

CLASS 147, COOPERING**SECTION I - CLASS DEFINITION**

Includes machines which are used exclusively in the manufacture of wooden barrels, fruit-boxes, baskets, or crates. Coopering does not include machines for sawing, bending, or planing staves or machines for sawing, splitting, cutting, or coiling hoops, except such as separate the hoops from a scored rod by racking or abruptly bending the rod or which combine two or more operations in the production of hoops, as planing and bending or planing and lapping or pointing.

SECTION II - REFERENCES TO OTHER CLASSES**SEE OR SEARCH CLASS:**

- 29, Metal Working, subclasses 592 through 559 for a method of, and subclasses 700-283.5 for a machine for, assembling articles, as those indicated in the note to Class 227 below, not elsewhere classified.
- 83, Cutting, appropriate subclasses for stave-cutting devices.
- 144, Woodworking, subclasses 114.1 through 130.2 for a machine for planing staves, subclasses 182-184 for a machine for skiving or splitting hoops, and subclasses 256.1-258 for a machines for bending staves.
- 227, Elongated-Member-Driving Apparatus, appropriate subclasses for apparatus for assembling a basket or barrel combined with means to apply a member, e.g., nail, etc., thereto.

SUBCLASSES**1 BARREL-MAKING MACHINES:**

This subclass is indented under the class definition. Machines which perform some operation not specifically classified and those which do more than merely set up and truss a barrel. They usually croze, howel, and head the barrel and sometimes plane it off.

2 SETTING-UP MACHINES:

This subclass is indented under the class definition. Two circularly grooved end plates into which the staves are fed until the grooves are filled. Most of them shape the barrel, and the staves are secured by truss-hoops.

3 SETTING-UP FORMERS:

This subclass is indented under the class definition. Frames within or around which the staves are arranged on end and then confined by truss-hoops.

4 BARREL-COMPRESSING MACHINES:

This subclass is indented under the class definition. Machines for compressing the staves of barrels to receive the truss-hoops.

5 Cone:

This subclass is indented under subclass 4. Machines for compressing the staves of a barrel by means of conical formers forced upon the ends of the barrel. In some instances, hoops are driven by the conical formers.

6 HEADING MACHINES:

This subclass is indented under the class definition. Machines which place the heads in the barrel and in some instances form the barrel and insert the head.

SEE OR SEARCH CLASS:

- 100, Presses, subclasses 54 through 64 for portable receptacle lid applying presses not elsewhere provided for.

7 Miscellaneous:

This subclass is indented under the unnumbered subclass, HOOP DRIVERS. Machines or implements which force hoops upon barrels by mechanism, not otherwise specifically classified.

SEE OR SEARCH CLASS:

- 100, Presses, appropriate subclasses for presses not elsewhere provided for.

8 Cam-operated:

This subclass is indented under the unnumbered subclass, HOOP DRIVERS. Machines which force the hoops upon barrels by means of cam-gearing presses.

SEE OR SEARCH CLASS:

- 100, Presses, subclasses 291 through 292 for reciprocating platen presses, not elsewhere provided for, and in which a cam acts directly to actuate a platen.

- 9 Hydraulic and steam:**
This subclass is indented under the unnumbered subclass, HOOP DRIVERS. Machines which comprise hydraulic or steam presses for forcing hoops upon the barrel.
- SEE OR SEARCH CLASS:
100, Presses, subclasses 269.01 through 269.21 for fluid actuated reciprocating platen presses, not elsewhere provided for.
- 10 Lever-operated:**
This subclass is indented under the unnumbered subclass, HOOP DRIVERS. Machines which force hoops upon barrels by lever or crank gearing.
- SEE OR SEARCH CLASS:
100, Presses, subclass 293 for reciprocating platen presses, not elsewhere provided for, in which a lever acts directly upon a platen to actuate it.
- 11 Screw-operated:**
This subclass is indented under the unnumbered subclass, HOOP DRIVERS. Machines which force hoops upon barrels by screw-gearing presses.
- SEE OR SEARCH CLASS:
100, Presses, subclasses 289 through 290 for reciprocating platen presses having a screw and a nut actuator and not elsewhere provided for.
- 12 Weight:**
This subclass is indented under the unnumbered subclass, HOOP DRIVERS. Machines in which the hoops are forced upon barrels by the impact of a falling weight.
- SEE OR SEARCH CLASS:
100, Presses, subclasses 265 through 268 for reciprocating platen presses, not elsewhere provided for, having a spring or weight actuator.
- 13 Rotary cutter head:**
This subclass is indented under the unnumbered subclass, Clamped barrel. The barrel is clamped in a nonrotating clamp, and a rotary cutter-head carried by a frame which rotates on an axis concentric with the axis of the barrel cuts the croze, howel, or chamfer.
- 14 Expansible cutter head:**
This subclass is indented under the unnumbered subclass, Rotating barrel. Machines in which the barrel is rotated on its axis and while rotating cutting-tools are projected radially from a fixed head to croze, howel, or chamfer the staves.
- 15 Rotary cutter head:**
This subclass is indented under the unnumbered subclass, Rotating barrel. Machines in which the staves of the rotating barrel are successively brought into engagement with a rotary cutter-head for cutting the croze, howel, or chamfer.
- 16 Sliding tool:**
This subclass is indented under the unnumbered subclass, Rotating barrel. Machines in which the cutter is carried upon a slide or rest and which is projected into the rotating barrel for cutting the croze, howel, or chamfer.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
14, for expansible cutter head.
- 17 Swinging tool:**
This subclass is indented under the unnumbered subclass, Rotating barrel. Machines in which a tool carried by a swinging rest is brought into engagement with the staves of the barrel as it is rotated on its axis for cutting the croze, howel, or chamfer.
- 18 Miscellaneous:**
This subclass is indented under the unnumbered subclass, CROZING STAVES. Machines which are designed for cutting the croze, howel, or chamfer of staves before the barrel is formed and which are not otherwise specifically classified.
- 19 Endless stave carriage:**
This subclass is indented under the unnumbered subclass, Rotary cutter. Machines having an endless feeding device for feeding the staves against a rotary cutter journaled in fixed bearings.

- 20 Sliding stave carriage:**
This subclass is indented under the unnumbered subclass, Rotary cutter. Machines in which the stave is carried upon a sliding support into engagement with a rotary cutter.
- 21 Swinging stave carriage:**
This subclass is indented under the unnumbered subclass, Rotary cutter. Machines in which the stave is carried into engagement with a rotary cutter by means of a swinging stave-supporting frame.
- 22 Swinging:**
This subclass is indented under the unnumbered subclass, Rotary cutter. Machines in which the crozing, howeling, or chamfering cutter is journaled in a swinging support.
- 23 Sliding knife:**
This subclass is indented under the unnumbered subclass, CROZING STAVES. Machines for crozing staves in which the stave is immovably supported and the croze, howel, or chamfer is cut by a knife carried in a reciprocating carrier.
- 24 Hand crozes:**
This subclass is indented under the unnumbered subclass, CROZING AND CHAMFERING BARRELS. Short curved places constructed to cut the croze, chamfer, or howel in trussed barrels.
- 25 Miscellaneous:**
This subclass is indented under the unnumbered subclass, JOINTING STAVES. Machines for beveling and tapering the adjoining edges of barrel-staves by jointing-machines not otherwise designated.
- 26 Vertically movable bed:**
This subclass is indented under the unnumbered subclass, Inclined molding heads. Machines for beveling and tapering the adjoining edges of staves by mechanism which lowers and raises the work-carrying platform as it passes between inclined or tapered revolving cutters.
- 27 Pattern feed:**
This subclass is indented under the unnumbered subclass, Rotary cutter. Machines for beveling and tapering the adjoining edges of barrel-staves by means of rotary cutters mounted in movable bearings controlled by reciprocating patterns or rotating cams.
- 28 Converging saws:**
This subclass is indented under the unnumbered subclass, JOINTING STAVES. Machines for beveling and tapering the adjoining edges of barrel-staves by means of saws placed at an inclination to each other.
- 29 Disk cutter head:**
This subclass is indented under the unnumbered subclass, JOINTING STAVES. Machines for beveling and tapering the adjoining edges of barrel-staves by means of large rotating disks provided with knives in their faces.
- 30 Sliding carriage:**
This subclass is indented under the unnumbered subclass, Single saw. Machines for beveling and tapering the adjoining edges of barrel-staves in which the stock is supported by a movable carriage controlled in movement past a single saw by a guiding-track.
- (1) Note. Stave-jointing machines in which the stock slides past a single saw and in contact with an adjustable guide are included in this subclass.
- 31 Tilting carriage:**
This subclass is indented under the unnumbered subclass, Single saw. Machines for beveling and tapering the adjoining edges of barrel-staves in which the stock is supported by a longitudinally-movable carriage capable of being tilted on trunnions which are located in the extended plane of the saw.
- 32 Slicing knife:**
This subclass is indented under the unnumbered subclass, JOINTING STAVES. Machines for beveling and tapering the adjoining edges of barrel-staves by means of a suitable guiding-support and a reciprocating slicing-knife.

- SEE OR SEARCH CLASS:
144, Woodworking, subclasses 162.1 through 181.3 for a wood slicer, generally.
- 33 Sliding plane:**
This subclass is indented under the unnumbered subclass, JOINTING STAVES. Machines for beveling and tapering the adjoining edges of barrel-staves by means of reciprocating planes or shaving-tools which are made to follow the contour of a templet or pattern.
- 34 Curved guide:**
This subclass is indented under the unnumbered subclass, Traveling saw. Machines for beveling and tapering the adjoining edges of barrel-staves by means of a saw journaled in a movable frame controlled in its movement by a curved guide. The stock is clamped to a stationary support while being operated upon.
- 35 Longitudinal cutter cylinder:**
This subclass is indented under the unnumbered subclass, JOINTING STAVES. Machines for beveling and tapering the adjacent edges of laterally fed barrel-staves by knives placed longitudinally in the periphery of a rotating cylinder.
- 35.5 SHAPING STAVES:**
This subclass is indented under the class definition. Machines for finishing staves with convex outer and concave inner surfaces; also, machines for reducing the thickness of staves between their ends, so that they may be more readily bent to give the proper bulge to the barrel.
- 36 Miscellaneous:**
This subclass is indented under the unnumbered subclass, BARREL HEAD-MAKING. Machines for cutting out barrel-heads and shaping the edge thereof to fit the barrel-croze. A few of these machines also plane the heads or bore the joints for dowel-pins.
- (1) Note. This subclass comprises machines for forming barrel-heads which are not otherwise specifically classified.
- 37 Rotary scribing tool:**
This subclass is indented under the unnumbered subclass, Fixed chuck. Machines for holding barrel-head stock concentric with a knife or cutting-tool carried on a rotary arm.
- SEE OR SEARCH CLASS:
144, Woodworking, subclass 150 for woodworking by a rotary disk cutter of the end thrust type.
- 38 Rotary saw:**
This subclass is indented under the unnumbered subclass, BARREL HEAD-MAKING. Machines in which the stock is carried by a rotating chuck into engagement with a rotary saw (plane or dish).
- 39 Chisel cutter:**
This subclass is indented under the unnumbered subclass, Rotary chuck. Lathe-like machines exclusively adapted for forming barrel-heads.
- 40 Double molding cutter:**
This subclass is indented under the unnumbered subclass, Rotary chuck. Machines in which the stock is carried by a rotary chuck and is operated upon by rotating molding-cutters.
- 41 Hand scribers:**
This subclass is indented under the unnumbered subclass, BARREL HEAD-MAKING. Cutting-tools comprising a radial arm carrying at one end a centering-pin and near its outer end a cutting-tool to be operated by hand.
- 42 CHAMFERING TOOLS:**
This subclass is indented under the class definition. Tools for chamfering the staves when set up in barrel form.
- 43 Miscellaneous:**
This subclass is indented under the unnumbered subclass, HOOP MACHINES. Machines which perform two or more consecutive operations peculiar to the production of hoops, such as planing and bending, planing and lapping, or planing and pointing, etc.

SEE OR SEARCH CLASS:

144, Woodworking, subclass 41 for a machine for sawing and planing of wood, generally.

44 Racking:

This subclass is indented under the unnumbered subclass, HOOP MACHINES. Machines in which bars of wood, checked or split at one end, are separated into hoops by abruptly bending the bars progressively from the checked ends toward the opposite ends.

45 Lapping and pointing:

This subclass is indented under the unnumbered subclass, HOOP MACHINES. Machines which cut the bevels and point the ends of hoops.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

46, for lock-cutting machines.

SEE OR SEARCH CLASS:

144, Woodworking, subclass 147 for woodworking shaper machine which uses a reciprocating knife.

46 Lock-cutting:

This subclass is indented under the unnumbered subclass, HOOP MACHINES. Machines which cut the notches near the ends of hoops, whereby the ends may be interlocked.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

45, for lapping and pointing machines.

SEE OR SEARCH CLASS:

144, Woodworking, subclasses 75 through 76 for a woodworking mortising machine having a chisel, and subclasses 147 for a woodworking shaping machine having a reciprocating knife.

48 BASKET-FORMING:

This subclass is indented under the class definition. Forms, male and female, for shaping baskets. Formers for shaping fruit-boxes and crates are also included.

49 TRUSS HOOPS:

This subclass is indented under the class definition. Temporary hoops forced upon the barrel to secure the staves in barrel form until they become permanently bent and seasoned or dried.

END