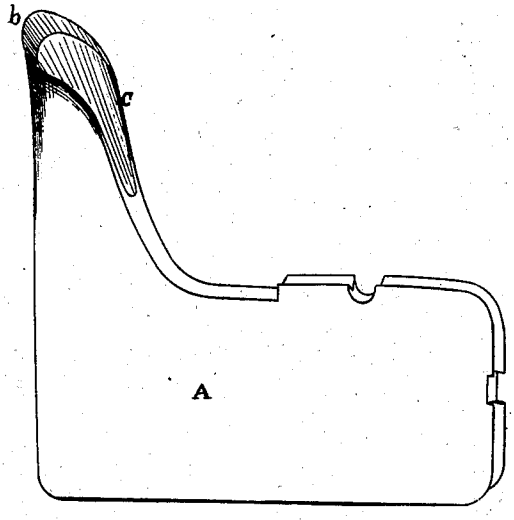
N. W. SPAULDING.

SAW-TEETH

No. 192,089. Patented June 19, 1877.



Witnesses
Geo. H. Strong.
Jno. L. Boone.

Inventor
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UNITED STATES PATENT OFFICE.

NATHAN W. SPAULDING, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN SAW-TEETH.

Specification forming part of Letters Patent No. **192,089**, dated June 19, 1877; application filed March 15, 1877.

To all whom it may concern:

Be it known that I, NATHAN W. SPAULDING, of the city and county of San Francisco and State of California, have invented Improvements in Saw-Teeth; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings.

My invention consists in an improvement in upsetting and spreading the points of that class of saw-teeth in which the cutting-points of the teeth are made concave, in the manner of a bonnet; and is an improvement upon the saw-tooth contained in my application for Letters Patent, filed June 21, 1876.

Referring to the accompanying drawings, Figure 1 is a perspective view of my tooth.

Let A represent a saw-tooth of the class above described. *b* is the upper angle or cutting-face which is converted by the semicircular groove in its edge into a convex or bonnet-shape cutting-rim. C is the lower angle or neck of the tooth.

In order to give this class of saw-teeth the proper amount of clearance, and at the same time increase their cutting capacity, I spread the edges of the bonnet-shaped cutting-point by means of a suitable tool, which will flare or upset the entire semicircular cutting-rim. This tool is so constructed that the sides will be spread more than the top or upper point of the cutting-rim. In fact, this upper point only requires to be set upward sufficiently to give clearance to the back of the tooth, which, in my improved tooth, I make straight, as represented.

I am aware that the side cutting-bits of saw-teeth have heretofore been spread for the purpose of serving as planers; but in all such cases the side-bits extended down nearly to the throat of the teeth, and were spread simply in opposite directions.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The saw-tooth A, having its bonnet-shaped or convex cutting-rim upset or expanded, substantially in the manner and for the purpose described.

In witness whereof I have hereunto set my hand and seal.

N. W. SPAULDING. [L. S.]

Witnesses:

GEO. H. STRONG,

FRANK A. BROOKS.