

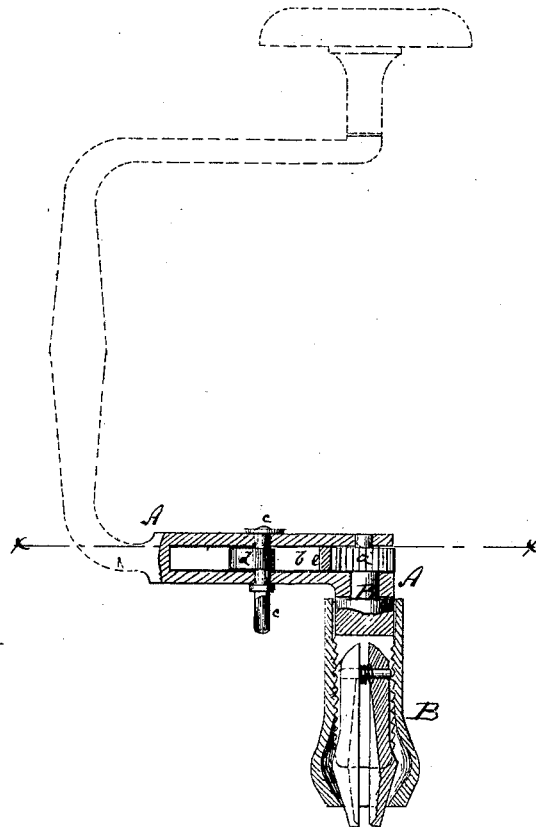
*J. T. Lynam,*

*Bit Stock.*

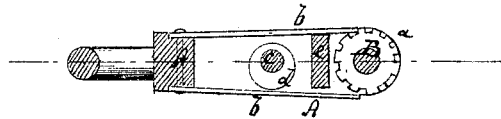
*No. 113680*

*Patented Apr. 11. 1871.*

*Fig. 1.*



*Fig. 2.*



**Witnesses:**

*John. Becker*  
*L. S. Mabee*  
*3*

**Inventor:**

*J. T. Lynam*  
PER *Munn & Co*  
Attorneys.

# United States Patent Office.

JOHN T. LYNAM, OF JEFFERSONVILLE, INDIANA.

Letters Patent No. 113,680, dated April 11, 1871.

## IMPROVEMENT IN BIT-BRACES.

The Schedule referred to in these Letters Patent and making part of the same.

### *To all whom it may concern:*

Be it known that I, JOHN T. LYNAM, of Jeffersonville, in the county of Clarke and State of Indiana, have invented a new and improved Bit-Brace; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents a sectional side view of my improved bit-brace.

Figure 2 is a horizontal section of the same taken on the plane of the line *x x*, fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to provide an improvement in ratchet bit-braces, or those which can be oscillated in either direction; and

The invention consists in the construction and arrangement of parts, as hereinafter described.

A in the drawing represents the brace, of ordinary or suitable construction.

B is the bit-holder or shank. It is swiveled in the lower arm of the brace, so that it can freely turn in the same.

*a* is a toothed wheel, mounted upon the upper part of the shank B.

*b b* are two spring pawls, secured to the brace A in such manner that their free ends fit against opposite sides of the wheel *a*, locking the same and preventing it from turning in either direction.

Between the spring pawls *b* is arranged on the brace an arbor, *c*, which carries a projecting cam, *d*.

This arbor can be turned whenever desired to carry

its cam *d* against either one of the spring pawls, moving the same off the ratchet-wheel.

Whenever one pawl is thrown off the ratchet-wheel the same is liberated so that it can be turned to one side but not to the other. The brace can then be used to apply the bit by an oscillating movement, and also to withdraw the same, by throwing the cam against the opposite spring.

*e* is a block or plate affixed to the brace between the spring pawls, and serving as a support for the same, while they play in the revolving ratchet-wheel.

Two jaws are placed in the socket B for the purpose of holding the bit. One of said jaws has a pin projecting from its inner end and face, passing through the end of the opposite jaw, and working in the screw-thread cut on the inner surface of the socket.

Thus it will be seen that when the bit-shank is inserted between the jaws and a rotary motion given to the same or to the socket B, the jaws may be made to grasp and hold the bit very firmly by reason of their conical surfaces coming in contact with the inner wall of the socket.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

The bit-holder B, having swiveled shank with toothed wheel *a* thereon, combined with a pair of spring pawls, *b b*, held apart by a plate, *e*, and operated by a cam, *d*, to lock the bit-holder, as set forth.

JOHN T. LYNAM.

Witnesses:

GEO. A. HIKES,  
GEO. D. WILLIAMSON.