

Bit Stock,

*Patented May 16, 1854.*



Fig. 2

Fig. 3



# UNITED STATES PATENT OFFICE.

CHARLES M. DABOLL, OF NEW LONDON, CONNECTICUT, ASSIGNOR TO C. M. & A. P. DABOLL.

## CATCH FOR HOLDING THE BIT IN BRACE-STOCKS.

Specification of Letters Patent No. 10,924, dated May 16, 1854.

*To all whom it may concern:*

Be it known that I, CHARLES M. DABOLL, of New London, in the county of New London and State of Connecticut, have invented a new and useful Improvement in Carpenters' Braces; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification, Figure 1 being a section of the pad of a brace with the shank of a bit inserted therein and a side view of the rest of the brace; Fig. 2, a similar section of the pad broken off, showing the position of the catch and thumb-piece when raised for detaching a bit, and Fig. 3 a top view thereof.

Like letters designate corresponding parts in all the figures.

The nature of my invention consists in the improved manner of securing and detaching the bit in and from the socket of the brace by means of the eccentric catch D, and the inclined side *b*, of the notch in the shank of the bit, operating as described, viz: in such a manner that any force exerted to withdraw the bit will bind it tighter in its place without straining said catch and by which a slight pressure upon the thumb lever C, combined with the catch, as herein specified, will release its hold upon the bit, substantially as hereinafter set forth.

The pad A, of the brace is provided with a socket *a*, of the usual form to receive the shank B, of any bit. Near the mouth of said socket, in a suitable recess at one side for its reception, is situated the eccentric catch D, whose pivot *g*, is so located that its holding projection *h*, will be raised by vibrating inward (as in Fig. 2) sufficiently to allow the shank of the bit to be inserted in the socket, and then entering the notch of the shank, whose side *b*, is made inclining or flaring out to allow the free insertion and withdrawal of the catch, will, by its eccentric action in vibrating outward, press the shank against the opposite side of the socket and wedge it there with increased firmness whenever any force is exerted to draw the bit out of the socket, as represented in Fig. 1. The catch is pressed against the shank of the bit by a spring *f*, situated in the bottom of the socket and acting upon the thumb lever

C, by which the catch is operated. Said thumb lever is sunk into the side of the brace, so as to form an even surface therewith, except its button *d*, against which the thumb presses for raising the catch, and this must project sufficiently to allow the required extent of motion to the lever by being pressed down even with the surface of the brace. The lever vibrates on a pivot *e*, near its center, and its lower end is notched, as shown at *c*, (Figs. 1 and 2,) for the purpose of receiving a spur *i*, on the catch D, by which means the said catch is operated and limited in its motions both ways by the thumb lever. The exterior face of the projection *h*, is rounded or beveled off, as represented, so that the shank of the bit will itself raise the catch and enable itself to be inserted without touching the thumb lever. Thus constructed, the entire catch forms a neat piece of workmanship, having no projections outside to mar the appearance or obstruct the motions of the brace, and retains the bit with great firmness and security, while it is made to easily set free the bit, however tightly held, since the action of the thumb lever is to lift the binding projection by a spring *f*, situated in the bottom of the bit.

Having thus fully described my improved carpenters' brace, what I claim therein as new and desire to secure by Letters Patent, is—

The improved manner of securing and detaching the bit in and from the socket of the brace, by means of the eccentric catch D, and the inclined side *b*, of the notch in the shank of the bit, operating as described, viz: in such a manner that any force exerted to withdraw the bit will bind it tighter in its place, without straining said catch, and by which a slight pressure upon the thumb lever C, combined with the catch as herein specified, will release its hold upon the bit, substantially as herein set forth.

The above specification of my improvement in carpenters' braces signed and witnessed this 15th day of April, 1854.

CHAS. M. DABOLL.

Witnesses:

J. R. MERRIAM,  
JOHN S. MORGAN.