LUKE CHAPMAN.

Improvement in Wrenches.

No. 121,083. Patented Nov. 21, 1871.

Fig. 1.

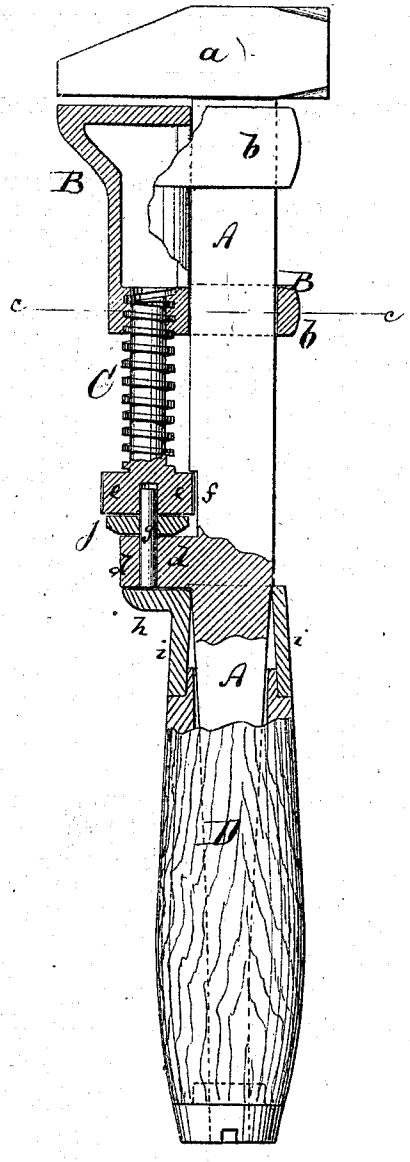
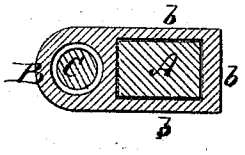


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

LUKE CHAPMAN, OF COLLINSVILLE, CONNECTICUT.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. 121,083, dated November 21, 1871.

To all whom it may concern:

Be it known that I, LUKE CHAPMAN, of Collinsville, in the county of Hartford and State of Connecticut, have invented certain Improvements in Wrenches and manner of constructing the same; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents a side view, partly in section, of my improved wrench. Fig. 2 is a transverse section of the same taken on the line *c c*, Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to an improvement in monkey-wrenches of that kind in which the upper head or jaw, its shank, and the supporting step of the adjusting-screw are all made in one piece, as has been described in the specification which accompanies the Letters Patent of the United States numbered 100,978, granted to me on the 22d of March, 1870. The present invention consists more particularly in a new mode of manufacturing the wrench by welding the step on the shank after the movable jaw has been applied to the latter; and also in a new manner of sustaining and holding the lower end of the adjusting-screw and supporting the pin on which said screw turns, all as hereinafter more fully described.

A in the drawing represents the shank of the monkey-wrench; *a*, the upper head or jaw formed on the same. B is the movable jaw, which I prefer to cast or make in one piece, with its ears *b b* properly perforated to fit the shank A and slide up and down thereon. C is the adjusting-screw. Its upper end works in a threaded cavity of the jaw B, while its lower end is supported on a step, *d*, that projects from the shank A. This step is part of the shank. The jaw B being made complete in one piece, as stated, must be applied to the shank A before the head *a* or the step *d* is applied to the latter. I prefer to first construct, by casting or forging, the shank A and head *a* in one piece, then slide the jaw B upon the shank, and subsequently weld the step onto the shank. By this mode of manufacturing wrenches I combine the advantage of the solid immovable step *d* with that of having the jaw B made in one piece. The rosette or milled head *e* of the screw C works in a recess, *f*, of the shank A, as usually. The lower end of the screw is centered on a pin, *g*, which is fitted from below through the step *d*, and prevented from falling out by a lip, *h*, projecting from the ferrule *i*. *j* is a washer, interposed between the step *d* and the lower end of the screw. Its object is to permit the upper end of the screw to remain with one or two threads in the movable jaw B when the latter has been set up clear against the head *a*. Without this washer the screw, which can only be applied after the step *d* has been formed, would always work loose at the upper end when the movable jaw has been raised. By the use of the washer *j* I am enabled to secure a screw of equal length, as before, in such manner into the lower jaw that it cannot come out of said jaw so long as the washer is in place. The pin *g* is easily fitted from below through the step and washer into the screw, and will constitute a reliable hold for the latter. The ferrule, having the lip *h* cast or formed on it, is next applied from below and properly secured to the handle D.

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

1. The method of manufacturing a monkey-wrench by slipping the movable jaw B upon the shank A and then welding the step *d* onto said shank, as set forth.

2. The washer *j*, interposed between the step *d* and screw C, for retaining the upper end of said screw in the movable jaw, as specified.

3. The lip *h* on the ferrule *i*, applied under the step *d* for retaining the pin *g* in place, as specified.

LUKE CHAPMAN.

Witnesses:

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