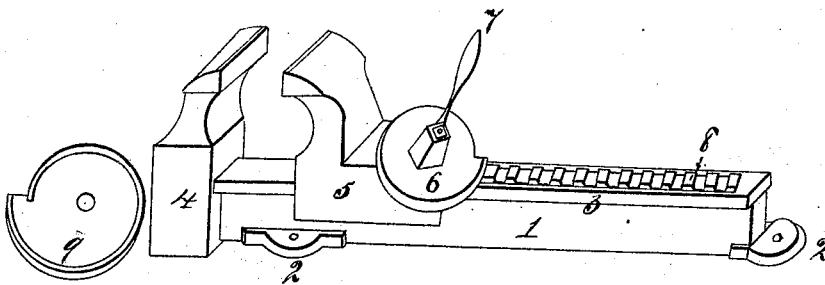


S. Dean,

Vise.

N^o 127.

Patented Feb. 10, 1837.



UNITED STATES PATENT OFFICE.

LINUS DEAN, OF UTICA, NEW YORK.

MODE OF CONSTRUCTING BENCH AND OTHER VISES.

Specification of Letters Patent No. 127, dated February 16, 1837.

To all whom it may concern:

Be it known that I, LINUS DEAN, of the city of Utica, in the county of Oneida and State of New York, have invented a new and useful Mode of Constructing Bench and other Vises; and I do hereby declare that the following is a full and exact description thereof.

In my improved vise, the movable jaw is not made to open by means of a joint pin, in the ordinary manner, but it is provided with grooves, on its lower side, which fit on to, and by means of which it slides freely along, a horizontal bar, the upper edge of which projects over on each side so as to form tongues, or ribs, which fit into the grooves of the sliding jaw; upon one end of this horizontal bar the fixed jaw is situated, being firmly attached thereto. The bar has flanges on its lower side, by which it is to be attached to the bench. Instead of moving the sliding jaw by a screw, I effect this by means of a rack, and a spiral, or volute, wheel, the fillet of which takes into the teeth on the rack, which teeth occupy the upper side of the sliding bar.

The spiral, or volute, wheel, revolves upon a pin rising from the sliding jaw, near to its back end; the spiral, or volute, is formed upon the lower face of this wheel, making one entire turn thereon. The wheel is inclined back from a horizontal position, to enable the fillet, or spiral, to take into the rack teeth; a projecting pintle on the upper side of the wheel receives a handle, or wrench, by which it may be turned. This pintle forms a socket in the center of the wheel to receive the pin on which it turns.

The size of the respective parts will, of

course, depend upon the size of the vise itself. The following are the general dimensions of the principal parts of one which I have made. The bar is about two feet in length, two and a half inches deep, and one and a fourth inch wide. The fixed jaw is about the size, and is in the form, of that of an ordinary smith's vise; the movable jaw is of the same size and form, but it has a projecting piece extending back about six inches, which forms a part of the cheeks of the slide, and from which rises the pin upon which the spiral wheel revolves; the wheel is about six inches in diameter, the thread, or fillet, forming the spiral, about five-eighths of an inch square; and the pin which passes through the wheel, two inches high, and one inch and a half in diameter. The bar of this vise is to be secured upon the bench with the fixed jaw toward the workman.

Having thus fully described the construction of my improved vise, I do hereby declare that I do not claim to be the inventor of the sliding jaw, this having been before made and used; but it has hitherto been moved, as in the common vise, by means of a screw.

What I claim, therefore, as constituting my invention and improvement, is—

The substituting the rack and spiral wheel for the screw, as herein set forth, and arranging the auxiliary parts substantially in the manner described.

LINUS DEAN.

Witnesses:

IRA CHASE,
JAMES DEAN.