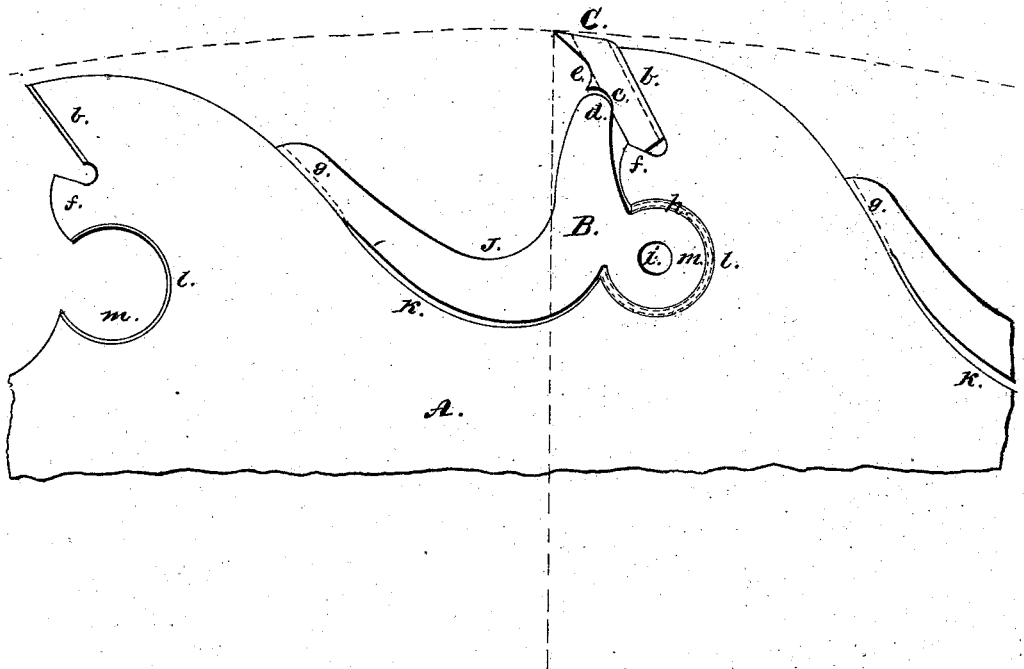


W. P. MILLER.

SAW.

No. 190,062.

Patented April 24, 1877.



Witnesses:

Jacob Brenner.
David M. Edsall

Inventor:

Warren P. Miller

UNITED STATES PATENT OFFICE.

WARREN P. MILLER, OF NEW YORK, N. Y.

IMPROVEMENT IN SAWS.

Specification forming part of Letters Patent No. **190,062**, dated April 24, 1877; application filed February 27, 1877.

To all whom it may concern:

Be it known that I, WARREN P. MILLER, of the city, county, and State of New York, have invented an Improvement in Saws; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making a part of this specification, together with the letters written thereon, and of which—

A represents the saw-plate. B is a throat-piece or clamp. C is a tooth.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I temper and grind my circular steel plates, in the usual manner, and form sockets all around the periphery, in form as shown in A. The circle *m* is bored true, and countersunk on both sides. The shoulder *b* has a V-shaped edge formed on it, to enter the back of the tooth, which is provided with a corresponding groove. The hook *f* has an inclination of about thirty-five degrees with the plane *b*, and is for the purpose of holding the bottom of the tooth in the groove. The wedge shape of the tooth insures a perfect fit without great accuracy of workmanship, as would be required were the line of the hook parallel with the plane *b*. The clamps B are punched into form, as shown, with the circular part *m* enough less in diameter than the hole in the plate, so that

a thin piece of soft metal, bent in form, may be inserted between the clamp and plate, and then riveted down on both sides into the countersink, and made flush with the plate. The end of the clamp is fluted, and the edge of the plate rounded to match. The clamp B is held in position, and allowed to pivot at *m*. The plate is cut away at *k*, so that a lever may be inserted into the hole *i*, so as to act on the clamp at *j* to depress it. Thus the space between *b* and *d* is enlarged, so that the tooth C may be removed or inserted, as desired. The projection formed on the front of the tooth C at *e* is for the purpose of carrying the chips over the jaw *d*, and thus protect the clamp from wear, also prevents the chips from jamming into the joining-pieces.

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

1. The tooth C, provided with the projection on its front *e*, in combination with the saw-plate A, having an inclined hook, *f*, forming a support for the bottom of the tooth, substantially as set forth.

2. The clamp B, having a circular tongue, *m*, in combination with the plate A and soft-metal joining-piece, substantially as and for the purpose specified.

WARREN P. MILLER.

Witnesses:

JACOB BRENNER,
DAVID M. EDSALL.