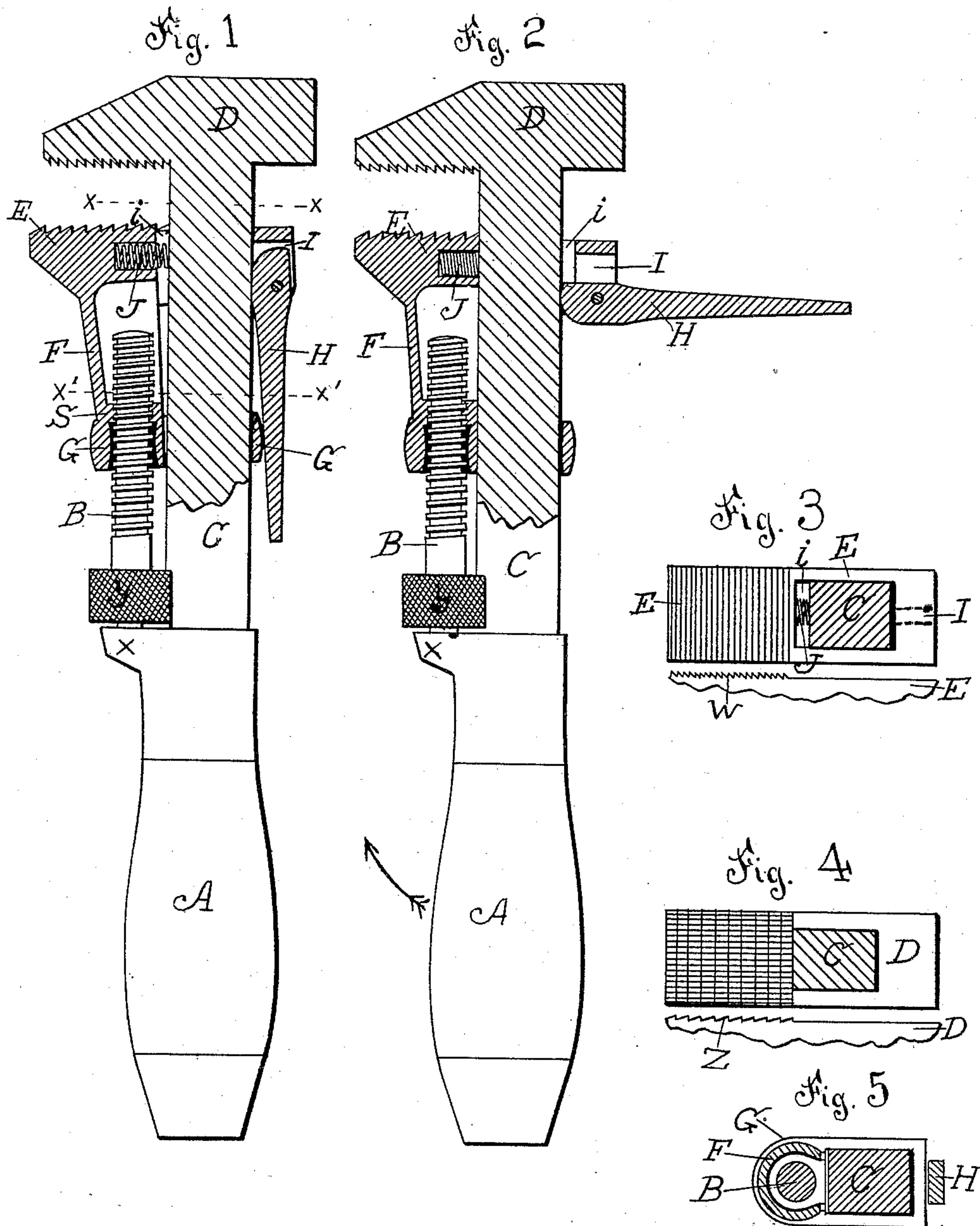


(No Model.)

H. B. CARY.
MONKEY WRENCH.

No. 427,672.

Patented May 13, 1890.



Witnesses

N. J. Judd
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UNITED STATES PATENT OFFICE.

HENRY B. CARY, OF LOS ANGELES, CALIFORNIA, ASSIGNOR OF ONE-HALF
TO ALFRED W. EAMES, OF SAME PLACE.

MONKEY-WRENCH.

SPECIFICATION forming part of Letters Patent No. 427,672, dated May 13, 1890.

Application filed July 9, 1889. Serial No. 316,911. (No model.)

To all whom it may concern:

Be it known that I, HENRY B. CARY, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Improvement in Monkey-Wrenches, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 represents a vertical section of my improved wrench, showing the adjusting-lever as closed. Fig. 2 is a similar view of the same with the adjusting-lever opened. Fig. 3 represents a transverse section of the same, taken at line X X of Fig. 1, and shows the working-face of the lower jaw and arm of the wrench. Fig. 4 is also a transverse section taken at line X X of Fig. 1, and shows the face of the upper jaw of the wrench; and Fig. 5 is a transverse section taken at line X' X' of Fig. 1.

My invention relates to the combination, in a monkey-wrench, (the grip of the jaws of which will be tightened by the force applied to its handle while in use,) of a lever or eccentric, whereby the wrench can be employed as a vise for securely holding an article, as hereinafter set forth.

In the accompanying drawings, A denotes the handle, which is provided with a ledge X, to serve as a seat for the jaw-adjusting screw B, which screw is provided with a milled disk or ring Y, to actuate it in the usual manner.

C denotes the wrench-arm that is secured to handle A, to which the fixed jaw D is rigidly attached as a part thereof. The lower jaw E is formed with a rectangular opening for the arm C, which opening is larger longitudinally than the width of the arm which is passed through it, to permit said jaw to oscillate transversely of the arm, and it is adjustable by means of the screw B, by which it may be moved toward or from the fixed jaw D in the usual manner. The enlarged or extended opening through jaw E is indicated by the letter *i* in the drawings, and a spiral spring J is seated in a recess formed in the jaw to act against the arm C and hold

said jaw in the normal position respecting the arm C and upper jaw D when not in use. The hollow screw-shield F, attached at one end to the jaw E, is made fast at its opposite end to the collar G and is provided with a female screw-thread of one or more spires or coils S only, in order to permit said jaw and the shield F to oscillate freely when the wrench is in use, the collar G being of sufficient size to admit of its necessary vibration or play up and down on arm C as said jaw and the shield oscillate or move transversely to said arm.

A slot I (shown in Figs. 1 and 2, and in dotted lines in Fig. 3) is formed in the projecting outer end of jaw E, in which a lever H is pivoted or hinged. Said lever, having an eccentric working end, will act against arm C when raised to the right angle, as shown in Fig. 2, and draw jaw E to the position shown in said figure, and when said lever H is thrown back to its parallel relation to arm C and releases the jaw the spiral spring J, acting against arm C, will force jaw E to resume its normal position, as represented in Fig. 1.

It is apparent that a curved spring attached to arm C, arranged to press against jaw E, and a simple cam or eccentrically-pivoted milled wheel would serve as equivalents of the spiral spring J and lever H.

In using my improved monkey-wrench the handle A should be forced around toward the working ends of the jaws E D, so that the resistance of the article embraced between them will act against the outwardly-beveled teeth W of the jaw E and the inwardly-beveled teeth Z of jaw D, which will cause compression of spring J and force said jaw toward arm C and cause it to approach slightly toward the upper jaw D, tightening their grip, and thereby preventing the article being acted upon from slipping or becoming disfigured by the action of the wrench. When it is desired to hold an article firmly—as, for instance, the head of a bolt—while a nut is to be tightened upon its opposite end, after closing the jaws E D upon such article by means of screw B, the lever H may be used to effect a positive clamping of the article, as in a vise.

It will therefore be seen that my improvement of the wrench enables it to be used effectively for the double purpose of a wrench and a vise.

5 Having described my invention, I claim and desire to secure by Letters Patent—

In a monkey-wrench organized as described, the oscillating jaw E, provided with an opening i, a spring J, an adjusting-screw B, and a

fixed jaw D, in combination with an arm C 10 and the eccentric-lever H, pivoted in a slot or recess formed in the projecting outer end of said jaw E, as and for the purpose specified.

HENRY B. CARY.

Witnesses:

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H. P. K. PECK.