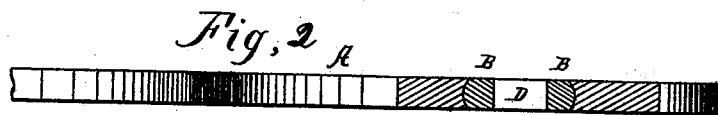
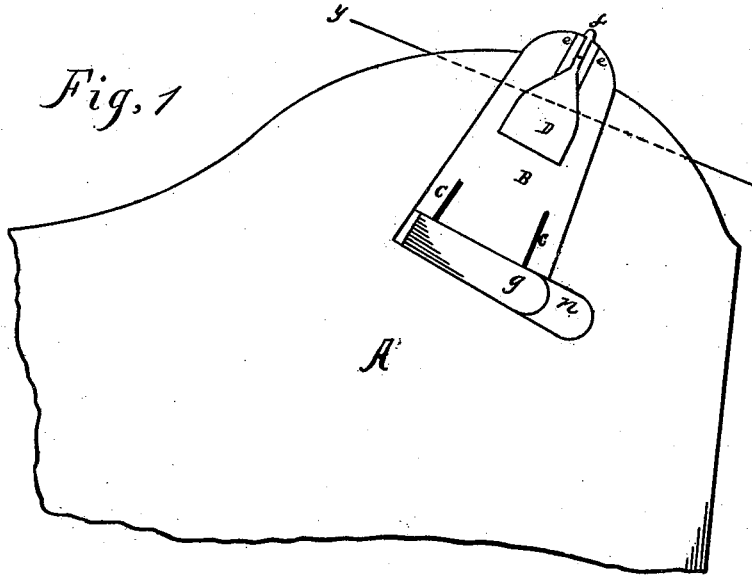


E. C. KEYS.
INSERTABLE SAW-TEETH.

No. 180,429.

Patented Aug. 1, 1876.



Witnesses
James I. Johnston
B. Le. Johnston

Inventor
Ezra C. Keys
By a C. Johnston
His Attorney

UNITED STATES PATENT OFFICE.

EZRA C. KEYS, OF ALLEGHENY, ASSIGNOR TO HUGH LEE AND DANIEL HOFFMAN, OF PITTSBURG, PENNSYLVANIA, AND WILLIAM KEYS, OF LAWRENCE, KANSAS.

IMPROVEMENT IN INSERTIBLE SAW-TEETH.

Specification forming part of Letters Patent No. 180,429, dated August 1, 1876; application filed June 19, 1876.

To all whom it may concern:

Be it known that I, EZRA C. KEYS, of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Saws; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to an improvement in insertible saw-teeth; and consists in furnishing the blade with detachable teeth, having recesses or openings in them for the purpose of giving them flexibility with relation to their bearings, and for more perfectly and securely embedding and impinging upon the detachable cutting-points.

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

In the drawings, Figure 1 is a side view of a portion of a saw-blade furnished with my improved saw-tooth. Fig. 2 is a transverse section at line *y* of Fig. 1.

A is the saw-blade, provided with an aperture, *n*, in which is inserted the detachable tooth B, which tapers from the heel toward the point, the edges of which are circular, and the edges of the recess having corresponding grooves, cor-

responding to the circled edges of the tooth. The tooth B is furnished with openings *c c* and D. The tooth, at *e*, is furnished with copper or other soft metal, brazed to the tooth for the purpose of embedding the carbon point *f*, which is placed between the surfaces of the soft metal, as indicated in Fig. 1. The tooth being inserted in the saw-blade, as indicated in Fig. 1, the wedge *g* is forced down by any suitable means for the purpose of moving the tooth forward, thereby causing the forward end of the tooth to impinge firmly on the point *f*, and in case the tooth moves too far forward it may be spread at its heel by driving wedges in the openings *c c*. If the cutting-point should become worn it can readily be removed by loosening the wedge *g* and drawing back the tooth B, which will spread at its point, so as to release its grasp on the point *f*, which may be dressed and adjusted at the will of the operator.

Having thus described my improvement, what I claim as my invention is—

A saw-tooth constructed and secured in the saw-blade, substantially as herein described.
EZRA C. KEYS.

Witnesses:

A. C. JOHNSTON,
B. L. JOHNSTON.