

F. HANSON.
Turning-Chisel.

No. 221,552.

Patented Nov. 11, 1879.

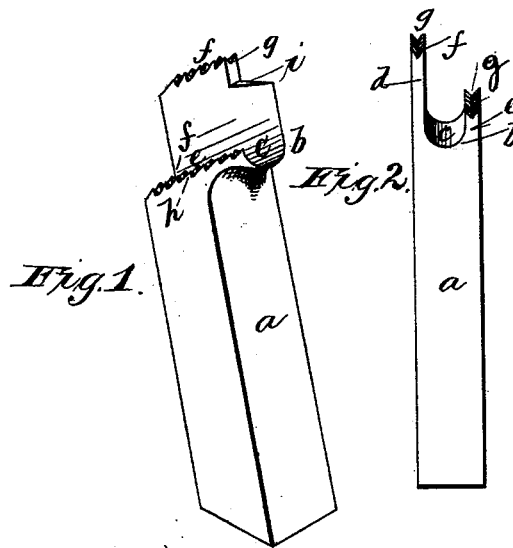
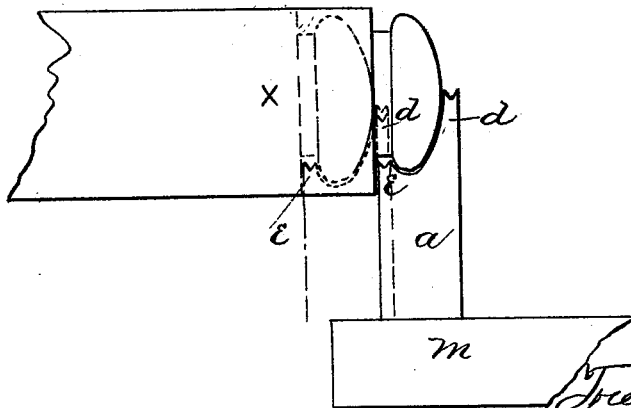


Fig. 3.



WITNESSES

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FREEMAN HANSON, OF HOLLIS, MAINE.

IMPROVEMENT IN TURNING-CHISELS.

Specification forming part of Letters Patent No. **221,552**, dated November 11, 1879; application filed September 10, 1879.

To all whom it may concern:

Be it known that I, FREEMAN HANSON, of Hollis, in the county of York and State of Maine, have invented certain new and useful Improvements in Turning Knives or Chisels; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to furnish a new and improved cutting knife or chisel for shaping pieces of wood into disks or buttons having curvilinear outlines or scalloped outlines; and it consists of a piece of iron, steel, or other suitable metal, having a shank, a curved projecting lip, two sets of cutting-points, and other parts, constructed as hereinafter described.

Figure 1 is a perspective view of the knife. Fig. 2 is a front elevation. Fig. 3 shows knife as cutting.

Similar letters of reference indicate corresponding parts.

a is a shank of steel or other suitable metal. At one end of this shank is seen the curved projecting cutting-lip *b*. This cutting-lip is made by working a groove in the end of the shank. In Figs. 1 and 3 the groove is shown at *c*. Rising on either side of the groove are the cutting-plates *d* and *e*. These cutting-plates are provided with sets of projecting points *f*. The points *f* are arranged with a channel or line of separation between them, as shown at *g*, thus giving to each cutting-plate two rows of points, the points on one side of the channel *g* being opposite to the spaces between the points upon the other side of the same channel. The front of these points has what may be called a "backward inclination" on the cutting-edge, as shown at *h*. The effect of this is, as the knife revolves, to give a drawing or shearing cut, thus severing the fibers of the wood smoothly without tearing the grain or fibers of the wood. The longest cutting-plate, which I designate by *d*, is the one employed to cut off the disk or button from the lumber in the lathe.

In addition to the sets of points, *d* is provided on its front edge with a notch, *i*. This notch has its rear edge constructed with a cutting-surface, the bottom side tapering forward to form part of the projecting cutting-lip *b*. This feature of the invention is a very important one, for by this form the wood is cut clean and smooth as the cutting-plate *d* advances through the same.

The shorter cutting-plate, shown at *e*, scores a groove in the lumber for *d* to enter as it commences to sever the next successive disk or button. This insures perfect uniformity in the thicknesses of the disks or buttons produced.

The projecting cutting-lip *b*, before adverted to, has its edge curved to conform to the curvature of the groove cut in the shank. The object of this is to give to the disks or buttons produced a smooth and uniform outline.

The knife is set firmly upon the cutter-head *m*, which rotates. The wood is fastened into a chuck, and that also rotates. While the knife-edge of plate *d* is shaping the flat side *e* is sawing the button off, or, more correctly, nearly off. Then the knife is withdrawn from the wood, the wood drawn forward, and the knife again brought in contact with the lumber, the plate *d* entering the score cut by *e*, so that while *d* is severing the button completely off it is also shaping the rounded face of the next button, and *e* is again cutting another score for *d* to enter.

What I claim as my invention, and desire to secure by Letters Patent, is—

The improved knife for cutting disks or buttons and curved lines on the periphery of the same, which consists of the two cutting-plates *d* and *e*, each with their two sets of cutting-points arranged and constructed as described, the channel *g* between the points, and curved lip *b*, and the notch *i*, all as herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

FREEMAN HANSON.

Witnesses:

HERBERT G. BRIGGS,
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