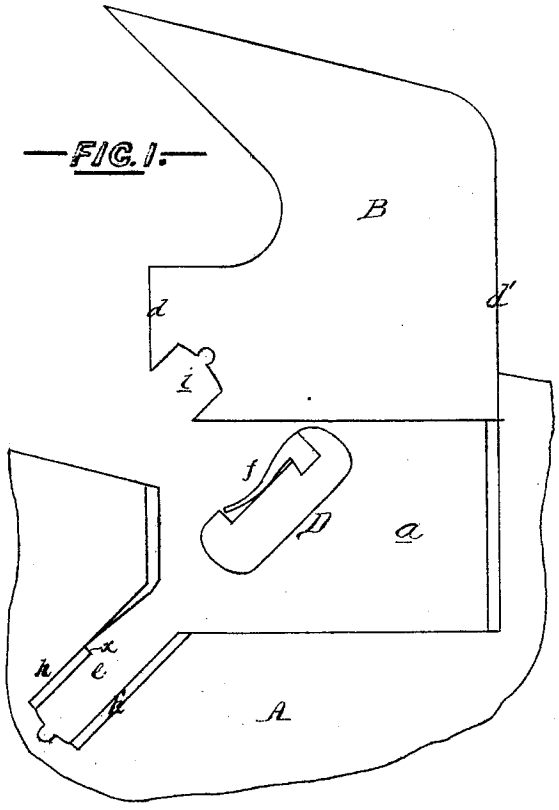
T. P. MARSHALL.

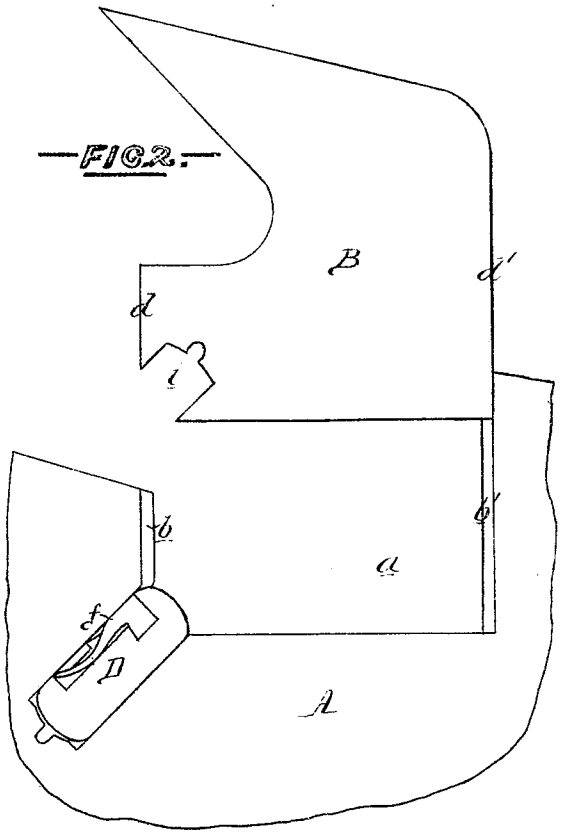
Improvement in Saws.

No. 126,407. Patented May 7. 1872.

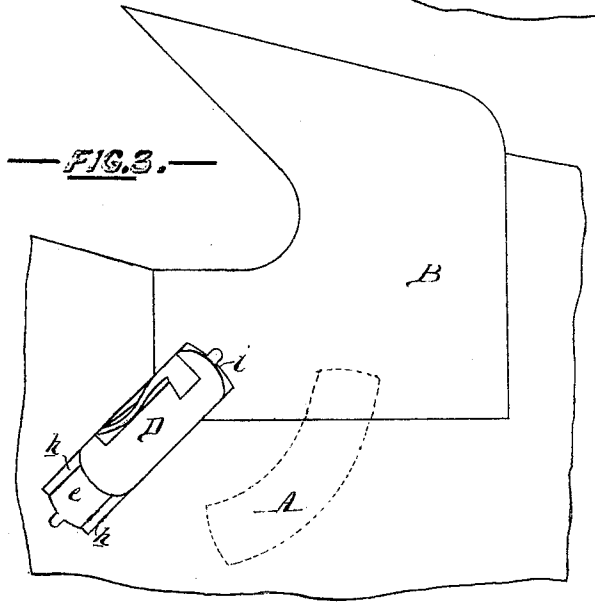
—FIG. 1.—



—FIG. 2.—



—FIG. 3.—



WITNESSES { Wm. A. Stuc.
Jno. B. Harding.

J. P. Marshall
by his Atty
N. Towson.

UNITED STATES PATENT OFFICE.

THOMAS P. MARSHALL, OF TRENTON, NEW JERSEY.

IMPROVEMENT IN SAWS.

Specification forming part of Letters Patent No. 126,407, dated May 7, 1872; antedated April 19, 1872.

SPECIFICATION.

I, THOMAS P. MARSHALL, of Trenton, Mercer county, State of New Jersey, have invented certain Improvements in Saws with Detachable Teeth, of which the following is a specification:

Nature and Object of the Invention.

My invention consists of a key adapted to a recess in the blade of a saw, and to a recess in a detachable tooth, substantially as described hereafter, so that the said key may serve to securely lock the tooth after the latter has been inserted in its place. My invention further consists in the combination, with the said key, of a spring-catch, so adapted to a shoulder in the blade that it will retain the key in the position to which it has been moved in locking the tooth.

Description of the Accompanying Drawing.

Figure 1 is a view of part of the saw-blade with the tooth and key detached from the same; Fig. 2, a view, showing the key in a recess of the blade; and Fig. 3 illustrates the tooth and key fitted to their places.

General Description.

A represents part of the blade of a circular saw; B, the detachable tooth; and D, the key for securing the tooth. In the blade are a number of recesses for receiving a corresponding number of teeth, *a* being one of these recesses, the opposite edges *b* and *b'* of which are shaped to fit similarly-formed grooves in the opposite edges *d* and *d'* of the tooth. At the front corner of the recess *a* the latter communicates with a narrow inclined recess, *e*, on the opposite edges of which are formed V-shaped ribs, adapted to similarly-shaped grooves in the edges of the key D, to which is dovetailed or otherwise secured a spring-catch, *f*. The V-shaped rib *h* is discontinued at *x*, so that a shoulder may be formed there, for a purpose rendered apparent hereafter. An inclined recess, *i*, is formed in the front lower corner of the tooth B, and this recess coincides with the inclined recess of the blade when the tooth is fitted to its place, as shown in Fig. 3. Before the base of the tooth is driven into the recess of the blade, the key D is forced to the end of the inclined recess *e*, as shown in Fig. 2, in doing which the point of the spring *f* must be so pressed toward the key that it will pass the shoulder *x* above referred to. The tooth is then fitted into the recess *a*, after which the key is forced upward by a suitable instrument until a portion of it enters the recess *i* and the point of the spring *f* passes the shoulder *x*, when the tooth will be securely locked to the blade and the key will be retained in its place.

The mode of removing the tooth from the blade will be readily understood without description.

Although I prefer in most cases to arrange the key *d* at the corner of the recess in the blade, it is not absolutely necessary that it should occupy this position, as it may be differently arranged and still serve as an effective medium for locking the tooth; nor is it essential that the key and the recess in which it fits should be straight, for it may be curved, as shown by dotted lines in Fig. 3.

Claims.

1. The detachable tooth B, having a recess, *i*, coinciding with a recess, *e*, in the saw-blade, in combination with a sliding key, D, sliding in said recess, and when the tooth is secured to the blade occupying a position partly in the blade and partly in the tooth, as specified.

2. In combination with the said sliding key, I claim a spring-catch, *f*, adapted to a shoulder, *x*, in a recess, *e*, of the blade, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS P. MARSHALL.

Witnesses:

E. H. BAILY,

WM. A. STEEL.