

J. E. Emerson's.
Improvement in Planing teeth.

74521

PATENTED

Fig. 1.

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Fig. 5.

Fig. 6.

Fig. 3.

Fig. 4.

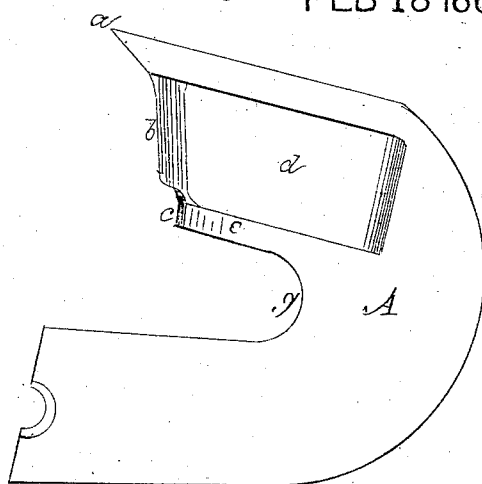
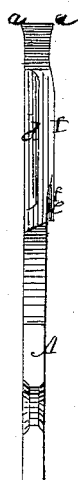
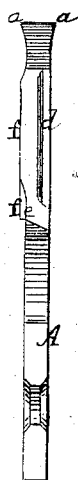


Fig. 2.

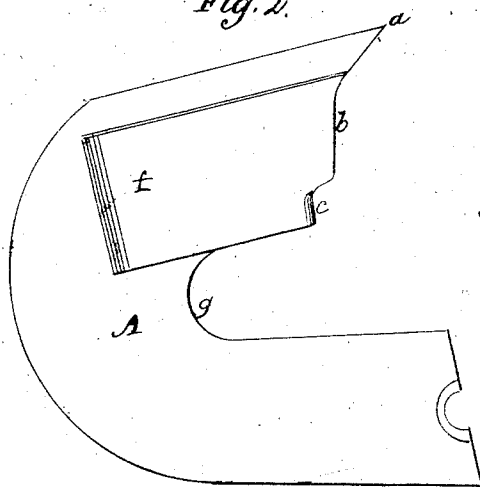


Fig. 7.

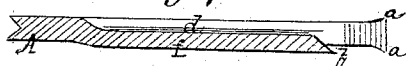
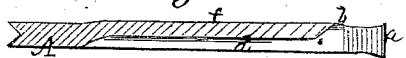


Fig. 8.



Witnesses.

J. P. Cullen
Charles Allen

J. E. Emerson.
By atty A. B. Stoughton.

United States Patent Office.

JAMES E. EMERSON, OF TRENTON, NEW JERSEY.

Letters Patent No. 74,521, dated February 18, 1868.

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, JAMES E. EMERSON, of Trenton, in the county of Mercer, and State of New Jersey, have invented certain new and useful Improvements in Planing-Teeth; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a view of the planing-tooth from one of its sides.

Figure 2 represents a view from the opposite side thereof.

Figures 3, 4, 5, and 6 represent edge views, and

Figures 7 and 8 represent sections through the planing-teeth in question.

Similar letters of reference, where they occur in the several separate figures, denote like parts of the tooth in all of the drawings.

My invention consists in forming the cutting-tooth or point, the recessed planer, and the guide or gauge in one instrument.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

The planing-teeth A are cut or stamped out of sheet steel, by suitable dies, and are in one piece. The teeth may be secured to the plate in the manner set forth in patents heretofore granted to me for securing teeth in saws. The planing-cutters may be rights or lefts, or both rights and lefts, on the same plate, so as to plane on either or both of its sides. The cutting-point *a* of the tooth is set in the usual form of a saw-tooth. The recessed planing-edge or cutter, *b*, is formed by stamping a recess in the tooth, from one side of it, and causing it to project from the face of the tooth, on the other side. This planing-edge *b* should project slightly beyond the extreme cutting-point, *a*, of the tooth, so that the planing-cutter may take off a shaving beyond where the point *a* cuts. Below the recessed planing-cutter *b* there is a rounded portion, *c*, in rear of the cutting-edge *b*. This is so made to prevent a shaving from being taken off by that portion, which, if permitted, would choke up the planer, as there would be no clearance for the shaving. Behind the planing-edge *b* there is a throat, *d*, for the shavings taken off by it to pass through, whilst the projecting portion, *f*, on the same side, and in rear of said cutting-edge, prevents the edge from running or biting into the wood, as its tendency is to run that way. The recessed portion may be swaged out, after the teeth are punched, or the whole may be done at one heat or operation. The wall *e*, between the recess *d* and the throat *g*, is not flush with the body of the tooth, or of its cutting-edges, on the recessed side thereof, but slightly below them. On the other side, however, it forms a continuation of the surface *f*, down to the throat *g*, and serving as a gauge or guide, as above stated, to prevent the cutting-edge *b* from running into the wood.

Having thus fully described my invention, what I claim is—

A planing-tooth, in which the cutting-point, the recessed planing-cutter, and the gauge or guide to prevent the cutters from running into the wood, are all formed in or on one and the same piece of steel, substantially as and for the purpose described.

J. E. EMERSON.

Witnesses:

J. VANCE POWERS,
JOHN BAXLEY.