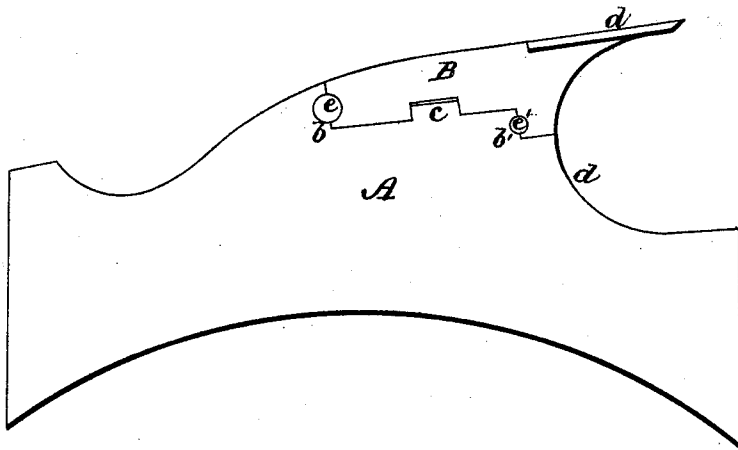


*I. & T. Byrd Jr,*

*Saw Teeth.*

*No. 110,430.*

*Patented Dec. 27. 1870.*



*Witnesses,*

*Saml. J. Spray*  
*Frederick Eberle*

*Inventors,*

*Isaiah Byrd*  
*Turner Byrd Jr*  
*her attorney*  
*Thos. Sprague*

# United States Patent Office.

ISAIAH BYRD AND TURNER BYRD, JR., OF CALVIN TOWNSHIP, MICHIGAN.

Letters Patent No. 110,430, dated December 27, 1870; antedated December 9, 1870.

## IMPROVEMENT IN SAW-TEETH.

The Schedule referred to in these Letters Patent and making part of the same.

### *To whom it may concern:*

Be it known that we, ISAIAH BYRD and TURNER BYRD, Jr., of Calvin township, in the county of Cass and State of Michigan, have invented a new and useful Improvement in Movable Saw-Teeth; and we do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification.

The nature of this invention relates to an improved construction of and method of securing movable teeth in circular saw-plates; and

It consists in the peculiar construction of the tooth, which is not recessed in a socket in the plate, but embraces a projection in the periphery thereof, and abuts against two shoulders thereon, lessening its size and cost, and is secured to the plate by two rivets which are inserted in slots, one-half of each slot being in the face of each shoulder and the other half in the adjoining edge of the tooth.

In the drawing—

A represents a section of saw-plate, the periphery of which has gummed out of it one-half of the sweep of the tooth, as shown at *a*.

In the highest part of the periphery a portion of the plate is cut away, leaving a shoulder, *b*.

The portion cut away forms a horizontal plane, except that midway of its length is a projection, *c*.

The end of this plane is again cut away, forming another shoulder, *b'*.

The tooth B, on its exterior faces, corresponds in outline with those in general use, except that it has a rib, *d*, swaged on the front part of the top, so as to avoid the necessity of swaging the point of the tooth as often as it is filed. The inner edges of the tooth are formed to fit the outline of the shoulders *b b'* and projection *c*.

A semicircular recess is formed in the edges of the shoulders, and similar ones coincident therewith in the adjacent parts of the tooth, which is secured in place by rivets *e e'* passing through and riveted in the holes formed by the recesses.

It will be seen by reference to the drawing that the tooth is not only much smaller, cheaper, and more easily made and applied than any now in use, but when once applied will be firmly held in place.

What we claim as our invention, and desire to secure by Letters Patent, is—

The tooth B, constructed as described, in connection with the shoulders *b b'* and projection *c* of the saw-plate A, and secured thereto by the rivets *e e'*, as and for the purpose set forth.

ISAIAH BYRD.

TURNER BYRD, JR.

Witnesses:

JAMES HYBERT,  
PHINEAS GREGG.