No. 657,424. Patented Sept. 4, 1900.

C. B. KETCHUM.

WRENCH.

(Application filed May 10, 1900.)

(No Model.)

Fig. 1.

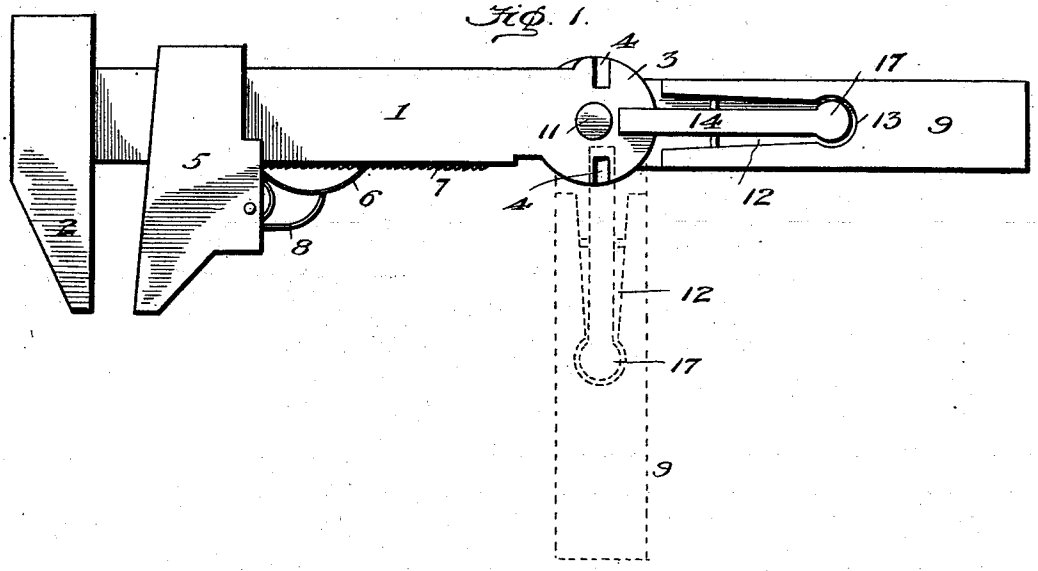


Fig. 2

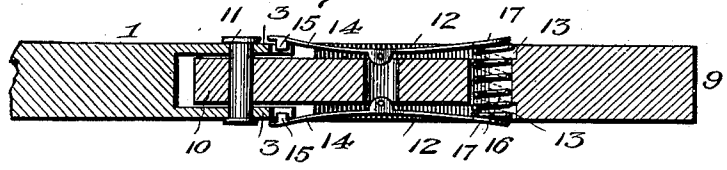
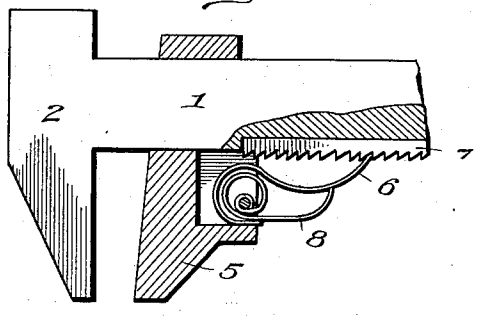


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES BARR KETCHUM, OF CODY, WYOMING.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 657,424, dated September 4, 1900.

Application filed May 10, 1900. Serial No. 16,126. (No model.)

To all whom it may concern:

Be it known that I, CHARLES BARR KETCHUM, a citizen of the United States, residing at Cody, in the county of Big Horn and State of Wyoming, 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.

The invention relates to wrenches, and more particularly to that type known as a "sliding-jaw" wrench.

The object of the invention is to provide a wrench of this character with an adjustable handle, and one which may be adjusted to various angles with respect to the length of the shank, whereby the wrench may be used in corners and in places inaccessible to wrenches provided with rigid handles.

With this object in view the invention consists in certain features of construction and combination of parts, which will be hereinafter set forth.

In the accompanying drawings, Figure 1 is a side elevation of my improved wrench, showing in full lines the handle adjusted in line with the shank of the wrench and showing in dotted lines the handle adjusted at right angles to the wrench. Fig. 2 is a transverse sectional view through the handle and inner end of the shank, and Fig. 3 is a vertical sectional view through the shank and the rigid and fixed jaws.

Referring to the drawings, 1 denotes the shank of the wrench having at one end a fixed jaw 2 and formed at the other end with parallel segmental heads 3, formed with notches 4.

5 denotes a sliding jaw which is mounted upon the shank, and 6 denotes a dog adapted to engage teeth 7, formed along the lower edge of the shank, said dog being held in engagement with the teeth by a spring 8.

9 denotes a handle having at one end a disk 10, which is pivoted by a rivet or bolt 11 between the parallel heads of the shank. The handle is provided on one of its sides with two longitudinal slots 12, terminating at one end in sockets or seats 13. 14 denotes levers pivoted within said slots and provided at one of their ends with lugs 15 to engage the notches of the segmental heads. The opposite ends of these levers are held forced laterally by coil-springs 16, which bear against heads 17, formed on the ends of the levers. The levers are placed in the slots of the handle, flush with the sides thereof, and are not in the way. When it is desired to adjust the handle at an angle to the length of the shank, the outer ends of the levers are compressed, which disengages the studs at their inner ends from engagement with the notches of the segmental heads, and permits the handle to be swung downwardly or upwardly into engagement with the other set of notches, and when in position the lugs will engage the respective notches and hold the handle in its adjusted position, thereby enabling the wrench to be used in places where it would be difficult, if not impossible, to use the rigid-handle wrenches.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of my improved wrench will be readily apparent without requiring an extended explanation.

It will be seen that the device is simple of construction, that said construction permits of its manufacture at small cost, and that it is exceedingly-well adapted for the purpose for which it is designed.

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 fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

The combination with the shank of a wrench having parallel segmental heads formed with notches, of a handle having a disk formed on one end which is pivoted between said heads, said handle being provided with longitudinal slots each of which has at one end a socket or seat, springs placed in said sockets or seats, and levers pivoted in said slots and provided with lugs adapted to engage the notches of the segmental heads, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES BARR KETCHUM.

Witnesses:

C. E. HAYDEN,

GEO. W. SCHWOOB.