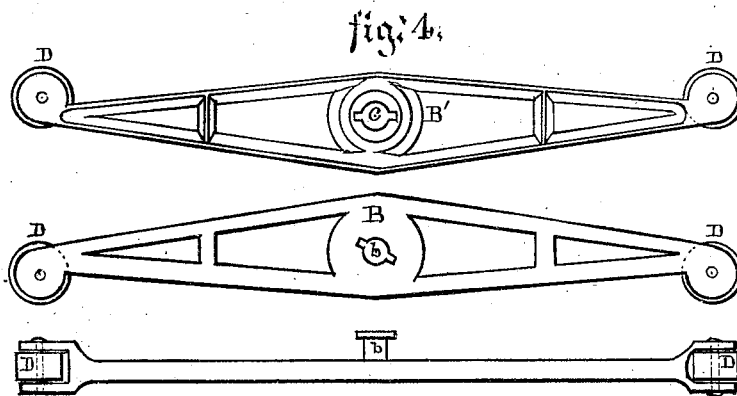
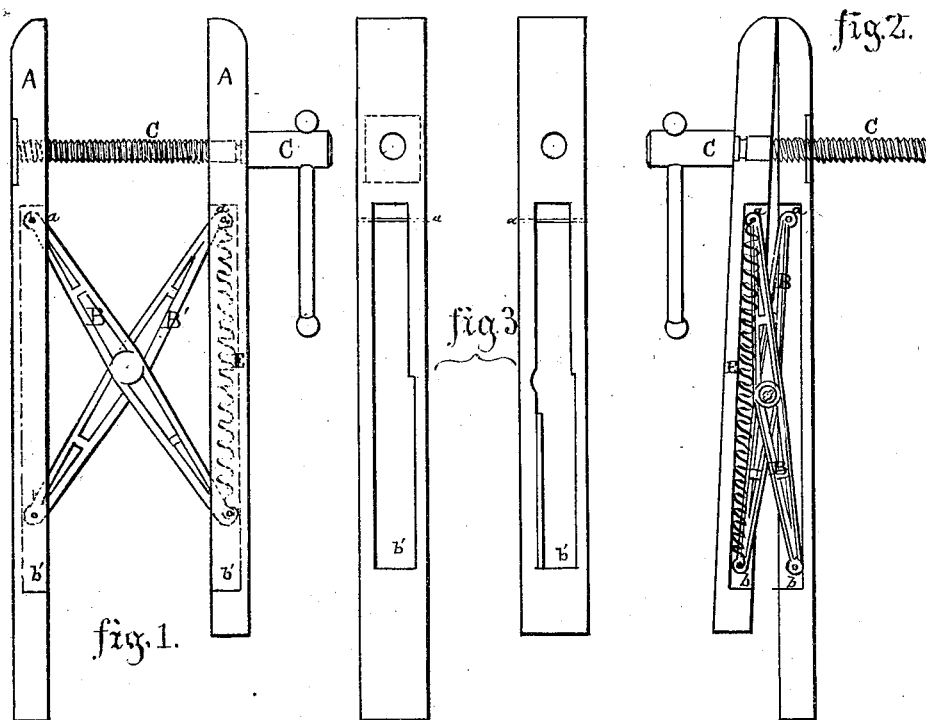


G. F. Bissell,

Permit Vise.

No. 110,001.

Patented Dec. 13. 1870.



Witnesses
I. C. Connelly
W. S. Allen

Inventor
George F. Bissell

United States Patent Office.

GEORGE F. BISSELL, OF ONEONTA, NEW YORK.

Letters Patent No. 110,001, dated December 13, 1870.

IMPROVEMENT IN CARPENTER'S VISES.

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, GEORGE F. BISSELL, of Oneonta, county of Otsego, State of New York, have invented a new and useful Improvement in Carpenter's Vises; and I hereby declare that the following description and accompanying drawing are sufficient to enable any person skilled in the art to make and use the invention.

My invention relates to the manner of constructing the diagonal braces which connect and support the cheeks of a carpenter's vise;

First, in the application of a spiral spring, which connects the ends of the braces; and

Secondly, in the method of connecting the braces.

Figure 1 is a side view, represented open wide.

Figure 2 is a section view, represented closed.

Figure 3, views of the inside of the cheeks or jaws.

Figure 4, details of the braces, showing the hinge.

In the drawing—

A refers to the cheeks of the vise.

B B', the braces.

C, the screw.

D D, the friction-rollers.

E, the coil spring.

a a, the pins holding the upper ends of the braces.

b, the pin holding the middle of the braces.

b' b', the recesses in the sides of the cheek pieces, in which the ends of the braces are inserted and the coiled spring is placed, acting freely upon the ends of the braces.

c is the hole in one of the braces, made with notches

on opposite sides to receive the pin b, which has corresponding projections to fit the notches in c.

The operation of this arrangement is as follows, viz:

The notches and projections are at such an angle with the line of the braces that, when they are acting together, the projections of the pin lie across the hole c, away from the notches, and prevent the separation.

To remove the parts, the braces must be brought to such an angle that the notches and projections are coincident, and can pass out from the hole c.

In ordinary screws a neck is formed near the head and a pin or other equivalent is inserted through the cheek, thus uniting them, and yet permit the screw to be turned. In my invention the coiled spring, acting upon the ends of the braces, causes the cheeks to separate whenever the screw is reversed.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. the coiled spring E, in combination with the ends of the braces B B', substantially as and for the purpose described.

2. The joint b c, constructed in the two braces B and B', substantially as and for the purpose described.

3. The combination of the spring E, braces B B', and friction rollers D D, with the jaws of a vise, substantially as and for the purpose described.

GEORGE F. BISSELL.

Witnesses:

T. C. CONNOLLY,

THOS. S. MERCER.