(No Model.)

I. HOLLIDAY.

BRACE AND BIT.

No. 386,319. Patented July 17, 1888.

Fig. 1.

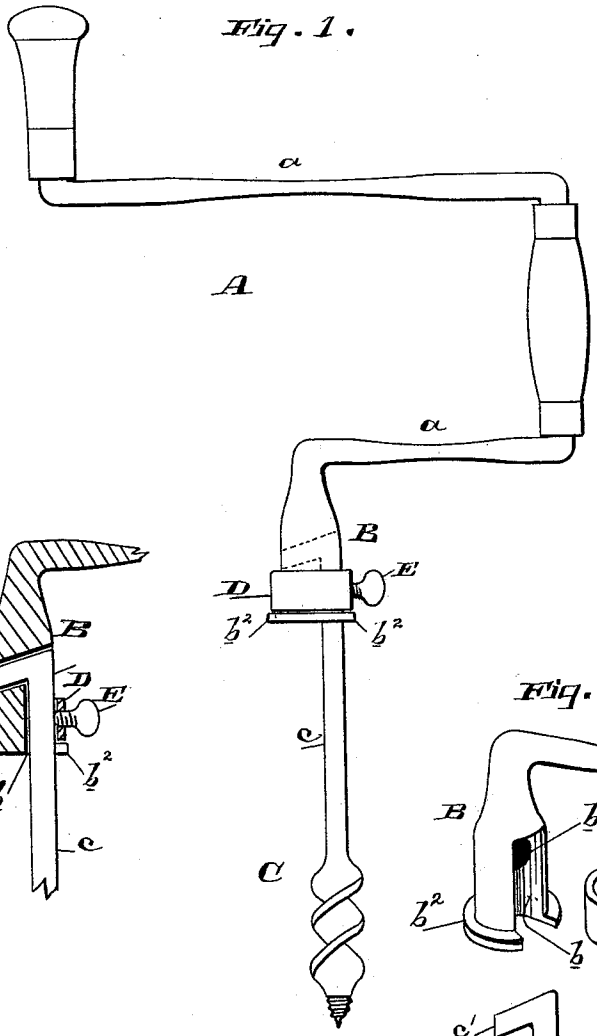
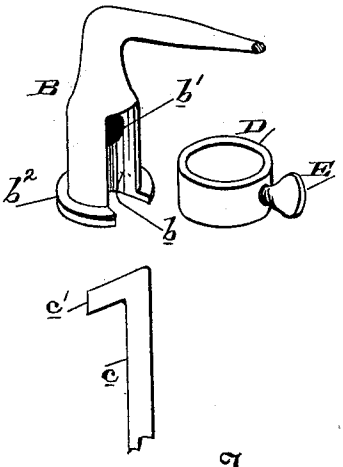


Fig. 2.

Fig. 3.



Witnesses,
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UNITED STATES PATENT OFFICE.

ISAAC HOLLIDAY, OF SAN FRANCISCO, CALIFORNIA.

BRACE AND BIT.

SPECIFICATION forming part of Letters Patent No. 386,319, dated July 17, 1888.

Application filed March 27, 1888. Serial No. 268,640. (No model.)

To all whom it may concern:

Be it known that I, ISAAC HOLLIDAY, of the city and county of San Francisco, State of California, have invented an Improvement in Braces and Bits; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to the class of braces and bits; and my invention consists in the fastening for the bit, said fastening consisting of a longitudinal groove in the brace-stock, terminating in a cross socket or hole to receive the shank and bent end of the bit, and a sliding collar on the stock, having a set-screw for fixing it and holding the bit in place.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a side elevation of my brace and bit. Fig. 2 is a vertical section through the stock or holder B. Fig. 3 is a view showing the several parts in perspective and separated.

The brace A has a stock or holder, B, in which is made a longitudinal groove, *b*, terminating in a transverse hole or socket, *b'*.

The bit C has a shank, *c*, with a bent end, *c'*. In fitting the bit to the brace the shank *c* lies in the groove *b* and the bent end *c'* of the shank fits in the cross hole or socket *b'*.

To secure the bit in position, I have a collar, D, fitted loosely on the stock B, and provided with a set-screw, E. The collar is moved up to the end of the stock, where a flange, b^2, limits it, and is there fixed by the set-screw, which bears directly upon the bit-shank, so that it both holds the collar and steadies the bit in its seat. I prefer to make the bend in the end of the bit at an angle slightly acute and to locate the cross-socket *b'* at a slightly-acute angle with relation to the groove *b*, so that the engagement may be the more certain. The arms *a* of the brace-crank are made to taper from all sides, so as to produce at or near the middle of each arm a point where the area is less in cross-section in every direction than at any other point of the arm, and I make these arms of steel, so that they may have a spring, in order to yield to any check which the bit may suffer in working.

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

1. A brace having a stock or holder provided with a longitudinal groove terminating in a cross socket or hole to receive the shank and bent end of a bit, in combination with a collar loosely fitted on the stock, and having a set-screw for holding it and binding on the bit-shank to secure it in its seat, substantially as herein described.

2. A brace having a stock or holder provided with a longitudinal groove terminating in a cross socket or hole, in combination with a bit having a shank for fitting in the longitudinal groove of the stock, and a bent end for fitting in the cross socket or hole thereof, and a collar loosely fitted on the stock, and having a set-screw for holding it and binding on the bit-shank to secure it in its seat, substantially as herein described.

In witness whereof I have hereunto set my hand.

ISAAC HOLLIDAY.

Witnesses:
S. H. NOURSE,
H. C. LEE.