accompanying drawings, yet it will be readily understood that they 50 may be serrated or toothed to enable them to engage a pipe or rod. The sliding or movable jaw 4, which is provided with an integral

short longitudinal shank 5, has a transverse loop or extension 6, through the opening of which passes the main shank or bar 1. 55

The short shank 5 lies against the front face of the main shank or bar and of the movable jaw 4 and has its outer end reduced and extended to form an eye 7, which is pivoted in a bifurcation 8 of a clamping-yoke 9, the eye 60 and the sides of the bifurcation being perforated to receive the pivot 10, which may consist of a rivet or any other suitable fastening device.

The clamping-yoke 9, which has its bifur- 65 cated end rounded, as shown, is provided near its other end with a bend and is slotted to form an opening 11, through which the main shank or bar 1 passes. The free end of the yoke being disposed on the rear side or face 70 of the wrench can be operated with ease in close places, whereas if placed on the working or front side of the wrench it might be difficult sometimes to adjust the yoke to the part to be turned. The walls 12 and 13 at 75 the inner and outer ends of the opening of the clamping-yoke engage and bind against the front and rear side edges of the main shank or bar 1, and the inner wall or bearing 12, which is subjected to the greatest 80 pressure, is rounded to avoid wearing the shank or bar. The outer wall or bearing 13 is oppositely beveled to provide a tooth for engaging the rear edge of the shank or bar 1, and this tooth effectually prevents the 85 movable jaw from slipping when it is subjected to great pressure, and the greater the strain on the movable jaw the greater will be the clamping action of the yoke. The yoke is maintained in its engaging position by a 90 spring 14, consisting of a straight shank 16 and a curved or hook-shaped end 17, which extends around and beneath the bifurcated end of the yoke and engages the same at a point beyond the pivot 10, whereby it is 95 adapted to throw the yoke upward and inward into engagement with the main shank or bar 1. The straight body portion or shank of the spring is perforated to receive a screw 18, which engages a threaded socket of the 100 short shank of the movable jaw, whereby the spring is detachably secured in place and may be readily removed and renewed when desired.



The invention has the following advantages: The wrench, which is simple and comparatively inexpensive in construction, possesses great strength and durability and is readily manipulated to adjust the movable jaw longitudinally of the main shank or bar. The clamping-yoke, which securely engages the main shank or bar to lock the movable jaw at any desired adjustment, is held in its engaging position by the hooked end of the spring, and the yoke is provided at the point where it is engaged by the spring with a slight shoulder 20 to prevent the spring from slipping. The yoke is readily depressed against the action of the spring to permit the movable jaw to slide freely along the main shank or bar.

Changes in the form, proportion, size, and the minor details of construction within the scope of the appended claims may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What is claimed is—

1. A wrench comprising a main shank or bar, a stationary or fixed jaw, a movable jaw adapted to slide longitudinally of the shank or bar and provided with a short shank, a yoke having one end bifurcated and pivoted to the short shank of the movable jaw, said yoke being provided with an opening to receive the main shank or bar, and having the

inner end wall of the opening rounded and provided at the outer end of the opening with a tooth, and a spring mounted on the short shank and engaging the yoke, substantially as described.

2. A wrench comprising a main shank or bar, a fixed jaw, a movable jaw slidingly mounted on the main shank or bar and provided with an integral short shank lying flat against the front face of the main shank or bar, a clamping-yoke pivoted at one end to the outer end of the short shank and having an opening receiving the main shank or bar, the free end of the yoke engaging with the rear face of the main shank or bar and being operated from the rear side of the wrench, and a spring secured to the short shank and having its inner end hook-shaped and extending around the pivoted end of the yoke and engaging the same at a point between the pivot and the main shank or bar, whereby it is adapted to throw the yoke into engagement with the main shank or bar, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM T. HATTEN.

Witnesses:

H. B. GUERNSEY,  
R. R. McHALEY.