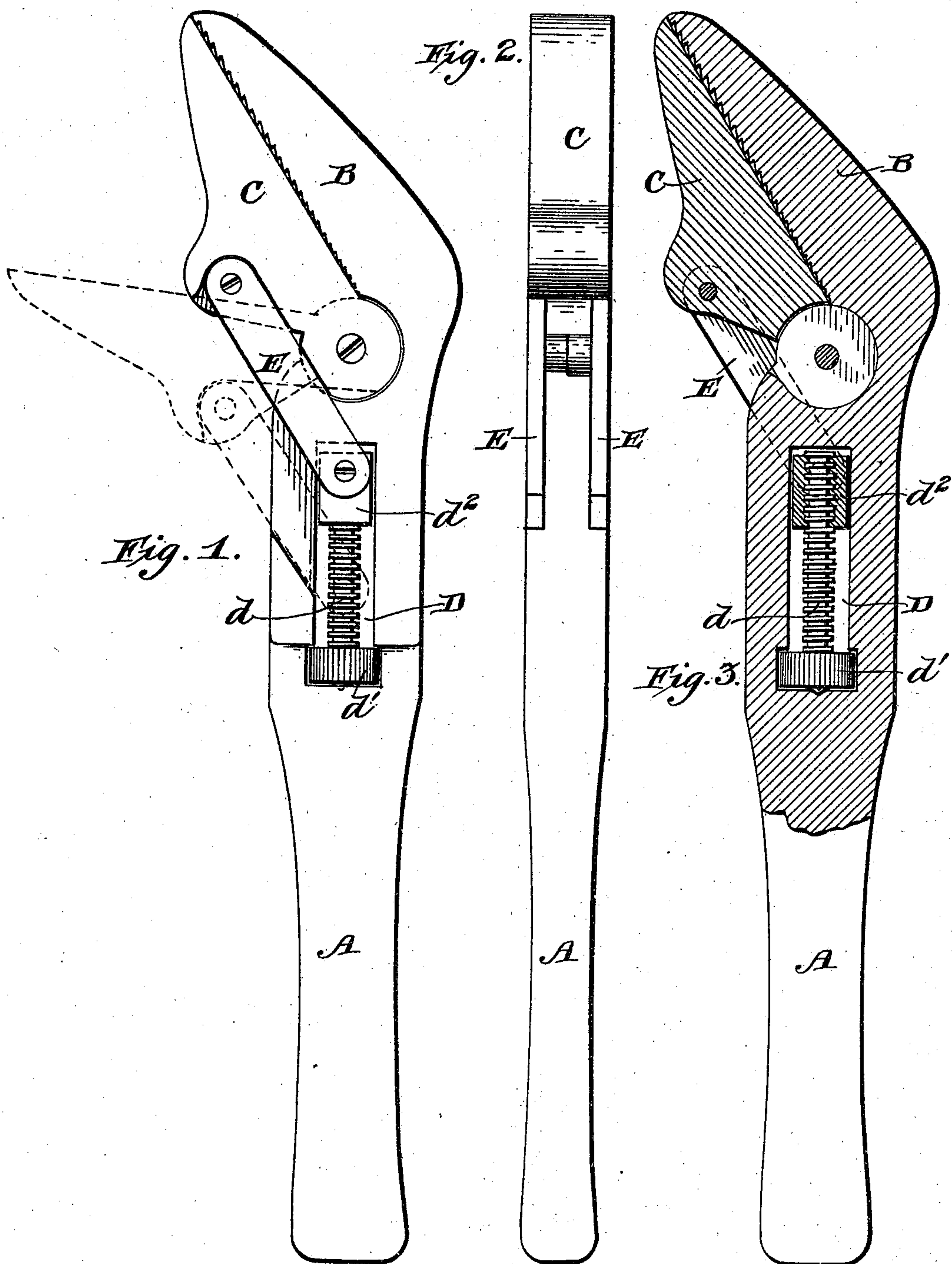


(No Model.)

S. E. KERN.
WRENCH.

No. 504,041.

Patented Aug. 29, 1893.



Witnesses

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UNITED STATES PATENT OFFICE.

SAMUEL E. KERN, OF BELLEVUE, OHIO.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 504,041, dated August 29, 1893.

Application filed June 2, 1893. Serial No. 476,402. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL E. KERN, a citizen of the United States, residing at Bellevue, in the county of Huron and State of Ohio, 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in wrenches for nuts, bolts, &c., and has for its object the provision of a simple, compact and convenient wrench for working in corners, or other close places on pipes, screws, nuts and bolts, and it consists of a handle and a suitable jaw rigid therewith and at an angle thereto, the said rigid jaw being provided with serrations, a pivoted under jaw, a screw threaded adjusting device in the handle, a slide on the screw and suitable connections for connecting said pivoted jaw with the slide on said screw.

The invention further consists in the novel construction and arrangement of the different parts of the device, hereinafter described, illustrated in the drawings and more particularly pointed out in the claims hereunto appended.

In the drawings, Figure 1 is a side elevation of the wrench, jaws closed, and with pivoted jaw shown open in dotted lines. Fig. 2 is an edge view of the wrench. Fig. 3 is a central sectional view.

Similar letters of reference indicate corresponding parts in all the figures where they occur.

Referring to the drawings by letter, A represents the handle, and B a jaw set at an angle thereto, and preferably cast integral therewith. The jaw B is provided on its engaging surface with serrations or rows of teeth as shown, for a purpose hereinafter explained. These teeth or serrations may be cast integral with the jaw B or made on a separate plate and secured to the jaw, as desired.

C is a jaw pivoted to the main body of the wrench, so that its biting or engaging surface

will lie against the engaging surface of the jaw B, as shown.

D is a slotted recess in the handle A below the pivoted jaw C into which is set and held therein a screw d , and is provided with a thumb piece d' , as usual. On this screw d is an interiorly screw-threaded slide d^2 , which is reciprocated in said slotted recess by the screw d , as is evident.

E, E, are links or connections attached at their upper ends to the under side of the pivoted jaw C, and at their lower ends to the slide d^2 , as shown. The portion of the handle A over which the links or connections E, E, pass is cut away on either side so as to permit the outer surface of the links or connections to be flush with outer surface of the handle, thus protecting them from injury. The under side of the jaw C and also the upper portion of the slide d^2 , are cut away for the same purpose, and to further give the wrench a neat appearance.

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

1. In a wrench of the character described the combination of a handle a jaw set at an angle thereto and rigid therewith, a recess in said handle, screw in said recess, and a slide on said screw; with a jaw pivoted to said handle, and links or connections between said slide and said pivoted jaw, all constructed and arranged substantially in the manner and for the purpose set forth.

2. In a wrench of the character described the combination of a handle a jaw set at an angle thereto and rigid therewith, and provided with teeth or serrations on its engaging surface, a slotted recess in said handle, screw in said recess, and an interiorly screw threaded slide on said screw, with a jaw pivoted to said handle, and links or connections connecting said slide to said pivoted jaw, all constructed and arranged to operate substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL E. KERN.

Witnesses:

MAMIE QUILTER,
H. G. EDGERTON.