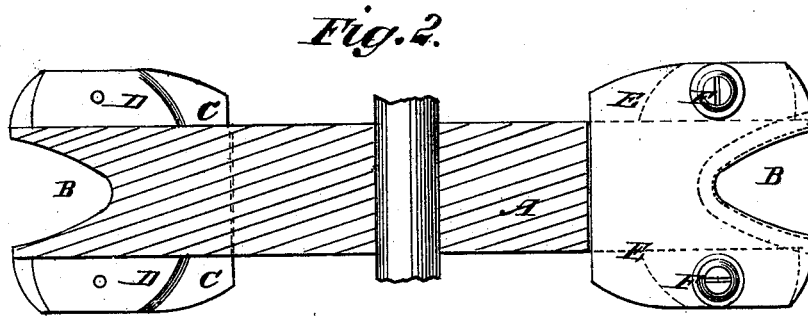
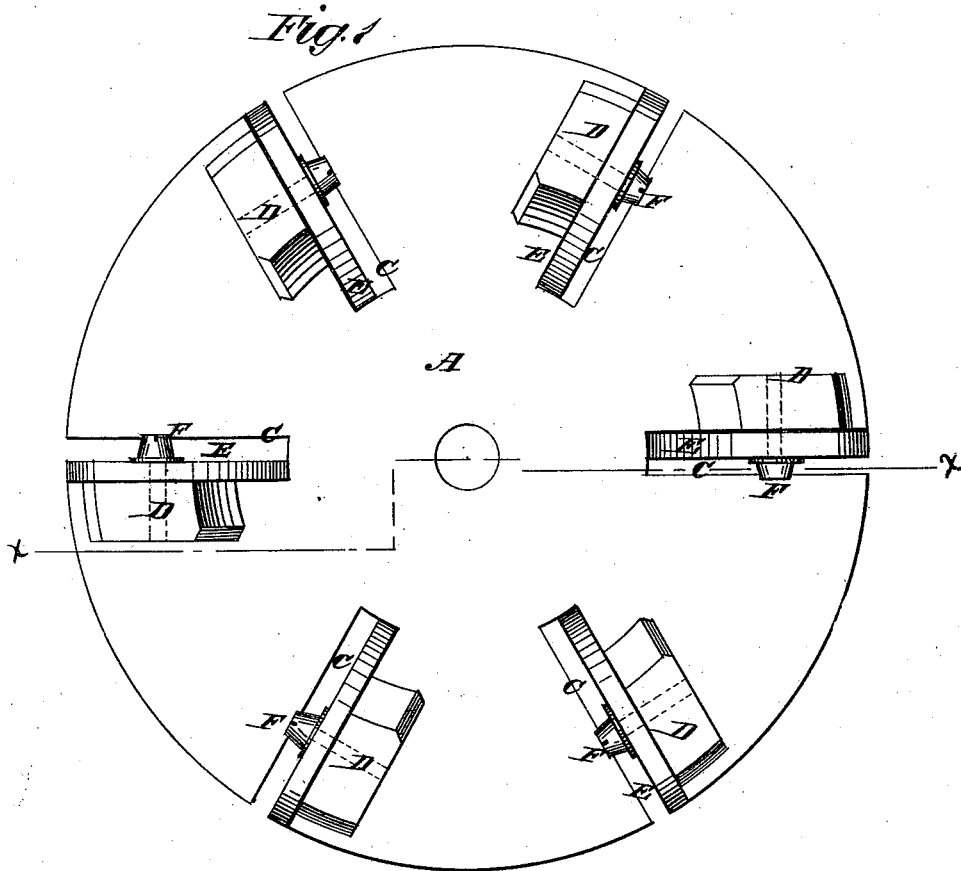


A. DENNEY.

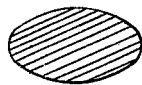
MACHINES FOR SHAPING GRAIN-CRADLE FINGERS.

No. 180,208.

Patented July 25, 1876.



*Fig. 3.*



WITNESSES:

*Francis W. Andle.*  
*John Goethals*

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BY

*Wm. J. [Signature]*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

ANDREW DENNEY, OF BEVERLY, OHIO.

## IMPROVEMENT IN MACHINES FOR SHAPING GRAIN-CRADLE FINGERS.

Specification forming part of Letters Patent No. **180,208**, dated July 25, 1876; application filed May 9, 1876.

*To all whom it may concern:*

Be it known that I, ANDREW DENNEY, of Beverly, Washington county, Ohio, have invented an Improvement in Machines for Shaping Grain-Cradle Fingers, of which the following is a specification:

My invention consists of a disk having a groove in the face, corresponding in form to one-half the cross-section of the finger, with a number of radial notches, in each of which is a cutter having a notch of corresponding form, the cutters being bolted to lugs of the disk projecting from its sides. The disk is made to revolve against the blank, which is first dressed on one side and then on the other.

Figure 1 is a side elevation of my improved shaper, and Fig. 2 is a section on line *x x*, Fig. 1; and Fig. 3 is a cross-section of a finger as shaped by the tool.

Similar letters of reference indicate corresponding parts.

A is the disk; B, the groove in the face; C,

the radial cutter-notches; D, the lugs for attaching the cutters, and F the screws for attaching them.

The cutters are readily detachable for sharpening, and, by their radial set, they are not liable to split the timber, as if inclined in the ordinary arrangement of planing-cutters.

In using this shaper, the blank is applied repeatedly, and in such manner as to taper it from butt to front, as desired.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A cutter-head for dressing the fingers of grain-cradles, consisting of disk A, grooved at B, having cutter-notches C, lugs D, cutters E, and screws F, constructed and arranged substantially as and for the purpose specified.

ANDREW DENNEY.

Witnesses:

J. C. PRESTON,  
I. D. SPOONER.