

J. OHLEN.
Insertible Saw-Tooth.

No. 221,602.

Patented Nov. 11, 1879.

Fig. 1.

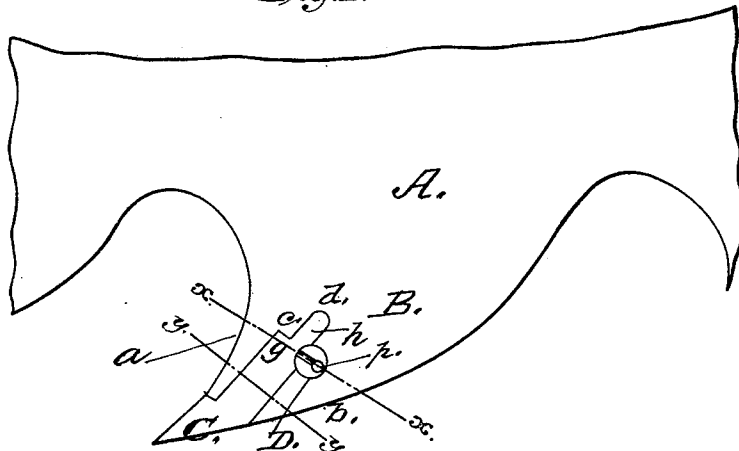


Fig. 2.

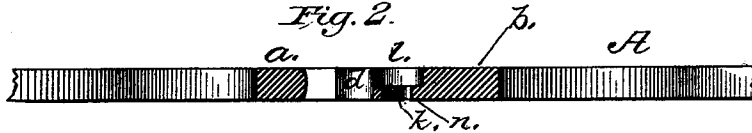


Fig. 3.

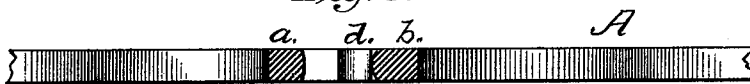


Fig. 4.

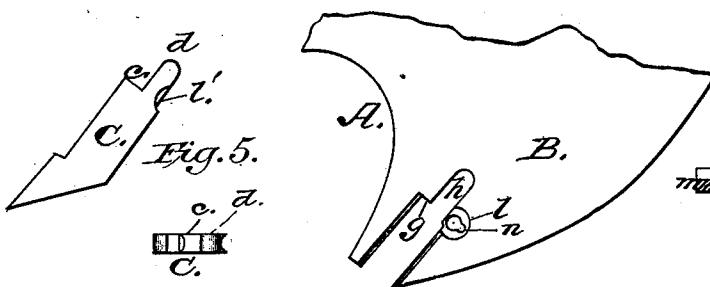
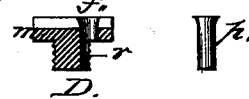


Fig. 5.



Fig. 6.



WITNESSES

John H. Cois,
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UNITED STATES PATENT OFFICE.

JAMES OHLEN, OF COLUMBUS, OHIO.

IMPROVEMENT IN INSERTIBLE SAW-TEETH.

Specification forming part of Letters Patent No. 221,602, dated November 11, 1879; application filed September 29, 1879.

To all whom it may concern:

Be it known that I, JAMES OHLEN, of Columbus, in the county of Franklin and State of Ohio, have invented a new and valuable Improvement in Insertible Saw-Teeth; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

Figure 1 of the drawings is a representation of a plan view of a portion of a saw illustrating my invention. Figs. 2 and 3 are sectional views thereof, taken through lines *xx* and *yy*, respectively; and Figs. 4, 5, and 6 are details.

This invention has relation to saws in which the teeth are inserted; and it consists in the construction and novel arrangement of the screw-holes in the plate, the enlargement on one side of the plate for the head of the screw, the key-groove on one side of the threaded portion, the large headed screw having a key-groove in its threaded portion and a hole through its head for the key, and the arc-shaped recess on one side of the tooth to receive one edge of the screw-head and form the complement of its seat, substantially as specified.

In the accompanying drawings, the letter A designates the plate of the saw, having the projecting portions B for the teeth, such portions having an upper or forward branch, *a*, and an under or rear branch, *b*, separated by a space in which the tooth is received, and forming the tooth-seat.

The front branch, *a*, is provided near its upper end with a projecting shoulder, *c*, beyond which a narrow recess, *d*, extends up into the blade or plate, as shown in the drawings.

The inner faces of the branches *a* and *b* are convex transversely as far as the shoulder *c* in front and the screw-hole in the rear, beyond which point said edges are plain.

C indicates the tooth, which is elongated and extends up into the seat of the plate, its lateral edges *e* being concave to correspond with the convex inner edges of the seat-branches, and engage therewith.

The tooth is provided with a stop-shoulder, *g*, to engage with the shoulder *c* of the tooth-seat, and beyond this shoulder with a

narrow projection, *h*, which extends up into the narrow part *d* of the tooth-seat.

Opposite the shoulder portion *c* on the opposite or rear branch of the tooth-seat is formed a screw-hole, consisting of a small threaded aperture, *k*, on one side and a large recess, *l*, on the other side of the blade, to receive, respectively, the threaded portion and the large disk-shaped head *m* of the screw. On the side of the threaded portion *k* farthest removed from the tooth-seat a groove, *n*, is made to receive one end of a key-pin, *p*, the other end of said pin extending through a hole, *f*, in the head of the screw D, which is also provided on its threaded portion with a groove, *r*, forming the complement of the key-groove *n* of the plate.

In the rear edge of the upper portion of the tooth, on one side thereof, is formed an arc-shaped recess, *l'*, forming the complement of the recess *l* of the blade, and receiving one side of the screw-head *m* when the screw is inserted, after seating the tooth firmly up against the shoulder or stop *c*. Then the key-pin being driven in through the head *m* between the threads of the screw and screw-aperture, the tooth is firmly secured and ready for work.

I am aware that various devices engaging both the tooth and the blade have been used for securing said teeth in the blades, and therefore I do not make any broad claim thereto.

What I claim, and desire to secure by Letters Patent, is—

The combination, with the double-branched tooth-seat *ab*, of the blade, having on one side of the rear branch a large recess, *l*, and a threaded aperture, *k*, with a key-groove, *n*, on the opposite side thereof for the tooth-seat, of the tooth C and its arc-shaped recess *l'*, forming the complement of the recess *l*, the screw D, having the perforated disk-shaped head *m* engaging the recesses of the tooth and blade, and grooved at *r* to form the complement of the key-groove for the key-pin, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES OHLEN.

Witnesses:

CARROLL J. HOLLOWAY,
DAVID F. McNAGHTON.