

H. RORIG.
FACE FOR VISE JAWS.
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1,048,100.

Patented Dec. 24, 1912.

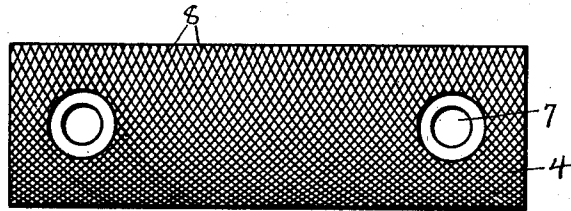


FIG. 1.

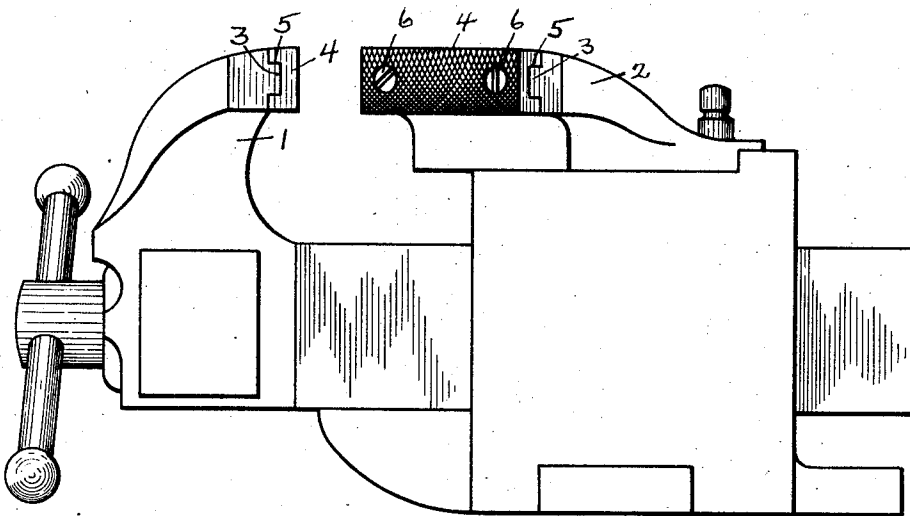


FIG. 2.

Witnesses

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FACE FOR VISE-JAWS.

1,048,100.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HENRY RORIG, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented new and useful Improvements in Faces for Vise-Jaws, of which the following is a specification.

This invention relates to faces for vise jaws and consists in certain improvements in the construction thereof as will be hereinafter fully described and pointed out in the claims.

The object of the invention is to provide a milled face for a vise jaw with lines of milling in such a direction as to give them the greatest possible efficiency as a gripping surface.

The invention is illustrated in the accompanying drawings as follows:—

Figure 1 shows a jaw face detached. Fig. 2 a vise with the jaw faces in place.

1 marks the movable jaw of a vise, 2 what is commonly called the fixed jaw but as shown is a swivel jaw, the jaw being turned to better show the face. The vise jaws are provided with the projections 3 which extend into the grooves 5 extending across the back of the faces 4. Screws 6 extend through the perforations 7 in the ends of the jaw so as to securely fasten the faces to the vise jaws.

The construction so far as described is a common one.

Heretofore, it has been common to mill the faces of jaws in straight lines, the lines being formed in two series, the lines of one series crossing the lines of the other. The serrations formed by this system of milling were, therefore, formed in straight lines. With a piece of work placed in the jaws of a vise, the gripping surface thus formed was less efficient in the direction of the lines of the milling because the serrations thus formed in straight lines when once having scratched the metal by an initial movement ceased to grip by reason of indentation so that a jaw face as to this particular direction after such an initial movement operated practically only as a friction surface. I have provided the jaw face with lines of milling, the lines being approximately arcs of circles of equal radii and with centers off-set from the face of the jaw and in line, the

lines of milling being in two series, the lines of one series crossing the lines of the other. This form of face can be conveniently made by placing a cutting tool in the axial face of a rotating plate and feeding a jaw face below the center of the rotating plate and across the plate in the path of the cutting tool. Where this is done, the cutting tool cuts one series of lines in its downward or upward movement and the other series of lines in its movement at the opposite side of a vertical plane passing through the axis of the rotating plate, so that with one pass of the jaw face these curved lines are placed on the face in a series of lines, the one series crossing the lines of the other, the centers of all the lines of milling being in one straight line off-set from the jaw face. The serrations formed by this scheme of milling are, therefore, in curved lines so that pressure upon the piece gripped by the vise in any direction cannot so scratch the surface as to permit the movement of the piece in any direction without a further removal of some of the surface material. For instance, pressure in any one direction cannot be in line with but a few serrations. Furthermore a twisting or rotative pressure cannot have this effect because the lines are not parallel. The result is that the jaw face so milled has approximately equal efficiency for gripping as against pressure in any direction.

While I have shown the jaw face as removable or separable from the vise jaw, I do not wish to be limited to a separable or removable jaw face.

What I claim as new is:—

1. A vise jaw face having milled lines approximating arcs of circles in two series, the arcs of each series being of approximately equal radii to the other arcs of the same series whereby the milled lines are out of parallel, the lines of one series crossing the lines of the other.

2. A vise jaw face having milled lines approximating arcs of circles with their centers in a line offset from the jaw face and in two series, the arcs of each series being of approximately equal radii to other arcs of the same series whereby the milled lines are out of parallel, the lines of one series crossing the lines of the other.

3. A vise jaw face having milled lines ap-

proximating arcs of circles in two series,
the arcs of each series being of approxi-
mately equal radii to the other arcs of the
same series whereby the milled lines are out
5 of parallel, the ones of one series crossing
the lines of the other and the centers of both
series being in the same line.

In testimony whereof I have hereunto set
my hand in the presence of two subscribing
witnesses.

HENRY RORIG.

Witnesses:

ELMER F. STEINER,
EVERETT L. BOWERS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
