No. 649,987.

S. C. JONES.
CORNERING TOOL.
(Application filed Mar. 12, 1900.)

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(No Model.)

FIG. 2.

FIG. 3.

FIG. 4.

FIG. 5.

FIG. 1.

FIG. 6.

FIG. 7.

Samuel Clarence Jones
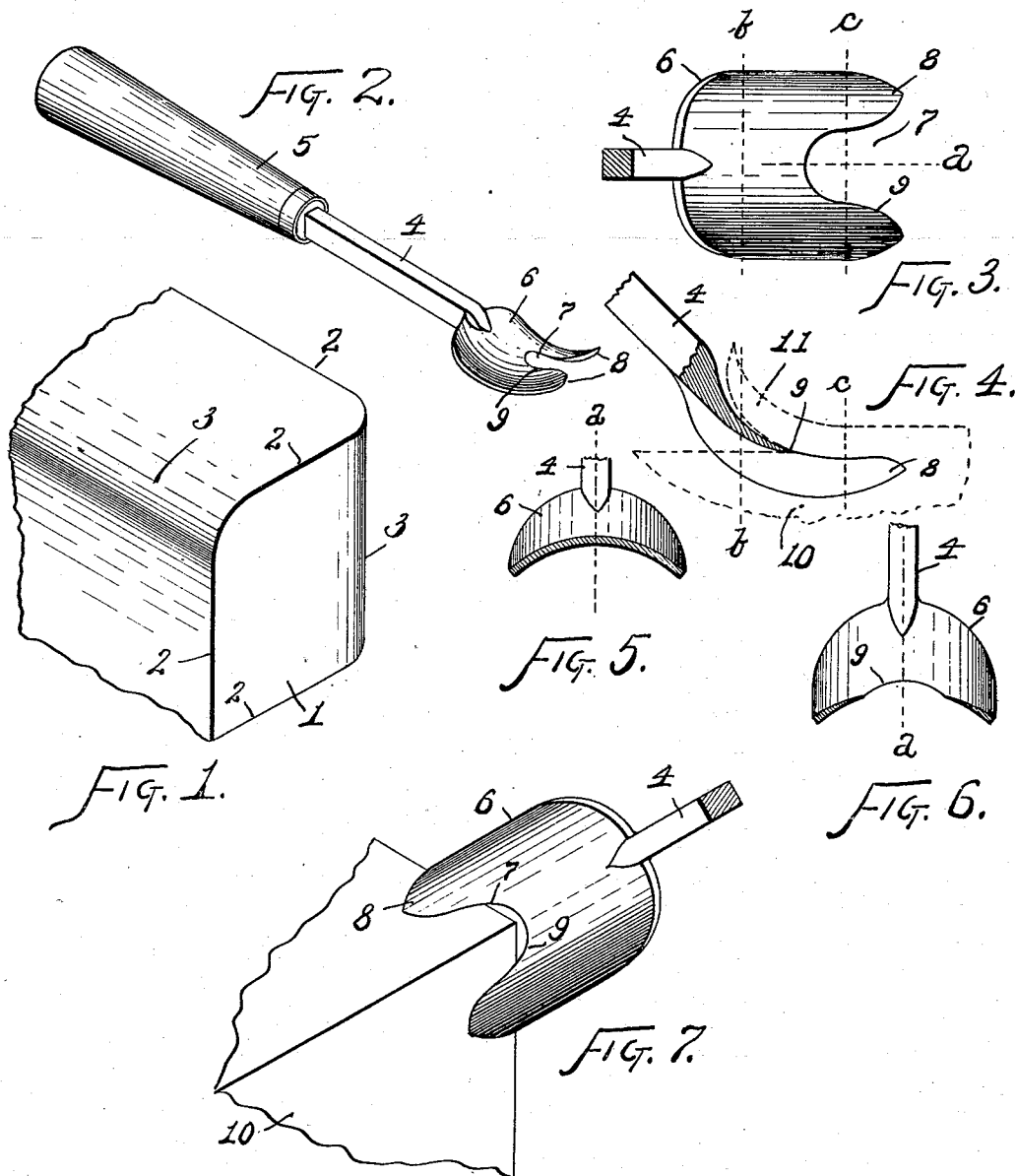
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UNITED STATES PATENT OFFICE.

SAMUEL CLARENCE JONES, OF HAMILTON, OHIO.

CORNERING-TOOL.

To all whom it may concern:

Be it known that I, SAMUEL CLARENCE JONES, a citizen of the United States, residing at Hamilton, Butler county, Ohio, have invented certain new and useful Improvements in Cornering-Tools, of which the following is a specification.

This invention pertains to an improved tool for use by woodworkers, and particularly by pattern-makers, in producing nicely-rounded corners.

The improved tool is a hand-tool to be pushed by hand and produce the rounded corner at one cut as distinguished from the shaving operation.

The improvement consists in the very particular formation of the blade of the tool.

Numerous attempts have heretofore been made to devise tools for the purpose in question; but as far as I am advised nothing has heretofore been produced possessing the peculiar capacities of the tool now to be described.

My improved cornering-tool will be readily understood from the following description, taken in connection with the accompanying drawings, in which—

Figure 1 is a perspective view of a block, illustrating rounded corners as produced by my tool; Fig. 2, a perspective view of the tool; Fig. 3, a plan of its blade; Fig. 4, a longitudinal section of its blade in the plane of line *a* of Figs. 3, 5, and 6; Fig. 5, a transverse section of the blade in the plane of line *b* of Figs. 3 and 4; Fig. 6, a transverse section of the blade in the plane of line *c* of Figs. 3 and 4, and Fig. 7 a perspective view of the blade in attacking position at the corner of a block.

In the drawings, 1 indicates a wooden block; 2, square corners thereon; 3, rounded corners thereon, illustrating the result produced by the action of the tool; 4, the shank of the tool; 5, its handle; 6, the blade, the same being thin and having a very peculiar form, being longitudinally concave and transversely convex upon its upper surface and longitudinally convex and transversely concave upon its lower surface, the transverse convexity of the upper surface and the transverse concavity of the under surface being at much greater radius than the rounded corner which is to be produced by the action of the tool; 7, a notch formed in the forward edge of the blade, the same having a contour represented by a semicircle at the root of the notch, the wall of the notch flaring outwardly in convex curves; 8, the two prongs flanking the notch; 9, the cutting edge, the same being very acute and following the entire outline of the notch; 10, Figs. 4 and 7, a block to be operated upon by the tool; and 11, Fig. 4, the corner being removed by the tool, the same leaving the block as a single chip as distinguished from a succession of comparatively-thin shavings.

Figs. 4 and 7 best illustrate the angle of presentation of the tool to the wood, the angle being such that the inner surfaces of prongs 8 will lie down fairly against the flat surfaces of the wood, the plane of cutting, as represented by the crown of the finished curve, being tangent to the convexity of the under surface of the tool at the root of the notch, as shown in Fig. 4. The tool being thus presented and forced along and, if needed, being somewhat oscillated sidewise at the handle end, the side shores of the notch operate with a long easy smooth shearing action, the root of the notch following up and completing the work and leaving a rounded corner of purely quarter-circle outline. The transverse concavity of the under surface of the tool is, as before stated, of greater radius than the rounded corner to be produced, as may be judged by comparing the cross-section seen in Fig. 5 with the root curve seen at 9 in Fig. 6, the latter representing the curvature of the finished corner, and the radius of the root of notch 7 is less than that of the finished corner, as may be judged by comparing the plan view of Fig. 3 with the cross-section seen in Fig. 6, in which the root of the notch, as seen at 9, presents a working curve of greater radius than the plan curve of the notch. This production of a rounded corner having a greater radius than the throat of the notch is due to the oblique presenta-

tion of the root of the notch to the plane of cutting.

I claim as my invention—

In a cornering-tool, the combination, substantially as set forth, with a shank and handle, of a thin blade longitudinally concave and transversely convex upon its upper surface and longitudinally convex and transversely concave upon its lower surface and having in its forward edge a flaring sharp-edged notch concave at its root.

SAMUEL CLARENCE JONES.

Witnesses:
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