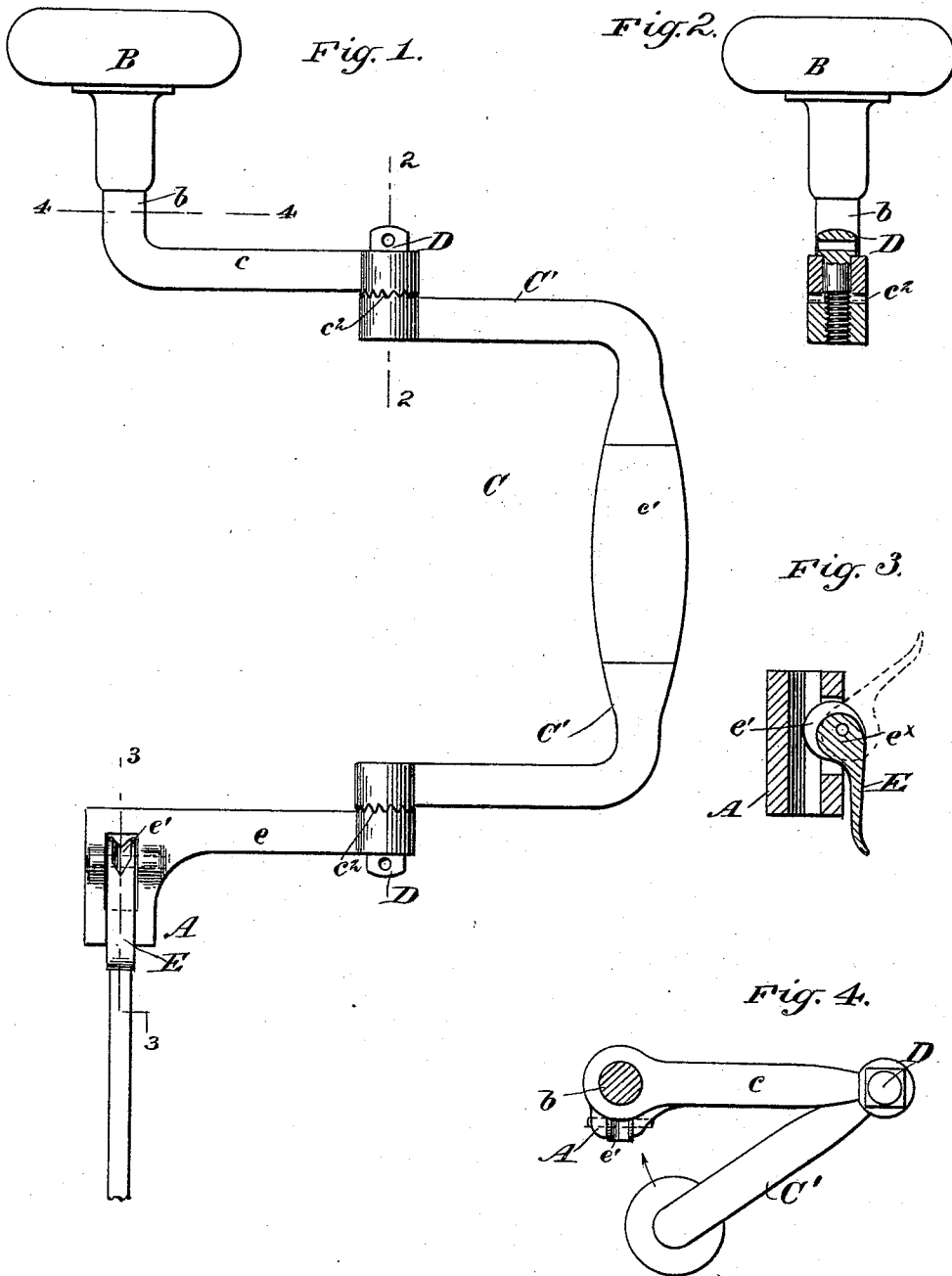


(No Model.)

J. E. HITCH.
BIT BRACE.

No. 495,335.

Patented Apr. 11, 1893.



WITNESSES:

J. M. Griswell
C. Sedgwick

INVENTOR:

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UNITED STATES PATENT OFFICE.

JOHN E. HITCH, OF WILMINGTON, OHIO.

BIT-BRACE.

SPECIFICATION forming part of Letters Patent No. 495,335, dated April 11, 1893.

Application filed June 18, 1891. Serial No. 396,719. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. HITCH, of Wilmington, in the county of Clinton and State of Ohio, have invented a new and Improved Bit-Brace, of which the following is a full, clear, and exact description.

The invention relates to bit braces having an adjustable sweep, and the object of the invention is to provide improved means of effecting the adjustment of the sweep, to the end that the brace may be quickly and conveniently adapted to either a large or a small boring bit.

The invention consists in the novel details of construction of parts as hereinafter described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a bit brace embodying my invention. Fig. 2 is a detail section on the line 2—2 Fig. 1. Fig. 3 is a detail section on line 3—3 Fig. 1. Fig. 4 is a sectional plan view on the line 4—4 Fig. 1, the sweep being adapted to a bit of small diameter.

The brace is provided with a suitable socket A, and C is the sweep having arms C' C' at right angles to its handle section c'. The head or button section c and the bit section e overlap at their inner ends the ends of the arms C' C', and are adjustably pivoted thereto by means of the pivot screws D, which are in alignment with each other and parallel with the longitudinal axis of the bit. These screws

pass freely through the sections c e and screw into threaded apertures in arms C' C'. The contacting surfaces of these overlapped ends are serrated as shown at c², so as to prevent slipping after the parts are adjusted to the desired positions. The head or button section c is provided on its member b with the usual head or button B and the bit section has a suitable bit socket A having pivoted thereto a lever E provided with a cam head e' having a groove e' in its working face to engage the bit.

The operation will be apparent from the foregoing.

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

A bit brace, comprising the sweep section C' having aligned threaded apertures through its ends parallel with the longitudinal axis of the bit and a series of teeth or serrations upon the outer faces of said ends around the aperture, the cranked handle section c and bit section e parallel with the respective arms of the section C', and having apertures in alignment with the said threaded apertures and serrations or teeth meshing with those of the section C', and the bolts D extending through the sections c e and screwing at their inner ends into the said threaded apertures, substantially as set forth.

JOHN E. HITCH.

Witnesses:

C. M. JENKINS,
C. H. IRWIN.