L. C. DI BERT.
Bit-Stock.

No. 213,399. Patented Mar. 18, 1879.

Fig. 1.

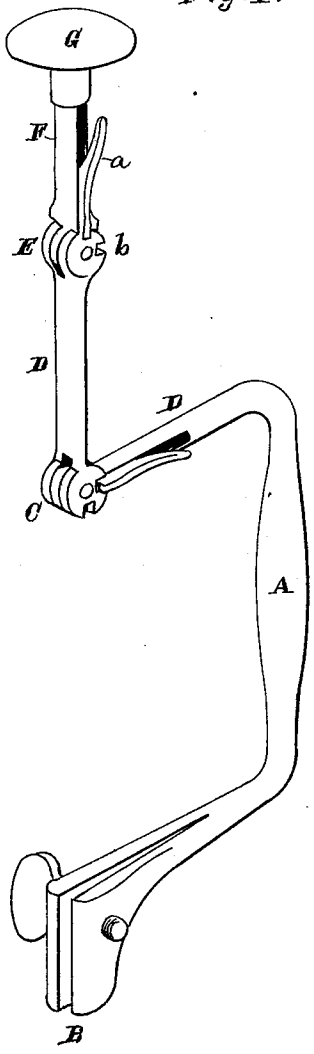
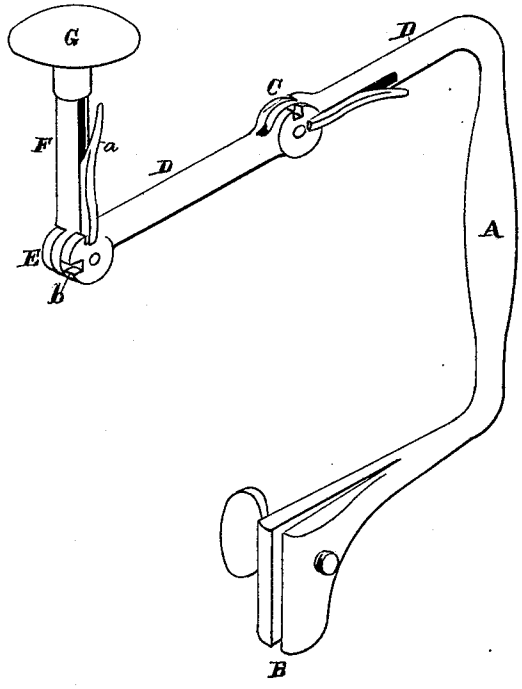


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

LOYD C. DI BERT, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN BIT-STOCKS.

Specification forming part of Letters Patent No. **213,399**, dated March 18, 1879; application filed November 22, 1878.

To all whom it may concern:

Be it known that I, LOYD C. DI BERT, of the city and county of San Francisco, and State of California, have invented a Combination Brace and Crank for Boring-Tools; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings.

My invention relates to improvements in that class of boring-tools known as "braces;" and my improvements consist in so jointing or hinging the parts of the handle that the tool may be used either as an ordinary hand-brace or as a crank-brace, as desired.

It also consists in a method of securing the jointed parts of the handle in any position required, as is more fully described in the accompanying drawings, in which—

Figures 1 and 2 are views of my invention in different positions.

In my improved combination brace and crank the brace is formed in three parts. The crank portion A is made in the usual form, with the ordinary tool stock or holder B at its lower end. That part, D, of the hand-brace which turns at right angles to the crank, and has the swiveled plate at its upper end, is hinged, as shown at C, and is extended longer than customary. Another hinge is also formed in it, as shown at E, so that the extension is divided into two parts, D and F, the upper part, F, having the usual swivel-plate G, as shown. At each end of the hinges or joints C and E are spring-lugs *a*, which engage in slots *b*, and hold the hinged parts in either position in which they are placed.

When it is desired to use the tool as an ordinary hand-brace, the parts D and F are placed parallel with the bit-stock B and crank A, and the springs *a* are engaged with the lugs, to hold the parts in that position.

When it is desired to use the tool as a crank-brace, by disengaging the spring-lugs from the slots the part D may be swung down so as to be at right angles to the crank A, and the part F placed at right angles to the part D. The tool then forms a crank-brace such as is ordinarily used for ship-building purposes, in boring holes for treenails, &c.

When the movable parts are in place for use in either way they are held firmly in position by means of the spring-lugs and slots.

By this means I form a combination brace and crank for boring-tools which may be used for either purpose, as desired.

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

The combination crank and brace, having the extension-arms D F, with their joints C E, in combination with the locks or catches *a a*, or equivalent devices, substantially as and for the purpose herein described.

In witness whereof I have hereunto set my hand and seal.

LOYD C. DI BERT. [L. S.]

Witnesses:
GEO. H. STRONG,
FRANK A. BROOKS.