

N. F. STONE.  
Tool for Upsetting Saw Teeth.

No. 54,037.

Patented April 17, 1866.

Fig. 1.

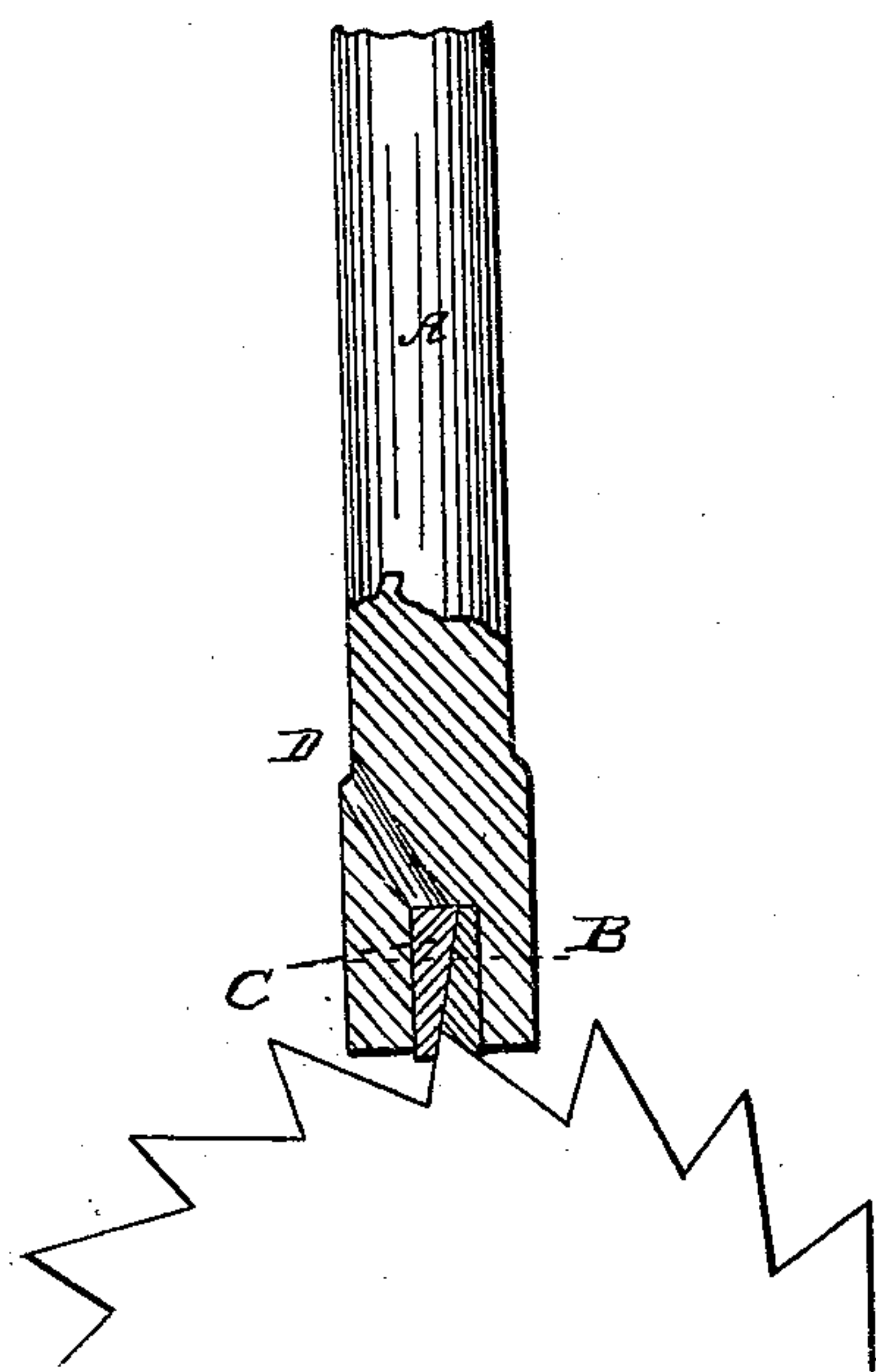
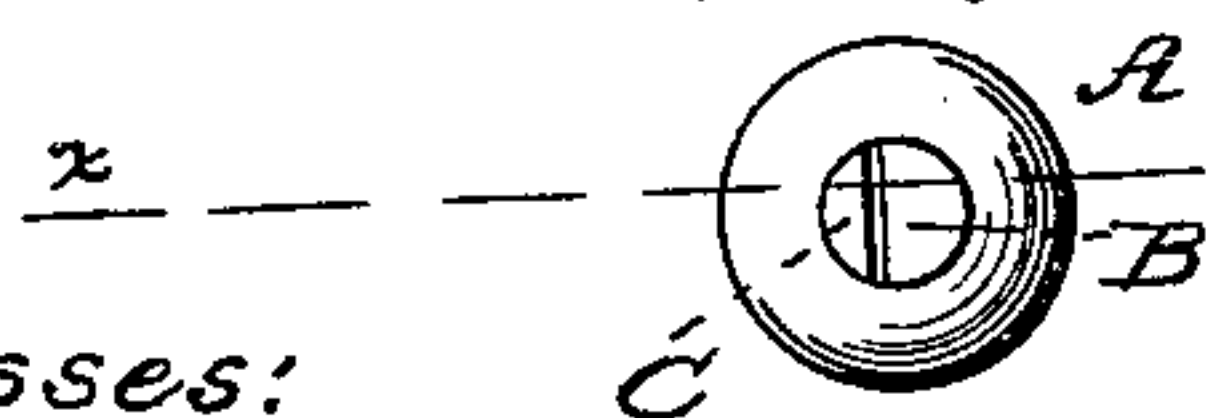


Fig. 2.



Fig. 3.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

N. F. STONE, OF CHICAGO, ILLINOIS.

## IMPROVED TOOL FOR UPSETTING SAW-TEETH.

Specification forming part of Letters Patent No. 54,037, dated April 17, 1866.

*To all whom it may concern:*

Be it known that I, N. F. STONE, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Instrument for Upsetting Saw-Teeth; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a view of my improved upset, partially in section, through the line *x x*, Fig. 3, showing it in position for upsetting a saw-tooth. Fig. 2 is an edge view of a portion of the saw, the teeth having been upset. Fig. 3 is an end or face view of the upset.

Similar letters of reference indicate corresponding parts.

The object of my invention is to furnish a tool by means of which the teeth of circular saws may be upset quickly and evenly, which will not readily get out of repair, and which, while not expensive, will do its work thoroughly; and it consists of two wedge-shaped pieces so formed and arranged with reference to each other and to the stock in which they are placed as to give the proper form to the saw-teeth to which the instrument is applied.

A is the stock of the upset, in which the pieces B and C are set for use, and is of the usual form of such tools. A circular hole, starting from the center of the lower end of said piece or stock A, passes up vertically far enough to allow the pieces B and C to pass into said hole almost their entire length. From the upper end of said hole a smaller hole, D, extends up obliquely and passes out higher up, to enable the pieces B and C to be driven out with a punch when required.

The piece B is made wedge-shaped, having a square or blunt edge. One face of the wedge is a plane surface, and the other is a portion of a cylinder. The head of the wedge is rounded up or slightly curved from the plane face to the cylindrical one, as represented in the drawings, so as to give the proper shape to the back of the teeth.

The piece C is also wedge-shaped, one face

being a plane surface and the other face a portion of a cylinder. The edge of this wedge is also square or blunt. The plane faces of these wedge-shaped pieces B and C are ground or polished, so that they may fit each other closely when put together.

The rounded head of the piece B and the square edge of the piece C are also ground or polished.

The piece C is placed in the stock-A with the head of the wedge down—that is to say, with the polished square edge of the wedge toward the face of the stock. The piece B is then put into the space left between the polished face of the piece C and the side of the hole D, with the blunt or square edge of the wedge downward, thus having the polished head of the wedge toward the face of the stock A.

The pieces B and C being placed in the stock A in the positions described, the face of the tool will have the form represented in Figs. 1 and 3. If, now, the tool be applied to the teeth of a circular saw, as represented in Fig. 1, and forced down thereon, the teeth will be stamped into the form shown in Figs. 1 and 2.

The shape of the head of the piece B may be changed to suit the teeth of any required saw by removing said piece from the stock A and grinding it upon a grindstone or its equivalent.

It will be observed that from the form of the pieces B and C, and from the manner in which they are placed in the stock A, the more closely the pieces B and C are driven together by the use of the tool the more closely they will fit each other and the finer edge will be given to the teeth of the saw.

I claim as new and desire to secure by Letters Patent—

A tool for upsetting the teeth of circular saws formed by combining and arranging pieces B and C, constructed as described, with the stock A, substantially as and for the purpose set forth.

N. F. STONE.

Witnesses:

E. STONE,  
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