(No Model.)

A. B. PALMER.

SAW TOOTH.

No. 422,969. Patented Mar. 11, 1890.

Fig. 1.

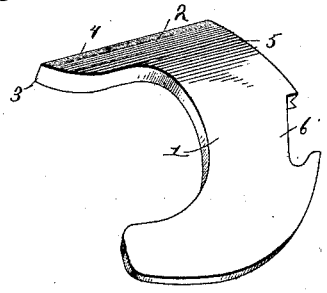


Fig. 4.

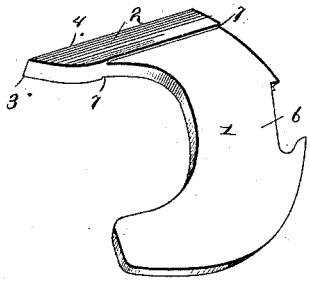


Fig. 2.

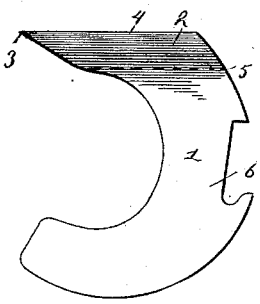


Fig. 5.

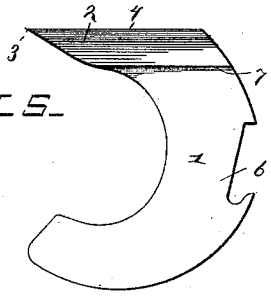


Fig. 3.

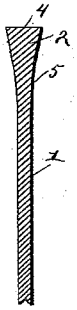
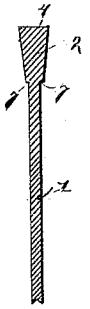


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

AMOS B. PALMER, OF PORT ALLEGHANY, PENNSYLVANIA.

SAW-TOOTH.

SPECIFICATION forming part of Letters Patent No. 422,969, dated March 11, 1890.

Application filed September 28, 1889. Serial No. 325,406. (No model.)

To all whom it may concern:

Be it known that I, AMOS B. PALMER, a citizen of the United States, residing at Port Alleghany, in the county of McKean and State of Pennsylvania, have invented a new and useful Saw-Tooth, of which the following is a specification.

This invention relates to saw-teeth; and it has for its object to construct a full-swaged tooth which shall be durable and efficient and by which the labor of hand-swaging may be to a great extent dispensed with, thereby saving time and labor.

The invention consists in forming the saw-tooth with a top or upper portion of increased thickness, forming a point which will at all times and at all stages of wear remain full swaged, as will be hereinafter fully described, and particularly pointed out in the claim.

In the drawings hereto annexed, Figure 1 is a perspective view of my improved saw-tooth. Fig. 2 is a side view of the same. Fig. 3 is a vertical transverse section. Fig. 4 is a perspective view showing a modification. Fig. 5 is a side view of the same. Fig. 6 is a transverse sectional view of said modification.

Like numerals of reference designate like parts in all the figures.

In the drawings hereto annexed my invention has been shown as applied to insertible saw-teeth for circular saws, to which class of teeth it is particularly well adapted; but I desire to state that I do not limit myself to insertible teeth, nor do I herein claim the details in the construction of the saw-tooth shown in the drawings whereby it is adapted to be inserted detachably in a saw-plate.

1 designates the shank or body of the saw-tooth, 2 the top, and 3 the point, of the same. By the top is meant that portion of the tooth which is included between the upper edge 4 and the line 5, running parallel to said upper edge from the lower end of the point, the point being the entire front of the tooth included between said lines 4 and 5, and which is straight or plane, in contradistinction to the front of the body of the tooth 6, which is curved. The "top" of the tooth, as shown in the drawings, is made wedge-shaped, of gradually-increasing thickness toward the upper edge 4. It is this thickened or wedge-shaped portion which I designate as the "full-swaged top." In the modification shown in Figs. 4, 5, and 6 of the drawings the top of the tooth, in addition to being wedge-shaped and of increasing thickness toward its upper edge, is made sufficiently thicker than the body or shank of the tooth to form shoulders 7 at its lower edge where it joins the shank or body.

The advantages of my improved form of saw-tooth will be readily understood by those skilled in the art to which it appertains. By the ordinary process of swaging the point of the tooth is spread or drawn out at its extreme end to a keen cutting-edge, and the process of swaging must be frequently repeated to keep the saw-teeth in good working order. Sometimes in the process of swaging the point will crack, and a new point must then be drawn up in a slow and laborious manner. Again, it frequently happens during operation that one corner of the tooth point or edge will break off, especially when sawing in hard or knotty stuff. Flaws or ridges are thus formed in the lumber, and the process of repairing the point of the tooth by swaging out the broken corner is slow and tedious and shortens the top of the tooth considerably. Moreover, by the frequently-repeated hand-swaging said teeth of ordinary construction are soon worn out and rendered useless. By my improvement the point of the tooth at all times and under all circumstances remains spread or swaged, owing to the wedge-shaped top, the front edge of which forms the point, and hand-swaging may therefore be dispensed with, except occasionally for the purpose of restoring the corners, which by long-continued use may wear off rounded. Under ordinary circumstances slight filing on the under side of the point will be found to be all that is required to keep my improved saw-tooth in good working order. Much time and annoyance will thus be saved, and the teeth being even and regular will cut smoothly and produce a superior quality of lumber. It is also obvious that, owing to the thickened or re-enforced upper portion of the tooth and necessity for hand-swaging and filing being to some extent dispensed with, the life of my improved saw-tooth is greatly enhanced.

Having thus described my invention, I

claim and desire to secure by Letters Patent of the United States—

A tooth for circular saws, having a straight upper or outer edge, as 4, an inclined or beveled front, as 3, and having its top—namely, that portion of the tooth which is included between the upper edge 4 and a line drawn from the lower end of the point and parallel to the upper edge of the tooth—of gradually-increasing thickness toward the said upper edge of the tooth, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

AMOS B. PALMER.

Witnesses:
M. J. COLCORD,
C. W. CATLIN.