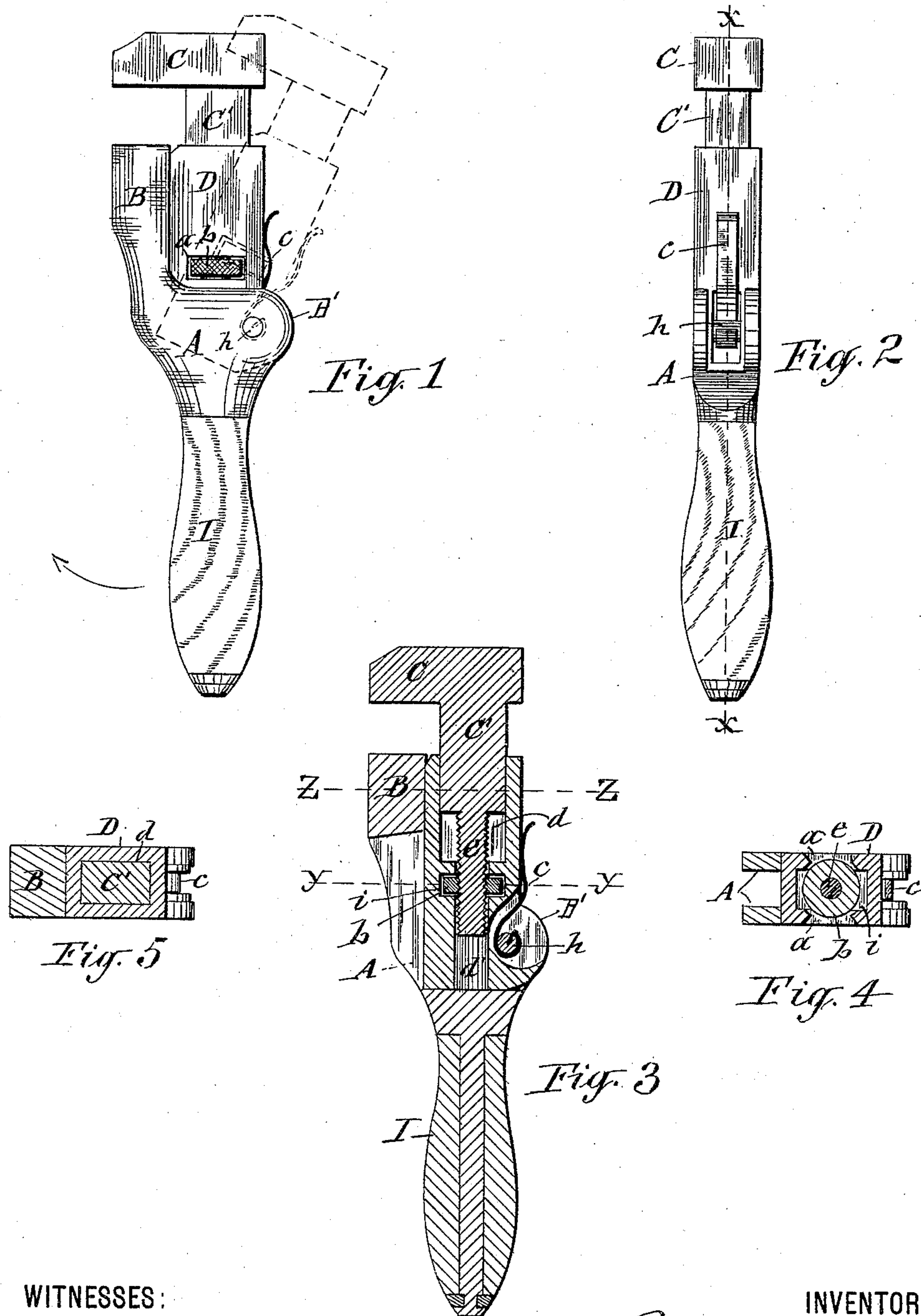


(No Model.)

R. W. SMITH.  
MONKEY WRENCH.

No. 431,236.

Patented July 1, 1890.



WITNESSES:

A. F. Walz  
J. J. Laess.

INVENTOR:

Richard Wayland Smith  
BY  
Wm. Laess & Drull  
his ATTORNEYS



# UNITED STATES PATENT OFFICE.

RICHARD WAYLAND SMITH, OF KENWOOD, NEW YORK, ASSIGNOR OF  
ONE-HALF TO FRANCIS WAYLAND SMITH, OF SAME PLACE.

## MONKEY-WRENCH.

SPECIFICATION forming part of Letters Patent No. 431,236, dated July 1, 1890.

Application filed March 5, 1890. Serial No. 342,700. (No model.)

*To all whom it may concern:*

Be it known that I, RICHARD WAYLAND SMITH, of Kenwood, in the county of Madison, in the State of New York, have invented  
5 new and useful Improvements in Monkey-Wrenches, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the class of monkey-wrenches which have the adjustable jaw  
10 hinged to the shank of the stationary jaw; and the invention consists in an improved construction and combinations of parts, constituting a monkey-wrench of superior  
15 strength, all as hereinafter more fully described, and set forth in the claim.

In the annexed drawings, Figure 1 is a side view of a wrench embodying my invention. Fig. 2 is a view of the back of the wrench.  
20 Fig. 3 is a longitudinal section on line  $x x$ , Fig. 2; and Figs. 4 and 5 are transverse sections, respectively, on lines  $y y$  and  $z z$ , Fig. 3.

Similar letters of reference indicate corresponding parts.

25 A represents the stock of the wrench provided with the usual handle I, and B denotes the stationary jaw, which is rigidly attached to or integral with the stock A. Said stock is formed with the jaw B on one side and with  
30 the rearwardly-projecting heel B' at the base of the jaw, and to said heel I pivot or hinge a holder D at the rear of its lower end, as shown at  $h$ , so as to allow the latter to swing rearward from the fixed jaw B, as illustrated  
35 by dotted lines in Fig. 1 of the drawings, and to lie with its entire length in direct contact with the back of the stationary jaw and with its end resting directly on the top of the stock A when in its normal position, as shown in Fig.  
40 3 of the drawings. Said holder is formed with a central longitudinal channel  $d$ , preferably rectangular in cross-section, from its outer end part way the length of the holder, as shown in Fig. 3 of the drawings. At the inner end  
45 of the channel  $d$  is a seat  $i$  for the nut  $b$ , and at opposite sides of the said nut-seat are apertures  $a a$  through the sides of the holder to afford access to the nut for turning the same. From the nut-seat to the hinged end of the

holder D is another channel  $d'$  in the center of  
50 the holder and of circular form in cross-section.

C denotes the adjustable jaw, which is rigid on the end of the shank C', which slides longitudinally in the channel  $d$  of the holder D,  
55 and is fitted closely to said channel. From the inner end of the shank C' extends a screw  $e$ , which passes through the nut  $b$  and into the channel  $d'$ . By turning said nut the shank C' is caused to move inward or out-  
60 ward, and thus the jaw C is adjusted to the proper distance from the jaw B to firmly grip between them the nut or other article to be turned by the wrench. The holder D is held normally resting against the back of the jaw  
65 B and upon the top of the stock A by means of a spring  $c$ , secured at one end of the stock A or to the hinge-pin  $h$ , and pressing with its free end against the back of the holder D.  
70 The support of the end of the holder D directly upon the top of the stock A serves to greatly relieve the hinge-pin  $h$  from strain when the wrench is operated.

In operating the wrench the jaws B C are  
75 slipped in the usual manner onto the nut to be turned, and in turning the nut onto the bolt or screw the handle I is swung in the direction indicated by an arrow in Fig. 1 of the drawings, and in said movement the grip of  
80 the jaw C on the nut tends to draw the holder D against the jaw B. In swinging the handle I in the opposite direction to obtain a new hold on the nut the holder D yields to the  
85 back-pressure of the nut and allows the jaw C to freely slip over the corners of the nut, and when the jaws are brought to the requisite position on the nut the spring  $c$  forces  
90 the holder D up against the back of the jaw B, and thus the jaws automatically assume their gripping position.

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

The improved wrench consisting of the stock A, formed with the stationary jaw B  
95 and with the rearwardly-projecting heel B' at the base of said jaw, the holder D, pivoted at the rear of its lower end to the heel B' and

resting with said end normally directly on the top of the stock A and formed with the rectangular longitudinal channel *d*, nut-seat *i*, and apertures *a a* at opposite sides of said  
5 nut-seat, the nut *b* in said seat, the jaw C, having rigid thereon the shank C', sliding in the channel *d* and terminating with the screw *e*, passing through the nut *b*, and the spring *c*, holding the holder D normally on its afore-

said seat, substantially as described and ro shown.

In testimony whereof I have hereunto signed my name this 1st day of March, 1890.

RICHARD WAYLAND SMITH. [L. s.]

Witnesses:

C. E. BLOOM,

V. P. HINDS.