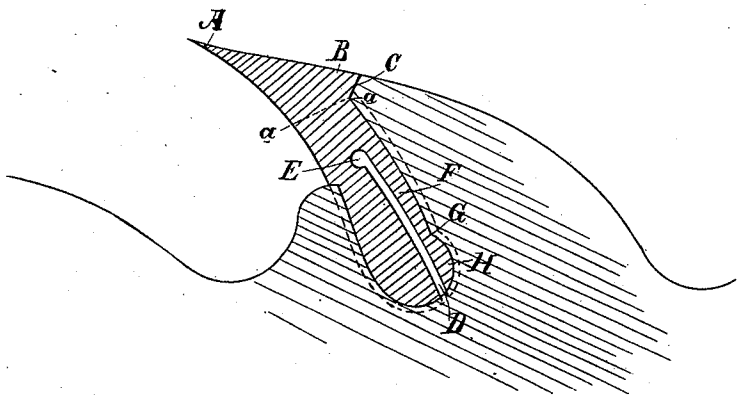
(No Model.)

S. KINNEY.

SAW TOOTH.

No. 343,713. Patented June 15, 1886.



Witnesses,
Geo. H. Strong.
J. B. Towle

Inventor,
Simon Kinney
By Dewey & Co.
Attorneys

UNITED STATES PATENT OFFICE.

SIMON KINNEY, OF BROWNSVILLE, CALIFORNIA, ASSIGNOR OF ONE-HALF TO S. H. PRATT, OF SAME PLACE.

SAW-TOOTH.

SPECIFICATION forming part of Letters Patent No. 343,713, dated June 15, 1886.

Application filed October 1, 1885. Serial No. 178,769. (No model.)

To all whom it may concern:

Be it known that I, SIMON KINNEY, of Brownsville, Yuba county, State of California, have invented an Improvement in Saw-Bits; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a bit or cutter to be used in circular saws; and it consists of a curved bit having its front and rear grooved to fit corresponding tongues in the socket of the saw-plate into which it fits, the bit having a slot made longitudinally in it from the base outward, so that one side forms an elastic tongue. The base or inner portion of the bit is wider than the outer portion, and when introduced into the slot or channel in the saw-plate the elastic tongue allows it to be compressed until it reaches its final position, when an enlargement or catch at the lower end falls into a corresponding place in the socket of the saw-plate and locks it firmly.

Referring to the accompanying drawing for a more complete explanation of my invention, the figure is a view showing a section of a saw-plate with my bit.

A is the point of the bit or cutter, and from this point the back B extends nearly or quite in line with the curved portion of the saw-plate within which the socket is formed to receive the bit. From the rear of the back portion the bit is formed at right angles, or nearly so, with this portion, thus providing a shoulder, C, which rests against the correspondingly-formed part of the saw-plate at this point.

The front and rear edges of the bit are formed in circular curves, and the base is also formed in a circular curve, as shown.

This bit has a channel or groove formed upon its front and rear, so as to fit a corresponding V-shaped tongue, which is formed in the socket of the saw-plate, so that when the bit is in place it will not slip to either side.

A slot, D, is made longitudinally, extending from an enlargement or hole, E, in the bit down to the base, so as to form an elastic tongue, F, which is widest at the hole E, and decreases in width to the point G near its lower end. From this point an enlargement is made at H, which fits into a corresponding enlargement at the bottom of the socket when the bit is in position.

The bit is made narrowest between the points *a a* in a line extending across below the shoulder C, and it is made widest at the point extending across in line from G to the front of the bit.

When this bit is introduced in the socket in the saw-plate which corresponds to its shape, it will be manifest that the lower end of the tongue or elastic portion F will be compressed so as to nearly or quite close the slot D, and thus allow the bit to slip the socket, which is narrower at the top than it is at the bottom. The bit may then be pushed in until it reaches the bottom of the socket, and the enlargement H will spring outward into the corresponding space made to receive it, and will thus lock the bit firmly in place and prevent it from coming out. By this construction I am enabled to place more bits in the saw-plate than by any other means. The throat for the escape of the saw-dust is a natural one, and is the greatest and most perfect that can be given.

The points of the bits are presented to the wood at a greater angle than by any other style of construction, and thus provide an easy-cutting edge.

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

A saw-bit formed with curved or circular lines, with a cutting-point and shoulder at the rear end of the back to fit a corresponding portion of the saw-plate, the bit being made narrowest at the base of this shoulder, and enlarging from this point toward the inner end, in combination with an elastic tongue formed by slotting said bit from the base toward the point, said elastic tongue tapering and decreasing in thickness toward its end, and provided with a locking projection or catch to fit a corresponding socket and openings in the saw-plate, substantially as herein described.

In witness whereof I have hereunto set my hand.

SIMON KINNEY.

Witnesses:
HARMON A. PHELPS,
JOHN SCHRODER.