W. H. GLOVER.
Monkey-Wrench.

No. 198,196. Patented Dec. 18, 1877

FIG. 1.

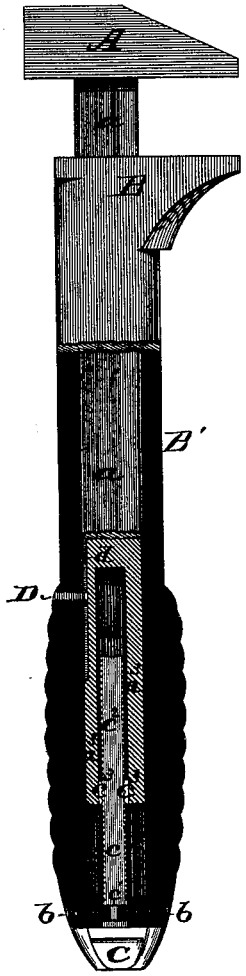
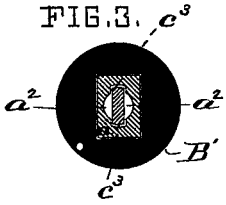


FIG. 2.

FIG. 3.



ATTEST.
Paul Bakewell
Saml. S. Boyd

INVENTOR.
William H. Glover
by Chas. D. Moody.
his atty!

UNITED STATES PATENT OFFICE.

WILLIAM H. GLOVER, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF HIS RIGHT TO WILLIAM L. REYNOLDS AND FREDERICK BEST, OF SAME PLACE.

IMPROVEMENT IN MONKEY-WRENCHES.

Specification forming part of Letters Patent No. **198,196**, dated December 18, 1877; application filed November 19, 1877.

To all whom it may concern:

Be it known that I, WILLIAM H. GLOVER, of St. Louis, Missouri, have made a new and useful Improvement in Monkey-Wrenches, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a view, partly in longitudinal section, of a wrench containing the improvement; and Figs. 2 and 3 cross-sections taken through the handle, and showing, respectively, the stem of the nut as engaged and as disengaged in the shank of the movable jaw.

Similar letters refer to similar parts.

By means of the present improvement the jaws of the wrench can be readily opened and closed.

In the annexed drawings, A and B, respectively, represent the outer and the inner jaws of the wrench. The inner jaw is fastened to, and, preferably, made in one piece with, the handle B′. The latter is perforated longitudinally, to receive from its outer end the shank *a* of the jaw A, and from its inner end to receive the stem *c* of a nut, C, that forms the tip of the handle B′. The nut is attached to the handle, so that it can be rotated thereon, but is kept from moving longitudinally by means of the pins *b b*, that pass from the handle inwardly, and engage in a groove, *c′*, in the stem *c*.

The shank *a*, at its inner end a^1, is perforated longitudinally to receive the stem *c*. The latter is flattened, and made smooth on two opposite sides, c^2 c^2, the other two (and opposite) sides, c^3 c^3, being threaded. The perforation a^1 is similarly threaded on two opposite sides, a^2 a^2, for the threaded portions of the stem to engage therewith, while between the threads a^2 a^2 it is grooved out at a^3 a^3, to make a space larger in diameter than that of the threaded portion of the stem. Thus made and arranged, the stem *c* and shank *a* can be made to engage, or to disengage, as the case may be, by turning the nut C one-quarter turn around. When disengaged the jaws A B can at once be separated or closed, as desired, and then locked at that point by turning the nut, as described. For, by turning the stem *c* so that its threaded portions c^3 c^3 lie in the grooves a^3 a^3, as in Figs. 1 and 3, the shank *a* can move freely in the handle B′; but, by turning the parts, as in Fig. 2, the stem and shank engage, and the movement of the one part upon the other, in a longitudinal direction, is prevented.

The jaw A can, however, be moved in and out slowly, as in the ordinary manner, by continuously rotating the nut in the proper direction. This enables the jaws of the wrench to be accurately adjusted to the desired opening after they have been approximately opened thereto in the manner above set forth. The movement of the shank is confined within suitable limits by means of a stop, D, engaging in a groove, *d*, in the shank.

A modification of the above-described construction would be to enlarge and perforate the stem *c*, and to make the shank *a* engage therein in a manner similar to the engagement of the stem in the shank.

I claim—

1. The herein-described wrench, consisting of the jaws A and B, handle B′, shank *a*, having the grooved and threaded perforation a^1, and the nut C, having the flattened and threaded stem *c*, substantially as described.

2. The combination, in a wrench, of the shank *a*, having the grooved and threaded perforation a^1, and the flattened and threaded stem *c*, substantially as described.

3. The combination of the handle B′, pins *b b*, nut C, stem *c*, having the groove c^1, the smooth sides c^2 c^2, and the threads c^3 c^3, and the shank *a*, having the grooved and threaded perforation a^1, substantially as described.

WM. H. GLOVER.

Witnesses:
CHAS. D. MOODY,
PAUL BAKEWELL.