N. W. SPAULDING.

Saw Gummer.

No. 34,042.

Patented Dec. 24, 1861.

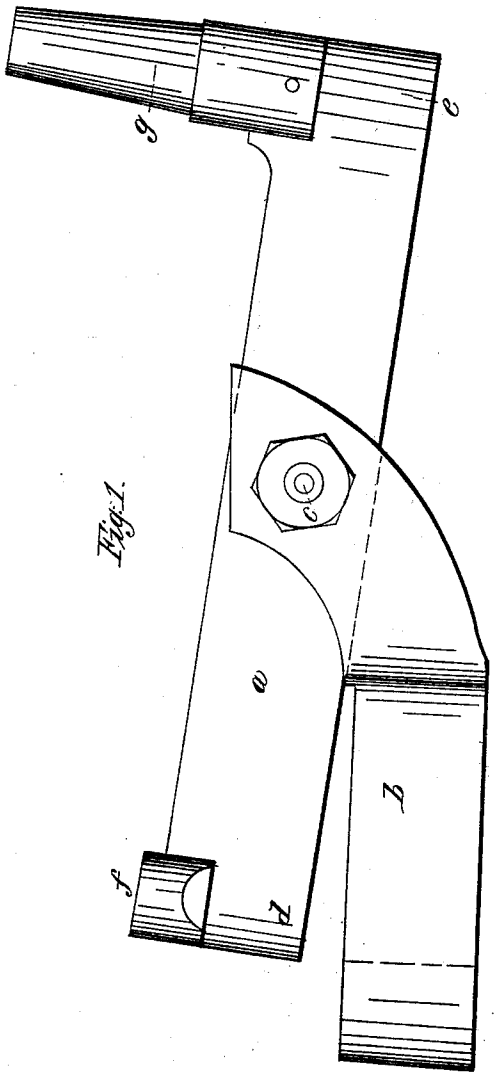

Fig. 1.

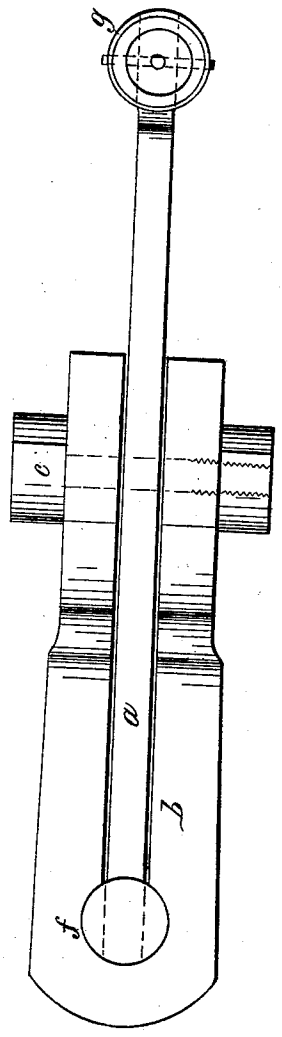

Fig. 2.

Witnesses
Geo. B. Cambright
E. Thompson

Inventor.
N. W. Spaulding
by Atty Thos. J. Cram

UNITED STATES PATENT OFFICE.

N. W. SPAULDING, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN SAW-GUMMERS.

Specification forming part of Letters Patent No. **34,042**, dated December 24, 1861.

To all whom it may concern:

Be it known that I, N. W. SPAULDING, of the city of San Francisco, in the State of California, have invented a certain new and useful Improvement on Saw-Gummers; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters and marks thereon.

The improvement herein set forth is more particularly intended to be used in acting upon saws or saw-plates for the purpose of inserting detachable teeth, and has special application to such saws and saw-plates as are to be provided with teeth or other pieces set therein on circular lines instead of angular, as is made the subject of Letters Patent granted to me on the 10th day of September, 1861.

In the drawings forming part of this specification, Figure 1 is a side view of my saw-gummer, the punch or upper part being elevated above the die or lower part, and Fig. 2 being a top view or a view of both parts of the gummer had by looking down upon it, the punch being down upon the die.

In each of the figures like letters and marks are used to indicate like parts.

Usually the punch of the gummer is operated in a vertical line and is very apt to crack or break the saw or saw-plate when cutting out or off the piece. It will be seen that the punch *a* of my gummer is attached to the die or bed *b* by a bolt *c*, which forms the fulcrum of the punch, and that the motion of the punch in cutting is in the line of a circle, cutting like shears. The punch passes down into the slot of the die, each edge of the punch and the die being cutting-edges, so that the action of the two is that of double shears. The die part may be rigidly fixed to a block, as will usually be the case when the gummer is large and operated by mechanical means, or it may be as is represented by the drawings, as when used as a hand-tool. The punch is so formed that either end of it may be used, so that if the one end *d* becomes dull or broken the other end *e* may be used, it being necessary only to take out the bolt *c* and change the position of the ends. The punch is so constructed, too, that it may be operated by a blow or by pressure, the head *f* on the end *d* being prepared for the use of a hammer, and the rod *g* on the end *e* being the means for the easy connecting of the punch to any machine for pressure. This arrangement of the punch and die in connection with the peculiarities of construction renders this gummer valuable both as a machine or hand-tool gummer, and enables the operator to cut out the necessary piece with ease and without any danger of cracking or injuring the saw or saw-plate, the double shear-cut being at all times safer and more sure than the single shear-cut or simple vertical punching.

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

1. Pivoting or hinging the double-edged punch to the double-edged die, as herein recited, whereby the double shear-cut may be made by the gummer.

2. In combination with the double-edged die, the double-end punch, as herein described, whereby the one end may be substituted for the other, as and for the purposes described.

This specification signed this 31st day of October, 1861.

N. W. SPAULDING.

Witnesses:

W. WILLSON LAWTON,

I. MIDDLETON, Jr.