W. L. Gage,

Saw Teeth.

No. 110,966. Patented Jan. 17, 1871.

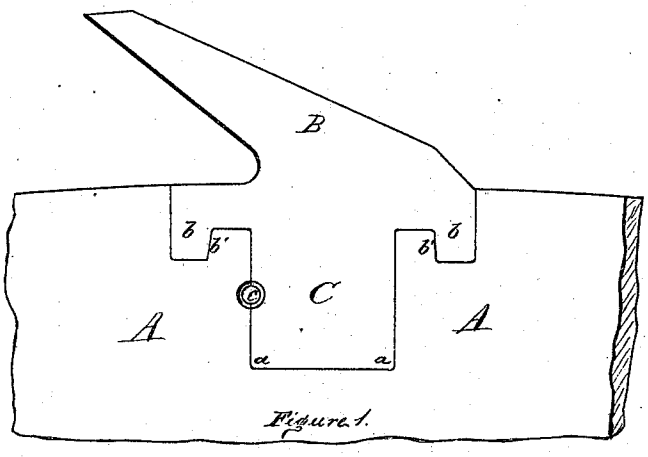

Figure 1.

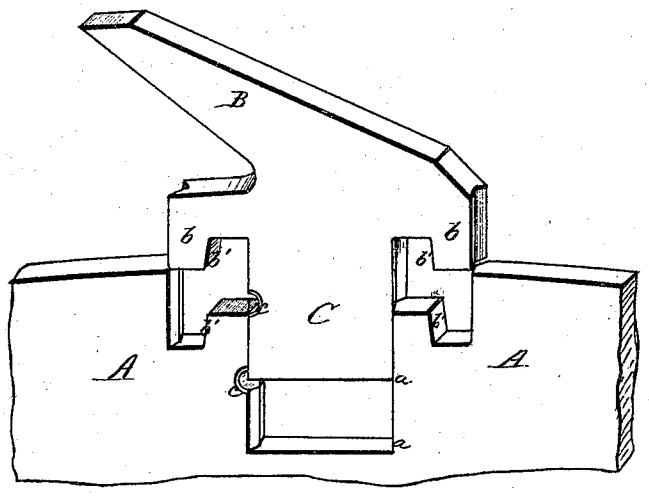

Figure 2.

Witnesses:

William W. Herthel

Robert Burns.

Inventor:

Walter L. Gage

United States Patent Office.

WALTER LAFAYETTE GAGE, OF ST. LOUIS, MISSOURI.

Letters Patent No. 110,966, dated January 17, 1871.

IMPROVEMENT IN SAWS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WALTER LAFAYETTE GAGE, of St. Louis, in the county of St. Louis and State of Missouri, have made certain new and useful Improvements in Setting Teeth in Saw-Plates; and I do hereby declare that the following is a full and true description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

This invention relates to saws in which false teeth are inserted and secured to the plate; and

The nature thereof consists in forming the teeth with a rectangular base, and having end lugs, the inner inclines whereof are such as to widen the mortises formed between the lugs and the base at the lower ends. Thus the lugs act as a wedge to force the material of the saw-plate toward the base. In this wise there is a counteracting force achieved to the tendency to split the saw-plate at the lower corners at the base of the tooth.

To enable those skilled in the art to make and use my said invention, I will now more fully describe the same, referring to the accompanying

Figure 1 as a section of a circular saw with tooth inserted; to

Figure 2 as a perspective view with tooth detached.

A represents the saw-plate constructed of the material usual.

B represents my improved tooth, having the end lugs *b* and rectangular base C formed as indicated in the figures.

The outer side edges of the lugs *b* and base C are recessed with a V-groove, while the edges of the plate A, where said V-shaped edges engage, are properly beveled to fit said V-grooves in manner usual.

In order to prevent any liability of the plate A from splitting or otherwise breaking at the angle-edges *a*, and to equalize the pressure-force upon the plate, I construct the inner faces or edges of the lugs *b*, having a slight inclination, *b'*, as clearly shown in fig. 2.

The teeth thus formed and inserted in the plate A (first properly mortised) are secured in position by a proper rivet, *c*, one-half which is in the tooth and the other half in the saw-plate.

It will be observed that this method of construction prevents all manner of expansion, and strengthens those parts of the saw-plate most liable to rupture, and that the greater the resistance to expansion the tighter the teeth become.

Having thus fully described my said invention,

What I claim is—

The tooth, having end lugs *b*, inclines *b'*, and rectangular base C, in combination with a corresponding recessed saw-plate A, substantially as and for the purpose set forth.

In testimony of said invention I have hereunto set my hand in presence of—

WALTER L. GAGE.

Witnesses:

WILLIAM W. HERTHEL,

ROBERT BURNS.