CLASS 142, WOOD TURNING

SECTION I - CLASS DEFINITION

Wood-turning includes inventions for reducing sticks of wood to a desired form by means of rotary or non-rotary cutters brought into engagement with the circumference of the continuously-rotating stick or by means of rotary or non-rotary cutters revolving circumferentially around and in engagement with the stick or that portion of the stick to be reduced.

Wood-turning also includes machines provided with work-holders which hold several sticks arranged axially in or near the circumference thereof to form a cylinder of such sticks to be operated upon by the cutter as though it were a single stick. These machines are for producing sticks of polygonal section by turning the sticks in the work-holder to successively present new surfaces to the cutter.

SECTION II - LINES WITH OTHER CLASSES AND WITHIN THIS CLASS

In this class of machines rotating saw-cutters which engage with the sticks while secured in the lathe-chuck or between the centers are regarded as a species of rotary cutters and are not clasified with saws in Class 83, Cutting.

Wood-turning does not include machines comprising a relatively-rotating cutter and table or support upon which blocks or segmental strips of wood are so secured that they may be brought into engagement with the cutter which stands transversely to the sticks and feeds longitudinally thereof. See the Search Note to Class 144 below for the locus of such machine intended to shape wood.

SECTION III - REFERENCES TO OTHER CLASSES

SEE OR SEARCH CLASS:

82, Turning.

- 144, Woodworking, subclasses 134.1+ for shaping of wood.
- 408, Cutting by Use of Rotating Axially Moving Tool, for cutting of that class type. The cutting of rotating wood, including boring and drilling, is to be found in this class (142).

483, Tool Changing, subclasses 17+ for a rotating work machine tool combined with a tool transfer means.

SUBCLASSES

1 Wood-turning machines which comprise features of construction not elsewhere specifically classified.

SEE OR SEARCH CLASS:

- 144, Woodworking, subclass 47 for a combined machine for turning and polishing and subclass 48 for a combined machine for turning and sawing.
- Machines comprising a cutter and work-holders adapted to secure several sticks together in the form of a hollow cylinder to be rotated in contact with the cutter. After the cylinder has been reduced by the cutter the sticks are turned upon their axes in the work-holder and the cylinder again submitted to the action of the cutter. This operation is continued until as many sides have been produced upon the sticks as desired.

SEE OR SEARCH CLASS:

- 144, Woodworking, subclass 138 for a wood shaping machine which uses a pattern to generate a polygonal form as a workpiece is indexed.
- Machines for reducing sticks to other than a circular cross-section, comprising a plurality of turning spindles whereby several sticks are simultaneously under different stages of completion. The stock may be supplied to the spindles successively or simultaneously.
- 4 Machines comprising a plurality of turning spindles whereby several sticks are simultaneously under different stages of completion. The stock may be supplied to the spindles successively or simultaneously.
- Many-spindle lathes which comprise mechanism for separating the pairs of spindles to facilitate the removal of finished sticks and the supply of new stock and mechanism for causing the spindles of each pair to approach each other to engage the new stock.

- Machines for reducing a stick to other than a circular cross-section, wherein the cutter is given a simultaneous longitudinal and transverse movement relative to the axis of the stick, the transverse movement of the cutter being controlled by a rotary cam.
- Machines for reducing a stick to other than a circular cross-section, wherein the cutter is made to advance toward or recede from the axis of the stick by means of a rotating patternguide. Simultaneously with its transverse movements the cutter is given a movement lengthwise of the stick.

SEE OR SEARCH THIS CLASS, SUBCLASS:

3,

- Machines for reducing a stick to other than a circular cross-section by means of a chisel-cutter which is caused to move longitudinally and around the clamped stick and is controlled in its movement toward or from the axis of the stick by a pattern-guide.
- Machines for reducing a stick to other than a circular cross-section by means of rotary cutters having their bearings carried in movable supports, the supports being controlled in their movements by mechanism other than a cam or pattern-guide.
- Machines for reducing a stick to other than a circular cross-section, wherein a pattern-cutter rotates in fixed bearings and the rotating stick is caused to approach or recede from the cutter by means of a cam carried by the spindle.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

3,

11 Machines for reducing a stick to other than a circular cross-section, wherein the rotary cutter is mounted in fixed bearings and the stick is caused to move endwise and at the same time transversely of its axis toward and from the cutter by means of a rotating pattern-guide.

SEE OR SEARCH CLASS:

- 72, Metal Deforming, subclass 81 for a "pattern" controlled metal spinning machine.
- 82, Turning, subclass 165 for pattern controlled machine lathes.
- 409, Gear Cutting, Milling, or Planing, subclasses 85+ for a pattern controlled milling machine.
- 451, Abrading, subclasses 1+ for a pattern controlled automatic abrading machine.
- Machines for reducing a stick to other than a circular cross-section, wherein the cutter moves transversely to the axis of the rotating stick and is guided toward and from such axis by a rotary cam. While being operated upon by the cutter the stick moves longitudinally.
- Machines for reducing a stick to other than a circular cross-section, wherein the cutter is made to advance toward or recede from the axis of the stick by means of a rotating patternguide and the stick is carried endwise past the cutter.
- 14 Machines for reducing a stick to other than a circular cross-section, wherein the cutter moves longitudinally of the stick and the stick is given a simultaneous transverse movement by means of a rotary cam.
- Machines for reducing a stick to other than a circular cross-section, wherein the cutter moves longitudinally along the stick and the axis of the stick is caused to approach or recede from the cutter by means of a rotating patternguide.
- Mechanisms for guiding work-holding chucks in elliptical or oval paths.
- Turning-lathes which comprise mechanism for periodically separating and drawing together the spindles, whereby they release the finished material and engage the new stock to be turned.

SEE OR SEARCH CLASS:

82, Turning, subclasses 165+ for work drivers in metal turning machines to form elliptically shaped work.

Automatic spindle-lathes in which the stock is fed to the spindles by endless conveyer.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

5,

- Automatic spindle-lathes in which the stock is fed to the spindles by a rotating disk having conveying notches or pockets in its periphery.
- Automatic spindle-lathes in which the stock is fed to the spindles through a chute or over a table or platform.

SEE OR SEARCH THIS CLASS, SUBCLASS:

4,

SEE OR SEARCH CLASS:

144, Woodworking, subclasses 245.1+ for a blank feeder for a feeder or presser.

- Wood-turning machines for reducing a stick to a circular section by means of two chisel-cutters, one of which rough-cuts the stick to approximate its finished shape and comprises a plain cutter guided toward and from the axis of the stick by a pattern. The other is a pattern-cutter which makes a thin smoothing or finishing cut.
- Wood-turning machines for reducing a stick to a circular section by means of two cutters having pattern-cutting edges, one of which cutters is rotary and the other is a chisel. The rotary cutter rough-cuts the stick to approximate its finished form and the chisel makes a thin finishing cut.
- Machines for reducing a stick to a circular section having a spiral groove in its circumference by passing the stock axially through a rotary hollow cutter-head having a chisel-cutter projecting through its circumference toward the axis of the stick.
- Machines for reducing a stick to a circular section and producing a spiral groove in its circumference by means of a rotary cutter which is guided to move toward and from the axis of the stick by a relatively-moving pattern.

SEE OR SEARCH CLASS:

- 409, Gear Cutting, Milling, or Planing, subclasses 67+ for a machine for milling a thread or helix, which machine is provided with a pattern control mechanism.
- Machines for reducing a stick to a circular section and producing a spiral groove in its circumference by means of a rotary cutter. The stick is controlled in its movements by a rotating hollow mandrel.
- Machines for reducing a stick to a circular section and producing a spiral groove in its circumference by means of a rotary cutter.

SEE OR SEARCH CLASS:

- 409, Gear Cutting, Milling, or Planing, subclasses 65+ for a machine for cutting a thread or helix by milling.
- Machines for reducing a stick to a circular section by a hollow cutter-head, in which the chisel-cutter is made to reciprocate through the side of the cylinder of the cutter-head and is guided to approach or recede from the axis of the stick by a pattern.
- Machines for reducing a stick to a circular section by a hollow cutter-head, in which the chisel-cutter is made to reciprocate through the side of the cylinder of the cutter-head and is guided to approach or recede from the axis of the stick by a rotary pattern.
- Machines for reducing a stick to a circular section by a hollow cutter-head, in which the chisel-cutter is made to reciprocate through the side of the cylinder and is provided with a plain edge.
- Machines for reducing a stick to a circular section by a hollow cutter-head, in which the chisel-cutter is made to reciprocate through the side of the cylinder and is provided with a pattern edge.
- Machines for reducing a stick to a circular section by a hollow cutter-head, in which the chisel-cutter projects through the cylinder toward its axis.

Machines for reducing a stick to a circular section by means of a rotating cylinder having a chisel cutting edge at one end. The stick to be reduced is forced against the cutting edge of the cylinder, and the reduced portion passes through the cylinder and out at the end opposite the cutter.

SEE OR SEARCH CLASS:

144, Woodworking, subclass 23 for a woodworking machine for cutting a disk by a rotary tubular cutter.

- Machines for reducing a stick to a circular section and producing a spiral groove in its circumference by means of a rotary cutter. The relative movements of the stick and the cutter are controlled by a rack and pinion.
- Machines for reducing a stick to a circular section and producing a spiral groove in its circumference by means of a rotary cutter. The movements of the stick past the cutter are controlled by positively-driven feed-rollers.
- Machines for reducing a stick to a circular section and producing a spiral groove in its circumference by means of a chisel-cutter.
- 36 Wood-turning machines for reducing a block of cork or other soft wood to a circular section by rotating it in contact with a longitudinallymoving cutter-blade which reduces the block with a slicing action.

SEE OR SEARCH THIS CLASS, SUB-CLASS: 40.

- Wood-turning machines which reduce a stick to a circular section by rotating the stick on its axis and in contact with a rotary cutter which is guided toward and from the axis of the stick by a relatively-moving pattern.
- Wood-turning machines which reduce a stick to a circular section by means of a narrow plain chisel-cutter guided toward and from the axis of the stick by means of a relatively-moving pattern.
- Wood-turning machines which reduce a stick to a circular section by means of a narrow plain

chisel-cutter guided toward and from the axis of the stick by means of a rotating pattern.

Wood-turning machines which reduce a stick to a circular section by rotating the stick on its axis and in contact with a rotary cutter.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

5, 20, and the several subclasses of Pattern-section.

SEE OR SEARCH CLASS:

- 30, Cutlery, subclasses 451+ for a pencilsharpening implement whose cutter and work holder or work-guide parts are statically related for the cutting operation.
- 144, Woodworking, subclasses 28.8+ for a pencil-sharpening machine including a cutter and a work holder or work guide, each of which is rotatable relative to supporting structure therefor; also see subclasses 209.1+.
- Wood-turning machines which reduce a stick to a circular section by rotating the stick on its axis and in contact with a broad-faced rotary cutter having other than a plain cutting edge.

SEE OR SEARCH THIS CLASS, SUBCLASS:

4, 5, 33, 34, and 52.

Wood-turning machines which reduce a stick to a circular section by rotating it in contact with a plain chisel carried by an adjustable tool-rest, whereby the chisel may be directed by hand to properly shape the stick.

SEE OR SEARCH CLASS:

- 99, Foods and Beverages: Apparatus, subclasses 594+ for rotating an article of food while removing the skin with a cutting tool.
- Wood-turning machines which reduce a stick to a circular section by rotating it in contact with a chisel having other than a plain cutting edge. The cutter may be of sufficient width to cut the entire length of the stick or may be narrow and make successive cuts along the stick.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

4, 5 and 20.

- Wood-turning machines which reduce a stick to a circular section by rotating it in contact with a disk provided with a chisel edge having a pattern outline. As the cutter is moved longitudinally along the stick the disk is rotated to present the entire contour of the cutter to the stick.
- Machines for reducing the ends of sticks while clamped to prevent rotation thereof by means of a hollow cutter-carrying head having a cutter projecting within the shell thereof.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

27+,

SEE OR SEARCH CLASS:

30, Cutlery, subclass 495.

- 46 Machines for reducing the ends of sticks to a circular section by means of a cutter carried in a frame which revolves around the axis of the clamped stick and comprises mechanism for moving the cutter longitudinally in the frame.
- 47 Mechanism for controlling the movements of the carriage or tool-rest.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 21, 24, 26, 46, and the several subclasses of Pattern-section.
- Tool-rests provided with an extension adapted to support the turned portion of the stick near the cutter and prevent it from springing therefrom.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

21, 37, 43, and 44.

- 49 Supports within which wood-turning cuttertools are adjusted and secured.
- Yielding rests or supports for sticks having irregular cross-section. These supports are for

preventing the stick from springing away from the cutter.

- Oval or elliptically-guided work-holder chucks provided with weights or counter-poises to balance the reciprocating parts of the chuck.
- 52 Chucks for holding sticks together in the form of a hollow cylinder.
- 53 Center spindles provided with one or more spurs for engaging the end of a stick of wood or other soft material to be turned.
- 54 Longitudinally-perforated rotary spindles or work-carriers through which the sticks feed endwise.

SEE OR SEARCH CLASS:

- 57, Textiles: Spinning, Twisting, and Twining, subclasses 28+.
- 226, Advancing Material of Indeterminate Length, appropriate subclasses for methods of, and apparatus for, feeding material without utilizing the leading or trailing ends to effect movement of the material.
- 414, Material or Article Handling, subclasses 14+ for devices for pushing or pulling stock or a workpiece relative to a machine of the type provided for in Class 142.
- Devices to be attached or secured to woodturning machines to be used therewith or wood-turning machines designed to be attached to the frames of machines which comprise cylinders for the purpose of resurfacing the cylinders.
- Cutting-tools peculiarly adapted for use in connection with wood-turning machines.
- Socket-chucks for securing a stick to the livespindle of a wood-turning machine.

SEE OR SEARCH CLASS:

269, Work Holders, appropriate subclasses. Class 269 is the <u>residual</u> locus for patents to a device for clamping, supporting and/or holding an article (or articles) in position to be operated on or treated. See notes thereunder for other related loci.

END